Special issue on verse structure and linguistic modelling: introductory notes[1]

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Verse was first.[2]

Verse and its forms have always held the attention of linguists and other humanists. Just over the last seven years there have been meetings spotlighting metrics at the University of Essex (2015), the University of Tallinn (2017), the University of Stockholm (2018), the University of Padua (2022) and most relevant to this special issue, a full session on historical metrics at the 2021 International Conference on English Historical Linguistics (ICEHL 21) in Leiden. Academic publishers, too, have over the same span brought out major new titles devoted to matters historical and metrical – Neidorf *et al.* (2016), Weiskott (2016), Cornelius (2017), Russom (2017), Gunkel & Hackstein (2017), Donoghue (2018), Duffell (2018), Putter & Jefferson (2018) and Ryan (2019) would here be representative – and it does not seem coincidental that in the UK, the Poet Laureate has been busy of late translating *The Owl and the Nightingale* into contemporary English (Armitage 2021) – a work that accompanies the same writer's earlier re-rendering of *Gawain and the Green Knight* (2009). The English language, with its intricacies, its long history of use as a literary medium and its spectacular formal developments in both verse and prose, figures largely in many of these renewed descriptions and analyses.

The session at ICEHL 2021 is germane to this issue; many of the analysts whose work on metrics is represented here contributed severally and jointly to the lively Zoom

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exchange. The broad theme of the ICEHL session was the extent to which metrics can – or cannot – provide evidence useful for linguistic reconstruction, which entails further questions: what sort of evidence? and reconstruction of what, precisely? The title of the present issue attempts to capture not only the inherent breadth of the enquiry ('verse structure') but also the specificity of the *interactions* between metre and language, both as evidence for the past and present structure of English and as a testing ground for current phonological theory as it relates to verbal art and musical textsetting. The rhythmic patterns of metre, the rules that make the measuring units of verse transparent, mnemonic and replicable, are grounded in those linguistic patterns shared by poets and their audience. When native-speaker responses to the acceptability of specific language patterns are unobtainable, hypotheses about the structure of the ambient language have to draw on other sources, which for earlier English are the surviving manuscripts. The data in the manuscripts are never free from the additional complications arising from linguistic contacts, scribal and editorial practice, the clash between or the convergence of oral tradition and literary canon. That makes earlier data particularly challenging – but also of great interest.

The difficulties of reconstructing and modelling speech are many and obvious; one enduring debate in English and cross-linguistically is whether verse data are better as instantiations of speech than prose data, granting that data reliability will vary depending on the target language level, the texts' chronology, register, source and codicological history. For Old English (OE), by way of a brief illustration, the statistical balance between verse and prose records is heavily in favour of prose,[3] and major contributions to reconstructing earlier English often draw only on prose; see Hogg (1992: 8), who explicitly states: 'The above discussion [of OE dialects] generally excludes poetry.' Studies of OE syntax commonly keep prose and verse separate: under the rubric of 'How to handle data', Fischer *et al.* (2000: 31) state that 'There seems to be general agreement that data from prose sources reflects the language of speakers most closely',[4] while others (Pintzuk & Kroch 1989) attribute differences not to genre, but to 'normal' processes of syntactic change. Campbell (1970) looks for the indebtedness of Old English prose to verse, and one particular type of prose record, charter boundaries, have been described as 'the texts with the best claim to record Old English vulgar speech' (Kitson 1992: 50).

The claim to primacy of prose evidence for historical morphosyntax does not undermine the authority of verse evidence; metre remains a vital testing ground for the resources available to the speakers and the way these resources are selected by the poets at any historical period. Since metrical properties such as rhythmic alternation,

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[3] The *OE Dictionary Corpus* (https://tapor.library.utoronto.ca/doecorpus/) reveals that the word count for verse (177,480) amounts to only 5.9 per cent of the total word count for verse, prose and glosses (3,005,867).

[4] They also recognise (2000: 69) that in Middle English 'poetry makes use of a wider range of grammatical options, including more informal ones, than prose, but a great deal of more fine-grained work remains to be done in this area'. As recently reaffirmed by Donoghue (2018), neither the relationship between OE prose and the spoken language, nor that between poetry and prose is straightforward.

syllable division and syllable count, onset and coda identity in alliteration and rhyme, are acquired early and without special training, metered verse can be taken as the closest approximation of the poets' or copyists' internalized language. Not surprisingly, then, poetry is always a key candidate for testing theoretical approaches, especially in phonology, valued highly in the 'consumer guides' to evidence in phonology (Ohala 1986; Van Oostendorp 2013). That approach is profitably applied to the morphophonological material in Putter's contribution here. On the other hand, when compared and contrasted, the separate yet parallel metered verse data and non-verse data are the only path to the identification of specifically metrical preferences, as in Russom's and McCully's contributions. The statistical probability models offered by Hayes, Minkova & Zhou, Ryan and Zimmerman are all anchored in expectations based on non-metered language material. Thus, the integration of 'pure' verse data and non-verse data is both descriptively and analytically desirable and viable.

All contributors to this special issue are not only acutely aware of how poets experiment with a range of patterns in search of aesthetic effects but are also aware of the evidential value of such experiments to linguistic reconstruction and modelling, to social and literary history. The descriptive and theoretical gains are extensive. The empirical coverage stretches from the eighth to the twenty-first century and the data are tapped for innovative segmental, phonotactic, prosodic, syntactic and socio-cultural reconstruction and modelling. Predictably, the articles' research targets and explanatory goals overlap; the issue at hand presents the articles roughly from segmental to suprasegmental to phrase- and clause-syntax, and, again roughly, chronologically within these 'leaky' areas.

Ad Putter analyses the inflectional system of adjectives in Chaucer, Gower and Hoccleve, with special reference to the unexpected behaviour of the adjectives 'high' and 'sly'. The metrical evidence provided by these adjectives, which frequently appear line-internally without the expected inflectional -e in Chaucer and Gower, and which appear to be almost wholly uninflected line-internally in pedantically syllable-counting Hoccleve, suggests that poets of the period were responding in slightly different ways to the English language as it was changing around them. Since monosyllabic adjectives were inflected with -e in their weak and plural forms, a process much discussed in the literature, the new details give us a rare and valuable snapshot of both phonological and grammatical change in progress. The findings also bear on the editing of medieval texts: as Putter notes in his conclusion, 'editorial emendations of Hoccleve's poems based on disyllabic hye in weak adjectives should be rejected'.

Bruce Hayes turns to a source of data on English phonotactics that will delight word-hunters and word-lovers: Dr Seuss's coinages. He groups them into patterns based on phonotactic ill-formedness, German-likeness and amenableness to the metre, all subject to Seuss's general principle of creating *phonesthemes*, 'small quasi-morphemic sequences affiliated with vague meanings'. Two types of quantitative models are tested with the aim to identify the factors predicting the linguistic properties that differentiate Seussian coinages from the general lexicon. The discussion of the qualitative distinctions takes us into less well-studied interactions of linguistic

properties and expressivity and sound symbolism. Sometimes the results of these analyses can be surprising. Reviewing the literature on phonesthemes, Hayes cites a study by Oh *et al.* (2020) which indicates that even if they do not speak a second language, speakers may have tacit knowledge of the phonotactic principles of that second language if they have second-hand exposure to it. Hayes suggests that in the United States of the post-World War II era, when German Americans formed the largest minority ethnic group in the country, a sufficient number of speakers of American English 'could have internalized a sense of what German phonology [was] like' and thereby been able to identify coinages such as *Schlottz* as 'a German-like word'. Developing this theme of phonesthetic identification and function, Hayes analyses how phonesthemes may provide evidence for how many words originated as phonesthetic coinages ('the work of … speakers long forgotten') – coinages put into the service of verbal folk art. This analysis emphasises the relationship between aesthetic pattern and vernacular speech and implies that professionally creative users of a language – that language's poets, prose writers and translators, for example – make special use of available linguistic structures in order to develop and maintain what is (in Hayes' words) a distinctive vernacular style – or indeed, styles. To paraphrase Hayes' conclusion, poets rely on phonological resources shared with their reading (or listening) communities; the study of metre, and the evidence provided by that study, can reveal the nature of those resources with particular clarity.

Further developing the theme of how language users perceive and may make aesthetic use of the linguistic structures available in a given period, Chris McCully reanalyses the isomorphism that may have existed in Old English between rules of right-edge phrasal prominence in speech and relative prominence of constituents within the half-line and line of alliterative verse. Recent theories of OE metrical prominence, particularly those of Russom (Russom 2017 and earlier works), show that many normative OE half-lines have a structure which can be adequately described without making reference to right-edge prominence. As McCully elaborates, that very adequacy is a challenge to metrists since the well-known eurhythmic phenomena of promotion (of erstwhile weaker syllables to relative stress position within the verse line) and demotion (of erstwhile stressed syllables to relatively less-stressed positions) depend crucially on phrasal right-headedness (specifically, the promotion of underlyingly unstressed syllables to what is perceived as a relatively stressed position, as in the following, where *back* and *to* are subject to optional but nevertheless highly likely rhythmic promotion: *he handed **back** his medal **to** the boss*).[5] If that right-headedness didn't exist in OE, where did it originate? And if it *did* exist in OE, why didn't poets then make use of the metrical opportunities the language afforded? McCully's work here shows that revisiting and studying isomorphism (or the lack of it) between the forms of language and of verse may reveal something noteworthy not merely about the

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[5] Minkova (2020) also considers the special role of right-edge boundaries in licensing lengthening at the right edge, allowing -CV final syllables to be perceptually closer to the *ideal* weight for regular suspension of resolution, normally requiring a heavy syllable. The proposal links testable phonetic variation in PDE to OE verse structure.

relationship between language and verse but about English poetic history more broadly considered.

The inevitability of linguistic continuity – and thereby, the theoretical challenge provided by such persistence – is a prominent theme also in the contribution by Donka Minkova and Z.L. Zhou, who address this challenge directly by reconsidering stress contrasts in diatones, pairs such as *úpset*, n. – *upsét*, v. Are such contrasts inherited from OE or are they a Middle English (ME) innovation? The authors document a gap in the coverage of this question stretching for about 150 years after Chaucer, and then turn to evidence from word stress as manifest in the poetry to supplement the analytical narrative of prosodic structure in the fifteenth century: 'art verse remains the most promising source of prosodic information diachronically'. More specifically, OE verse provides the most reliable evidence of the stress status of prefixes – morphemes which play a key role in Minkova & Zhou's reconstruction. After reconsidering the OE evidence, Minkova & Zhou extend their search into possible diatonic patterns in ME verse, a search which yields quantitatively limited verse-based information on the pattern's persistence. However, and stepping outside verse for a broader view, ME lost some heavy stressable prefixes, and that change is accompanied by increased productivity of the unstressable prefix *be-* and the borrowing of Romance prefixed verbs. A quantitative analysis of extensive lexicographical source material suggests that between 1200 to 1500 there was 'consistent lexical pressure to model verbs as a sublexicon with noninitial stress' – a factor which ultimately bears on the changing stress system of English over the same period. Minkova & Zhou then articulate the position that 'native', Germanic patterns of left-prominent root stress persist longer than commonly posited in the philological accounts. The spread of unstressable native and borrowed monosyllabic prefixes, combined with increased exposure to stress-attracting suffixation, eventually overwhelm the native, 'left-strong' stress principle and favour the post-seventeenth-century proliferation of diatones. Focus on the prefixation of native and borrowed words fills a diachronic gap in previous analyses of the principles of English derivational morphology in relation to stress, a gap noted in Hoffmann (2020). Here again is an area of study where prosody can reveal much more about how poets heard and were able to use the properties of the language they creatively exploited – and do so with much more accuracy than was possible at the time Ker (see our quote at the end of this introductory article) was reviewing the first volume of George Saintsbury's *History of English Prosody*.

If Putter analyses (among other matters) inflectional syllables, and Hayes works with phonesthemes, Kevin Ryan develops an analysis of what evidence textsetting provides for the form and perception of syllables ('textsetting' here used analytically within the framework first developed by Hayes & Kaun 1996). When syllables are set to music or are chanted, heavy syllables are likely to align with what are metrically strong positions, thus (to reuse Ryan's example here) in **'Twas in Ox**ford **town**ship I **lost** my **way** the bold-faced syllables – all of them heavy – align with metrical beats, whereas in **'Twas in Ox**ford <u>**ci**</u> <u>ty</u> I **lost** my **way** the textsetting of *city* might indicate that the syllables of that word are disposed across the available timing slots within the line in a way different to the syllables of *township*. This matter then bears on how speakers perceive not only

syllable weight but also the isochronic organisation of English – where we use the cover term 'organisation' to include both the production and (probably more importantly) the perception of strings of syllables as isochronic. Further, Ryan shows that the evidence available from textsetting strongly suggests that while categorical concepts such as 'heavy' or 'light' syllable are useful as general terms, more fine-grained prosodic analysis reveals that the perceived weight of syllables in textsetting 'is based not on the rime, syllable, or vowel-to-vowel interval, but rather on the p-center interval', where 'p-centre' abbreviates 'perceptual centre'. Ryan notes, for instance, that 'singers do not generally seek to align the beginnings of syllables with beats, but rather their p-centers, which are closer to the beginnings of nuclei' – and so here again, verse-prosodic analysis may provide evidence not only for how language users perceive (and may aesthetically deploy) constituents of the phonology but also for how those constituents are perceived within a relativised temporal framework. That issue seems to be a particularly current concern for analysts whose interest lies in contemporary urban folk verse; see e.g. Gilbers (2021), who provides an intricate analysis of forms of rap.

The poetic history in McCully's article is also a key topic in Geoffrey Russom's contribution to this volume. Central to Russom's reanalysis of Kuhn's Laws is an account of the change in earlier periods of English between patterns of word-order. In main clauses, whereas today the default pattern is Subject-Verb-Object (SVO), in *Beowulf* SOV order is unmarked within the domain of the half-line. Russom's conclusions depend on a reanalysis of the nature and function of Kuhn's Laws – specifically, the role and placement of *Satzpartikeln* ('sentence particles' – light elements of structure such as some pronouns, sentential adverbs, conjunctions and finite auxiliaries). Russom argues that such elements are disposed by rules of poetic metre which are distinct from – and obscure the effects of – rules governing basic word-order in prose. Nevertheless, *Beowulf* appears to have been composed at a time when Old English was moving from the underlying SOV word-order it had inherited from proto-Germanic and moving (in those constituents Russom defines as 'small phrases') towards the later SVO pattern. That reanalysis in Russom's theory cuts outward, not only into the evidence verse prosody can provide for diachronic syntactic and phonological change, but more broadly still, into the relationship between metre and language *tout court*. To take but one issue from that last context: it is widely assumed – so widely that the assumption is uncontroversial – that metre involves to a greater or lesser extent a stylisation of patterns already found at a particular time within a given language. Daunt (1946) embodied that assumption in her well-known remark that OE metre was essentially the spoken language 'tidied up'. Yet any analyst should not only ask about but also formulate a more precise statement of the relationship between metre and language. Russom does that here by adhering to a theory of metre whose first principle is that 'metrical constituents are abstracted from constituents of the language' and whose second is that 'norms for metrical constituents are abstracted from norms for the corresponding linguistic constituents', echoing the traditional view of the linguistic groundedness of metre in conjunction with the artificial stylisation of

the available material. Russom's universalist principles demonstrate how in Old English – to re-employ Daunt's metaphor – the relevant tidying up was done.

Richard Zimmermann's contribution uses the evidence of prose versus poetry as predictors for the OV to VO shift in ME. Drawing on evidence in the *Penn Parsed Corpus of Middle English* (Kroch & Taylor 2000) and a supplementary recent resource, the *Parsed Corpus of Middle English Poetry* (Zimmermann 2015), Zimmermann reanalyses the timings of the relevant syntactic change and (allowing for the fact that poetry is more conservative than prose) suggests that its end point falls considerably later – well into the fifteenth century – than previous studies have claimed. Turning specifically to the value of the metrical evidence, Zimmermann shows clearly that poetry is the decisive resource for mapping syntactic structure and change *c*.1250–1350 when there is a gap in the written prose records so substantial as to preclude safe prose-sourced generalisations about wider linguistic developments. Thus, Zimmermann demonstrates how metrical data 'reduce the risk of erroneous generalisation', give a 'more complete picture' of dialectal variation and provide 'more realistic quantitative estimates' of factors influencing syntactic change. Zimmermann's model of the lateness of the completion of the shift to VO is arrived at with remarkable precision, and just as Russom's metrical (re)analysis cuts out into wider theoretical concerns, Zimmermann's re-examination of the syntactic variables offers new perspectives on the importance of genre, archaisation and niche survival, which can override information structure and clause type.

For all the progress represented in this issue there are still major theoretical challenges for linguistic historians and prosodists to confront. Minkova & Zhou show for instance (and explicitly acknowledge) that the matter of the history of English stress is far from settled. Another area where more work needs to be done is in analysis of testimonies of writers – specifically, on the cultural legacy afforded by medieval and early Modern English treatises, essays and/or handbooks on the art of making poetry. That is, poets themselves often have interesting things to say about how they make their verse. One contemporary, friend and colleague of Chaucer, for example, is Eustache Deschamps. Deschamps wrote a first-hand account (*L'art de dictier*, 1392) of song, lyric poetry and the distinction between the two. For Deschamps it was the default case that short lyrics were almost invariably sung but he noted the new – new in Continental Europe of that time – phenomenon of poetry that was recited. (Presumably the coming of such verse correlated with the prior emergence of a literate, courtly and/or clerkly class of readers.) So Chaucer's ballades, for instance, are examples of a 'high style' in the novel form of recited verse: Chaucer got the stanzaic form and 'high' diction of those ballades from Deschamps, whose *L'art de dictier*, incidentally, has to our knowledge only once been translated into English and which has never, again to our knowledge, featured in the literature of historical linguistics as that bears on English verse prosody. (Significantly, Deschamps doesn't appear in the index or bibliography of Duffell 2018.) This observation bears on textsetting, and the relationship between the sung and the recited. Both have a cultural and historical dimension and could be claimed as a (relatively) new topic for exploration within historical metrics – as would the careful,

cross-linguistic work necessary for a plausible reconstruction of the contexts in which earlier forms of poetry and its audiences existed. Among other things, the existence of such poetic treatises, and the cultural contexts in which they appeared, suggest that verse prosody needs a form of sociolinguistics; Deschamps' work might also urge a writer or reader to consider the Hayesian distinction between 'art verse' and 'song verse' as rather oversimplified (this matter is touched on in e.g. Duncan 2013). In such a context of reinterpretation, that archetypally medieval form, the carol, might also be worth re-examining from the point of view of textsetting.

Finally, it is to be noted that the work on historical metrics offered here concentrates largely on the period that spans Old through to early Modern English – a period in which there are swingeing linguistic and cultural changes. Later forms of verse – the verse produced by a Pope, a Wordsworth, a Tennyson, or later still, the work represented in all the varieties of *vers libre* and *vers libéré* – are not represented in this issue and, with some notable exceptions, are not yet widely discussed in serious linguistic terms. Martin (2012) makes the point that 'prosody' has meant many things to many different writers, cultural groupings, theorists and educationalists – these are referred to as 'multiple metrical cultures' in Martin (2012: 10) – and that point is well taken if we regard historical linguists' reconstructions of stress and verse prosody as contributions to a much wider reimagining of history and culture. In that reimagining it seems necessary that verse prosodists working on English, who so often seem to have Klaeber's *Beowulf*, an edition of Chaucer's *Collected Works* and Shakespeare's *Sonnets* open on their desks, should begin to engage with a much wider range of both primary and secondary materials. To take just one example of such possible engagement: in any theoretic account of metrical verse, one high-ranked constraint will be that of *counting*: in a well-formed metrical line, syllables are counted, beats are counted or metrical positions are counted. That was the case in OE alliterative verse; it was so for Chaucer and for Shakespeare. It is so today for metrical verse. While for most poets working in Anglo-American traditions writing and publishing in forms of free or freed verse is now commonplace, at least some contemporary English poets are not only reworking the past (see our remarks above on Armitage's recent translations of *Gawain* and *The Owl and the Nightingale*) but are experimenting with new models such as the work of Oulipo, a group – or if one hesitates to call it a group, a loose association – founded by Raymond Queneau in 1960 (*Ouvroir de littérature potentielle* 'Workshop of potential literature'; see http://oulipo.net/). While in principle open to the random, the arbitrary and even the (apparently) irrational, Oulipo practitioners experiment with *contraintes* ('constraints'; see http://oulipo.net/fr/contraintes as well as Mathews & Brotchie 2005 and Terry 2019), many of which are drawn from a repertoire that spans several different manifestations of *counting* – lipograms, for example, or palindromes, or the Oulipian snowball, where text is constructed in which each line is a single word, and successive lines one letter longer. One couldn't wish for a more graphic or contemporary illustration of the significance of counting as a poetic procedure nor of the relationship between metrically universal, and universally productive, principles of counting and closure. Yet to our knowledge, no historical

linguist or verse prosodist has to date begun to examine how Oulipo acquired prestige within the English-speaking world, nor how its constraints map into or diverge from those linguistic constraints that will be familiar to many readers of this issue. Analysis of this contemporary matter seems just as important and exciting as analysis of those French or Italian prosodic models from which Chaucer developed the English pentameter and may reveal something further about how poets and other writers ransack the past, the present and their own and others' languages for apparently innovative models – yet ones whose constructive procedures remain profoundly the same.

Echoing the 'Verse was first' opening of our Introduction, we leave readers with a 115-year-old colourful quote in the hope that this issue confirms the positive and gainsays the negative judgements in it:

> [The study of poetic metre] flourishes by its own strength, and those who follow it appear to be sustained, unwearying, by their own will and appetite for it. They do not seem to care whether anyone listens to their teaching; they seldom listen long to one another.[6]

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[6] W. P. Ker reviewing vol. 1 of George Saintsbury's *History of English Prosody. Scottish Historical Review* 4 (1907), 114–15.

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