Diagnostics of Metricality
in Middle English Alliterative Verse

Donka Minkova

1. Some philological baggage: the paraphonology of unstressed vowels

In defining the metre of a lost tradition we are walking a minefield of logical and philological challenges. The gap between presumed authorial and extant scribal texts and the potential circularity in the argumentation are serious logical problems. Even in the case of autograph manuscripts of texts with a transparent metrical structure, such as the *Ormulum*, reconstructing the formal properties of verse written in a dead language can be daunting: the metre is inferred from the written record at the same time as that metre itself becomes the arbiter for the contemporary realization of forms on which editorial decisions are based. As I have tried to show elsewhere, analyzing the material within a theory of universal metrics can help us break into the circularity of reconstructing the history of stress on the basis of metre.¹

The assignment of linguistic values to letters or strings of letters is a major philological conundrum in the study of fourteenth- and fifteenth-century English. In addition to alliteration itself, the properties most relevant to judgments of metricality of Middle English alliterative verse are syllabicity and stress. Not all details of what counts as a syllable are agreed upon. I therefore preface my discussion of syllabicity with a declaration of my philological baggage with respect to the realization of the unstressed final and non-final vowels in late Middle English. Stress-placement and its relationship to metrical ictus will be considered in Section 3.

The treatment of final -es is essential to our understanding of metre; it is the pivot around which the reconstruction of the patterns is carried out. Its importance carries over into editing, where it becomes a measure of the effectiveness and appropriateness of textual recensions. In addition to the well-recognized problems regarding the sounding of word-final -e, we need to address the question of word-internal unstressed vowels – a philological area which has received less attention.

The types of phonological behaviour described in this section cover what Kiparsky calls the paraphonology, or the ‘metrically relevant range of phonological representations’ of the unstressed vowels. The term is useful because it refers to universally recognized processes that link the phonology of verse to changes in the spoken language that are testable and replicable today. The paraphonology differs from the phonology in that it is limited to non-categorical properties used selectively in the verse. It is the ‘phonology of opportunity’ available to all poets at all times. In the case of Middle English, the paraphonology of the unstressed vowels is grounded in two distinct but often interrelated factors: phonological environment (coarticulation), and position within a prosodic domain, which in its turn is primarily a morphosyntactic matter. The changes depending primarily on coarticulation are discussed in (1) – (5).

(1) Elision of -e before another vowel or a weak [h-]:

With many a blesenande beryn his banere es stuffede. W&W 168

2 For a recent survey of the basic positions on final -e and some cogent arguments for and against the editorial treatment of infinitival -e and -en in the alliterative poems, see Judith Jefferson and Ad Putter, ‘The distribution of infinitives in -e and -en in some Middle English alliterative poems’, Medium Ævum, 74 (2005), 221-47.


4 Here and throughout this study, the examples are drawn from the two debate poems The Parlement of the Thre Ages (hereafter P3A) and Wynmere and Wastoure (hereafter W&W), which are believed to have been copied from the same source. The most likely copyist was Robert Thornton in ‘the early years of the second half of the fifteenth century’ (see Stephanie Trigg, ed., Wynmere and Wastoure, EETS OS 297 (Oxford: Oxford University Press, 1990), pp. xiii-xv). I compare each set to parallel examples from Chaucer’s verse, for which the application of many of the paraphonological adjustments in scansion is widely accepted.
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Lyve appon littill-whattes, I lufe hym the bettir. \(W&W\) 225
And chese me to the chesse that chefe es of gamnes \(P3A\) 255 (T) 6
And sloughe hym with his slynge & with no sleghte ells. \(P3A\) 445 (T) 7

Compare:

To the clepe I, thow goddesse of torment \(Tr\) 8
That Love hem bryng e in hevene to solas \(Tr\) 31

The hiatus-avoiding elision of the italicized final -es in (1) is not new or controversial, though the importance of the larger prosodic context is sometimes overlooked. In principle, the combined effect of adjacent vowels and absence of stress can be predicted to reinforce the rate of elision before an unstressed vowel both in speech and in verse. In regular syllable-counting and stress-alternating verse, when the syllable to the right of a post-stress -e is weak, elision is needed to avoid two unstressed syllables back-to-back. Inversely, prevocalic elision is suspended if omitting the unstressed syllable would create an undesirable stress clash. 9 Projecting this verse-driven regularity to elision in speech and elision in

5 The dialect of the poem is mixed, showing a predominance of N. Midlands forms.
7 The likelihood of elision is confirmed by the absence of -e in the corresponding line in (W): And slowgh hym with his slyng & with no sleight elles. \(P3A\) 445 (W)
9 I am grateful to the editors for reminding me of that possibility. Chaucer’s treatment of marriage in \(MerT\) 1285 (with obligatory elision) and \(MerT\) 1319 (contraction, no obligatory elision) provides a minimal pair illustrating the role of stress outside the immediate point of contact between -e and a following vowel:

Vnder this yok of marriage ybounde \(MerT\) 1285
Mariage is a ful greet sacrament \(MerT\) 1319

We should also acknowledge that elision before consonants can occur in strict verse, e.g.

Ther as he wiste to have a good pitaunce \(GP\) 224 (Hg, El)

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the alliterative corpus requires reference to the nature of the syllables surrounding -e. In my counts elision before a vowel is automatically assumed only if there are other circumstances enhancing its likelihood: unetymological -e or other unstressed syllables flanking the -e.

A related question prompted by the formulation in (1) is what constitutes a ‘weak’ h-. Usually, a ‘weak’ orthographic h- refers to the non-realization of the aspirate [h-] in words of low prosodic prominence, as in the pronouns he, her, him, hem, etc., or in forms of the verb to have, and before French borrowings with h- in which the aspirate had been dropped, as shown by inverse spellings such as habade, habyde (P3A) for abide, herber for erber, arber ‘the first stomach’. On the other hand, it is commonly assumed that h- initial words of Germanic origin do not trigger elision of the preceding -e. This would be arguably the case in the examples in (2), where sounding the boldfaced -es in the b-verses would avoid stress clash. Moreover, in the P3A examples, the Ware MS (W) preserves the -es in these verses, while its scribe dispenses with -e in other positions, and generally avoids older constructions, words, and spellings.

(2) Preservation of –e before native h-:
There bothe thies ferdes folke in the felde houes. W&W 123
Euer to see in my syghte þat I in soule hate W&W 455
And Sir Gawayne the gude that neuer gome harmede P3A 475 (T)
And þat cité he asseggede appone sere halfues P3A 574 (T)

Compare:

My dere herte, allas, myn hele and hewe Tr I 461
That thirled haddé horn and nerf and rynde Tr II 642

The division along etymological lines is not always clear-cut in the ME documents. Orthographic instability of the initial aspirate in the native vocabulary does occur, especially in the southern dialect areas; elision before native h- initial

ffor eueri tere which that Crisseyde asterte Tr 1070
Ambiguities do arise, here from Hoccleve’s Regement of Princes:
If þat a poore man breke his byheste RP 2395
By cause sche more is contrarious RP 4633

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words can be documented in Chaucer. In the verse examined here there are no unambiguous examples of elision that can be attributed solely to the co-occurrence of -e and a following h- in a native word; in all instances the word subject to elision is inherently weak prosodically, as in \(W&W\) 36b, \(W&W\) 219b, \(P3A\) 215b, \(P3A\) 218b. However, the possibility of such elisions should be considered in larger studies of ME alliterative verse.

A special case of prevocalic loss of final –e is the apocope of the final vowel of a monosyllabic clitic followed by a vowel-initial word. After apocope, resyllabification within the clitic group places the consonant of the clitic at the onset of the following syllable. Apocope is more likely when the lexical head starts with an unstressed syllable: it has to be assumed in the Chaucerian examples in (3). In \(W&W\) and \(P3A\) apocope of clitics can be posited when the alternative would be a tri- or quadri-syllabic dip – sequences which can be shown independently to be very rare or unmetrical.

(3) Apocope in monosyllabic clitics:

The pertrikes, the plovers, the other pulled byrddes \(W&W\) 493
And he dispysede it and spitte and spournede it to the erthe \(P3A\) 550

Compare (both Hg & Ellesmere):

\textit{Thestaat, tharray, the nombre, and eek the cause} \(GP\) 716
\textit{Tespien where he myghte wedded be} \(MerT\) 1257

\footnote{See Donka Minkova and Robert Stockwell, ‘Chaucerian phonemics: evidence and interpretation’, in Language History and Linguistic Modelling, ed. by Raymond Hickey and Stanislaw Puppel (Berlin, New York: Mouton de Gruyter, 1997), pp. 29-59, p. 48. Further evidence for the blurring of the etymological boundaries comes from the preservation of -n in the possessive adjectives myn, thyn ‘mine, thine’ before native h- words. In Chaucer the -n of the possessive is preserved regularly both before (in modern spelling) hand, hair, heart, head, hell, hew, home, hood, house, and before honour, honesty, heritage. Some relevant examples of elision before a native h- are:

Pandare a-bedde half in a slomberyng \(Tr\) II 67
As forto dwelle here al this nyght with me \(Tr\) III 634

This is relevant for reconstructing Langland’s verse forms. Elision is highly probable because of the statistical preference for a disyllabic dip (see section 4.1 below), in e.g. faste in: that men so faste holdeth, Piers Plowman 1.044b (B-Text, LALME LP 6550. Herts.).}
The option of apocope in this environment is independent of dialect preferences. It is a remedy against a string of unstressed syllables and against onsetless syllables; it is confirmed by spellings such as thestaat, tespien for ‘the estaat’, ‘to espien’ in the Chaucerian manuscripts, as well as by the poet’s metrical practice even when the scribes preserved -e.  

Two more contextually-triggered changes, both of them familiar from studies of speech-based phenomena in English, should be considered in the scansion. The first one is synizesis, the fusion of two syllables into one, when an unstressed [ , ] is followed by an unstressed vowel. This is shown in (4).

(4) Synizesis ([ , ] + [ ])

Some of merchandes merke, so many and so thikke       W&W 190
With thi sturte and thi stryffe thou stroyeste up my gudes  W&W 265
The primrose, the pervynke, and piliole the riche         P3A 9
And turnede to-wardes a tree & tariede there a while     P3A 23

Compare:

Nowher so bisy a man as he ther nas
And yet he semed bisier than he was                  GP 321-2
This Pardoner hadde heer as yelow as wax              GP 675

Positing synizesis requires caution. In the alliterative corpus it is a likely prosodic accommodation only within a string of more than two unstressed syllables; it should not be assumed if the adjoining vowels are the only two syllabic peaks in a dip, as in so gayly attyrede (P3A 169b).

Another speech-based option refers to the loss of schwa when adjacent to the sonorants [r, l, m, n], as in present-day English mystery, summoner, asterisk, lingering. Syncope can occur within a word, or it can be triggered by vowel-initial clitics as in W&W 5, GP 400.

Compare the following lines, where the manuscripts do not show apocope, but the metre requires it:

In the ende of which an ounce, and namoore          CYT 1266
And to the ymage of Juppiter hem sente            SNT 364

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12 Compare the following lines, where the manuscripts do not show apocope, but the metre requires it:
(5) **Contraction/syncope:**

And there Sir Gadyfere the gude the Gad(e)rayns assembl[met]\(^1\) *P3A 340 (T)*

And aftire Iosue the Iewe full gent(i)lly hym bere \(^1\) *P3A 439 (T)*

And hares appon herthe-stones schall hurcl(e) in hir fourme \(^5\) *W&W 5*

For dyn of the depe watir and dad(i)llyng of fewllys \(^4\) *W&W 44*

Compare:

And everemoore he hadde a sov(e)reyyn prys \(^6\) *GP 67*

By wat(e)r he sente hem hoom to every lond \(^5\) *GP 400*

Which cause is of my deth for sor(o)we and thought \(^1\) *Tr I.579*

Like apocope and synizesis, syncope targets strings that exceed the independently established preference for a disyllabic dip after the first lift in the b-verse. It should not be enforced against the metre, e.g. *W&W* with *glet(e)rand frostes* (275b) requires the middle syllable in *gleterand*. As Duggan has argued, the effects of synizesis and word-internal syncope can be shown to be authorial. \(^15\) Further

\(^1\) Compare to the (W) copy of *P3A* line 340: ‘And Sir Godfrey þe good his *gedring* assembled’.

\(^1\) Compare *P3A* 439 (W): ‘And aftire Iosue the Iewe full gentill hym bare’.

\(^1\) Hoyt Duggan, ‘Langland’s Dialect and Final -e’, *Studies in the Age of Chaucer*, 12 (1990), 157-93, pp. 181-85. For a similar demonstration see Ruth Kennedy, ‘New Theories of Constraint in the Metricality of the Strong-Stress Long Line as Applied to the Rhymed Corpus of Late Middle English Alliterative Verse’, in Dominique Billy, ed., *Métriques du moyen âge et de la Renaissance: actes du colloque international du Centre d’études métriques* (Paris: L’Harmattan, 1999), pp. 131-44. However, even Duggan, whose interpretation of the unstressed vowels is not conservative, defers to the scribe in forms such as folowis ‘follows’ and sorowis ‘sorrows’, which he scans as trisyllabic, but folows or sorows are scanned as dissylabic; he counts crown as monosyllabic, but coroun as disyllabic (Hoyt Duggan, ‘Final -e and the Rhythmic Structure of the B-Verse in Middle English Alliterative Poetry’, *Modern Philology*, 86 (1988), 119-45, p. 124.). Since such distinctions are not made in scanning isosyllabic verse, I see no reason to apply a different criterion here. Thus, in *P3A* ‘And kende thaym to the Corownne’ 553a (T), (Crown (W)), the word crown is an inflected disyllable. Note that this is a unique instance of a scribal form without syncope; the other spellings in MS (T) are crowne (466), crown (517), crownes (309).
confirmation of the appropriateness of syncope in such cases comes from the comparison of P3A lines 340b, 349b above. The availability of syncopation can remove some apparent a-verse inconsistencies too. According to Offord, the verse Spanyells full spedily (P3A 244a) is unmetrical, because it ends in two unstressed syllables. Syncopating the middle syllable of sped(i)ly avoids this extremely unlikely infraction, similarly P3A grayth(e)ly (202b), hegh(e)ly (204b), conqu(e)rours (251a), Emp(e)rour (394a), leng(a)re (264b), possibly also amatistes (127a), sycamore (130a), cronycle (307a).

Decisions on syllabicity in (1)-(5) rest primarily on the segmental environment of the unstressed vowel, though the number of flanking unstressed syllables is also of consequence. Other paraphonological adaptations can be triggered by the inherent low prosodic prominence of a word, or by the position of schwa in the word, without reference to what the adjacent vowels or consonants are.

Predictably, lack of stress on function words, pronouns, and auxiliaries will increase the probability of dropping -e:

(6) **Low prosodic prominence:**

Werke witnesse will bere who wirche kane beste \( W&W \) 30
For thay are the ordire that loven oure Lady to serue \( W&W \) 177
And than with damesels dere to daunsen in thair chambirs P3A 249
Fonge Fozonase to fere, and fayne were thay bothe; \( P3A \) 388

Compare:

That down were sent in scornynge of nature \( Tr I \) 105
As don thise foles that hire sorwes eche \( Tr I \) 705

In speech, long strings of unstressed syllables are rhythmically undesirable; instability of final -e in potentially trisyllabic words with initial stress is therefore expected.\(^1\)


\(^{17}\) On the rhythmic conditioning of early schwa loss in polysyllabic words see Donka Minkova, *The History of Final Vowels in English* (Berlin: Mouton de Gruyter, 1991), pp. 158-
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(7) **Final schwa loss in trisyllabic words:**

And he stotayde and stelkett and starede full brode \( P3A \ 51 \)
He was ʒonge and ʒape and ʒernyng e to armes \( P3A \ 171 \)
Als I went in the weste, wandryng e myn one \( W&W \ 32 \)
I layde myn hede one ane hill ane hawthorne besyde \( W&W \ 36 \)
The Frydaye and his fere one the ferrere syde \( W&W \ 311 \)

Compare:

Lest it were wist on any manere syde \( Tr \ I \ 321 \)
And of som goodly answere yow purchace \( Tr \ II \ 1125 \)
He somwhat is fro wepyng now withdrawe \( Tr \ IV \ 886 \)

Within the Anglo-Saxon vocabulary trisyllabic words are either compounds, or they are inflected forms of originally disyllabic roots. Therefore, the group in (7) may subsume forms in which the unstressed vowel is an inflexion, as in (8). If it is final, it undergoes apocope, if it is covered, syncope should be considered an option.

(8) **Inflexional loss of schwa:**

Bot by than his wyes were wery and woundede full many \( P3A \ 571 \) (T)\(^{18}\)
Arayed hym for to ryde with the renkes that he hade \( P3A \ 346 \)

63. Admittedly, the realization of the final -e in trisyllabic words can be sensitive to grammatical function and class. The grammatical correlates of schwa deletion in ME are discussed in Minkova *Final Vowels*, pp. 149-50 and detailed in Thomas Cable, *The English Alliterative Tradition* (Philadelphia: University of Pennsylvania Press, 1991), pp. 76-81. Cable believes that the poets were quite conservative with respect to the final vowels. My position, stated broadly, is that the final vowels were essentially lost from the spoken language but could still be inserted in verse for metrical reasons. Thus in *W&W* 351b we find full wellande hole, where the -e is metrically needed.

\(^{18}\) *W* 571b reads: ‘& wounded full many’. The potential for inflectional syncope is confirmed also by inverse spellings in (W) cornelles for cornells (T), where the OF source crenel (pl. creniaus) ‘battlement’ would not have a syllabic plural.

If renkes is disyllabic, this line will be unique in *P3A* (T) in having a disyllabic dip followed by a trisyllabic one in the b-verse. Similarly, a disyllabic loveth in *W&W* 88 will be
One of the lovelyeste ledis, whoso loveth hym in hert  \( W&W \) 88

Compare:

With buttokes brode, and brestes rounde and hye  \( RT \) 3975
For I loued ek, though ich vnworthi were  \( TrIV \) 329

The poems were composed and copied at a time when the syllabicity of the inflexions -ed, -es, -eth still depended on the rhythmical and phonological context. Syncope is more likely in a disyllabic stem, in elision environments, and depends also on the nature of the stem-final consonant: liquids leading nasals, followed by fricatives and stops.20 Syncope was an option available to fourteenth-century poets; the metrical evidence from syllable-counting verse is further enhanced by scribal evidence for inflectional syncope (see \( LALME \) vol. III questionnaire items 56, 59, 60, and vol. IV: 108-114). In the scansion corpus used in this study inflexions are counted as non-syllabic if syncope is orthographical and if a syllabic inflexion produces an unmetrical result. The question bears on the distribution of di- vs trisyllabic dips verse-medially; pace Cable,21 the possibility of context-sensitive syncopation in the alliterative corpus has to be built into our accounts of the metre.

unique (\( W&W \) 287 may be ambiguous); there is one single instance of that cadence (out of 1223 b-verses) in the data provided by John Ivor Carlson in handouts from the University of Bristol Conference ‘The Metre of Alliterative Verse’ (July 2005) and from the talk ‘Breaking the Code: Isolating Versification Patterns in the \( Morte Arthure \) through computerized analysis’, delivered at SHEL-4, Flagstaff (October 2005).

20 These are the results for the weak preterites reported in Donka Minkova, ‘Building bridges, unpontifically: the English dental preterite in verse’, plenary paper delivered at DELS (Directions in English Language Studies), University of Manchester, April 2006. For earlier verse attestations of syncope in -es see Christina Fitzgerald, ‘“Ubbe dubbede him to knith”: the scansion of \( Havelok \) and ME -es, -ed, and –ede’, in \( Empirical and Analytical Advances in the Study of English Language Change \), ed. Susan Fitzmaurice and Donka Minkova (Berlin: Mouton de Gruyter, TIEL, 2008 forthcoming) and Ad Putter, ‘Weak E and the metre of Richard Spalding’s Alliterative Katherine Hymn’, \( Notes and Queries \), 52 (2005), 288-92, p. 292, especially n. 22.

21 Cable, \( The English Alliterative Tradition \), pp. 78-79.
Attention should also be drawn to a potential prosodic accommodation rarely mentioned in the literature: the status of scribal final -e inside a compound. In compounds, especially when semantically obscured, the second root would have reduced stress. A word-medial schwa, followed by an unstressed second element, can create an unwelcome sequence, a circumstance favouring loss of the medial syllable. Another option is for the second root to preserve stress, or even upgrade it; this should not be dismissed outright on metrical grounds, especially if both parts of the compound are monosyllabic. In such compounds the preservation of a weak syllable word-internally may be seen as a good rhythmic strategy: trisyllabic bores-hede, Domesday are perfectly well-formed. Yet it is also important to note that by the fourteenth century the first elements of compounds were no longer inflected. Only thirty-six of the seven hundred new Middle English compounds in Sauer’s tables of nominal compounds preserve inflectional endings medially, and these are genitives. Since the use of compounds is common in the language of the poems, we should be aware of the option of -e-loss and even accept stress-clash as an alternative in some of the verses in (9):

(9) **Compound-internal loss of -e:**
And he was floreschede full faire of two fyngere-brede \(P3A\) 71
Harde haspede in my helme and in my here-wedys \(P3A\) 201
And thou wolde to the taverne, byfore the tonne-hede \(W&W\) 277

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22 Yasuyo Moriya, ‘Alliteration versus natural speech rhythm in determining the metre of ME alliterative verse’, *English Studies: A Journal of English Language and Literature*, 85 (6), 498-507, while useful in principle, because it highlights the importance of compound and phrasal stress in the alliterative corpus, ignores the basic principle of alliterative compositions, namely Sievers’s *rule of precedence* (Eduard Sievers, *Altgermanische Metrik* (Halle: Niemeyer, 1893), § 22-29): see the discussion in Donka Minkova, *Alliteration and Sound Change in Early English* (Cambridge: Cambridge University Press, 2003), pp. 26-27. There is no reason to assume that the same rule, assigning stress to the first lexical word in the half-line, was lost in ME. Morya’s results are unfortunately flawed because the study does not distinguish between the parametrical rule of alliteration which requires reference to the linear arrangement of words, from compound and phrasal stress, which is a hierarchized prosodic process.

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Compare:

Bot now a childe appon chere, withowt ten chyn-wedys W&W 24
That thou, Wynere, thou wriche, and Wanhope thi brothir W&W 309
Ful hard it is with flessh hook or with oules SumT 1730

Finally, a note that refers again to word-final scribal -es in the Middle English alliterative verse corpus. One restriction on the final metrical position, namely whether it is obligatorily or optionally filled, was debated by Cable and in a series of publications by Hoyt Duggan. Differences of interpretation aside, it is agreed that this type of verse disallows more than one unstressed syllable at the end of the line. This entails that dactyllic words should be avoided verse-finally. This is indeed generally the case in the corpus. Line-final spellings such as W&W stepped (35), hedire (162), stuffede (168), owethe (199), wyntere (204), spareste (260), allow only one interpretation: the -es are non-authorial. The implication of this metrical rule for reconstructing inflexional syncopation is also clear: in a verse like as it were heven angellles (P3A 215b), the plural morpheme is non-syllabic. It is not surprising, therefore, that the scribe of the Ware MS of P3A dispenses with many of these line-final -es, while mostly preserving them verse-medially.

(10) Line-final -es in P3A

<table>
<thead>
<tr>
<th>Thornton MS</th>
<th>Ware MS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>aftire (T)</td>
<td>aftur (W) (226)</td>
</tr>
<tr>
<td>siluere (T)</td>
<td>siluer (W) (236, 592)</td>
</tr>
</tbody>
</table>


Mid-line deletions of -e do occur, however, e.g. fadide (T) faded (W) (284b); vnclosede (T) vnclsid (W) (336b); compast (T), compast (W) (409b), etc.
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forthire (T)  farber (W)  (269)
tholede (T)  tholid (W)  (403)
othire (T)  opér (W)  (421)
harmede (T)  harmed (W)  (475)
woundede (T)  wounded (W)  (571)

In concluding this section, it should be emphasized again that the segmental and prosodic options discussed in (1)-(9) represent well-motivated linguistic processes, independent of the metre we are trying to define. The hermeneutic circle of unfamiliar verse form composed in an unfamiliar language can therefore be broken: there are general linguistic considerations, there are parallels in less controversial forms of isosyllabic verse, there are orthographic records of loss. The use of unetymological scribal -e is another indication of the scribes’ uncertainty about the realization of the letter, thus: aftir ‘after’, frome ‘from’, nowe ‘now’, schalte ‘shalt’, thoue ‘thou’, þoghe ‘though’, whate ‘what’, <thurgh> / thorow ‘through’, all in P3A (T). A separate and totally independent line of attack on the circularity is the comparison of manuscripts, a valid and convincing method of getting to the authorial forms. A case in favour of looking beyond the letters in the texts of the corpus can be based also on the predominantly oral nature of verse transmission in fourteenth-century England. This large topic lies outside the scope of the paper, but it is still worth pointing out that the e-dropping options surveyed here are in line with treating the compositions primarily as reflections of the spoken rather than the written language. It is not far-fetched to imagine that the poets enunciated the lines before they or anybody else wrote them down, and the poems must have been intended for reading aloud.

The next section will explore the consequences of applying the paraphonological options for the unstressed vowels to the formulation of metricality. I will continue to draw my data from the two debate poems, P3A (T) and W&W. In addition to being attributed to the same copyist, my choice is prompted by the debate on the reliability of single-copy texts for the reconstruction of an original metrical template. If the patterns in W&W fit the expectations set up by studying multiple-copy texts and larger corpora, the question becomes moot. In the case of P3A, the Ware MS, a later, and most likely unrelated copy, offers a helpful comparison between the metrical judgments of different scribes.

26 Offord, Parlement, pp. xvi-xvii.
2. The metrical baggage: a template for the alliterative long line

Language and metre are two separate modules; the process of composing a poem involves finding the optimal fit between the two modules. The new metrical studies of the 1980s, and subsequently, have brought us closer to understanding the design of the ME alliterative long line. Comparisons to the Sieversian five types, posited for Old English, are no longer necessary; now we can examine the Middle English compositions on their own terms with reference to more general hierarchical properties, making this type of metre a member of the universal typology of metrical forms. (11) is a preliminary schematic representation of the organization and the hierarchy of metrical units in our corpus. Rather than using slashes and parenthesized x’s, I am using S’s and W’s with the additional convention that a lower-case w represents a dip filled by a single syllable, while a capital W stands for an extended dip.

(11) Structure of the alliterative long line in 14th-century English verse:

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(11) Structure of the alliterative long line in 14th-century English verse:

P = any metrical position
S = a strong metrical position, metrical ictus
w = a weak metrical position filled by a single syllable
W = a weak metrical position filled by two or three syllables
( ) = a weak verse-final metrical position filled by a single syllable

```
The a-verse can be heavier/stronger than the b-verse; an optional third foot is common in the first half-line, hence the left-headedness (SW) on the half-line level. On the foot level, verses are left-headed too; it is the first foot of the verse that sets the functional alliteration, especially in the b-verse. The prominence relations are reversed inside the foot – the metrical feet are right-headed, either iambics or anapests. The parentheses enclose an optionally filled weak metrical position at the right edge of the verse; the realization of the parenthesized material, if any, does not affect the metricality of the verse.

Whether an extrametrical weak syllable follows the last strong position in either verse may be of interest for ascertaining the practices of a particular poet, as argued by Ad Putter and Myra Stokes, who adduce convincing arguments from stress placement and orthographic variation in favour of reconstructing feminine endings in the works of the Gawain-poet. The predominance of feminine endings in the entire corpus is undisputed; it was noted more than a century ago by Luick and is confirmed by large-scale studies, such as Duggan’s, where 82% of the 5,962 lines from fifteen poems have b-verses with a syllable following the rightmost stressed position.

The strong preference for feminine endings is not surprising in view of the syntactic unity of the half-lines. The rarity of enjambment is a well known characteristic of this type of verse. Although a direct link to the Old English alliterative tradition is not probable – the Middle English poets were most likely re-inventing a form based on alliteration as the structurally binding parametrical property – a comparison with the types of verse-endings in Old English is instructive. Like the poems surveyed here, the Anglo-Saxon poetic corpus is made up of half lines that are complete syntactic entities. Statistics on how frequently the verses in the older poems end in a weak syllable are not

30 See Duggan, ‘Final -e’, p. 125. My calculation is based on Duggan’s count of 439 b-verses of the form xx/, 438 /xx/ verses, and 198 verses of the x/x/ form. It should be noted that Duggan does not count line-final -es.
Donka Minkova

easily obtained, but my calculations, based on Hutcheson, show a very similar
distribution to the one found in Middle English.\textsuperscript{31} Out of a total 25,059 verses
counted, 18,722, or 76\% have an unstressed syllable following the last lift in
the verse.

A syntactic closure is also the predicted location of a rhythmic pause; in
fact a rhythmic pause is part of the definition of what constitutes a line
boundary.\textsuperscript{32} It is at such junctures that an extra weak syllable would be
rhythmically fitting. In terms of prosodic weight, pre-pausal strength for the
masculine endings is the default case since lexical monosyllables in English have
been heavy from the time of West Germanic. Feminine endings allow the stressed
syllable to be either light or heavy; in the former case (e.g. \textit{W&W euen, cofers, manv, ryche})
the moraic content of the closure is the same as the masculine
endings in a manner similar to the familiar process of metrical resolution. An
extra syllable to the right of the last strong position in the verse is thus not an
infraction, but rather a tendency in response to the co-occurrence preference of
length at the right edge of metrical units. Being optional, the type of line-ending,
masculine or feminine, cannot be a determiner of metricality; I will therefore
ignore the final weak position in the rest of this paper.

3. On mismatches between linguistic prominence and metrical prominence

Before turning to the metrical patterns in the poems examined in this study, we
need to address some questions arising from apparent violations of the expected
fit between linguistic prominence and metrical ictus. The b-verses in (12)

appendices C and D.
\textsuperscript{32} See Nigel Fabb, \textit{Language and Literary Structure: The Linguistic Analysis of Form in
\textsuperscript{33} See Gregory Nagy, Appendix to \textit{Pindar's Homer: The Lyric Possession of an Epic
Past}, a machine readable edition by Gregory Nagy Copyright © 1980, 1997 (The Johns
Hopkins University Press, 1980, 1997) on \textit{brevis in longo}; see also W. Sidney Allen’s
discussion (in \textit{Accent and Rhythm – Prosodic Features of Latin and Greek: A Study in Theory
and Reconstruction} (Cambridge: Cambridge University Press, 1973), pp. 130-31) of
\textit{indifference}, his term for the neutralization that underlies \textit{brevis in longo}.
illustrate unproblematic matching; here and below, the alliterating sounds are boldfaced:

(12) Regular stress-to-ictus matching:

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Pattern</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>and braunches full swete</td>
<td>[w S W S]</td>
<td>P3A 11b</td>
</tr>
<tr>
<td>appon sydes twayne</td>
<td>[W S w S]</td>
<td>P3A 30b</td>
</tr>
<tr>
<td>bown for to mete</td>
<td>[S W S]</td>
<td>W&amp;W 52b</td>
</tr>
<tr>
<td>es of blee whitte</td>
<td>[W S S]</td>
<td>W&amp;W 156b</td>
</tr>
</tbody>
</table>

Going beyond such straightforward fits, we encounter lines in which a decision has to be made regarding (a) the placement of major-class words (nouns, adjectives, verbs, heavy adverbs) in W; (b) the placement of prefixes in S; and (c) the placement of function words in (S). Some examples of the three types of problematic matching are cited in (13):

(13) Problematic stress-to-ictus matching:

(a) and thre on lowe undir | [W&W 80] |
| how men corne sellen     | [W&W 233]|
| of thritty yere of elde  | [P3A 133]|
| ne whate tyme he comes   | [P3A 293]|

(b) That rechen for a repaste a rawnsom of silver | [W&W 363]|
| And parfourme my profers and prouen my strengthes | [P3A 205]|

(c) by hym that stondeth  | [S W S]   | [W&W 101]|
| and sythen send after    | [w S W S] | [W&W 483b]|
| als the storye telles    | [S W S]   | [P3A 306]|

---

34 J. P. Oakden, *Alliterative Poetry in Middle English: The Dialectal and Metrical Survey*, (Archon Books, originally published 1930, 1935, reprint 1968), p. 250, states that for the two poems ‘Violations of the natural stress for the sake of alliteration […] do not occur.’ The examples cited here are sufficient, however, to point to a problem that arises in other alliterative compositions.

35 The verse is repeated in 423b. Offord, *Parlement*, pp. xxxii, note 4, remarks on the paucity of such mismatches in *P3A*. An alternative scansion, rhythmically slightly better
The potential mismatch between linguistic stress and metrical position has been a matter of serious scholarly disagreement. In one interpretation, the stressed syllable in speech and the alliterating syllable do not have to be coextensive. This approach is wide-spread; the case for disjunction is argued most recently by Matonis, and it drives the analysis proposed by Inoue. The other extreme, represented by Duggan, relies on unlimited stress-doublets in Middle English and posits coincidence of stress and alliteration in the alliterative verse corpus. In fact, neither disjunction, nor coincidence have been discussed or defended with consistency. Both positions overlook some very important linguistic distinctions: monosyllabic and disyllabic lexical words behave differently in metre, the lexical status of the words flanking the monosyllable is of consequence, affixed words and disyllabic simplex words do not behave in the same way (pace Duggan), nor should they be expected to, and there is a prosodic distinction between ‘light’ monosyllabic function words and ‘heavy’ function words. These considerations are familiar from universal metrics and prosodic phonology; applying them to our analysis will give us a better grasp of the limits of metricality that poets and scribes intuited and respected.

3.1. The Monosyllable Rule in alliterative metre

An important principle of matching speech prosody to metre, which has not been taken into consideration in the study of Middle English alliterative verse, is that the matching of monosyllabic lexical items to metrical positions is unrestricted, because it avoids the trisyllabic dip, would be [W S w S], in violation of the alliteration requirement on the first strong position in the verse.


Hoyt Duggan, ‘Stress Assignment in Middle English Alliterative Poetry’, Journal of English and Germanic Philology, 89 (1990), 309-29. It should be noted that Duggan allows alliteration of an unstressed word in Langland’s b-verse, if the alliteration is already clearly established in the a-verse.

Duggan, ‘Stress Assignment’, p. 325.
Since monosyllables in isolation don’t really have ‘stress’, their location in a weak position in the template is not considered a violation. This observation has been around for a long time; George Gascoine (1575) noted that ‘woordes of one syllable will more easily fall to be shorte or long as occasion requireth, or wilbe adapted to become circumflexe or of an indifferent sound’. The free correspondence between monosyllabic words and metrical positions in the pentameter was formalized as the ‘Monosyllabic Rule’ in Kiparsky. The rule permits us to scan lines in Chaucer and Shakespeare, such as the ones in (14), as fully metrical, though the italicized words correspond to weak positions in the metrical template:

(14) *The Monosyllable Rule in syllable-counting verse:*

Ne no *man* shal unto his felawe ryde  
But o *cours* with a sharpe ygrounde spere  
I wole han twelf *pens*, though that she be wood  
And make the earth devour her own *sweet* brood;  
*Pluck the keen* teeth from the *fierce* tiger’s jaws

The freedom of placing lexical monosyllables in W positions is well attested in syllable-counting verse. Cable, Duggan, Kennedy, and Putter and Stokes are among the studies that make it quite clear that the alliterative compositions in ME are at least partially syllabic. The extension of the principle of open-ended

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40 From ‘Certayne Notes of Instruction’, cited from Elizabethan Critical Essays, edited with an introduction by G. Gregory Smith (Repr. London: Oxford University Press, 1967), I 51. A similar observation is found in King James’s ‘Ane schort treatise containing some relulis and cautelis to be obseruit and eschewit in Scottis poesie’ (1584): ‘the maist pairt of thame [monosyllables] are indifferent, and may be in short or long place, as ye like’ (Smith, Elizabethan Critical Essays, I 221). The ‘indifference’ of monosyllables in verse is reasserted also in George Puttenham’s The Arte of English Poesie (1589).


42 Cable, ‘The un-perceived strictness’ and The English Alliterative Tradition; Duggan, ‘Final -e’ and ‘Some aspects of a-verse rhythms in Middle English alliterative poetry’, in
placement of monosyllabic major class words in either type of position in the alliterative corpus licenses the scansions shown in (15):

(15) The Monosyllable Rule in the b-verse:

and thre on lowe undir [W S S] W&W80
of thritty yere of elde [w S W S] P3A 133
ne whate tyme he comes [w S W S] P3A 293
that athell kyng hym-seluen [w S W S] P3A 345

Including the words thre, men, yere, tyme, kyng in the dip for the purpose of establishing the metrical frame does not affect the delivery/realization of the verse. The analysis refers strictly to constraints that a poet or a copyist might internalize as an abstract pattern. The Monosyllable Rule makes the verses in (15) members of statistically normal and predictable sequences. Any alternative scansion would push us into positing three S’s in the b-verse, a pattern which is universally, though tacitly, rejected, except for Langland. Since the Monosyllabic Rule is attested elsewhere, applying it to the scansion in our material is justified. By implication, compounds made up of two monosyllabic roots should be free to match both weak and strong positions. The freedom of lexical monosyllables does not extend to matching the stressed syllable of


Stress clash is assumed because the e on corne is unetymological. Similarly W&W 181b, where soothe (OE soð, n.) has an unetymological -e in the Accusative. Recall that the practice of adding unetymological -es in P3A (T) is common, as in mane for man (347), gude for gud (351), fyne for OF fin ‘fine’ (sg.) (392) etc.

Three stresses are allowed in ten of the types of b-verse scansion in Chris Golston, ‘Constraint-based metrics’, Natural Language and Linguistic Theory, 16 (1998), 719-770, pp. 762-764. He does not, however, take full account of the paraphonology of the unstressed vowels described in section 1 of this paper. Moreover, it is not clear why some of his many three-stress types should be more frequent than others, given that they violate constraints of equal ranking.
polysyllabic nouns, adjectives, or verbs to a weak metrical position. Thus, 
*twenty* and *deuyll* in (16) cannot be part of an extended dip; the verses must be scanned with three S’s and will therefore fall outside the basic metrical template:

(16) *Three-ictus b-verses:*

<table>
<thead>
<tr>
<th>Description</th>
<th>Scan Pattern</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>this fyve and twenty wyntere</td>
<td>[w S w S w S]</td>
<td><em>W&amp;W</em> 206</td>
</tr>
<tr>
<td>the <em>deuyll</em> spede hym ells</td>
<td>[w S w S w S]</td>
<td><em>P3A</em> 260 (T)</td>
</tr>
</tbody>
</table>

The two examples in (16) represent the complete set of b-verses in the two poems where either scribe or compositor overlooked the unconventional arrangement. The verses are unmetrical and are outside the set of verses on which our definitions rest.

### 3.2. Non-monosyllables and phrasal stress

In a few other cases in my corpus, the stress of a disyllabic adjective preceding a noun appears to have been suppressed within the domain of the phrase. In such instances it is the head of the phrase, the noun, that is prosodically strongest. The right-headedness of the phrase in such circumstances is a factor competing with the expectation that any polysyllabic lexical word will have its stressed syllable in S. The b-verses in (17) illustrate this conflict:

(17) *The effect of phrasal stress:*

<table>
<thead>
<tr>
<th>Description</th>
<th>Scan Pattern</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>and many billed snyppes</td>
<td>[W S w S]</td>
<td><em>W&amp;W</em> 349b</td>
</tr>
<tr>
<td>with <em>silke</em> Brayden raynes</td>
<td>[W S w S]</td>
<td><em>P3A</em> 131b</td>
</tr>
<tr>
<td><em>men of meyll</em> myghte</td>
<td>[S W S] or [W S w S]</td>
<td><em>P3A</em> 479b</td>
</tr>
</tbody>
</table>

45 As in OE verse, the behavior of disyllabic adverbs can vary: in *P3A* *never* must be in the dip in 366a and 475b, but it is in an ictus in 336b and 524b; *sythen* is in the dip in 413b, but it matches an ictus in 335b. The first syllable of derived adverbs, e.g. *chiefly, gently, highly*, however, is never placed in a weak metrical position.

46 The (W) MS reading of 260b is: *pe devill spede hym elles*. No matter how we scan the verse, it will be violating some constraint: if *devil* is [S w], it violates the expectations of alliteration, if *devil* is in the dip, it violates severely the matching of prosodic-to-metrical prominence.
Note that in four of the five cases that show possible influence of the right-headedness of the noun phrase, the adjective in question is big/many. Metrical subordination of items of low semantic load is common in poetry. Instances such as the ones in (17) are rare, however, and great care must be exercised in applying phrasal stress subordination of a disyllabic word to the scansion. As I have shown elsewhere, an adjective like great was a ready and convenient choice for an alliterating stave in the ME alliterative corpus. Therefore, although the scansion shown in (17) places the verses within the range of possible patterns, I exclude them from my statistics on b-verses in the two poems in (20).

While metrical demotion of a lexical monosyllable would not be controversial for the b-verse, where having two strong positions represents the norm, positing three-ictus a-verses is a much-debated issue. This is not the place to rehearse arguments for or against three-stress a-verses, laid out by Inoue, but it is still important to point out that both her analysis, and Duggan's analysis which her critique targets, take the linguistically unsubstantiated step of subordinating the rightmost lexical element in noun, adjective, verb, and adverb phrases, and in sentences, irrespective of the syllabic structure of the word. In addition to the fact that phrasal stress alone cannot and should not be taken as the sole driving force behind metrical subordination, Inoue's proposed 'Spacing Rule' ignores the well-known fact that in English phrases are right-prominent; in fact, 'The normal,
"unmarked" stress pattern in each of these constructions [phrases and sentences] is one of final stress. In the absence of evidence to the contrary, we must assume the same to have been true in Middle English. Making the prosodically prominent branch of phrases and clauses irrelevant for the metre, e.g. demoting legges in Sir Gawain and the Green Knight (hereafter SGGK) 575 ‘His leges lapped’, is a severe violation of the universal expectations of the ‘fit’ between prosody and metre. Inoue allows subordination both within the noun phrase and within the verb phrase simply on the basis of linear order in the verse. We do not know enough about intonational patterns in Middle English to allow such speculation to define our understanding of the metre. Moreover, in alliterative verse, from the earliest records on, stressing an inflected verb in preference to a preceding noun is unusual. Ictus and alliteration on legges in SGGK 575 would be fully in compliance with Sievers’s Rule of Precedence.

Across-the-board metrical subordination of polysyllabic major class words, without regard to their semantic weight and contribution to the discourse, is linguistically suspect. We have to bear in mind that stress is a relational property: it is most salient at the level of the single word. A word of more than one syllable will always have a stressed syllable. Assuming that that stress is irrelevant in the metre, especially when the word carries alliteration, is counterintuitive and runs against the entire tradition of strong-stress metre in English and Germanic.

Another problem in defining metricality relates to the placement of prefixes in ictic positions, as in (18):

(18) Prefixes in ictic positions:

- In ountrage, in unthritfe, in angarte pryde  \( W&W 267 \)
- That rechen for a repaste a rawnsom of silver  \( W&W 363 \)
- And parfourme my profers and proven my strengthes  \( P3A 205 \)

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52 For Middle English the premise that linguistic factors, more specifically right-edge phrasal stress, underlie the development of end-rhyme is exploited in Christopher McCully and Richard Hogg, ‘Dialect variation and historical metrics’, *Diachronica*, 11 (1994), 13-34. On the issue of phrasal stress in Middle English, see Minkova and Stockwell, ‘Against the emergence’.

As I have argued elsewhere, neither a blanket acceptance of doublet forms in the language, nor a dismissal of the orthographic alliteration, can offer a linguistically well-founded solution. Native and foreign prefixes behave differently, separable and inseparable prefixes behave differently, some prefixes are fully unstressed (be-, for-), others retain secondary stress (un-, di-, re-), prefixes on nouns are different from verbal prefixes. Apparent violations such as alliterating prefixes in French words (deprive, displease, command), or alliteration on function words, are pragmatic issues related to the specificity of the verse genre, rather than a linguistic issue. Metrically, it is important to consider where in the line the ‘unnatural’ promotion of a prefix occurs: it is least probable to be part of the template if it concerns the third strong and alliterating position in the a-verse, and it is most likely to be intentional if it matches the first strong position in the b-verse, as in P3A 311 in (18), scanned as [SWS]. In such cases, the claim is that the metrical requirements override the linguistic constraints and, in the case of undid, promote the secondary stress of un- so that the syllable fits an S position. This is akin to the familiar metrical promotion of suffixes in rhyme position, e.g. Chaucer’s thing/writying (GP 325-6), dresse/gladnesse (MLT 1100-1102).

The matching of function words to strong metrical positions is straightforward. Most function words are monosyllabic, in which case they are subject to the Monosyllable Rule. Disyllabic function words would have their stressed syllable matched to the strong position, as in the W&W 483b example in (13c).

In concluding this section, I reiterate that disjunction between speech prosody and metre can occur, but it is subject to a number of quite explicit linguistic constraints. We start from the premise that the metrical form(s) selected by an individual artist or a group of people must be optimally fitted to the forms of the language they share. Some violations of the ‘fit’ are forced by inviolable (or nearly so) para-metrical requirements of metre, such as alliteration. In such cases linguistic stress can be manipulated, within strictly defined limits, to place the alliterating

\[54\] Compare non-alliterating un- in ‘And to the come of Anteeriste uncleasede be thay never’ P3A 336.

\[55\] Minkova, Alliteration and Sound Change, pp. 52-61.

\[56\] See Minkova, Alliteration and Sound Change, pp. 58-59.
syllable in a metrical ictus. The gap between language and metre that some systems posit, however, makes the metre too distant from the spoken language: such systems would become un-learnable and un-replicable. The fact that the alliterative corpus we have inherited is relatively coherent means that all of the poets and scribes somehow learned the same system which must have been based on shared linguistic and metrical intuitions such as the ones outlined above.

The unity and continuity of the range of rhythmical patterns employed by the poets of the alliterative school is best described in terms of constraints on the shape of the verse. These constraints are not equally ranked: some are inviolable, while others are treated as weak preferences. Since the ranking of the constraints can only be inferred from statistical observations, I now turn to an overview of the metrical data in some published studies, followed by a survey of my own findings in P3A and W&W.

4. An overview of metrical data (b-verse only)

In the absence of explicit instructions on how to compose verse, the best evidence we have for the reconstruction of the range of permissible cadences comes from the frequency of distribution of the various patterns. 57 Going back to Oakden’s Metrical Survey, many scholars have tried to extract metrical information from distributional statistics. Unfortunately, the gathering of data involves disagreements on some of the finer philological and linguistic points addressed in sections 1 and 3. Nevertheless, the published counts of the patterns are indicative of preferences which must have been part of the verse design. The table in (20) is based on statistics from the first 900 lines of Cleaness in Cable (1991: 90), Golston (1998: 762-4), who scanned the same set of lines independently, and counts in Duggan’s 1986 and 1998 studies based on a corpus of 5962 lines of unrhymed alliterative verse. 58 The last

57 See Kiparsky, ‘The rhythmic structure of English verse’, pp. 33-36, for an evaluation of the relative merits of two models of matching frequency of the output data to the ranking of constraints.

column summarizes Carlson’s most recent tallies of b-verse metrical forms for the first 1221 lines in *The Morte Arthure*.  

(19) Frequency of b-verse types:

<table>
<thead>
<tr>
<th>Type:</th>
<th>Cable</th>
<th>Golston</th>
<th>Duggan</th>
<th>Carlson</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) w S W S with boste and with pryde</td>
<td>418 (46.4%)</td>
<td>435 (48.3%)</td>
<td>3536 (59.3%)</td>
<td>617 (50.5%)</td>
</tr>
<tr>
<td>(b) S W S flakerande with wynges</td>
<td>159 (17.6%)</td>
<td>174 (19.3%)</td>
<td>438 (7.3%)</td>
<td>231 (18.9%)</td>
</tr>
</tbody>
</table>

59 See n. 19 (above) for sources. Carlson ignores scribal -es even in weak and plural adjectives and etymological and grammatical -es before consonants, so his counts produce a surprisingly large number of verses without a strong dip: 92, or 7.5% of his data. I have not included those patterns in my arguments because I believe that grammatical preferences for the retention of final -e were still strong in those cases; the final syllable in them would not be subject to the deletion preferences outlined in section 1.

60 My counts from Golston disregard the foot boundaries in that study. Except for prevocalic elision, Golston’s scansion is based on a full realization of scribal unstressed vowels, ignoring parametrical adjustments. The numbers in the table conflate types which would be identical under a non-conservative treatment of -e.

61 Carlson’s statistics are more detailed: he controls for the length of the dip and for the presence of obligatory final unstressed syllable in the verse. I have conflated the numbers for easier comparison with the other available data. I am very grateful to him for allowing me to extract and cite these numbers from his dissertation work in progress.

62 See Duggan, ‘The Shape of the B-Verse’, p. 571, n. 9. The count is based on an optional initial w; it includes tokens which I classify in row (b).

63 The total includes 495 verses with a disyllabic W and 122 verses with a trisyllabic W.

64 Percentage based on Duggan, ‘Final -e’, p. 125. Verses with an extrametrical final syllable are excluded, hence the apparent discrepancy in the counts.

65 The total includes 162 verses with a disyllabic W and 29 verses with a trisyllabic W.
Putting these numbers side by side shows that in spite of disagreements on the
treatment of the unstressed vowels and on the counting of mismatches between
linguistic stress and metre, there are some general tendencies that transcend the
differences. The four types in (19), each represented robustly in the corpus, define
the core and the margins of metricality for this type of versification. The outside
boundaries are admittedly fuzzy: there are rare occurrences of verses that do not
fit into the four types, but the rhythmic preferences are very solidly reflected in
the counts. Further, the percentages cited here are compatible with the results
adduced by Kennedy: in her estimate, about 85% of the b-verses in SGGK are
authorial b-verse rhythms of type (a) and (b).

4.1. The metrical patterns of P3A and W&W

My own contribution to the rather diverse statistics in (19) is a complete scansion
of W&W’s and P3A’s b-verses, applying the principles of syllable-counting and
stress-to-metre matching discussed above. As noted above, I chose to work with
the single-copy text of W&W, partly because it is, by all accounts, a tightly
structured poem, and partly because of the long-standing argument about the
value of metrical studies of single-copy poems. P3A (T) was copied by the same
scribe; presumably he would have developed an intuition about the metricality of
both texts. P3A has the additional advantage of offering a comparison with a later

67 The total includes 76 verses with a disyllabic W and 69 verses with a trisyllabic W.
69 The total includes 92 verses with a disyllabic W and 77 verses with a trisyllabic W.
copy (W). Interestingly, in a considerable number of lines, e.g. 369b, 396b, 412b, 430b, 437b, 481b etc., the (W) text offers scansion which fit the most frequent b-verse pattern \[w \ S \ W \ S\]. This suggests strongly that this particular rhythmic cadence was interpreted by the later copyist as preferable and possibly ‘authentic’. A detailed investigation of the rhythms in these texts addresses the extent to which texts extant in multiple copies are essential in metrical reconstructions: if my figures do not diverge significantly from the figures obtained by using comparison of scribal versions, then both approaches are valid. The convergence of empirical results is an important confirmation of the reliability of the data; an analysis based on such data has a good chance of being on the right track. The table (20) allows us to compare the results of previous studies with my own results.

(20) Frequencies of b-verse types in W&W and P3A:

<table>
<thead>
<tr>
<th>Type:</th>
<th>W&amp;W</th>
<th>P3A</th>
<th>Type Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>(a) w S W S</td>
<td>235</td>
<td>295</td>
<td>54.9%</td>
</tr>
<tr>
<td>with boste and with pryde</td>
<td>(46.7%)</td>
<td>(45.3%)</td>
<td></td>
</tr>
<tr>
<td>w S W S S</td>
<td>30</td>
<td>78</td>
<td>17.6%</td>
</tr>
<tr>
<td>and duellyde there a while</td>
<td>(5.9%)</td>
<td>(11.9%)</td>
<td></td>
</tr>
<tr>
<td>(b) S W S</td>
<td>65</td>
<td>132</td>
<td>14.2%</td>
</tr>
<tr>
<td>flakerande with wynges</td>
<td>(12.9%)</td>
<td>(20.3%)</td>
<td></td>
</tr>
<tr>
<td>S W S S</td>
<td>11</td>
<td>32</td>
<td>17.6%</td>
</tr>
<tr>
<td>woundede hym to dethe</td>
<td>(2.1%)</td>
<td>(4.9%)</td>
<td></td>
</tr>
<tr>
<td>(c) W S w S</td>
<td>64</td>
<td>54</td>
<td>14.2%</td>
</tr>
<tr>
<td>alle in wrethyn lokkes</td>
<td>(12.7%)</td>
<td>(8.2%)</td>
<td></td>
</tr>
</tbody>
</table>

A similar conclusion regarding the reconstruction of the shape of the infinitive in some ME alliterative poems was reached by Jefferson and Putter, ‘The distribution of infinitives’, p. 240: ‘a widening of the corpus, to include alliterative poems in later manuscripts, does not fundamentally alter the picture’.
Diagnostics of Metricality in Middle English Alliterative Verse

<table>
<thead>
<tr>
<th></th>
<th>W₃ S w S</th>
<th></th>
<th>W S S</th>
<th></th>
<th>W₃ S S</th>
<th></th>
<th>Total (a-d) in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>that I schall</td>
<td></td>
<td>that one the</td>
<td></td>
<td>Into his</td>
<td></td>
<td>95.2%</td>
</tr>
<tr>
<td></td>
<td>passe sone</td>
<td>22 (4.3%)</td>
<td>bent hoves</td>
<td>33 (6.5%)</td>
<td>awnn kythe</td>
<td>20 (4%)</td>
<td>99.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21 (3.2%)</td>
<td></td>
<td>21 (3.2%)</td>
<td></td>
<td>16 (2.4%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94.8%</td>
</tr>
</tbody>
</table>

The entire text of W&W (503 lines) was scanned following the principles set out in sections 1 and 3. The scansion of P3A includes the entire English portion of the (T) text (661 lines) and the (W) text, which starts at line 225 and is missing an additional ten lines in the later part of the poem. In eleven cases I have counted both the (T) and the (W) scansion, when the former allows syllabic variation and (W) conforms better to the preferences established independently. The extended dips marked [W] are disyllabic; the notation [W₃] stands for a trisyllabic dip.

For the purpose of determining metricality, the type-averages in the last column in (20) should suffice. The more detailed picture, separating di- and tri-syllabic dips, however, is also important: in (a)-(c) the poets plainly seek to avoid trisyllabic dips. This is predictable on universal linguistic grounds. In speech, as in verse, long stretches of unstressed syllables destroy the expected rhythmic alternation of peaks and troughs. Interestingly, in type (d), in which only three of the four possible metrical positions are filled, the distribution of disyllabic and trisyllabic dips is more evenly balanced (see also Carlson’s counts in (19d)). This suggests that structurally this type of verse is susceptible to compensatory distribution of Ws and Ss, similar to the tendency that Russom defines for Beowulf and Old Germanic: a light/short foot is balanced by a heavy/long foot and vice versa, only one foot may be long. The principle involved here is the same.

Types (a) and (b) together cover almost three quarters of the verses in my data-base. Types (c) and (d) are rarer, but they clearly fall within the range of possible metrical arrangements. Metricality in any type of verse is a ‘gradual’

---

property: positing full conformity to an abstract metrical design is always suspect. The cut-off point for what is ‘metrical’ and what is ‘unmetrical’ is also gradual, and possibly subjective. In our case, I believe, the rules that capture 95% of the verses define the inside limits of metricality. Other patterns would be unmetrical because they violate one or more of the constraints that types (a)-(d) observe invariably. (21) shows the percentages in the form of an area chart. The two rightmost entries on the value axis show the rare types. Among them, only [W S W S] appears with any frequency. I counted 27 such instances in my data-base (11 in W&W and 16 in P3A). I will return to these rare types below.

(21) *Area-chart frequencies of b-verse types in W&W and P3A:*

5. Constraints on metricality

The b-verse patterns shown in (19)-(21) can be represented as the set in (22):

The perception of these limits must be shared by authors and scribes. Metre has to be a learnable system, similar to learning another language. The level of metrical proficiency will vary; the compositor may be better than the copyist, but it may be the other way around. My goal is to identify the constraints that underlie the copy we have in hand. The distinction between authorial and scribal forms is peripheral to this goal.
Diagnostics of Metricality in Middle English Alliterative Verse

(22) **Metrical patterns in the b-verse:**

(a) w S W S  my werdes to dreghes  
(b) S W S  flakerande with wynges  
(c) W S w S  appon sydes twayne  
(d) W S S  Pat one be bent houes  

The patterns (e)-(i) in (23) are rare or excluded from the corpus:

(23) **Rare or excluded b-verse patterns:**

(e) W S W S  
(f) w S w S  
(g) S w S  
(h) w S S  
(i) w S w S w S  

The gradual metricality reflected in the counts cannot be modeled with simple rules that derive metrical patterns. In such circumstances, the analytical tools of Optimality Theory (OT) provide an enlightening match between the set of universal metrical and linguistic constraints established independently, and the data collected here. The present section summarizes the analysis in my forthcoming article, and tests that analysis against the new data from W&W and P3A.

The basic principle of alliterative verse is matching the stressed syllables of speech to strong/ictic metrical positions. The first constraint that the poets obey unfailingly must cover that matching:

(24) **MATCH STRESS**

Assess a violation if:

\[ \sigma_i \text{ and } \sigma_j \text{ (in either order) are linked to metrical positions } P_i \text{ and } P_j \]

---

74 Minkova, 'On the metre of Middle English alliterative verse'.

respectively;
\( \sigma_i \) has stronger stress than \( \sigma_j \);
\( P_j \) is stronger than \( P_i \); and
\( \sigma_i \) and \( \sigma_j \) occupy the same simplex word

The first, and strongest S position accommodates the alliterating syllable of the b-verse; a second S position is the last syllable of the line, excluding the optional single extrametrical syllable. The relative strength of the syllables is provided by the stress rules. This constraint refers only to lexical words of more than one syllable (see section 3.1). The standard assumptions for stressing function words apply too.

In terms of feet, in all b-verse types occurring with any frequency, at least one but not both of the feet is of the form \([W S]\). The obligatory presence of an extended dip can be captured by reference to the LAPSE constraint, which favours the realization of a string of two or three unstressed syllables. In OT accounts of rhythm, LAPSE is usually defined negatively because it contravenes the ideal of evenly spaced stresses. For our data, however, a metrical LAPSE constraint enforces one lapse for the b-verse:

(25) LAPSE: one weak position must be filled by more than one syllable.

LAPSE penalizes the absence of a W at the verse level. For the b-verse the presence of more than one lapse per verse is disallowed in types (a)-(d) in (19)-(20). MATCH STRESS and LAPSE are the only constraints which cannot be violated in the b-verse. They are the main, though not the only, filters of metricality.

Examining the data in (20), we see that three quarters of the verses position the W string after the first ictus. This is a preference which our formalization must capture with the metrical constraint \( ^* \)LAPSE, which refers to the location of the string of unstressed syllables; it filters out verse-initial Ws:

(26) \( ^* \)LAPSE [\( V(\text{verse}) \): do not place W at the left edge of the b-verse.

A justification for this constraint may be sought in the requirements keeping alliteration maximally transparent: since it is the first S that binds the b-verse to the a-verse, the preference would be for the stressed alliterating syllable to be closer to the left edge of the verse. This constraint is therefore tied up with the pragmatic function of alliteration on a higher level of metrical structure, the line, rather than to the verse in isolation.
Ideally, the rhythmic principle of stress alternation in prosody and metre requires that each filled metrical position should correspond to a single syllable; the filling of one metrical position by a string of syllables runs against this principle and should carry some penalty. The correspondence constraint that militates against the various types of ‘resolution’, or splitting of positions/filling positions with more than a single syllable, is given in (27):

(27) MATCH P: each P is filled by a single syllable.

MATCH (P) is useful for two reasons. First, it distinguishes between [W S S] strings, which have a single violation of MATCH (P) and are within the range of metricality assumed to be authorial, and [W S W S] structures, which incur a double violation; the latter type is rare and can be considered scribal in some poems.

A second benefit of using MATCH (P) is that it captures the disproportionately higher frequency of disyllabic Ws vs trisyllabic Ws. As noted above, the difference between the subtypes in the (a)-(c) rows in (20) is both statistically significant and linguistically grounded. Since W₃ dips will cause two violations of MATCH (P), the OT model of gradual metricality predicts that such dips will be rarer. Many counts and descriptions of ME alliterative verse don’t control for this distributional imbalance; the statistical difference of the subtypes is not predicted by other analyses of the data.

The representation of the structure of the b-verse in (11) provides for four metrical positions. A position left unfilled is therefore somewhat aberrant; this deviation from the optimal verse design is captured by another correspondence constraint, FILL P:

(28) FILL P: each metrical position P in the verse must be filled.

Finally, three of the most common rhythmic configurations in the b-verse show the strong positions separated from each other. This is in conformity with the markedness constraint *CLASH, which gives preference to rhythmically alternating strings:

(29) *CLASH: disallow adjacent S positions.

Except for the first two constraints, the rhythmic and correspondence constraints in (26)-(29) are violable. The ranking of these constraints for the four most common b-verse types is shown in (30):
(30) **Ranking for the four most common b-verse types:**

<table>
<thead>
<tr>
<th>VERSE TYPE</th>
<th>MATCH STRESS</th>
<th>LAPSE</th>
<th>*LAPSE [V]</th>
<th>MATCH (P) to α</th>
<th>FILL (P)</th>
<th>*CLASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>w S W S</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>w S W₃ S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>S W S</td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S W₃ S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>(c)</td>
<td>W S w S</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W₃ S w S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>(d)</td>
<td>W S S</td>
<td></td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>W₃ S S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
</tbody>
</table>

The stars indicate a violation. Absence of marking in the cells indicates that the constraint is satisfied by the verse type. The strength of the constraints decreases from left to right: a violation to the left is more serious than a violation to the right. Violations are cumulative. For the (a)-(b) types, the cumulative effect of the violations is most plainly shown in the column for MATCH (P). For types (c) and (d) the effect of MATCH (P) is less noticeable because they violate another, higher-ranked constraint. This is reflected in the results in (20).

The advantage of this type of analysis is that it identifies the filters the poets must have grasped intuitively and rates them according to their importance to the metricality of the output. These are non-random filters: they are derived from the rhythmic properties of speech and, in the case of the prosody to metre matching filters, they reflect common-sense properties of all types of verse. They are not just a list of what matters in the account of that type of verse; the constraints are arrayed in domination order which models the intuitions the poets must have used to evaluate metricality. The proposed domination ranking corresponds to statistically testable output results. Other frameworks and models cannot readily interleave and hierarchize those factors, and we are left with a string of slashes and parenthesized x’s – an inadequate way of addressing the linguistic nature of the significant
Diagnostics of Metricality in Middle English Alliterative Verse

differences in the frequency of the various types.

This ranking model is also applicable to the marginal or fully unmetrical verses; the table in (31) includes five of the rarer types (e)-(i). For these structures, I have not shown the difference between di- and trisyllabic dips, because the numbers are negligible. Types (f)-(i) violate the LAPSE constraint fatally; following the conventions of Optimality Theory, the exclamation mark indicates a crucial failure of the potential output. The shading in the cells to the right is a typographical convention showing that the decision on metricality has already been made at the level of the higher constraint. Further violations these structures incur are not relevant to their evaluation.

(31) Extended ranking including rare types:

<table>
<thead>
<tr>
<th>VERSE TYPE</th>
<th>MATCH STRESS</th>
<th>LAPSE</th>
<th>*LAPSE [V]</th>
<th>MATCH (P) to σ</th>
<th>FILL (P)</th>
<th>*CLASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) w S W S</td>
<td>w S W S</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>w S W S</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) S W S</td>
<td>S W S</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S W S</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) W w S</td>
<td>W w S</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W w S</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) W S S</td>
<td>W S S</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W S S</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) W S W S</td>
<td>W S W S</td>
<td>*</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) w w S</td>
<td>w w S</td>
<td>!*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Sw S</td>
<td>Sw S</td>
<td>!*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) w S S</td>
<td>w S S</td>
<td>!*</td>
<td></td>
<td></td>
<td>!*</td>
<td></td>
</tr>
<tr>
<td>(i) w w S</td>
<td>w w S</td>
<td>!*</td>
<td></td>
<td></td>
<td>!*</td>
<td></td>
</tr>
</tbody>
</table>

This is a shortcut. The pattern [w S w S w S] violates a constraint against having more than four positions in the verse. This additional detail does not affect the argument.
The account predicts that that two patterns: [W₃ S S] in (d) and [W S W S] (e) should be equally infrequent since they incur the same violations of the set of constraints posited here. This is indeed the case: in my data-base the [W S W S] type occurs in 2.3% of the b-verses, a figure comparable to the 3.1% average frequency of the [W₃ S S] sub-type. In view of this, we may consider lowering the bar of metricality, to include the verses in (e). This, I submit, would be an individual choice since both cadences are on the margins of metricality. Indeed, identifying the grey area threshold could be a criterion for isolating patterns characteristic of the practice of a particular poet. For the two texts investigated here, the [W S W S] type occurs at a relatively higher rate than the rate found in the corpora studied by other scholars. The potential for this kind of comparison remains to be explored.

6. Conclusion

A legitimate question at this point would be why is the formalization in (30) and (31) not just a re-statement of the existing prose descriptions of the structure of the b-verse? To conclude my overview of the patterns, then, I summarize the theoretical and empirical insights that the analysis makes accessible to us.

First, the proposal is grounded in cross-linguistic and pan-chronic prosodic markedness constraints and constraints on matching speech prosody to metre. The account makes this metre a member of the repertoire of English verse types with which it shares the same constraints, only differently rated. It opens up the possibility of applying the same set of filters to the analysis of a-verses.

Second, if we re-conceive metricality in terms of ranked constraints, we gain an insight into the continuity of the alliterative verse form: the familiar stress-clash is tolerated in Middle English as it was in Old English metre, a syllable with secondary stress could occupy both strong and weak positions, making the argument about diminished use of compounds in Middle English a
matter of style and not metre, pace Russom. Discontinuity is evident in two areas: the pattern S w S w, the common (sub-)A-Type, amounting to 16% of the verses in Old English, 77 is unmetrical in Middle English, and so is the OE (sub-) B-Type w S w S. Related to this is another difference: in Old English a final weak syllable was metrically significant, while in our corpus the final weak syllable is optional; this is a bridge between the syllable-counting verse tradition and the alliterative tradition. The analysis throws doubt on claims abundant in the literature since at least 1956, when Lehmann suggested that ‘With the further weakening of inflexional endings after the time of composition of the late Old English poems such as the Judith, the alternating rhythm is almost mandatory’. 79 In fact, the metrical freedom of lexical monosyllables makes loss of inflexions largely irrelevant.

Third, decomposing the general notion of metricality into linguistic filters allows us to address questions such as gradient acceptability, where more than one string is well-formed, but the probability of the various types is linked to the rank of the constraint they violate. Empirically, we gain a linguistic explanation of the rarity of trisyllabic dips: LAPSE is a gradient property. The striking distributional peculiarity with respect to LAPSE, namely a distinct preference for it to occur verse-medially, is built into the account. Not least, the proposed hierarchy of constraints enables us to address metrical complexity and construct metrical profiles for specific poems, which would be of interest to textual and literary scholarship.

78 Hutcheson, Old English Poetic Metre, p. 175.