Stress-Based Metrics Revisited:
A Comparative Exercise in Scansion Systems and their Implications for Iambic Pentameter

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1. Theories of Metre, Theories of Language

Harvey Gross once characterized the field of prosody as populated by a group of ‘cranks and faddists’. Truly, few fields have suffered so much from fundamental disagreements over basic terminology, splintering metrists into a wide array of schools, charted helpfully by TVF Brogan in his *English Versification, 1570-1980*. According to that taxonomy, there are quantitative, temporal, and stress-based approaches, to which we today might add phrasal and cognitive approaches as well.

Yet, over the past fifty years, what we might term popular discussion of the field has been dominated by two approaches within the stress-based school: traditional stress metrics and generative metrics. Traditional stress metrics, widely adopted by prosody handbooks and pedagogic poetic texts, takes its terminology from the discourse about Classical metres. Generative metrics applies the theory and terminology of generative linguistics to poetic metre. To the extent that average readers today even think of metre, they most likely think in terms of one of these conventional methodologies (or they may know of more novel approaches adapted from them by individual practitioners like Peter Groves,

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Richard Cureton, or Derek Attridge). It is also the very public disagreements between these two schools that figure in many non-specialists’ appreciations of late 20th-century metrics.

In offering a comparative analysis, then, of these two accounts of poetic metre, this essay does not mean to slight other traditions. To the contrary, the essay’s conclusion will suggest ways in which shortcomings in both the traditional and the linguistic stress-based traditions are being addressed by new proposals with a cognitive bent. But to move metrics forward productively as a field, it is essential to pinpoint the fundamental differences between these two competing scansion methods and to show clearly how each approach involves different assumptions about the nature of metre.

While this essay argues that neither approach is either accurate or sufficient in and of itself to develop ‘a prosody adequate to the greatness and range of poetry in English’, one of its crucial points will be that insights from generative metrics are foundational to our ability to pinpoint rhythmic structures in language and by extension to appreciate how rhythmic structures in verse, particularly metrical verse, involve cognitive expectations about certain prosodic patterns. At the same time, this essay does not agree in toto with the generative metrists’ theoretical statements; for example, the central notion that a line is either metrical or not metrical seems far less compelling than the notion of ‘messy continua’ espoused by Charles Hartman and, in fact, evidenced by the generative metrists’ own scholarly undertakings. But the essay will suggest that a minute attention to the structure of language, i.e., prosodic phonology, is prerequisite to adequately explain (but neither to write nor to sense) the possibilities for modern verse loosely structured around the iambic pentameter line. And since ample critiques of generative metrics already exist, but there are scant extant explanatory accounts written by a non-linguist, this essay will attempt the latter, with the explicit goal of making generative metrical

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methodology available for use, critique, and adaptation by those not already familiar with it.

2. The Traditional Stress Metrics Approach

Traditional stress metrics describes the system of modern English metre using vocabulary drawn from Classical metres. It defines the iambic pentameter, the most common English metre, as ‘five iambic feet in a line, notated thus \( \sim / | \sim / | \sim / | \sim / | \sim / \)’. An example of a metrical line, complete with scansion marks, is:

\[
\sim / | \sim / | \sim / | \sim / | \sim / \\
\text{She turned and sank upon her skirts at that}
\]

As the scansion indicates, the rhythm of the language of this line coincides at each point with the pattern of marks given in the notation above. It is somewhat rare, however, to find such an exact correspondence between linguistic rhythm and the metrical (iambic) stress pattern. As Philip Hobsbaum, the author of a well-regarded

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4 As even prosodic handbooks have noted, applying terminology from discourse about Classical metres to modern English metrical verse is of questionable soundness since the designation of Classical feet is based upon vowel length and there is considerable debate over whether English vowels possess fixed vowel lengths. Nevertheless, the same terms and frequently the same scansion marks have been imported to English, where stress, not vowel length, is the relevant category of prominence. (The fact that long vowels in English may be unstressed, while short vowels may be stressed, shows that the two are not isomorphic in the language; thus, the conflation of terminology is inadvisable.) For a discussion of length in Classical measures versus stress in English metre, see Alfred Corn, *The Poem’s Heartbeat: A Manual of Prosody* (Ashland, OR: Story Line Press, 1998), pp. 25-27.


prosody handbook explains, since ‘all stresses vary [...] the blank verse line cannot
go’ exactly as portrayed above; the line is thus treated as a ‘blueprint’,7 and indeed,
in order to maintain the attention of the reader, poets often write lines that have ‘a
mixture of patterns’.8 The following lines and their scansion, culled from a
number of traditional handbooks on prosody, begin to illustrate the range of
possible iambic pentameter lines: 9

/ ~ | / ~ / ~ | / ~ | ~
Love has found out a way to live by dying.

~ / ~ | / ~ | / ~ | ~
I have a faint cold fear thrills through my veins.

~ / ~ / ~ | ~ / ~ | / / ~
And rather uneven and more rough-hewn forms

Prosody handbooks typically discuss such lines—where the rhythm of the
language departs from the regular rhythmic pattern of the metre—under the rubric
of metrical variations: deviations from the regular metrical pattern of iambic feet,
due either to a change in the number of syllables or in the number and/or location
of stressed syllables. The effect of these changes is that the rhythm of the line, the
surface rhythm of the language, deviates from the template set by the metre, which

7 Hobsbaum, pp. 12, 10.
8 Hobsbaum, p. 2.
9 Since many prosody handbooks either omit scansion or differ in their system of scansion or of
scansion marks, I have either provided a scansion where none was given (in the case of
Hollander) or modified the scansion (in the case of Fussel and Corn) so that the scansion
would appear consistent. These changes respect the intent of the prosody handbook; in other
words, stresses are marked by (/) and relatively unstressed syllables are marked by (~). Following
are the citations for the lines and the prosody handbooks in which they are found. The line ‘Love
has found out a way to live by dying’ comes from Dryden’s Cleomenes and is analyzed in Corn, p.
47. ‘I have a faint cold far thrills through my veins’ is from Romeo and Juliet; it is found in Paul
uneven and more rough-hewn forms’ is from John Hollander, Rhyme’s Reason, new enl. ed. (New
Haven, CT: Yale University Press, 1989), p.12. Like many of the lines therein, it is penned by
Hollander as an almost iconic representation of the tendency he discusses; the preceding lines give
the context: ‘Shakespeare and others of his day explored / Blank verse in stage plays, both in
regular / And rather uneven and more rough-hewn forms’.

Thinking Verse III (2013), 131-68
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imposes a regular, recurrent rhythm in which the second syllable is stressed and the first is not. These changes are felicitous since they add interest and variety.

2a. A Traditional Stress Metrics Approach to Metrical Variation

The established way of treating these variations is to analyze them as substitutions. For example, in the basic iambic pentameter line, comprising five iambic feet, a substitution occurs whenever another one of the basic repertoire of Classical feet, such as a trochee (/−), an anapest (−−/), or a spondee (//), appears in place of the expected iamb. According to the versification handbook in which the first of the examples originally appeared, ‘Love has found out a way to live by dying’, a trochee is said to replace an iamb in the first foot, and a spondee, comprised of two stresses, is said to appear in the second foot. In the second example, both the third and fourth feet are presented as undergoing substitution: a spondee is said to appear in the third foot followed by a trochee in the fourth. In the third example, only the first foot is presented as an iamb; the rest of the line is presented as an anapest, a pyrrhic, and two spondees. While the line is still said to be metrical, it is a far more complex realization of the metre than the line from Robert Frost offered earlier as a quite regular iambic pentameter line. Thus, lines with more substitutions are said to be more complex than lines that involve fewer substitutions.

Of course, we might quibble with individual scansion; for instance, a true spondee is either quite rare or even impossible in English. More problematically, a ‘scansion’ of a line is not enough to determine its metre: both because the metricality of a line is determined by the context of the poem as a whole, and because there is no line, metrical or not, that cannot be notated as a matter of total substitutions.

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fluctuation in a line, but it cannot adequately explain why these substitutions take one form and not another. In the words of one late 20th-century handbook, ‘the question of how much substitution is allowed is unanswerable. Nothing is certain but success – if substitution is used too much, the pleasing sense of a pattern will be lost, at which point all is lost’.12

This lack of theory impels many traditional stress metrists to fall back upon description, instead of analysis, as we see in the trajectory taken by quite a few conventional prosody handbooks. First they present the basic metrical pattern as an ideal pattern or underlying baseline and then offer a list of possible metrical substitutions. (Refined accounts often enhance this portrait of metre by offering statistical evidence of where such substitutions fit better in a line; for example, inversions are most likely to occur in the first foot of a line.) Next, they comment upon the semantic aptness of local substitutions. For example, in the classic Poetic Meter and Poetic Form, Paul Fussell, Jr., links spondees variously to ‘the apparent slowness of death’s approach in old age’, to ‘boredom’, and to the ‘feeling of the inert and inorganic’,13 and characterizes two anaplectic substitutions in a line from ‘Sailing to Byzantium’ as follows:

\[ \sim / \sim / \sim / / \sim / / \sim / \sim / \sim / \sim / \]

My bod/ily form/from a/ny na/tural thing,/…

In the second and fifth positions of line 2 we find anaplectic substitutions replacing iambs, and the two trisyllabic substitutions swell the line to twelve instead of ten syllables, a weighty equivalent of the climactic revelation that the line embodies.14

13 Fussell, p. 44, ibid., p. 48.
14 Fussell, pp. 41-42.
In *Sound and Form in Modern Poetry*, Harvey Gross escapes theories of propriety or iconic metrical meaning but his discussion of metrical variations still focuses upon mood rather than rhythm. He scans several lines in Frost’s ‘Out, Out—’ and then describes the substituted feet and placement of caesuras as ‘powerful evocations of feeling’, saying ‘it is the prosody which images the nervous agony and the blank despair’.15 Similarly, Philip Hobsbaum writes of one metrical passage from Wordsworth that avoids heavier stresses, ‘The verse is quiet in sound. While it moves, it seems scarcely to be moving. It is like the picture of a cloud in motion rather than that cloud above us in the sky’.16 Hobsbaum himself seems cognizant of the limitations of this approach. His comment that ‘one is driven into describing this, as often with poetry, in terms not so much of stress as of voice’ seems desirous of a language for focusing on the technique itself.17 Even in a more contemporary study that largely avoids such conflations, *Blank Verse: A Guide to Its History and Use*, Robert Shaw says of the eccentric, less identifiable blank verse that characterizes the opening sentence of ‘Sunday Morning’: ‘It is not altogether fanciful to associate the complacencies of the lady and the freedom of the cockatoo with the laxity of metrical norms’.18 Without a theory capable of explaining why certain variations in stress and pause are possible, each mixture of metrical patterns functions as a separate phenomenon that is explained as localized semantic effects, and the discussion of lines and styles quickly turns toward metaphors that characterize the impact of a particular change rather than analyzing the mechanism behind the change.

Such impulses are not unsound, and indeed, Chris Beyers in *A History of Free Verse* demonstrates the utility of examining Stevens’ allegorization of modes of blank verse.19 However, the potential for rhythm as compositional energy is largely overlooked as well as the possibility that rhythm—among other sonic features of a

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16 Hobsbaum, p. 16.
17 Ibid.
text—can be contradistinctive to, or prioritized, independent of meaning. Accounts of Stevens—whose late blank verse has been described by traditional stress metrists and poets as—‘not-so-blank verse’ or ‘apparitional’—is a good test case for what is lost, given the centrality of building modernist verse melodies to his poetics. Of Stevens’ late blank verse, Gross notes its virtuosic tendency to include an ‘extra syllable’ and its foregrounded use of ‘caesura’ but then falls back upon simile, writing, ‘Stevens phrases his lines as a musician might phrase a melody’. Shaw also reiterates the tendency of Stevens’ blank-verse line to provide ‘an anapestic bounce, or more than one’ from his middle period on. It isn’t that Shaw is given to ‘crudely imitative’ readings (i.e., that he links anapests with bouncing as dactyls were once linked with galloping); he recognizes that ‘meter typically achieves its most memorable effects not in a single line but cumulatively’. However, since traditional stress metrics lacks a global theory for explaining the dynamics of rhythm, Shaw’s account no more than Gross’s can explain what makes Stevens’ late blank verse distinctive or express the dynamic compositional energy of rhythm itself.

My point, of course, is not to slight any of these texts, but to reveal a flaw in traditional stress approaches: By treating metre as a baseline from which the rhythm of a line varies, traditional stress approaches treat substitutions as motivated by rhetoric, meaning, and/or mood and thus read them interpretively—they treat the primary force of metre and its manifold rhythmic possibilities

21 In a recent article, Stevens scholar Bart Eeckhout argues that ‘Especially in the longer, meditative poems, Stevens’s efforts are best understood in the post-Wagnerian compositional terms of endlessly evolving melodies built around a ceaselessly transformative dynamics of tension and release and a late-Romantic/early-Modernist chromatic resistance to an all-too-easy harmony. For much of the time, he is a poet actively foregoing the satisfaction of simple harmonic tunes, preferring instead to intersperse what sounds right with what sounds wrong’; see Bart Eeckhout, ‘Wallace Stevens’s Modernist Melodies’, Texas Studies in Literature and Language 55.1 (2013): pp. 53-71 (p. 63).
22 Gross and McDowell, p. 217.
23 Shaw, p. 156.
through the prism of metaphor, whether dealing with isolated metrical variations (as is characteristic of iconic mid-century approaches) or entire practices (as is characteristic of more contemporary historicized approaches like Beyers’, Shaw’s, and others’). The sense of rhythm as raw energy—that is, of ‘prosody [deployed] not just in the service of verbal meaning, but as an autotelic affirmation of vital energies unaffected by historically bound words’—is sacrificed to the interpretive impulse that domesticates shifts in rhythm as semantic, affective, or even ideological content, as the following example from Hobsbaum illustrates.

Hobsbaum’s account of the forceful opening of *Paradise Lost* does much of what any good metrical account should do, which is to focus attention upon the line at hand in ways that open up its significance and art. He scans the line as follows,

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⌣ ^ │ \ / ⌣ ~ │ ¶ ⌣ │ ⌣ / ⌣
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Of Man’s first disobedience, and the fruit . . .

then opines upon the significance of the scansion:

The key stresses come on ‘first’ and ‘fruit’, a weight determined not only by rhythm but by meaning. It is this *first* disobedience of many that is in question, and this disobedience took place through the defiance of God’s law in eating the forbidden *fruit*. But one cannot ignore the basic metre, any more than one can ignore the identity of the sinner – Man – and so one has to put the second most weighty kind of stress, medium rather than medium-light, on ‘Man’s’ and on the operative part of ‘disobedience’.26

Hobsbaum attends closely to the unexpected placement of stressed syllables in weak positions and his discussion of the semantic motivation for these key stresses is even elegant. Yet one difficulty with this account is that it does not explain what principle allows the mixture of metrical patterns in the first place. Indeed, if any

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25 Eeckhout, p. 65.
26 Hobsbaum, p.12; emphasis not mine. We might also note that, like many other prosody handbooks, *Metre, Rhythm and Verse Form* adopts a formulation from the 1950s of four degrees of stress in language: primary stress (/); secondary or medium stress (^); tertiary stress (\); and weak stress (~). This system is reproduced here without comment in citations of lines from Hobsbaum. See Hobsbaum p. 7 for a brief description of this system.
mixture of patterns is possible, no such explanation is required.27 But surely the force of this substitution also depends upon a gradient sense of what is and what is not possible in terms of rhythm, independent of the words that embody it; from a cognitive perspective, we might say that it involves our being entrained to expect a particular pattern but then being engaged by more or less unexpected but recognizable variants upon this template.

Contemporary poetry readers—like the readers of innovative 18th- and 19th-century poetry—need to care about this loss in analytical force because the cost in accuracy magnifies as the inability to pinpoint mechanism in older, more regular metrical verse becomes a greater inability to detect mechanism in virtuosic blank verse that conspicuously, and inconspicuously, modulates its metricality. Also, as we’ve seen, for many 20th- and 21st-century poets like Stevens, a heuristic approach that implicitly yokes rhythm and/or metre to meaning and to words is especially adverse.

Thus, since Hobsbaum describes Wordsworthian iambic pentameter as ‘scarcely [...] blank verse at all’,28 yet cannot account for the minutiae of metrical forms responsible for such profound rhythmic differences (which he describes qualitatively as being quiet in tone with a meditative air), how will he handle the increased rhythmic differences of a later poet like Wallace Stevens, who works in a loosened blank verse that ‘runs over and under now and then’,29 and whom he designates as the twentieth-century master of a Wordsworthian blank verse?30

Hobsbaum writes that Stevens’ blank verse remarks differences from his great predecessor’s yet it is ‘recognizably the same today’ since it is also characterized by

27 In fact, perhaps because explaining the mixtures of patterns—those that are permitted and those that either are not permitted or simply never occur—has gone so badly, Hobsbaum dodges the issue entirely. Where other authors of classic prosodic guides (e.g., Fussell, Corn, and Steele) have generally expended great energy listing every possible substitution, Hobsbaum avoids the issue by invoking three prevalent styles of iambic pentameter canonized by their greatest practitioners: Milton, Shakespeare and Wordsworth.

28 Hobsbaum, p.17.


30 This complaint can also be brought against Henry Weinfield’s discussion of Wordsworth’s blank verse in The Blank-Verse Tradition from Milton to Stevens (Cambridge University Press, 2012), which hardly discusses the versification at all, although, to be fair, it is not intended as a prosody handbook.
‘basic five-stress metre’ and ‘a capacity for rhythmic variegation without losing the sense of verse form’.\textsuperscript{31} As if about to prove an argument, Hobsbaum reprints the first five lines of ‘Sunday Morning’, Stevens’ most famous blank-verse poem, but then he neither scans the lines nor attempts discussion of Stevens’ peculiar rhythmic variegations. Hobsbaum illustrates that the significant problem with traditional stress metrics and its methodological approach to prosody is that this approach recognizes the capacity for rhythmic variegation but fails to offer a satisfactory account of what this rhythmic variegation is, or to justify the terms for its discriminations. As another popular prosody handbook concludes, in metrical poetry in English “substitutions” are governed by instinct, whim, or taste rather than by rule.\textsuperscript{32} Unable to detect a basis for such metrical variations, one concludes that such a basis is absent; for this reason I would argue that while traditional stress metrics has value and interpretive elegance rarely equaled by proponents of generative metre, it must be recognized as a skill of interpretation and not of analysis.

\textit{2b. A Fundamental Flaw of Traditional Stress Metrics}

And yet the inability to account for mechanism—for the rationale by which certain rhythmic variegations are more frequent whereas others are rare or unattested—is due not to the absence of an available explanation but to an underlying error posited by traditional stress metrics. This error originates in the decision to apply language that has been used to describe Classical verse to English verse, and its consequence is visible in the first sentence of \textit{Metre, Rhythm, and Verse Form}, which reads, ‘English verse is a succession of syllables’.\textsuperscript{33} Treating English verse in terms of Classical feet necessarily leads to this conclusion, for the only point of contact which this discourse permits is in terms of the number of syllables in each line.

Why is it, for instance, that the following lines, which have the same succession of syllables, differ with regard to metricality?

\textsuperscript{31} Hobsbaum, p. 20.
\textsuperscript{32} Fussell, p. 25.
\textsuperscript{33} Hobsbaum, p. 1.
According to traditional stress metrics, both lines should have the same analysis since they can be explained by the same series of substitutions: a trochee replaces an iamb in the first foot, a pyrrhic in the third, and a spondee in the second and fourth feet. And yet the first line is more likely to be deemed metrical, and is frequently attested in poets’ practice, whereas the second is less likely to be deemed metrical and is infrequently attested in most poets’ practice, even if it does occasionally occur.35 Traditional stress metrics, which would treat the two lines as an equivalent succession of syllables (since both have the same number of syllables in the same linear order of stress values), cannot explain why the two results differ.

34 These two lines are often cited in generative metrics as the prototypical examples of metrical and unmetrical lines for the modern iambic pentameter, at least with respect to Shakespeare’s practice. See Kristin Hanson and Paul Kiparsky, ‘A Parametric Theory of Poetic Meter’, Language 72.2 (1996): pp. 287-325 (p. 297, examples [14a-b]); and Kristin Hanson, ‘From Dante to Pinsky: A Theoretical Perspective on the History of the Modern English Iambic Pentameter’, Rivista di Linguistica 9.1 (1996): pp. 45-89 (pp. 63-64, examples [24a] and [25a]).

35 See Hanson, ‘Shakespeare’s’ 125-26. It is frequently the case in prosodic study that lines that are—rightly or wrongly—predicted to be unmetrical for one poet prove to bemetrical for another. Thus, while the construct above for Shakespeare is generally deemed unmetrical, at least for his lyric verse, both Paul Kiparsky and Kristin Hanson have shown that at least one poet, John Donne, permits lines like the following, which involve the placement of the lexically stressed syllable of a polysyllabic content word in weak position: ‘Shall be
held
God, and never tast deaths
woe’. See Paul Kiparsky, ‘The Rhythmic Structure of English Verse’, Linguistic Inquiry 8 (1977): pp. 189-247 (p. 202); and Kristin Hanson, ‘Nonlexical Word Stress in English Iambic Pentameter,’ in The Nature of the Word; Studies in Honor of Paul Kiparsky ed. Kristin Hanson and Sharon Inkelas (Cambridge, MA: MIT Press, 2009), pp. 21-61 (p. 43). In addition, Bruce Hayes, ‘The Prosodic Hierarchy in Meter’, Phonetics and Phonology Volume I: Rhythm and Meter ed. Paul Kiparsky and Gilbert Youmans (San Diego: Academic Press, 1989), pp. 201-60 (p. 251) offers similar examples from Percy Bysshe Shelley’s verse. Interestingly, in The Meter of a Poem, Fabb and Halle’s rules for iambic verse diverge from Kiparsky and Hanson’s by redefining maxima to exclude instances like Donne’s or Shelley’s where a lexically stressed or strong syllable is subordinated to a subsequent stress (see Rule 7 on 48). At the same time, it is interesting to note that Wallace Stevens, a later poet well known for loosening the blank-verse line to the point of unrecognizability virtually never permits such lines.
The theory of generative metre portrayed by Hanson and Kiparsky has a surprisingly simple solution to this contretemps: it proposes that analysis of the English iambic pentameter should take into account the way the linear succession of syllables is grouped into words. The difference between the two lines cited above lies in the nature of the linguistic sequence in question. In the first line, each underlined portion is comprised of two monosyllabic content words; in the second line, each is comprised of a polysyllabic content word (A content word is a word that is either a noun, adjective, verb, or most adverbs). Per generative metrics, the first line satisfies the metre, whereas the second generally violates it for reasons the next section will make explicit (The reasons centre on the metre’s constraints on the placement of what is variously known as strength or lexical stress—that is, stress within polysyllabic content words—into the metre.) Traditional stress metrics, which—in its broadest outline—attends primarily to the stress value and number of individual syllables, and secondarily to lexical and phrasal relationships, often fails to capture this difference.

One prosody handbook that hews closely to traditional stress metrics but also starts to address the intersection of linguistic structure and poetic convention is Timothy Steele’s All the Fun’s in How You Say a Thing: An Explanation of Meter and Versification (Ohio University Press, 1999), which does so, moreover, in a manner that is both wonderfully accessible and authoritative.\textsuperscript{36} For example, in contrast to many discussions of inversion that refer solely to metrical convention, Steele invokes phonology and explains why it is that ‘at line and phrase boundaries, the ear tolerates metrical modifications more readily than it does elsewhere’.\textsuperscript{37} He also explains the utility of trochaic feet in terms of linguistic fit, that is, how trochaic feet enable poets to use more of the lexicon in more positions and to fit more syntactic patterns. Finally, he also addresses not only where inverted or trochaic

\textsuperscript{36} This is not to discount the tremendous contributions made by Attridge, Cureton, Groves, and others, but each of their methodologies requires the reader to learn a new set of symbols and/or rules, as Steele’s does not.

\textsuperscript{37} Timothy Steele, All the Fun’s in How You Say a Thing: An Explanation of Meter and Versification (Athens, Ohio: Ohio University Press, 1999), p. 68.
feet are most likely to occur but also what condition typically licenses them: they are preceded by ‘a grammatical pause’, whether or not it is marked.38

Yet Steele’s detailed, categorical comments falter when he addresses some less common circumstances that involve judgments about prosodic grouping, such as a trochaic substitution that is not preceded by a grammatical pause, as in Crabbe’s ‘With all the foretaste of a pleasant day’, or a trochaic substitution that involves ‘a foot-straddling combination of a monosyllabic adjective and monosyllabic noun’, as in Milton’s ‘The white pink, and the pansy freak’d with jet’:

\[
\begin{align*}
&x / x / ? ? x / x / \\
&\text{With all the foretaste of a pleasant day}
\end{align*}
\]

\[
\begin{align*}
&x / ? ? x / x / x / \\
&\text{The white pink, and the pansy freak’d with jet.}39
\end{align*}
\]

Steele remarks how ‘a residual sense of iambic pattern persists’ in part because ‘the […] pauses here [in the middle of each trochaic foot] prevent our comparing the syllables of the questionable feet as closely as we might otherwise’.40 But Steele does not address how the grouping of syllables not only into words but also into phrases affects our cognitive expectations for prosodic patterns, and here his reliance on the framework of Classical feet—a flat, linear structure that segments rhythm—impedes him from fully theorizing the rhythmic phrasing he notes and its impact upon the conventional metrical rhythms of the line, and vice versa. Prosodic phonology, for example, can tell us that the rhythm of the second example may not be deemed straightforwardly iambic because pink bears not only word stress but also added prominence as the final lexical word in a phonologic phrase, whilst the ultimate syllable of foretaste bears some added prominence as the final phonological word in a phrase-final compound.41 Thus, while we still may

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38 Steele, p. 74.
39 Steele, pp. 78-79; scansion marks are Steele’s.
40 Steele, p. 79.
41 The first element of the compound word bears primary stress; however, the second element still possesses stress since it constitutes a phonological word; see Kristin Hanson and Paul Kiparsky, ‘A Parametric Theory of Poetic Meter’, Language 72.2 (1996): pp. 287-325 (p.291) for a related discussion.
hear a beat on the final members of each foot, they do not receive stress; at the same time, the phrasal and secondary stress on the initial members of each foot countervails a straightforward iambic rhythm. The lines may still strike us as metrical, but our judgment about metricality probably involves not only the flat alternation of stress accent but also the layered accentual structure of stress and melodic accent (and perhaps the temporal concept of beats).

Similarly, prosodic phonology could supplement Steele’s elegant analysis of trochaic inversion in a final foot, as exemplified by Stevens’ line below (accompanied by Steele’s marks):

\[
x / x / x / x / x / x
\]

Ela | tions when | the for | est blooms; | gusty.42

Steele rejects the position espoused by ‘certain metrists’ that ‘the pause after the semicolon is in essence a phantom unstressed syllable,’ saying ‘Since we do not generally count pauses as phantom syllables, and since phantom syllables are not syllables at all, this interpretation is dubious. But it indicates how unusual inverted final feet are. When they occur, people regard them as aberrational and try to explain them away’.43 Steele comes admirably close here to addressing a failing of both traditional stress metrics and generative metrics—their inability to account for events (and pauses or silences are events) that we might theorize as either temporal or cognitive, and he rightly dismisses accounts that explain away rhythmic ambiguities. He notes, further, that metrical expectations themselves can potentially influence our silent or aural performance.44 In short, Steele brings a remarkable sensitivity to rhythm and respect for the line, qualities that are often sorely lacking in linguistic and statistical approaches, and yet the challenge for metrical analysis is to complement this with a theorization of lexical rhythm and rhythmic phrasing and their impact upon the conventional metrical rhythms of the line. Several well-known theories attain this goal with various degrees of success. Generative metrics is one of these, to which we now turn.

42 Steele, p. 75.
43 Ibid.
44 See Steele, p. 79.
3. The Generative Metrics Approach

Generative approaches to poetic metre were initially motivated by the claim that prosody in poetry is a natural extension of prosody in language. In an article entitled ‘A Parametric Theory of Poetic Meter’ (1996), linguists Kristin Hanson and Paul Kiparsky write that metre is linguistically grounded, both because it draws upon the prosodic organization of language and because it further stylizes this inherent prosodic organization through formal conventions.\(^{45}\) This is not to say that metre is a property of language. To the contrary, many generative metrists hold that poetic metre is an artifice that over-determines the inherent organization of language, and that metre must therefore bear some relationship to prosodic phonology, which first governs the organization of sounds into potentially meaningful strings of language. Hanson and Kiparsky’s metrical theory formalizes this relationship. While there are certainly reasons to balk at the generative metrical approach (e.g., its technical complexity, its relative inutility for pedagogy, and its apparent rejection of temporal concerns), its formal appeal to prosodic phonology does reward intuitions regarding the once undertheorized role that linguistic structure plays in metrical verse.

Acknowledging these limitations, the discussion that follows takes much of its view of generative metrics from this 1996 Hanson and Kiparsky article. Their work builds on a series of articles about the iambic pentameter written in the 1960s and 1970s by Morris Halle and Samuel Jay Keyser, and on Kiparsky’s two earlier articles on poetic metre, ‘Stress, Syntax and Meter’ (1975) and ‘The Rhythmic Structure of English Verse’ (1977), all of which read today both more stridently and less accessibly. The application of Hanson and Kiparsky’s work to the modern iambic pentameter as practiced by Shakespeare and subsequent poets is spelled out in Hanson’s article, ‘From Dante to Pinsky: A Theoretical Perspective on the History of the Modern English Iambic Pentameter’. While Hanson and Kiparsky’s view is not universally accepted, and has been challenged even among generative metrists, as well as more recently modified by Hanson herself, it is perhaps the

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\(^{45}\) Hanson and Kiparsky, p. 288.
It is also contemporaneous to Philip Hobsbaum’s *Metre, Rhythm and Verse Form*. There are obvious advantages to considering the two as divergent approaches at a certain historical moment.

3a. The Metrical Template

Positing that the modern English iambic pentameter depends in unexpected ways upon a grouping of syllables into words may seem to be a minor quibble, yet it has a tremendous impact upon the theory of metre. For while a metrical line that is held to be a succession of syllables can be indicated by a linear pattern (indicating stressed and unstressed syllables), the inclusion of word boundaries adds a degree of complexity to the description. Metre cannot be represented by a simple linear sequence of syllables. Instead, it is represented as a separate structure into which the linguistic rhythm of a line is mapped. Contrary to the traditional stress-based notation for iambic pentameter, generative metrics describes iambic pentameter as an underlying metrical structure comprised of five binary metrical feet, each of which is realized by a weak position (w) followed by a strong position (s) and notated thus:

For example, Fabb and Halle diverge from Hanson and Kiparsky on several points. Fabb and Halle define metrical poetry as ‘lines composed of syllables’, not moraic trochees (p. 13); they reject ‘approaches which assume that literary language is a development of ordinary language, using the resources already available to it’ (p. 13 fn. 5); and they redefine conditions on maxima (p. 48). Myklebust reviews Youmans’ critiques of generative rules as well; these critiques precede the 1996 article but are relevant nonetheless to many of the criteria it adopts from earlier work (Myklebust, pp. 183-185).

47 Kiparsky, ‘Rhythmic’, p. 194. This template importantly formalizes the two structural parameters of generative approaches to iambic pentameter, which ‘determine straightforwardly the familiar properties of line length [number of feet], and of whether a meter is rising (right-headed) or falling (left-headed)’ (Hanson and Kiparsky, p. 289). A central complaint against generative theory centers on the issue of headedness, as the essay will later take up. For if ‘the essential character of a head is rhythmic prominence’, then theorizing that the metre regulates the prohibition of prominence in the nonhead, rather than the presence of prominence in the head, has been taken as a contradiction in terms by many prosodists. On a different note, Kiparsky also introduces a hierarchical version of the template, one sensitive to cola and reflective of which metrical positions are the most or least amenable to alteration in the surface rhythm of the line. These points are important and are debated (see Myklebust 162-165 and 355), but are not seminal to this counterpoint of generative and traditional stress-based methods and are, in fact, omitted from the 1996 article under consideration (see Hanson and Kiparsky, p. 289).
It is worth noticing that this structure, which is known as a template, does not represent an actual sequence of language; hence the symbols ‘w’ and ‘s’ do not correspond to linguistic values but to metrical positions.

This distinction is important to draw out for literary readers, who might not otherwise see how the two proposals differ. Both approaches assume that an individual line's rhythm may diverge from the metre's underlying blueprint (in traditional metrics) or template (in generative metrics). However, the blueprint presented by traditional metrics does not provide a mechanism for explaining these differences. It can observe that poets often write lines that have ‘a mixture of patterns’, but it cannot present what constrains these patterns because it uses an isomorphic means for marking both the metrical pattern and the individual rhythmic patterns. In generative metrics, the formalism of a metrical position presents a means to identify constraints that are metrical, i.e., that are properties the metre imposes. Thus, strong positions possess certain characteristics or requirements that weak positions normally do not, and vice-versa. Also, because a metrical position need not correspond to a syllable (in the way that the traditional-stress based scansion marks are normally tied to syllables), the theory provides a mechanism for specifying what the relevant prosodic unit in language is: the syllable, the phonological foot (or moraic trochee), the phonological word, and so forth. In other words, the generative template presented by Hanson and Kiparsky does not assume that iambic pentameter normally specifies a sequence of ten syllables with alternating prominence. It represents iambic pentameter as a binary pattern in which weak and strong positions—comprised of some amount of linguistic material—vary with respect to prominence.

But just how much material can comprise a position or what type of prominence is relevant and where it is required or prohibited is articulated by a further set of rules, known formally as correspondence rules. These rules have, I

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48 Hobsbaum, p. 2.
should add, caused a great deal of controversy. On the positive side, they compensate for traditional stress metrics’ inability to cohesively theorize what limits there are on the correspondence of individual lines to the metre’s blueprint; on the negative side, they impose categorical constraints that delimit one set of lines as metrical and another set as unmetrical. Such an absolutist stance conflicts with many poets’ intuitive apprehension of the verse line as possessing the more charm for ‘not being mechanically straight’, it also turns out to be ‘not really absolute’ even for the canonical practices presented as exemplary. For all these reasons, we might most profitably understand these correspondence rules not as absolutes but as diagnostic devices that illuminate rhythmic textures as they push the bounds of, or redefine, metrical practices from one era, genre, or period of a poet’s practice to another. From such a vantage point, the correspondence rules become valuable tools, among others in our prosodic toolkit, that enable us to study and discuss a poet’s technique, that is, his or her intuitive use of the resources of both the nature of language and the conventions of metre, in ways that are artful and exciting.

3b. Correspondence Rules

Correspondence rules address how the actual language of the verse line is to be mapped into the metrical template articulated previously. For better or worse, they present a more systematic response than traditional stress metrics does to questions regarding mechanism: they address why and where changes in rhythm are motivated, and, more specifically, why certain rhythmic patterns are more frequently attested while others are not.

This analysis is achieved by a two-step process motivated by the fundamental assumption that metre is language imitating itself. Assuming that language has a

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49 Frost, p. 777.
50 Hanson, ‘Shakespeare’s’, pp. 125-26.
51 John Thompson, The Founding of English Metre (New York: Columbia University Press, 1961), p. 156. Thompson’s classic study concludes that ‘what poetry imitates is the structure of the language itself’ (p. 156). The introduction particularly addresses the grounds for treating a metrical pattern as a copy or counterfeit of ‘the basic elements of our language and of their order’ (p. 9). These views have subsequently been challenged by many prosodists, as the penultimate section of this essay briefly acknowledges.
pre-existing structure which metre imitates in ways that heighten attention to the language’s prior organization, the theory of generative metrics first identifies the relevant category of prominence involved in building structure in a language (some options are syllable weight, stress, strength, and pitch accent). Then it considers how the metre abstracts this particular linguistic property and constrains it in ways that are aesthetically interesting while accommodating the vast percentage of words in that language.

The three core constraints, or correspondence rules, for iambic pentameter verse in English can be identified as follows: The first involves a constraint on position size or how much linguistic material may be realized in a single metrical position; the second and third select the type of linguistic prominence and designate in which metrical positions, weak or strong, this linguistic prominence is prohibited.

Constraints on Prominence Type and Prominence Site

It is easiest to start with the latter two correspondence rules. The prominence type parameter designates a property variously known as strength or lexical stress as the type of prosodic contrast constrained by the metre. It is important to note that this property is to be distinguished from what we refer to as stress in general. Speaking in very loose terms, we can say that stress is a property that makes a syllable salient in English, and that monosyllabic content words in English as well as the prominent syllables of polysyllabic content words possess stress. But, for practical purposes, we can say that it is the stressed syllables of polysyllabic content words (that is, words that are nouns, adjectives, verbs, or some types of adverbs) that are strong or possess lexical stress. Thus, the initial syllable of many is both stressed and strong, as is the second syllable of the word immense, but the

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52 See Hanson and Kiparsky, p. 291.
53 In technical terms, a syllable is strong if it is stressed and ‘if it is the head of, or only descendant of a head of, a branching constituent’ (Hanson and Kiparsky, p. 291). Most frequently, this branching constituent would be a phonological foot, that is, a prosodic unit in language that alternately consists of one or two syllables; see discussion of moraic trochee below. A monosyllabic word would not be strong because it is comprised of a phonological foot that does not branch (ibid.).
monosyllable keen is stressed but not strong.\textsuperscript{54} Because lexical stress presents a more streamlined means of referring to strength (while avoiding repetition of the lengthy phrase ‘stressed syllables in polysyllabic content words’), I will sometimes adopt that terminology herein.

The prominence site parameter prohibits the placement of a constituent bearing lexical stress into a weak metrical position. In other words, a core constraint of iambic pentameter limits the placement of most stressed syllables in polysyllabic content words, specifically prohibiting them in weak metrical positions.\textsuperscript{55} Hence, a stressed syllable in a weak metrical position normally constitutes a monosyllabic word, as in the line ‘Pluck the keen teeth from the fierce tiger’s jaws’ from Shakespeare’s Sonnet 19, but not in the construct ‘Pluck immense teeth from enraged tiger’s jaws.’

While correspondence rules are framed categorically, they also specify under what clearly governed conditions exceptions might occur. In this case, the constraint prohibiting a stressed syllable in a polysyllabic content word from occurring in a weak position is frequently relaxed after a prosodic boundary that may be optionally realized by an intonation break. Since there are a variety of such prosodic boundaries, there are a variety of conditions under which one might find the stressed syllable of a polysyllabic content word in a weak metrical position: at the beginning of an utterance, at the beginning of an intonational phrase, or at the beginning of a phonological phrase. The linguist Bruce Hayes has shown that the frequency of these possibilities is directly proportional to the level of prosodic category involved.\textsuperscript{56} Thus, one is more likely to find a strong syllable or lexical stress at the beginning of a new utterance or new intonational phrase than one is at the beginning of a new phonological phrase.\textsuperscript{57} The examples below demonstrate these conditions in Shakespeare’s verse. Note that two additional notations are involved in the scansion. First, the relevant linguistic sequence whose scansion

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{54} Ibid.
\item \textsuperscript{55} See Hanson and Kiparsky, pp. 290-91; and Hanson, ‘Shakespeare’s’, pp. 113-14.
\item \textsuperscript{56} See Hayes, ‘Prosodic Hierarchy’, pp. 247-49.
\item \textsuperscript{57} A rare exception to these conditions can be found in Milton’s mature verse, which Hayes demonstrates permits lexical stress, that is, a stressed syllable in a polysyllabic lexical word, in a weak position based on the domain of the word; see Hayes, ‘Prosodic’, p. 252.
\end{itemize}
\end{footnotesize}
requires further explanation, here the stressed syllable of a polysyllabic content word, is underlined for clarity. Second, the symbol ‘s’ is placed above this syllable in order to indicate the presence of lexical stress (Note that the same symbol ‘s’ has a different function when it appears below a line of verse: in that instance, it indicates solely the strong position of a metrical template):

\[
\begin{align*}
\text{Kissing with golden face the meadows green (Shakespeare, ‘Sonnet 33’)} \\
\text{But soft! What day is this? Monday my lord} & \quad \text{(Romeo and Juliet 3.4.18)} \\
\text{Have my old feet stumbled at graves! Who’s there?} & \quad (5.3.122)
\end{align*}
\]

As these examples demonstrate, Shakespeare’s verse typically requires at least a phrasal break (i.e., a break between intonational or phonological phrases) to trigger this relaxation of the prominence constraint.\(^{58}\)

As we have seen, some traditional stress metrists often refer to this relaxation of prominence constraints as inversion. However, this term is unfortunate since it obscures the fact that the motivation has less to do with an alteration of the metrical template than with the impact that prosodic structures have upon linguistic rhythm.\(^{59}\)

Given this constraint on the placement of strength or lexical stress, the unmetricality of the construct ‘Pluck immense teeth from enraged tiger’s jaws’ is explained by the fact that Shakespeare’s verse, particularly his lyric verse, requires at least a phrasal break (i.e., a break between intonational or phonological phrases) to trigger this relaxation of the prominence constraint, but that this condition is not met in this instance. Here, the stressed syllable in each of the polysyllabic content words, \textit{immense} and \textit{enraged}, is mapped into a weak metrical position that is

\(^{59}\) See Fabb and Halle, pp. 27, 48.
not initial in a new phrase; in other words, neither occurs after the level of prosodic break normally required to trigger a relaxation of the constraint in Shakespeare’s practice.\textsuperscript{60} The fact that the line, which is repeated below for clarity, is less likely to be deemed metrical by a poet or reader is marked in three ways. First, a star at the beginning of line shows that it is presumed to be unmetrical or not to scan. And as we have seen, the symbol ‘s’ is placed above the mismatched syllable in order to indicate that a lexical stress is being mapped into a weak metrical position. Third, the linguistic sequence that is presumed to not normally occur in a weak position is underlined:

\begin{verbatim}
Pluck immense teeth from enraged tiger’s jaws. (construct)
\end{verbatim}

This method of scansion, significantly, separates the metrical template, which is indicated by the series of scansion marks below the language, from the linguistic rhythm, which is indicated above the language. To minimize the number of marks involved—and to simplify overall—only the exceptional mapping of strong constituents in polysyllabic content words into weak metrical positions is notated, as in the scansion above.

Although many prosodists find this specific constraint—the prohibition of strength or lexical stress in a weak position—to be particularly problematic, it is intriguing to note that studies of poetic practice bear out the relative dearth of blank-verse lines that place lexical stress in a weak metrical position; while Stevens is not emblematic of all poets, in my analysis of his blank verse corpus, some 6,000 lines, only six instances surfaced.\textsuperscript{61} Where they are deemed metrical by poet and reader, such instances are often highly constrained, most frequently, by being subordinated to a greater stress in the same phrase, as we have seen.\textsuperscript{62}

\textsuperscript{60}Kristin Hanson later relaxes this prohibition somewhat even for Shakespeare, particularly for his dramatic verse; see Hanson, ‘Shakespeare’s’, p. 126.


\textsuperscript{62}See fn. 35 on p. 142 of this essay.
Constraint on Position Size

The final correspondence rule, the position size parameter, also needs to be addressed and defined. Although in some poets’ practice of iambic pentameter, the maximum amount of linguistic material permitted in a single metrical position is a syllable, in other poets’ practice—especially in the practice of a twentieth-century poet like Wallace Stevens—the maximum amount is a prosodic unit known formally as a moraic trochee.63 (It is this difference in position size that distinguishes modern iambic pentameter from what is simply known as iambic pentameter.)64 Like the better-known unit of the syllable, a moraic trochee is a formal unit in linguistics that designates a certain quantity of linguistic material; unlike a syllable, however, a moraic trochee is defined jointly by constraints on quantity and on stress. A moraic trochee is normally equivalent to two morae where the first mora possesses stress.65 A mora is the minimal prosodic unit in English.

A syllable may have one or two morae depending on its weight, such that a single syllable which is light possesses one mora while a syllable that is heavy possesses two morae. Thus, a syllable that is either closed or possesses an

64 This distinction between the modern iambic pentameter and the iambic pentameter is crucial. According to the view of generative metrics taken in Kristin Hanson’s article, ‘From Dante to Pinsky: A Theoretical Perspective on the History of the Modern English Iambic Pentameter’, the canonical metre known simply as English iambic pentameter has had two distinct forms. In its earliest form, the metre only permitted a single syllable per metrical position. In its modern form, as demonstrated by Shakespeare and later poets, a greater amount of linguistic material was admitted in a single metrical position.
65 Bruce Hayes, Metrical Stress Theory: Principles and Case Studies (Chicago: University of Chicago Press, 1995), pp. 69-70. In addition, Hanson and Kiparsky’s article argues that in English and in Finnish it is possible to have a moraic trochee comprised of an initial, light stressed syllable followed by a heavy syllable (pp. 301-03). In English, these examples are fairly uncommon, but Finnish is full of them. Their presence necessitates the definition of the second configuration of a moraic trochee as ‘normally’ but not always equivalent to two light syllables with initial stress.
underlyingly long vowel is said to be heavy and to be equivalent to two morae. If this syllable also possesses stress, it is equivalent to a moraic trochee.66

Alternatively, a sequence of two adjacent syllables within the same word that are light (meaning they are open and possess underlyingly short vowels) and possess initial stress may also constitute a moraic trochee.

Thus, one configuration of a moraic trochee is a single heavy syllable bearing stress, such as the ultimate syllable of the word distinct or the monosyllabic word wait. Another configuration for a moraic trochee is a sequence of a light, stressed syllable followed by a light, unstressed syllable within the same word; thus, disyllabic words such as mother and rigid also constitute moraic trochees, as does the initial disyllabic sequence of a polysyllabic word such as academic.

It is worth noting that the moraic trochee is the prosodic unit consistent with a minimal word in English; with the exception of grammatical words such as the, there are no words in English that consist of a single light syllable. All monosyllabic nouns, adjectives, verbs, and most adverbs are comprised of a moraic trochee. Establishing the moraic trochee as the maximal size of a metrical position means that a single metrical position may at most coincide with a lexical or content word. While a metrical position may consist of less linguistic material (such as a single light syllable), it may not normally consist of more than a moraic trochee. This coincidence again reinforces the point that modern iambic pentameter in English is sensitive not solely to syllables but also to their grouping into words. It involves the rhythmical arrangement of meaningful units that bear structure, not just the rhythmical arrangement of sounds.

The variable configuration of a moraic trochee—which may be comprised of either a single stressed syllable that is heavy, or two light syllables where the first is stressed67—also addresses some issues posed by trisyllabic substitution, which can prove problematic in traditional stress metrics. Since a metrical position is not

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66 Heavy syllables that bear stress are assumed to have stress manifested on the first and not the second mora (Hayes, *Metrical Stress*, p. 69). Thus, even with reference to a moraic trochee realized by a single heavy syllable, theorists discuss the presence of initial stress.

67 In addition to these two configurations for ‘the basic moraic trochee’, Hanson and Kiparsky theorize that a ‘resolved moraic trochee’ is also possible (p. 296). In such a case, a light syllable that cannot form a foot on its own may be permitted to head a foot constructed with a heavy following syllable, as in the word Arab (p. 297) or the final disyllabic sequence in the word academic.
limited to a single syllable but to a prosodic unit which naturally varies between
one and two syllables, many triple feet in the modern English iambic pentameter
are the natural realization of a metre that permits a light stressed syllable followed
by a light unstressed syllable in the same word as a single metrical position.\textsuperscript{68} A few
examples from Shakespeare’s plays, which are universally recognized as examples
of the canonical metre, follow. The representation of scansion explicated above is
adopted, with the additional formalism of underlining sequences said to count as a
moraic trochee:

\begin{verbatim}
And spends his prodigal wits in bootless rhyme (Love’s 5.2.64)
\end{verbatim}
\begin{verbatim}
w s w s w s w s w s
\end{verbatim}

\begin{verbatim}
In the affliction of these terrible dreams (Macbeth 3.2.18)
\end{verbatim}
\begin{verbatim}
w s w s w s w s w s
\end{verbatim}

\begin{verbatim}
Followed my banishment, and this twenty years (Cymbeline 3.3.69)\textsuperscript{69}
\end{verbatim}
\begin{verbatim}
w s w s w s w s w s
\end{verbatim}

Interestingly enough, if we return to Hobsbaum’s decision to distinguish iambic
pentameter practice by type, we find that Shakespeare’s practice is, in part, notably
distinguished from Milton’s based on position size: where Shakespeare’s verse,
particularly his dramatic verse, admits a moraic trochee, Milton’s admits only a
syllable.\textsuperscript{70}

\section*{4. Potential Claims and Shortcomings of Generative Theory}
The aim of this essay is not to defend generative metrics but to interpret its
significance and its shortcomings. In this spirit, this penultimate section will
attempt to lay out the utility of generative metrics specifically in relation to stress-
based metrics, ever mindful of critiques launched against both. (Because my own

\textsuperscript{68} See Hanson, ‘Shakespeare’s’, pp. 114-15.
\textsuperscript{69} Qtd. in Hanson, ‘Resolution in Modern Meters’, pp. 72-73.
\textsuperscript{70} Hanson, ‘Shakespeare’s’, p. 115.
scholarship on blank-verse has centered on Wallace Stevens, examples from his practice are threaded throughout this section and the conclusion.)

The theory of blank verse portrayed by generative metrics offers a number of notable, and more and less controversial, amendments to the conventional account adopted from traditional stress metrics. First, the proposition that the modern iambic pentameter depends on word structure, not simply a succession of syllables, makes the theory of metre itself more abstract. Even though words are comprised of syllables, it is not true that a succession of words is equivalent to a succession of syllables (consider the aural similarity of notary public and note of republic, especially in rapid speech, and yet note their distinctive morphological and phrasal structures). Thus, a generative perspective helps capture the conundrum that the modern English iambic pentameter cannot be adequately represented as a fixed linear pattern involving a sequence of interchangeable parts, since this model does not in fact capture the relevant criteria as to what makes one line more or less likely to be deemed metrical by a competent reader. Of course, this is not to say that the generative portrayal of the template as abstract is inviolable, but that the representation of the blank-verse line as having a flat structure, per traditional stress metrics, is an erroneous or at least incomplete picture. And the generative approach does add something missing from traditional stress metrics: a formal means of expressing that metrical structure—or our expectation regarding metrical structure—is sensitive to linguistic structure.

Second, positing that modern iambic pentameter constrains the placement of lexical stress has a powerful implication: that the metre does not comparably constrain the properties of monosyllabic words—which lack such internal rhythmical relationships. This is not to say that any sequence of ten monosyllabic words will be judged metrical, but rather that poets and readers are more likely to accept such lines presented in an otherwise recognizable metrical context than they

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71 See Myklebust, p. 108 for a critique of generative theories of the template.
72 For example, Fabb and Halle in *The Meter of a Poem* write, ‘As a rule, in English metrical verse (particularly iambic) monosyllables are not controlled by the metrical rules and this permits a great degree of rhythmic freedom’ (p. 47). In fn. 2 on the same page, the authors discuss their disagreement with Attridge’s rejection of this principle.
are a line with one or more polysyllabic content words whose lexical stresses are misplaced. However, as the following example shows, iambic pentameter lines comprised largely of monosyllabic words, whether lexical or non-lexical, are not without their limits. A poet such as Frost (who described himself in a letter to John Erskine as given to ‘perform […] tricks on the honest old blank verse with my eyes open’) might allow an almost entirely monosyllabic line such as the first below but not the second:

```
\[\begin{array}{c}
\text{On the white wall presented to the road.} \\
/ / / / / / / / / / / / / \\
\text{On the side it presented to the road.} \\
\end{array}\]
```

Frost’s likely intuition as to why the second line is ‘out of bounds’ but not the first leads to important critiques that generative metre lacks adequate attention to “‘grouping structure” […] that component of the meter that “chunks” information into more coherent and manageable bits’.74

Third, another important corollary of isolating strength or lexical stress as a constraint is that non-lexical words (that is, grammatical or function words that receive their stress post-lexically in ordinary language, such as determiners, conjunctions, and, debatably, pronouns and prepositions) are also theoretically less constrained by the generative metrists’ parameters. This implication has predictive significance for the placement and treatment of non-lexical words well beyond our habituated expectation that a poet might discount two or more non-lexical words in a single weak position as in ‘I’ th’ name of fame and honor, that dies i’ th’ search’.75

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73 Scansion marks are Frost’s own. Frost says of the first line, ‘I think you can probably find lines as extravagant as that in almost anybody’s blank verse’, but of the second, ‘I admit that [it]…is out of bounds’ (qtd. in Manson 40-41; Barry 98). Qtd. in Michael Manson, ‘Chapter 4: Passionate Preferences’, n.d., p. 40; originally in Elaine Barry, Robert Frost on Writing (New Brunswick, NJ: Rutgers University Press, 1973), p. 98.

74 Myklebust, p. 142.

75 Shakespeare, Cymbeline, 3.3.51; qtd. in Hanson and Kiparsky 298. Note that this allowance cannot solely be attributed to the prominence parameter but also involves the position size parameter.
Theoretically, a poet might also disregard the placement of stress within non-lexical words, permitting stressed syllables within polysyllabic non-lexical words to occur in weak metrical positions (Consider Stevens’ ‘There was that difference between the and an’).\textsuperscript{76} Or a poet might even map an entire disyllabic word into a weak metrical position, as in Stevens’ ‘The Comedian as the Letter C’: ‘Without grace or grumble. Score this anecdote’.\textsuperscript{77} A poet might even write an entire line of non-lexical monosyllables; in such a case, as the one I reprint here from Wallace Stevens’ ‘Notes Toward a Supreme Fiction’, ‘I have not but I am and as I am, I am’,\textsuperscript{78} none of the words bears primary stress; thus the language offers no cue to anchor the line into the metre (a situation made more complex by the line’s syllable count). If we are, as Mary Oliver suggests in her traditional stress-based prosodic handbook, \textit{Rules for the Dance}, to ‘find the number of feet in the line’ by ‘reading the line as naturally as possible, and counting the heavy stresses’, then we would be unlikely to deem such a line pentameter at all.\textsuperscript{79}

This is not to say that any sequence of non-lexical words will be deemed metrical by an accomplished poet or competent reader, but rather that poets and readers are more likely to accept such lines presented in an otherwise recognizable metrical context than they are a line in which lexical stress occurs in a weak position. Indeed, modern blank verse such as Stevens appears either intuitively or consciously to exploit these possibilities.

Fourth, the generative perspective has an interesting repercussion for our thinking about the relationship between sound and sense. If we grant (a) that the position size is maximally a moraic trochee, the minimum phonological weight required for a lexical word in English, and (b) that the property constrained by iambic pentameter is strength or lexical stress, then the metre may be said to organize not strictly syllables—which are phonological but not morphological

\textsuperscript{77} Stevens, \textit{CPP}, p. 36.
\textsuperscript{78} Stevens, \textit{CPP}, p. 350.
\textsuperscript{79} Oliver, p. 11. Of course, we might be tempted to read the line on its own as hexameter, but we must always consider a line’s metre in relation to its context: in this case, a poem that is written in a loosened blank verse. This, again, is a reminder that scansion and metre are not the same.
units—but rather phonological units that potentially correspond to lexical words, that is, units that are both phonological and morphological. In other words, metre potentially organizes sequences of language into larger, meaningful structures. Such an insight pertains to a modern practitioner such as Stevens who claims that ‘above everything else, poetry is words; and that words, above everything else, are, in poetry, sounds’;\textsuperscript{80} there is a potential and important challenge here to the presumed disparity of metre as prioritizing sound whereas syntax is taken as the domain that prioritizes the arrangement of words and therefore meaningful sequences: blank verse may actually do both.

Fifth, and finally, despite its controversy, the proposal of the moraic trochee as the maximal constraint upon position size may prove to be the generative metrists' most interesting contribution. Many poets and critics have noted the important role that quantity plays, alongside accent, in metrical verse; for example, Robert Pinsky remarks in \textit{The Sounds of Poetry} that ‘variations in degree of accent, variations in the difference between an unaccented syllable and an accented syllable, and a varying play between accent and duration all have a part in creating the rhythm’.\textsuperscript{81} Quantity may even be, as critic Chris Beyers has opined, one of the most undertheorized areas of English prosody.\textsuperscript{82} As linguistic accounts like Anthony Fox’s \textit{Prosodic Features and Prosodic Structures} show, the intersection between quantity, stress, and accent is complex in ways that traditional stress metrics cannot fully represent, because its representation of meter is bound to a binary contrast between stressed and unstressed syllables as opposed to an opposition between syllables that contrast both for weight and for stress. Whether or not the generative proposal of the moraic trochee is ultimately retained, the underlying insight it represents may help us to tease apart the intersecting nature of stress, weight, and strength as they exist in language and thus as they manifest in the blank verse line.

\textsuperscript{80} Wallace Stevens, \textit{The Necessary Angel} (London: Faber & Faber, 1960), p. 32.
\textsuperscript{81} Pinsky, p. 21.
At the same time that these five amendments are advanced as potential gains, it is easy enough to advance as many criticisms, many on the very same points. First, while generative hunches about non-lexical and monosyllabic words help isolate ‘subtle rhythmic differences’ that often elude accounts of metre in traditional prosodic handbooks, it may well be that these factors are still undertheorized.83 Whether or not ‘practitioners [of generative theory], on both prejudicial and theoretical grounds, mostly ignore the monosyllables and function words that slip through their filters’,84 the placement of both monosyllables and function words is, as Robert Frost’s fine discrimination suggests, certainly subject to further discriminations than generative theory captures.

Also, generative metrics does not pay adequate attention to the influence of pauses as an element of metrical structure. It does deal with pauses somewhat indirectly through its representation of the metrical template as an ordered hierarchy in which ‘feet [are] grouped ambiguously into rising cola of either two or three feet’.85 However, even this representation is more concerned with how relaxations of constraints are triggered by the ‘coincidence of phrase boundaries with colon boundaries’, rather than the registration of either caesuras or natural pauses as noteworthy events in and of themselves.86 Thus, a generative metrical approach to Wordsworth might miss Brennan O’Donnell’s attention to how, in an early poem such as ‘Michael,’ ‘the favored midline position [for pause] comes to be felt as only slightly less an element of structure than is the length of the line. The placement of pause, that is, is properly an element of the ‘general rule’ governing the verse, rather than a disruptive exception’.87

Generative metrics’ lack of attention to pauses is part of a more generalized critique that this theory minimizes attention to temporal concerns or performance, in part because it tends to locate metricality as a property of the text itself, and in part because it focuses almost exclusively upon how metre imposes constraints upon language. Nicholas Myklebust’s review of these criticisms (which include

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83 Myklebust, p. 173.
84 Myklebust, p. 176.
85 Hanson, ‘Shakespeare’s’, p. 113.
86 Ibid.
87 O’Donnell, p. 191; emphasis added.
inattention to verse itself, its conventions and its meaning), coupled with his research in cognitive approaches, suggests that metre may be a ‘mental construct’ rather than a linguistic template, that is, its cognitive expectations are fulfilled by language—as well as by pauses and other temporal events—but is not, per se, linguistic.88

5. Conclusion
If the point of prosody, at least in part, is to help us recognize how poets’ and readers’ ears have become entrained to recognize more and more supple variations, then generative metrics can be a powerful analytical tool, allowing us, for example, to specify how poets continuously alter the criteria of what we hear as pentameter and to highlight the virtuosity and value of their metrical art. Returning then to Philip Hobsbaum’s discussion of Wordsworth’s poetry, we find that a generative perspective can provide a technical basis for Hobsbaum’s largely unsubstantiated claim that Wordsworth’s poetry has a meditative air and a quiet tone. Since nothing in the metrical rules requires the presence of stress in strong positions, a poet may compose lines in which the absence of recurrent or at least regularly alternating stress creates a quiet and modulated tone. Moreover, the metre’s inherent allowance of a variable syllable count—given the two possible configurations of a moraic trochee—allows for surprising modulation across lines.

Ultimately, we don’t need to subscribe to any of the generative metrists’ conditions, rules, or system to benefit from their insights as a diagnostic methodology. Generative metrical techniques can help us pinpoint how poets’ iambic-pentameter practices demonstrate intuitive and differentiated sensitivity especially to the grouping of syllables as words and, through the work of Hayes and others, to the role of phrases and larger prosodic structures. And this approach does so not on a case-by-case basis but in a systematic way that enables a fine discrimination regarding shifts in poetic praxis within modes or genres, across historical periods, or between stages of a poet’s practice. Traditional stress-based metrics can and does make many of these same comparisons, but it often lacks a

88Myklebust, p. 108-09.
theoretical or systematic means of conveying them. Most of all, being bound to using metrical terms—even with reference to temporal notions—traditional stress approaches can’t as elegantly capture fine distinctions in linguistic rhythm.

A final example from Wallace Stevens’ versification highlights both the strengths and weaknesses of the generative approach. In his superb article ‘The Free-Verse Line in Stevens,’ the poet Donald Justice discovers Stevens’ late signature foot and—relying on the terminology of Classical feet—describes it as a kind of heavy anapest, writing ‘Stevens uses also a special adaptation of this foot, rare in the work of others, in which the first syllable is light, the second possibly heavy, and the third surely heavy: – / / or – – /’. Justice then provides examples of this heavy anapest and where in the line it tends to occur, typically in the first foot and less frequently elsewhere. But without the use of generative analysis, he does not note as effectively that this heavy anapest almost always has a particular prosodic structure: a phonological phrase with rising rhythm that conceivably ends with a pause. We do not find, for instance, noun phrases such as ‘divine roses’ or ‘cerise pigeon’, which also have the structure of a heavy anapest in their first three syllables. Instead, Stevens’ heavy anapests—from ‘The dead rocks’ and ‘The sun aches’ to ‘He lies down’ or ‘When day comes’—favor a sequence of monosyllables with rising rhythm. This rising rhythm is not compromised by the kinds of internal stress clashes found in the heavy anapests Stevens avoids; in the kind of heavy anapest Stevens does not write, the stressed syllable of a polysyllabic content word (e.g., divine or cerise) can seem more salient than the final lexical element. But in the signature foot Stevens actually does write, we can hear a clear, rising prominence across the sequence: the initial word has no mandatory stress because it is non-lexical; and while the next, lexical word receives stress accent, it lacks the added melodic accent that the third word receives as the final lexical item in a phonological or intonational phrase.90

This technical description of Stevens’ verse suggests what we gain from generative methodology: an appreciation of how Stevens’ late signature foot demonstrates the same care for the positioning of phonological phrases that his early practice demonstrates regarding the virtuosic compression and positioning of sequences of multilingual polysyllabic words. It also enables us to explain the evolving rhythms of Stevens’ blank verse in ways that are not merely interpretive, but that pinpoint shifts in rhythm within his practice and allow us to theorize what values these shifts may have in relation to the meaning of verse and the particular crises faced by lyric verse in the modern era.

But this description also presents the substantial limitations of generative metrical theory or at least of its proclivity to categorical imperatives: Curiously, per generative metrics, Stevens’ late signature foot is one that is not only deemed to be unmetrical, but that appears in Hanson and Kiparsky’s 1996 article as an archetype of the prototypical non-metrical line:

* The false name of fame and honor, that dies in vain search\textsuperscript{91}
  The false roses—Compare the silent rose of the sun\textsuperscript{92}

Comparing Kiparsky and Hanson’s unmetrical construct and Stevens’ line side by side, we might be led to conclude either that the theory is incorrect or that Stevens’ line is not blank verse. But I suggest we instead embrace a third position: that the dissonance between the two is what keeps us coming back to poems—their abilities to invent new rhythms and rhythmic play, that is, new textures, that lead to new perceptions. And if one reads deep enough into generative metrics—and their own elaborations upon different poets’ metrical practices or the different genres of metrical composition within the same poets’ practices—one discovers that generative metrists themselves believe this, even if their system does not reflect it.

Yet generative metrical analysis still needs to be given interpretive significance. We must appreciate rhythm as a compositional force, but then we must also be able to connect rhythmic energies of the verse line and the overall metre with meaning, while escaping traps of either propriety or iconic theories. We wish to be

\textsuperscript{91} Hanson and Kiparsky, p. 298.
\textsuperscript{92} Stevens, \textit{CPP}, p. 228.
able to see, as Simon Jarvis has reflected in recent essays, how prosody cuts into language, marking it, interfering or contradicting as much as imitating or reinforcing meaning and how it does so in ways that help us pinpoint how technique itself is at the heart of historical poetics. It means something to say that Wallace Stevens’ expansive practice, metrical or not, has less to do with the addition of an extra syllable that raises scarcely a ripple than with an appeal to melodic accent, that is, to intonational contours in order to retain an iambic pulse in the composition and audition of the modern American blank verse line. In sum, what we need is what Donald Wesling wrote, also in 1996, a confluence of approaches that enriches our sense of verse rhythm from a multiplicity of perspectives: ‘When literary criticism can complete linguistic metrics, and when it can in turn be completed by being deepened with a cognitive psychology of the reader, and when it can be fully historicized, then we shall have a prosody adequate to the greatness and range of poetry in English’.93

Today, we are closer to this position—and to the possibility of an aesthetics of prosody, not only because there are innovative systems that draw upon both of these approaches, but also because of interdisciplinary developments in the cognitive sciences. Organizations like The Max Planck Institute for Empirical Aesthetics are focused upon using ‘scientific methods to explain the psychological, neuronal and socio-cultural basis of aesthetic perceptions and judgments.’94 And eye-tracking studies can test for implicit accents in silent reading and for implicit prosody (that is, the prosodic representations that readers generate during silent reading studies) in prose and, conceivably, in verse. We might also extrapolate from neurobiological studies pertinent to musical metre how consciously perceived changes in verse rhythm might correlate with increased cerebellar activity, and so ground claims about the force of rhythm and of changing rhythms in the body. Perhaps soon we can even test via fMRI and other means whether the ear can become entrained to recognize more and more supple variations, continuously altering the criteria of what we hear as pentameter and perhaps licensing a modern

93 Wesling, p. 22.
94 Max Planck Institute for Empirical Aesthetics  
American English verse line that is differentiated from prior practice, whether or not any existing scansion system would deem it such.

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Stress-Based Metrics Revisited


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