

## Linguistic Society of America

---

Review: [untitled]

Author(s): Bruce Hayes

Source: *Language*, Vol. 60, No. 4 (Dec., 1984), pp. 914-923

Published by: [Linguistic Society of America](#)

Stable URL: <http://www.jstor.org/stable/413802>

Accessed: 11/07/2011 21:10

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=lsa>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Linguistic Society of America is collaborating with JSTOR to digitize, preserve and extend access to *Language*.

<http://www.jstor.org>

## REVIEW ARTICLE

**The rhythms of English poetry.** By DEREK ATTRIDGE. (English language series, 14.) London & New York: Longman, 1982. Pp. xiv, 395. Cloth \$30.00, paper \$17.95.

Reviewed by BRUCE HAYES, *UCLA*

1. INTRODUCTION. Metrics is a field studied by two groups, linguists and literary scholars, who often disagree—sometimes acrimoniously. *The rhythms of English poetry* is the work of a man with divided loyalties. Attridge is clearly influenced by generative linguists in his views of both the goals and the content of metrical theory, but his declared allegiance is literary: through formal analysis, he hopes to explicate the esthetic function of rhythm and meter in poetry. A's book is valuable; it has built a solid foundation for much future work in metrics. It is filled with novel ideas and useful examples. But from a linguist's point of view, it is also extremely frustrating, for reasons I will explain below.

The book has four parts: I, a brief summary of work in traditional and generative metrics; II, a long and insightful discussion of rhythmic form and the rhythmic structures used in English verse; III, an explicit account of the rules of English metrics; and IV, a discussion of the esthetics of rhythm, including textual analyses of individual poems using the formal theory. As the second and third sections are of the greatest interest to linguists, I will focus on them below.

2. RHYTHMIC STRUCTURES IN POETRY. A's discussion of rhythmic structure focuses first on the 'four-beat rhythm' characteristic of popular verse: the pattern of ballads, hymns, nursery rhymes, and birthday cards. He shows that a pervasive binary hierarchy underlies these forms. Four-beat verse is normally composed in quatrains, which can be shown to resolve successively into two couplets and four lines, with the four beats of the line arranged in pairs. Readers familiar with work in so-called 'metrical' phonology will find this a familiar notion; taking the license of recognizing a foot level, one might represent the structure of four-beat iambic verse as in Figure 1.

This idea is not new, but A's presentation of it is the best I have seen, and locates new evidence for it. The COUPLET level is motivated by the distribution of syntactic breaks in verse, the salience of which normally corresponds to the strength of the break in the metrical pattern. Rhyme schemes (typically *aabb* or *abab*) reinforce couplet structure through adjacency or parallelism. A finds a third, novel argument from verse in which upbeats and offbeats occur freely at the beginnings and ends of lines: in duple verse, they tend to be distributed so as to reinforce continuous binary alternation within couplets, as in 1a below, but to break alternation across couplet boundaries, as in 1b. In triple verse, the same strategy is used, with 1c favored within couplets, 1d at mid-quatrain:

- |  |  |
|--|--|
| <p>(1) a. ... x <math>\acute{x}</math> x <math>\acute{x}</math> x / <math>\acute{x}</math> x <math>\acute{x}</math> ...<br/>               ... x <math>\acute{x}</math> x <math>\acute{x}</math> / x <math>\acute{x}</math> x <math>\acute{x}</math> ...</p> | <p>c. ... <math>\acute{x}</math> x x <math>\acute{x}</math> x / x <math>\acute{x}</math> x x <math>\acute{x}</math> ...<br/>            d. ... <math>\acute{x}</math> x x <math>\acute{x}</math> / <math>\acute{x}</math> x x <math>\acute{x}</math> ...</p> |
| <p>b. ... x <math>\acute{x}</math> x <math>\acute{x}</math> / <math>\acute{x}</math> x <math>\acute{x}</math> x ...</p>  | <p>... <math>\acute{x}</math> x x <math>\acute{x}</math> x / <math>\acute{x}</math> x x <math>\acute{x}</math> ...<br/>         ... <math>\acute{x}</math> x x <math>\acute{x}</math> / x <math>\acute{x}</math> x x <math>\acute{x}</math> ...</p>          |

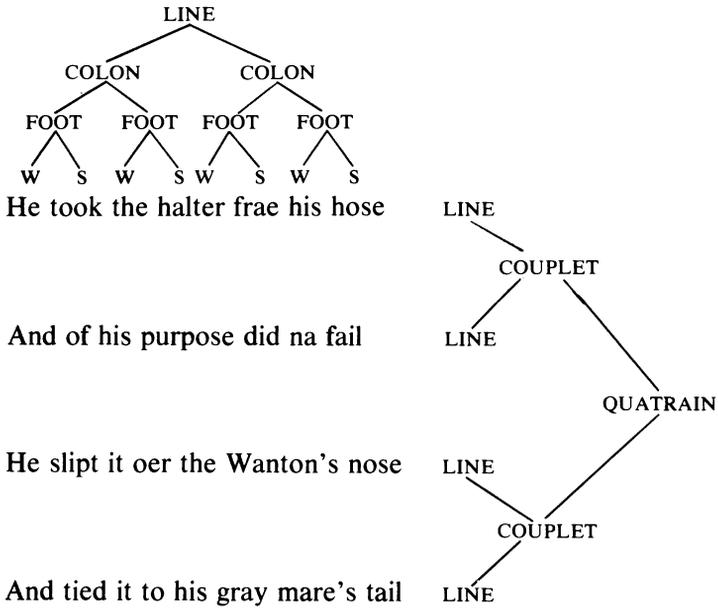


FIGURE 1. 'The Lochmaben harper'. Child 1882, 192A.

The most striking evidence for the binary hierarchy, however, is its ability to induce the perception of 'salient beats' at the end of three-stress lines, to fill out the pattern (cf. Patmore 1857, Burling 1966):

- (2) Upón the eighteenth dáy of Júné,
- A dréary dáy to sée, (∅)
- The sóuthern lórds did píth their cámp
- Just át the brídge of Dée. (∅)

'Bonny John Seton' (Child, 198A)

A's evidence for these silent beats is strong. They show up as pauses in rhythmic reading (particularly in choral recitation; cf. Boomsliiter et al. 1973); they are also reflected in rhyme schemes (three-beat lines can't rhyme with four) and in the much greater difficulty of pausing after a four-beat line.

Dipodic rhythms (alternating prominence patterns among feet) provide support for the COLON level of the hierarchy: in dipodic rhythm, the *sw* labeling of the feet is extended to the colon level, as in Figure 2.

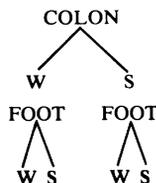


FIGURE 2.

As A shows, both *sw* and *ws* varieties of dipodic verse exist. Verse containing three-beat lines may only be *sw*-dipodic, as a silent foot cannot occupy strong position.

A also detects the binary hierarchy in disguised form. For example, he shows (87) that the 'fourteener' line is actually a 4 + 3-beat couplet in disguise:

- (3) But clóuds obscúre my áged síght. / A vísion fróm afár (∅)  
 Blake, 'America' 9.12

Similarly, the 16th century 'poulter's measure' is simply the [3 + 3] + [4 + 3] quatrain, remolded into a couplet (93):

- (4) The dóubt of fúture fóes (∅) / exíles my présent jóy, (∅)  
 And wít me wárns to shún such snáres / as thréaten míne annóy. (∅)  
 Queen Elizabeth I, 'The doubt of future foes ...'

Limericks and other forms go the opposite way, employing the colon in the role normally taken by the line. Perhaps most striking are meters that blur the levels. Thus, when phonetically long syllables are allowed to serve for two short ones, it is not clear which level is the foot and which the colon; see Figure 3.

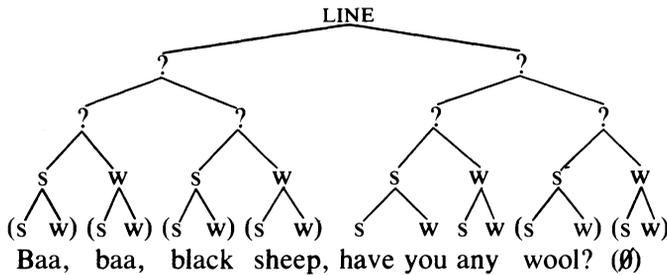


FIGURE 3.

The question may be meaningless: the levels seem to have no identifying characteristics other than their position in the binary hierarchy.

Later, A shifts the discussion to iambic pentameter, showing how it is a completely different species from four-beat verse. To mention only some of the ways it differs: pentameter doesn't demand quatrain forms; it is necessarily strict in syllable count; it tolerates hexameters and tetrameters in the same poem (without inducing silent beats); it eschews dipodic rhythm; it doesn't demand rhyme; and it tolerates run-on lines much more freely. These large-scale correlations clearly deserve to be explained, and I think A's approach is basically correct. He attacks the common but naïve notion that iambic pentameter is in any way the 'natural measure of English.' Such an account ignores the fact that pentameter is confined to art verse, that children acquire four-beat verse first, and that four-beat verse is far more widespread among languages (cf. Burling 1966, Ker 1928). Poets favor pentameter precisely because it is unnatural: in art verse, the poet is striving for more subtle rhythmic effects, and to achieve them must escape the powerful rhythm of the natural binary

hierarchy. Pentameter escapes binarity because five is indivisible, and because (unlike three and seven, the other candidates) it won't match a power of two if a silent beat is added.

A applies the idea of an 'escape from binarity' to explain the facts noted above, with varying degrees of success. I will not review these cases except to point out a methodological problem: his explanations sometimes invoke postulates that have no more intuitive plausibility than their opposites. Thus the four-beat line is said to require rhyme because it is a more 'perceptually salient' rhythmic unit, which demands that its end be marked. But as A admits (137), one might just as well expect the less salient pentameter units to require rhyme, in order to demarcate their frail boundaries. In fact, elsewhere in the book A invokes postulates that contradict each other: he claims on p. 183 that a certain cadence is less disruptive if it occurs early in the line; but to explain a different fact, he claims on p. 185 that it is less disruptive if it occurs late. Clearly, some effort is needed to see which postulates have widespread explanatory value, and which only seem plausible. But this is not to say that A's work is without value: he has located and codified a large body of facts to be explained, and has formulated a principle that can help explain them.

3. STRUCTURAL ANALYSIS. A's formal analysis of English meter is based on a number of interesting and novel ideas. Most generative accounts (among them Halle & Keyser 1971, Magnuson & Ryder 1971, Beaver 1971, Chisholm 1977, Kiparsky 1977, Hayes 1983) assume an underlying metrical pattern, plus a set of rules that determine when the linguistic material constitutes an acceptable realization of that pattern. It is claimed that the reader of poetry experiences a kind of 'counterpoint' between linguistic and metrical rhythms, which lends the material variety and interest. A also assumes an underlying metrical pattern: thus he annotates iambic pentameter as *o B o B o B o B o B* (*B* indicates Beat, *o* Offbeat). However, the relation between the pattern and the linguistic material is considerably more concrete: A is opposed to the counterpoint notion, and instead proposes rules in which each beat of the metrical pattern is realized by a specific syllable in the line. The unmarked case naturally is that stressed syllables realize beats, stressless syllables offbeats. More rhythmically complex lines are analysed with 'deviation rules', which specify when stressed syllables may serve for unstressed, and vice versa. For the most part, these are straightforward. A stressless syllable may serve as stressed when it is not adjacent to a stressed syllable ('Promotion'); and a stressed syllable may serve as unstressed when it occurs between two stressed syllables ('Demotion'):

- (5) I must attend time's leisure with my moan  
 stress: - - - + + + - - +  
 beats: o B o B o B o B o B

Shakespeare, Son. 44

As A points out, these rules correspond to rhythmic tendencies in the spoken language.

PROMOTION and DEMOTION cannot account for a fairly common cadence in which two stressless syllables directly precede two stressed ones:

(6) When your sweet issue your sweet form should bear  
 [- - + +][ - - + +] - +

Shakespeare, Son. 13

A has an ingenious account of this cadence. He notes that, in popular verse, adjacent beats sometimes occur without an intervening stressless syllable:

(7) Adam delved and Eve span;  
 + - + - + +  
 B o B o B(o) B  
 Who was then the gentleman?  
 + - + - + - +  
 B o B o B o B

The listener mentally inserts the missing offbeat in the extra time made available by the adjacent clashing stresses. Popular verse also allows for the use of two adjacent stressless syllables to realize an offbeat:

(8) And you must come to my master dear  
 - + - + - - + - +  
 o B o B o B o B

'Barbara Allen' (Child, 84B)

In analysing the cadence of 6, A assumes that both these options of popular verse are also available in art verse, but in a restricted form. Since art verse normally preserves syllable count, an 'implied offbeat', as in 7, may occur only when accompanied by a 'double offbeat', as in 8, and vice versa. Further, in most forms of verse, the compensating cadence cannot occur randomly in the line, but must immediately follow the first deviation. Under these rules, 6 is scanned as follows:

(9) When your sweet issue your sweet form should bear  
 - - + ∅ + - - + ∅ + - +  
 o B o B o B o B o B  
 ↑ ↑ ↑ ↑

The compensating implied and double offbeats are shown by arrows. A's rule can also account for line-internal inversion, in which the double offbeat follows the implied offbeat:

(10) When that the poor have cried, Caesar hath wept  
 - - - + - + ∅ + - - +  
 o B o B o B o B o B  
 ↑ ↑

Julius Caesar 3.2.99

Although there are other rules in A's system, this summary will suffice for the discussion that follows.

4. EVALUATION. The most frustrating aspect of A's presentation is the kind of evidence he uses to support his analysis. Generative work in metrics has insisted on checking proposed rules against a corpus of lines from a given poet, taking the corpus as evidence for what patterns the poet felt to be metrically well- or ill-formed. A downplays this methodology, emphasizing an alternative (51–2):

[Generative metrics] has not made full use of one of the most distinctive and powerful procedures of the linguistic method from which it is derived. A linguist attempting to formulate the grammar of a language will constantly test the output of his rule against the competence of a native speaker; if he is working on his own language, this will usually, at least in the first instance, be himself.'

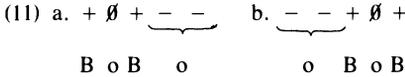
This appeal to native intuitions is taken further. A intends his theory explicitly as a performance model: the rules 'are concerned not with underlying competence but with perceptual experience' (152); they 'should be a formalised statement of the ways in which we perceive a regular rhythm when we read, or hear, metrical verse' (151). A criticizes certain proposals in the generative literature (49–50, 273) precisely because they don't capture what he takes to be the reader's perceptual experience.

I think that A has seriously misunderstood generative methodology here, in two ways. The first involves the great diversity of metrical practice found in the English tradition: to some degree, every poet has his or her own 'dialect' (cf. Kiparsky 197; A 46, 52). It is at best optimistic to suppose that people can supply reliable well-formedness judgments for a linguistic system they have learned as adults. Some people can read Latin or Shakespearean English fluently, but a syntax article on these languages in which the grammaticality judgments were provided by the author would be rejected by any responsible journal. A's rules thus are at best valid only for verse composed by A himself—though if such verse exists, I would be curious to know if he abides by them.

The other aspect of generative methodology that A has ignored is the need to minimize the burden placed on native intuitions. Native speakers are often asked about well-formedness, ambiguity, and the like; but they are not normally asked for the correct structural analysis of the material being studied. There are good reasons for this: native speakers of English cannot directly intuit that, in *John saw Mary*, the sequence *saw Mary* is a constituent; they can only provide the well-formedness judgments that would lead one to that conclusion. Similarly, English speakers who have Flapping and /ay/-Raising in their phonologies cannot tell you directly how they order these rules, but they can provide the appropriate evidence by pronouncing *writer* and *rider*. A repeatedly demands of the native speaker intuitions of the structural sort, e.g. in claiming that exactly five beats are perceived in every line (212), or that the hearer reduces the hierarchy of stress levels to two categories (156, 160). As this kind of intuition is demonstrably unreliable, A's evidence must be regarded as weak.

It is worth asking, then, how A's analysis stacks up when evaluated with the kind of evidence that he de-emphasizes—the lines that poets write and don't write. I will focus on two areas.

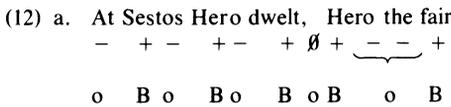
4.1. A's treatment of the role of syntactic boundaries in meter is a novel one. The basic facts are not controversial: when poets employ cadences like 11a, below, they normally place a strong syntactic break between the two stressed syllables. Cadences like 11b work in the opposite way: poets strenuously avoid placing a major break between the two stresses.



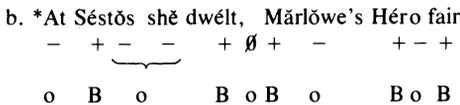
Noting facts like these, recent generative work posits metrical rules that make explicit reference to syntactic breaks. But A interestingly denies that such rules exist (257), and claims that the effects of syntactic breaks can be accounted for on independent grounds. Let us examine his arguments.

First, A points out that the pause or extra length induced by a syntactic break can aid the perception of an implied offbeat, thus encouraging the scansion of 11a. This is sensible, but it clearly can't count as an argument, since what is supposed to explain the preference for pauses in 11a will counter-explain the avoidance of pauses in 11b.

A's other argument is more sophisticated, and is based on two assumptions. First, if a break is flanked by stressed syllables, the first stress will normally be perceived as more prominent than the second. Second, poets avoid lines that the reader might parse into four-beat, ternary rhythms. Breaks in the cadence of 11b are avoided because the resulting lines would fall into the ternary trap; cf. the constructed 12b. In the cadence of 11a, however, the relative prominence of the stresses flanking the break will fend off the ternary rhythm, as shown in 12a:



Marlowe, 'Hero and Leander' I, 5



The trouble with this argument is that some poets scrupulously avoid the cadence of 11b, yet often write pentameters that face a greater danger of triple rhythm than 12b does. Shakespeare is such a poet (cf. Kiparsky 1975:598):

- (13) a. Lóve-läcking véstāls ānd sélf-lōving núnas Ven. 752
- b. Yond líght is nōt dáyliġht, Ī knów it, I Rom. 3.5.12
- c. Resémbling strōng yóuth īn hīs mīddle age Son. 7
- d. To see thy Ántōnġ máking hīs péace JC 3.1.203
- e. When to the séssiōns ōf swéet sílēt thóught Son. 30

At least in my data collection, Shakespeare also avoids lines that resemble 12b, but would escape any hint of triple rhythm through emphatic stress or other means:

- (14) \*At Séstos she dwélt; Áthens never sáw her (constructed)

The effect of competing triple rhythms in iambic poetry strikes me as doubtful, for a reason which A points out (78-9): if the preceding lines have set up an expectation of iambic pentameter, then listeners will not favor a competing triple rhythm unless the material absolutely compels it.

The upshot is that A has provided no real alternative to metrical rules that refer to syntactic breaks. It isn't clear why one would want to avoid such rules in the first place, since the principles involved are straightforward (cf. Hayes 1983, Kiparsky 1977): phrase endings are metrically strict, and discourage mismatched stress peaks, but phrase beginnings are metrically free, allowing inversion. Even if A's rules worked, one would still prefer the generative accounts just cited, because they can account for more phenomena. In particular, they explain why A's rule of Demotion usually won't apply to syllables preceding a break; why poets normally avoid placing a break after the second beat in 11a; and why lines that don't begin with a syntactic break shun initial inversions. All these cases would require additional rules under A's theory.

4.2. A second area in which A's account differs substantially from earlier work is the treatment of word boundaries in metrics. Recent generative accounts include some version of the following rule: for most poets, the main stress of a polysyllabic word must either occupy an even position or follow a pause. A splits this prohibition into two parts. The first is the restriction already noted that the double offbeat that compensates an implied offbeat must be adjacent to it, and vice versa. This marks as exceptional a line like this from Keats:

- (15) How many bards gild the lapses of time  
 - + - +  $\emptyset$  + - + - - +  
 o B o B o B o B o B
- 

Here *lapses* is the mismatched polysyllable. The other half of the prohibition is encoded in the rule of LINKAGE (265, 270):

- (16) In the cadences (a) - - +  $\emptyset$  + and (b) +  $\emptyset$  + - -  
 o B o B B o B o

the second and third syllables may not belong to the same word. Exception: in (b) this is permitted if the word follows a syntactic break.

Linkage would rule out this hypothetical line:

- (17) \*How many bards will gild lapses of time  
 - + - + - +  $\emptyset$  + - - +  
 o B o B o B o B o B

Here *lapses* is the linked word. Under generative accounts, this line is excluded by the same constraint that excludes 15.

Although A's account immediately seems the less appealing, since it uses two rules instead of one, it is here that A makes one of his few empirical arguments. Kiparsky 1977 notes that Milton occasionally tolerates the cadence of 15 (by my count, about 30 lines in the 12,600 of *Paradise lost* and *Paradise regained*), but he almost never employs the cadence of 17 (only one line in the same corpus). We thus can say, under A's theory, that Milton employs a strict linking constraint, but occasionally permits non-adjacent compensation—A's theory correctly predicts that the two restrictions should be independent.

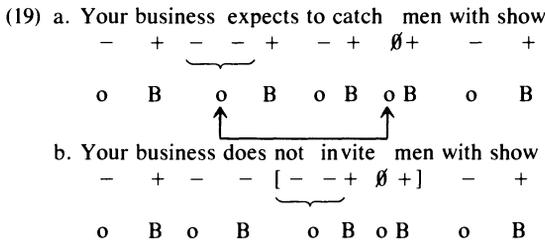
On closer inspection, however, A's argument turns out to be weak: of the roughly 30 lines I have found in Milton that might support it, fully 40% would be marked as unmetrical by his rules on independent grounds. The problem with these lines is that, even with liberal use of A's deviation rules, one cannot extract more than four beats from them:

- (18) Before thy fellows, ambitious to win  
 - + - + - + - +  
 B B B B

Paradise lost 6.160

This is a serious problem not just for this detail of A's analysis, but also for his more general claim (212) that the most fundamental requirement of metricality is the possibility of locating five beats in the line. Misplacing a polysyllable is a fairly serious offense in English metrics, and a line that commits it should be contrite enough not to go on and violate the most fundamental principle of the system. I would take this as evidence (against A's intuitions) that the five-beat principle is NOT fundamental. The metrical pattern has five beats; but individual lines do not necessarily have five stressed syllables, however we count them.

A also treats the cadences which form the mirror images of 15 and 17, in which the mismatched polysyllable bears final stress. By analogy with the earlier analysis, his theory predicts that the non-adjacent compensation cases, as in 19a, should be more acceptable than ones prohibited by Linkage, as in 19b (both lines are A's constructs):



To test this, A returns to intuitive evidence, claiming to perceive the predicted difference in acceptability (274). I find the two lines about equally bad. But readers with theoretical axes to grind shouldn't be consulted, anyway. The more objective evidence that I have been able to find is as follows: both Keats and Shelley occasionally write lines like 19b, but they systematically avoid the cadence of 19a. This is just the opposite of what A predicts.

It is clear that no one has yet come up with a definitive treatment of the role of word boundaries in meter. A certain amount of arbitrariness may be involved; e.g., Shelley and Keats allow cadences like 19b that Milton excludes, and vice versa (15, 18). A's idea of separating Linkage and postponed pairing is interesting, and may play a role in the ultimate right answer. But his account as stated cannot stand up to some fairly rudimentary empirical checking.

4.3. A's treatment of syntactic breaks and of word boundaries are only two examples of a pattern that pervades his whole analysis. Repeatedly he advances interesting and promising ideas about metrical rules; but without the testing that they deserve, these ideas remain only that—interesting and promising.

5. CONCLUSION. A's work exemplifies a dilemma facing modern metrics. As he acknowledges (52–3), generative work in the field is advancing in both theoretical sophistication and empirical adequacy. But this work continues to be sterile and unsatisfying to the scholar interested in how and why 'meter functions so powerfully as a literary device' (53). As A says, 'no set of tools has been provided to analyse the expressive power of rhythmic forms in ... verse'. By contrast, as a linguist I find that, in reading work by literary scholars, I am often struck by the wisdom and insight of their ideas—but at the same time feel frustrated by the absence of any empirical testing of those ideas, as would be customary in linguistics. The conflict derives from the differing but equally legitimate questions the two fields face: literary critics are interested mainly in those deeper questions that will probably never be solved through scientific inquiry, while linguists like to believe that the more superficial problems they address are ultimately solvable by appeal to evidence.

The easy way out of this dilemma would be for the two fields to ignore each other, an outcome that A apparently finds desirable (214–15). I disagree with him, for two reasons. First, although literary criticism must ultimately be evaluated on its wisdom and insight, it plausibly should be placed as much as possible on solid empirical foundations. Literary scholars would doubtless reject a critical interpretation of a poem if it depended on a corrupt version of the text. The same should hold true if the interpretation is based on a theory of meter that is falsified by the data, even if the theory is intuitively appealing. Second, in considering the intricacies discovered by generative metricists, I often wonder just what the esthetic function of all this complexity might be. It would be a shame if this question were not addressed by critics, who are better equipped than linguists to answer it. In short, metrics deserves a theory

that is satisfying to both camps. Those who hope to devise such a theory will find *The rhythms of English poetry* to be a valuable and challenging source of ideas.

## REFERENCES

- BEAVER, JOSEPH C. 1971. The rules of stress in English verse. *Lg.* 47.586–614.
- BOOMSLITER, PAUL C., et al. 1973. Perception and English poetic meter. *PMLA* 88.200–208.
- BURLING, ROBBINS. 1966. The metrics of children's verse: A cross-linguistic study. *American Anthropologist* 68.1418–41.
- CHILD, FRANCIS JAMES. 1882. *The English and Scottish popular ballads*. [Reprinted, New York: Cooper Square, 1965.]
- CHISHOLM, DAVID. 1977. Generative prosody and English verse. *Poetics* 6.111–54.
- HALLE, MORRIS, and SAMUEL JAY KEYSER. 1971. *English stress: Its form, its growth, and its role in verse*. New York: Harper & Row.
- HAYES, BRUCE. 1983. A grid-based theory of English meter. *LI* 14.357–93.
- KER, WILLIAM PATON. 1928. *Form and style in poetry: Lectures and notes*. London: Macmillan.
- KIPARSKY, PAUL. 1975. Stress, syntax, and meter. *Lg.* 51.576–616.
- . 1977. The rhythmic structure of English verse. *LI* 8.189–247.
- MAGNUSON, KARL, and FRANK RYDER. 1971. Second thoughts on English prosody. *College English* 33.198–216.
- PATMORE, COVENTRY. 1857. *Essay on English metrical law*. Appendix to *Poems*, 2nd collective edn. [As cited by Attridge.]

[Received 22 October 1983.]