Beginning with endings: an essay on prosody

Chris McCully

Prelude

What follows is an essay about versification – prosody, to give the subject its older title. The first two sections of the essay touch on linguistic metrics; these sections are precursors to the three final sections of the piece, all of which treat in different ways of the notion of metrical *constraints*, particularly as those have been expressed in a version of linguistic metrics current since the later 1990s, namely Optimality Theory (OT). I've written about this here because OT-based forms of thinking about metrical (and non-metrical) organisation seem intuitively quite satisfying to me *as a writer of verse*. It is primarily as a writer, secondarily as a writer-and-reader, and not at all as a linguistic specialist or critic, that I have put these thoughts into their present form.

So as not to clutter up the piece with foot- or endnotes I summarise here some of those works from which the piece derives. The source for OT is often and with justice cited as Alan Prince and Paul Smolensky, *Optimality Theory: Constraint Interaction in Generative Grammar*. Technical Report number 2, Rutgers Centre for Cognitive Science (1993), also available in the Rutgers Optimality Archive, ROA 537-0802. In the same period Alan Prince was also doing important work with John McCarthy, e.g. the paper 'Generalized alignment' in Geert Booij and Jaap van Marle (eds.), *Yearbook of Morphology* 1993. Dordrecht: Kluwer, pp.79-153. OT reached the textbooks in Diana Archangeli and Terence Langendoen (eds.) *Optimality Theory: An Overview* (Oxford: Blackwell, 1997) and in a fuller form in René Kager's *Optimality Theory* (Cambridge: Cambridge University Press, 1999). Chapter 11, and especially section 11.5ff. of Chris McCully, *The Sound Structure of English* (Cambridge: Cambridge University Press, 2009), offers a brief and basic introduction to OT.

Much earlier linguistic metrics looked back in some form or other to Noam Chomsky and Morris Halle, *The Sound Pattern of English* (New York: Harper and Row, 1968). Earlier (and later) versions both of classic linguistics and structuralism of course referenced Saussure (though Chomsky's notion of what was then called 'deep structure' shouldn't be taken to be isomorphic with Saussure's 'langue'). The best recent translation I know of Saussure's 1916 *Cours de Linguistique Générale* is that of Roy Harris (*Course in General Linguistics,* London: Duckworth, 1983).; see also Jonathan Culler, *Saussure* (London: Fontana/Collins, 1976, p.27.) Saussure's view of the indivisibility of signifier and signified has been too little noticed: 'Each sign is a dual entity, uniting signal [*signifiant*: McC] with signification (*signifié*). Neither facet of this duality exists independently of the other….' (Roy Harris, translator's introduction, *Course in General Linguistics,* London: Duckworth, 1983, p.xi). In 'Nature of the linguistic sign' (pp.65-70 of Harris's edition) Saussure also insisted that although the sign itself may be arbitrary it nevertheless comprised a 'two-sided psychological entity' whose two elements, concept and sound pattern, 'are intimately linked and each triggers the other' (p.66 of Roy Harris's translation of the *Cours*). There is no 'free play of the signifier' here.

Morris Halle and Nigel Fabb's *Meter in Poetry* appeared in 2008 (Cambridge: Cambridge University Press). In the thirty years preceding the appearance of *Meter in Poetry* a number of important papers and books had appeared in the field. These include e.g. Paul Kiparsky and G. Youmans (eds.) *Phonetics and Phonology. Vol. 1: Rhythm and Meter* (San Diego: Academic Press, 1989) and C.B. McCully and J.J. Anderson (eds.) *English Historical Metrics* (Cambridge: Cambridge University Press, 1996). There's also an important universalist modulation of metrics in Kristin Hanson and Paul Kiparsky, 1996: 'A parametric theory of poetic meter,' *Language* 72/2, pp.287-353. More recently, a section of Denison et al. (eds.) *Analysing Older English* (Cambridge: Cambridge University Press, 2012), is devoted to 'Metrics and onomastics in older English' (Part 1, pp.7-55).

Work in the field of what is inaccurately called 'metrical phonology' looks back to Mark Liberman and Alan Prince 1977, 'On stress and linguistic rhythm,' *Linguistic Inquiry* 8, pp. 249-33. Bruce Hayes, *Metrical Stress Theory: Principles and Case Studies* (London: University of Chicago Press, 1995) is a brilliant exposition of linguistic stress theory. The principles governing the stressing of words is also explored in Harry van der Hulst (ed.) *Word Prosodic Systems in the Languages of Europe* (Berlin: Mouton de Gruyter, 1999). An overview of 'metrical phonology' together with tree-

and grid-based representations of rhythm and word-stress, is given in Chris McCully, 'Metrical phonology' in *Encyclopedia of Language and Linguistics*, (Amsterdam: Elsevier, 2006, pp. 113-119). Staying with the generativist linguistic context, Fred Lerdahl and Ray Jackendoff explored *A Generative Theory of Tonal Music* (Cambridge, MA: MIT Press 1983) and Paul Kiparsky published an influential paper on metrics in 1977 ('The linguistic structure of English verse', *Linguistic Inquiry* 8/2: 189-247).

I have side-stepped a number of important questions in this initial sketch of OT-based metrics, in particular, the question as to whether a poet *intends to produce* a well-formed 'output' and accordingly, whether metrical constraints are in principle different from other linguistic constraints. That is, the goal of standard OT grammars is derivation; it's not clear that the goal of metrics should be derivation or whether OT-based metrics should simply attempt to characterise a set of judgements about the metricality or otherwise of lines of verse. This matter is wonderfully well explored in Bruce Hayes, 'Faithfulness and componentiality in metrics', a piece that first appeared in the Rutgers Optimality Archive (2000) but which was electronically published for general readers two years later (http://www.linguistics.ucla.edu/people/hayes/FaithfulnessInMetrics/FaithfulnessInMetrics.PDF).

A possible constraint ranking for classical Old English alliterative verse is explored in chapter 5 of Chris McCully and Sharon Hilles, *The Earliest English* (London: Pearson, 2005).

The most recent (and linguistically sophisticated) history of English prosody known to me is Martin J. Duffell, *A New History of English Metre* (Oxford: Legenda, Studies in Linguistics 5, Modern Humanities Research Association and Maney Publishing, 2008).

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Metrics, rules and underlying structure

Many years ago I was invited to share a podium with two professors who were then working at the University of Manchester. Our remit was to sketch recent research developments in the field of English studies to an audience of graduates and others. I did not then often receive, and have since rarely received, invitations to appear on seminar platforms with the great and good. I suppose I was there to make up numbers. Nevertheless, I prepared what I had to say together with a paper handout sufficient for forty attendees. I imagined it might be interesting - even in such distinguished company, even to an audience which held literary and cultural-theoretical specialists of different persuasions - if I were to attempt to outline recent developments in theoretical linguistics and notably, the impact that Optimality Theory (OT) was then having on views of the standard linguistic model of how sound-structure – indeed, how language in general – was organised.

The podium filled; the room pumped up with breath. The professors conversed. Memory tells that there was some earnest interrogation of that dear old suspect, How Meaning

Could Mean. How Meaning Could Mean was apparently much to our audience's taste – and (one might say) why not?

When my turn came to speak I had sand in my throat. I explained, by way of introduction, that a disconcerting question had followed me about all my life: *Why am I here*? I felt under-equipped to revisit Ogden and Richards (*The Meaning of Meaning*, London, 1923 and many times subsequently reprinted). I felt under-equipped to revisit almost anything – except to try dumbly to fulfil the terms that had brought me to the podium. I went on, in the allotted time, to attempt a too-brief explanation of the workings of OT and their consequences to an ever-more mystified audience. Although it was too early, I said, to state that the coming of OT was an instance of paradigm shift, the impact that OT was having, not least in the fields of sound-structure and prosody, compelled a re-examination of ideas such as underlying structure and indeed the concept of derivation itself.

What interested me then and what interests me still is that OT provides a new way of conceiving the relationship between the underlying structure of a language and how that structure appears in speech. In the standard linguistic model of phonology, which reached then-classic exposition in Noam Chomsky and Morris Halle's *The Sound Pattern of English* (New York, 1968), underlying forms (phonemes) are, in their passage to utterance, derived by an ordered set of rules so that they become well-formed surface sounds, the (allo)phones of speech. What a phonological rule does, in effect, is take an underlying piece of structure and tell it what to become. A trivial example: there is an underlying speech-sound /p/ in English. In words such as *pin*, *pat*, *pet*, however (unlike in words such as *nip*, *stop* or *clasp*), the underlying /p/ appears in speech with strong aspiration. Why? In the standard model there is a rule which instructs the phoneme to behave in a certain way in a certain environment: 'When occurring initially in a stressed syllable, you will acquire aspiration'. Such a rule,

which should in principle apply exceptionlessly, predicts that in the appropriate environment, i.e. initially in a stressed syllable, /p/ appears as surface [p^h].

Thus conceived, the underlying structure of a language bears some resemblance to what Saussure explained as *langue*, the *system* of that language. The actually-occurring forms of language (in speech or writing) Saussure called *parole*. Saussure made use of homely analogies to emphasise his view of *langue*, of which my favourite is that of the train. *Langue* is equivalent to the timetable of trains, not the trains themselves. The elements that comprise *langue* are therefore abstract, just as a train timetable is, formally-speaking, abstract. Nor does the train timetable know or care whether the trains are painted red or yellow or have two carriages or sixteen. Yet Saussure also made the crucial point that *langue* and *parole* aren't separable: they're as indivisible as two sides of a single sheet of paper.

The underlying and the actually-occurring, the relationship between the two, how presence could be derived from abstraction, how linguistic rules worked or failed to work: I became interested in such matters thirty-five years ago and a related interest sustained some of my research in the 1980s and 90s. In those decades, it seemed a common experience in the United Kingdom for university departments of English, which had once been broad churches containing close readers, critical theoreticians, philologists and theoretical linguists, to polarise, even to split formally, into separate departments comprising, on the one hand, specialists in literatures and different kinds of cultural and critical theory, and on the other, remaining philologists and linguistic theoreticians and historians. For a while, (post-) structuralism – which could in a crude sense be viewed as an unlovely variant of *close-reading-with-semiology* – provided a perhaps unlikely bridge between language specialists and literary critics but I think it is generally true to say that the bridge, which had never been particularly steady in the first place, eventually gave way. The result has been that the recent and current work of many linguists and language historians, including those working

professionally on the English language, has seemed to become ever more invisible to those working on or with English literature or in those fields of cultural theory related to English literature. This parting of the ways, if it was a parting of the ways, is in my view a pity. There's much still to discuss, much yet to do.

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Rule-based prosody: Halle and Fabb (2008)

Over the past forty years some important work has been done by linguists on many aspects of poetic form, to the extent that work on English prosody, in particular – a field now often dubbed 'metrics' to disambiguate it from analyses of other aspects of sound-structure such as the internal organisation of syllables – has attracted research monographs or collections of papers emanating from symposia. In the same period, linguistic research into the nature and description of rhythmicity in the world's languages has been extensive and a number of competing linguistic models for the representation of rhythmicity – tree-based, grid-based or hybrid models – have been deployed or discarded. Such enterprise, which as far as the representation of verse prosodies is concerned was never particularly unified, reached further expression in Nigel Fabb and Morris Halle's *Meter in Poetry*, which adopts a grid-based, parameterised model through which to describe the major metres of seven of the world's languages or language-families. The ambition of this important work is clearly universalist (other of the world's metres can in principle be described by applying a grid-based and parameterised model) and is also refreshingly aware of the interdisciplinary potential of its methodology: Appendix A of chapter 1, for instance, explicitly relates the description of poetic metres to music ('[M]usical meters are constructed by iterative rules of parenthesis insertion of the same kind as those employed above in assigning metrical grids to lines of poetry,' p.36 – Fabb and Halle's primary example, the opening of Mozart's *Symphony No. 40*, is derived from Lerdahl and Jackendoff, 1983). Noteworthy, too, is the authors' awareness of

poetic forms whose structure is, strictly-speaking, non-metrical but whose existence depends of various kinds of rhythmical or syntactic parallelism.

Fabb and Halle's central principle is that for a metre to exist at all, something must be *counted*. Something must, therefore, be *measured*. In metrical verse, what is counted and measured are not only poetic *lines*, where 'line' is a constituent unique to poetry, but also *groupings* that comprise the lines. Where the number of adjacent lines are measured one may, if those lines are constructed as equivalent in terms of their internal groupings, discern a stanza, particularly since rhyme schemes, when they are used in patterned ways, themselves imply measurement. So, trivially, the octave of e.g. a Shakespearean sonnet would comprise eight lines, the sestet six. Less trivially, because lines of stanzas are built out of equivalent structures, the stanza is in principle parellelistic: the aesthetic effect of the stanza is one of expected or deferred cumulation.

Groupings are conceived in Fabb and Halle's view (p. 4) as projections of syllables – projections into a metrical grid that is then subject to iterative and projective principles that appear to build rhythmical and metrical structure into the line being analysed but which are better conceived as describing rhythmical and metrical structure already present in the line. This may be illustrated through borrowing a partial description of one of Fabb and Halle's introductory examples, the line 'Ever let the Fancy roam' (Keats).

1. Project each syllable into a gridline

   Ever let the Fancy roam
   * * * * * * *

2. Group the projections (via the application of a rule which iterates across the projections)

   Ever let the Fancy roam
   (* * (* * (* * (*

3. Project the head of each group onto a new gridline (via the application of a rule which specifies which projection is selected to be the head of each group)

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Ever let the Fancy roam
(*  * (*     * (*    * (*
 *     *       *       *
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Further gridlines are then constructed, again depending on the application of parameterised rules; the final gridline must span exactly one asterisk – something stipulated in a condition on the construction of well-formed metrical grids. In this procedure, the analysis of a metrical line 'is determined on the one hand by the size of groups on each gridline, and on the other hand by the number of Gridlines for which rules of syllable grouping are specified' (Fabb and Halle, p. 7). Further, grids are essentially abstract: computed line-by-line, they are patterns which 'determine[..] the perception of syllables as a line of metrical verse' (p.11). Further, the computations which organise grids consist of 'the ordered application of a licensed set of rules' (p.11, where a set of rules 'is "licensed" when it is observed by a poetic school or tradition').

I find many things to admire in Fabb and Halle's text, not least their description of both Manley Hopkins' regular iambic verse (pp.82-85) and his verse evincing sprung rhythm (an innovation which allows for the non-projection of syllables into grids, pp.85-90). The basal emphasis on counting and measurement is clearly correct – it is the same impulse which joins poetry with music and with dance - and the universalist ambition admirable. Yet I also found myself questioning whether this model was intuitively satisfying to me *as a writer* of verse. Years before, I had privately asked myself the same question when exploring Paul Kiparsky's influential 1977 paper on the organisation of English metre, in which he suggested (a) that there were both bracketing and labelling mismatches to be found between the underlying structure of a line of verse and the linguistic material actually filling that same line, and (b) that the (metrical) complexity of a line could be calculated from the number of mismatches in it (1977, p.195). While it was ingenious to have access to such a matrix of

complexity, was I conscious *as a writer* (I asked myself) of those principles? Were such principles intuitively satisfying?

At the same time as querying my intuitions as a writer I also wondered about the 'ordered application' of a 'licensed set of rules' that is so vital to Fabb and Halle's 2008 analysis of metres. At almost the same time as I was encountering Fabb and Halle's text I was also writing specifically about the problem of rule-application in a short textbook on English phonology. Suppose, for example, one wished to derive a surface form [XCZ] from an underlying form /XAY/. Three ordered rules would have to apply: A would have to become B in a specified context; then Y would have to become Z in a specified context; finally, B would have to become C in a specified context. Following Kager (1999, p.58), I gave the following figure and brief description:

Underlying form:		/XAY/
Rule 1: A ⟶ B/X_____	Intermediate form	XBY
Rule 2: Y ⟶ Z/B_____	Intermediate form	XBZ
Rule 3: B ⟶ C/X_____Z	Intermediate form	XCZ
Surface form:		[XCZ]

Note that the rules have to apply in the order given so that the correct surface form is derived. (How do the rules know how to order themselves? Can rules 'conspire'?) Our problem, however, is crucially that the intermediate form XBZ isn't immediately inferable from *either* the underlying *or* the surface form. That intermediate form is simply mechanically generated as an inevitable part of a process, and – since it has no easily-inferable relationship to either underlying or surface forms – is said to be *opaque*.

A key question to ask at this point is this: *how can any speaker ever learn such opaque forms?* If they are 'true', these intermediate forms are certainly parts of the linguistic competence of a given speaker, but since it relies on *opacity*, then *how can such a system ever be learned?*

This worry about opacity met my prior worry about how intuitively satisfying rule-based metrical analyses were. What did I actually *do*, when I was composing and revising verse? How had I learned those metrical or non-metrical principles that manifested themselves in the poetry I had written? Was I aware of metrical complexity in the course of composition? Did I

proceed, in composition, grouping by grouping – or was the emergence of so many pencil scribblings, false starts and erasures in my poetry workbooks a symptom of the baleful working-out of different processes?

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Counting, closure and constraints

When I'm writing verse it's rare for me to proceed syllable-by-syllable or (it may be) foot-by-foot. Sometimes, as in metrical translations of Old English verse (Chris McCully, *Old English Poems and Riddles*. Manchester: Carcanet, 2008), it's been necessary to consider the form of particular light or heavy syllable against the requirements of an underlying metrical template but I rarely consider these matters when composing contemporary verse. What concern me when I'm writing metrical verse seem to be (i) an overall sense of syllable count and the line, (ii) line-breaks and (iii) thematic and metrical freedom. (Appropriacy of diction is another great concern, of course, but the poetry workbooks suggest that words are rejected or replaced towards the end of the process of metrical composition. By this I don't intend to imply that diction is unimportant. In fact, the underlying (metrical) structure of some poems-to-be may be triggered by the phonotactics of words themselves, even if the triggering words are subsquently changed or deleted at a later stage of the drafting process.)

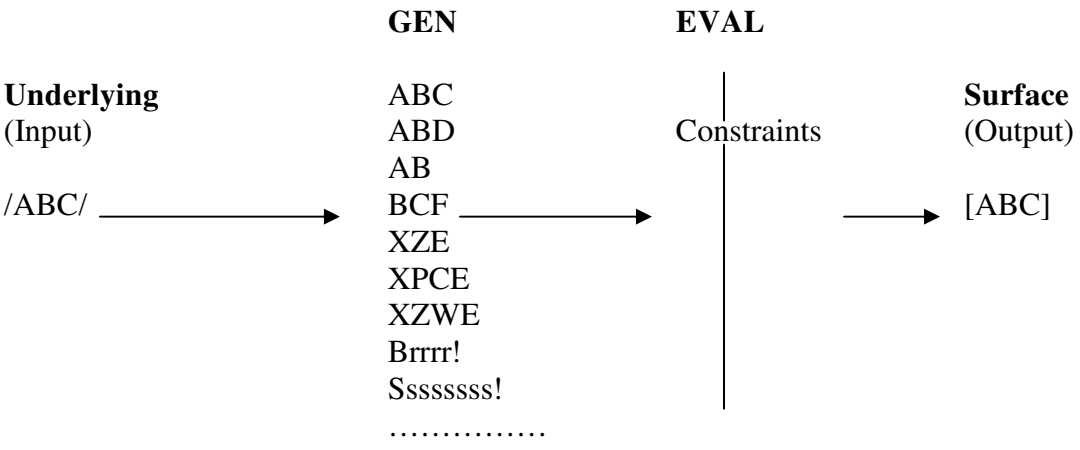
The previous paragraph should not be taken to mean that in composing verse I sit down and imagine that 'Today, I'm going to compose something in the form of a Shakespearean sonnet'. Far from it. Something else seems to take place in the moments of composition. I've already said that 'the line', line-breaks and thematic and metrical freedom seem essential to my own ways of working, but can I be any more specific and critically satisfying than that?

What, more precisely, is a poet's 'sense of "the line"'? (I emphasise again that I'm here speaking only of metrical verse, though these remarks also bear, I think, on *vers libéré* -

'freed verse' whose freedom consists chiefly in playing against a stricter underlying metrical form.) A line is among other things a metrical domain. And what is a metrical domain? *A metrical domain is an underlyingly closed structure between whose constituent parts various constraints operate*.

It's appropriate to say something about *constraints* as these are conceived in OT and as they may have bearing on the process of verse composition. In the standard model of OT, the production of well-formed language involves *evaluation of forms*. Language is organised such that an input is generated ('GEN' below) together with a competing list of rival forms into an evaluative process ('EVAL' below) which consists of a set of constraints. The constraint select the winning candidate from among the competing input forms, so that a well-formed output is selected. There's great freedom in this process – the candidate set assessed under GEN can be comprised by any sort of linguistic object – yet encoded into the scheme there's also the principled notion that outputs should correspond as closely as possible to inputs.

Evaluation of forms in OT



Unlike linguistic rules, which apply automatically wherever their structural descriptions are met, constraints are in principle *violable*. As I put the matter in *The Sound Structure of*

English (p.201), 'constraints are *ranked*, such that candidates are *the better formed, the fewer higher-ranked constraints they violate*'.

In a verse-prosodic context, suppose that there are two constraints that apply to the evaluation of the (English) iambic pentameter. One constraint concerns how these lines end. It is therefore a *closure* constraint: the tenth syllable of the line must be filled by a stressed syllable. The second constraint is a *counting* constraint: each (English) pentametric line must contain exactly ten syllables. the much-cited Shakespearean line 'Of hand, of foot, of lip, of eye, of brow' (*Sonnet* 106) violates neither of these constraints and is for these reasons (as well as several others) perfectly formed. Yet as everyone knows, not all pentametric lines consist of exactly ten syllables. Some frequent variants span eleven syllables:

> But day doth daily draw my sorrows longer,
> And night doth nightly make grief's length seem stronger.(*Sonnet* 28)

> Yet him for this my love no whit disdaineth;
> Suns of the world may stain when heaven's sun staineth. (*Sonnet* 33)

And other common variants of the pentameter span nine syllables (so-called 'headless lines'):

> Stay, the King hath thrown his warder down (*Richard II*, Act 1, scene 3)

An important notion here is that of the relative importance of the constraints evaluating the metrical line: it seems more important that lines should conform to the requirement that their tenth syllable is stressed than that they should contain exactly ten syllables. Note also that a headless line would, if it contained an initial (unstressed) syllable, be a perfectly well-formed pentametric line. That implies two further things about the construction of metrical lines: (a) metrical constituents within a line must be filled and (b) there is more freedom (e.g. to omit syllables and/or violate other constraints) in the opening of a metrical line than at the end.

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COUNT, CLOSE, FILL and FREE

We now seem to be dealing with four possible constraints that bear on evaluating well-formed pentametric lines. The first is a constraint on counting (COUNT). The second is a constraint on closure (CLOSE). The third is a constraint on filling (FILL) and the last a constraint on metrical freedom which the linguist Bruce Hayes has characterised as 'beginnings free, endings strict' (a constraint I shall here call, in shorthand, FREE). In the few examples noted above it would seem to be the case that

- CLOSE is never violated and is therefore more important than COUNT
- FILL (and COUNT) may be violated if FREE is not.

That suggests a possible ranking of these metrical constraints. If we allow the symbol '>' to stand for 'is more important than' then the following ranking is conceivable:

CLOSE > COUNT > FREE > FILL

Suppose we had a different ranking, FILL > COUNT > FREE > CLOSE. That would mean that it would be impossible ever to have headless lines (since all metrical positions, including the first within the line, would have to be filled) and also, because COUNT > FREE > CLOSE, that hendacasyllabic variants would never occur within any pentameter. In other words, such a possible ranking would be both counter-factual and counter-intuitive.

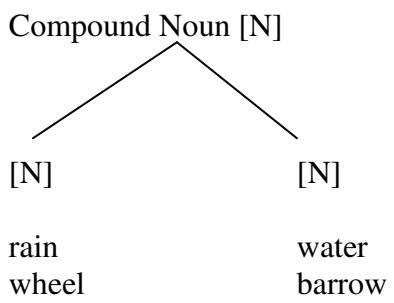
The two possible metrical constraints CLOSE and COUNT allow for the characterisation of a surprisingly extensive range of different kinds of verse structure, and not just metrical verse structure. Under an OT-style schema it would be possible to have verse that exhibited COUNT > CLOSE. This would mean 'it's more important for metrical domains to span exactly a given number of syllables/other constituents than it is for those domains to end in particular ways'. An example here would be syllabic verse in English – haiku is one instance. It seems important to note, however, that haiku doesn't provide an instance of 'free

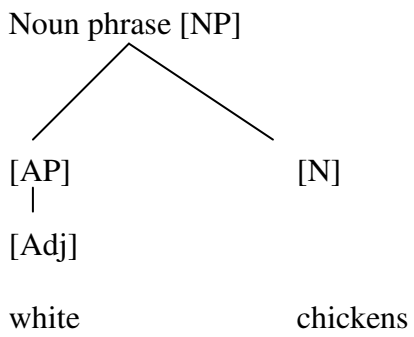
verse'. How could it? Something is counted, even if that something isn't, in metrical terms, closed. Therefore haiku affords an example of 'freed verse' – *verse libéré*, not *vers libre*.

A further example of *verse libéré* would be the following, from William Carlos Williams. Suppose, for instance, that what a closure constraint required was for the rightmost edges of verse lines to be adjacent to syntactic boundaries. Now consider the following:

so much depends
upon
a red wheel
barrow
glazed with rain
water
beside the white
chickens

The verb *depends* is immediately followed by a syntactic boundary, i.e. the boundary that delimits the left edge of the prepositional phrase 'upon…chickens'. The preposition *upon* is followed by a syntactic boundary, i.e. the one that introduces the noun phrase 'a red wheel barrow'. In the following lines, the noun phrases '(a red) wheel barrow', '(with) rain water' and '(beside the) white chickens' each contain a head noun (*barrow*, *water*, *chickens*) which is pre-modified by either another noun ('wheel', 'rain') or an adjective ('white'). The syntactic structure of such compound nouns or syntactic phrases is roughly as follows:





In both cases, however, there is a boundary – lexical and/or phrasal – between the modifier and the head noun. And last, the final word of the poem, 'chickens', is followed by a closing syntactic boundary.

There's also a counting constraint at work in the poem:

so much depends	syllable count:	4
upon		2
a red wheel		3
barrow		2
glazed with rain		3
water		2
beside the white		4
chickens		2

The constraint: 'Every other (i.e. even-numbered) line of the poem must span exactly two syllables'. This isn't I think a *metrical* constraint: it doesn't apply across every line. It's simply a counting constraint that applies to this particular poem. Yet it's a constraint nevertheless and as such leads to the suspicion that the form Williams deploys employs both CLOSE and (partially, perhaps idiosyncratically) COUNT. (The reader might also note that the two main clauses of the poem each span 11 syllables; haunting those 11-syllable spans is perhaps the ghost of the pentameter.)

These remarks lead to the suspicion that the separation of 'metrical' from 'nonmetrical' verse isn't clear-cut. In fact, if the foregoing is along the right lines then a cline of metricality could be envisioned:

Least metrical **Most prose-like**	**More metrical** **Less prose-like**	**More metrical** **Less prose-like**	**Fully metrical** **Least prose-like**
No COUNT No CLOSE	COUNT No CLOSE	CLOSE No COUNT	COUNT CLOSE

Some manifestations of these possible categories of verse: (a) non-COUNT, non-CLOSE verse would be 'free verse' – *vers libre*. Structurally, some kinds of such verse would be, when spoken, impossible to distinguish from prose. (b) Verse that is counted but not closed is exemplified in the haiku, tanka and other syllabic forms. (c) Verse that is closed but not counted is exemplified in the pantoum, where the lines (metrical domains) may in principle by of any length (thus non-COUNT) but where the lines fall into strict groupings (quatrains) and are subject to strict repetition (a manifestation of CLOSE). (d) Verse that is fully metrical is both counted and closed. To familiar examples such as iambic pentameter, tetrameter and so forth I'd also add Old English alliterative verse, which is in my view constructed around two high-ranked constraints, one that states that each half-line consists of four metrical positions (COUNT), the other requiring that half-lines end in certain ways (CLOSE).

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Constraints and creative intuition

I'm conscious that the foregoing will seem almost childishly simple to any theoretical linguists reading even this far. Yet the central point I'm trying to explore seems to me worth repeating: it may well be the case that prosody is more dynamic than many writers and critics have hitherto imagined and is dynamic precisely because the generation and apprehension of metrical (and some less metrical) lines may well turn out to depend on the creative interaction of metrical constraints. Even in the foregoing we've begun to imagine how powerful this set of characterisations of prosody can be and it has even helped us towards understanding not an absolute distinction between 'metrical' and 'free' verse but a far more interesting cline that spans the fully metrical to the most prose-like.

There's one particularly interesting thing about this that engages me as a writer. For all kinds of metrical verse, CLOSE seems to be the highest-ranked constraint and metrical freedom is greatest at the openings of metrical constituents. Yet CLOSE can't exist in isolation. Take the pentameter again. If the tenth syllable of the pentametric line is filled by some kind of stressed syllable then the ninth syllable of the same line must be filled by a syllable bearing less stress than the tenth. Furthermore, since metrical strictness (instantiated in the relative freedom to invert feet or play other structural tricks) is greatest towards the line end then it would seem very likely that the eighth syllable of the metrical pentameter would bear more stress than the ninth. And if *that* were the case then the seventh syllable of the line would almost invariably display less stress than the eighth syllable. In short, the interaction between CLOSE and FREE ('beginnings free, endings strict') determines that pentametric lines will tend almost always to end 'de-DUM de-DUM' – that is, metrical closure involves a *dynamic*. What happens metrically and syntactically as lines end and turn has an effect earlier in the line, and this makes sense to me as a writer: I may not be – I very rarely am – conscious of metred language as a matching of linguistic material against an abstract set of positions but I'm certainly conscious of lines and their succession as a sequence of acoustic and semantic dynamics.

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Closing with closure

If I speak purely as a writer of verse then over the years there have been a mere handful of critical works I've found useful. One is Barbara Herrnstein Smith's *Poetic Closure* (Chicago University Press, 1968). Smith makes the point that humans are pattern-making and pattern-perceiving creatures: a truism, but one that becomes more interesting if one believes that readers engage in 'retrospective patterning' (p.13) when our expectations of sequences are disrupted. Take the following:

ABABCDCDEFEF (etc.) – what is the pattern? What are our expectations?

ABACADAEAF (etc.) – what is the pattern? What are our expectations?

The first **C** in each sequence is disruptive. We engage in retrospective patterning precisely when a sequence is disrupted.

Further, as Smith points out, closure doesn't simply mean 'end'. For example, the structures of verbal art can be so carefully deployed (and the reader so manipulated) as to produce *the desire for closure*. This can be seen in much metrical poetry, where the closural device is a return to metrical regularity after metrical variation or disruption. Smith (p.44) cites Herrick's 'To Electra':

> I dare not ask a kisse;
> I dare not beg a smile;
> Lest having that, or this,
> I might grow proud the while.
>
> No, no, the utmost share
> Of my desire, shall be
> *Onely to kisse that Aire*,
> That lately kissed Thee.

Note the relationship between line 7 (metrically disruptive, an effect that leads both to retrospection and to anticipation) and line 8 (the closural line, a return to the normative metrical pattern).

Closure, in Smith's view, may also be a matter of syntactic and phonological alignment, as in passages on Milton's blank verse, or even a semantic matter where a riddle or postulate is solved, as in certain epigrams or the punch-lines of some jokes. Above all, however, '[t]he perception of poetic structure is a dynamic process' (Smith, p.33) – to which I only add that it is so, perhaps, because the *writing* of poetic structure is itself a dynamic process.

Thinking about prosodic closure isn't only a way of conceiving the structures of individual lines. The history of metrical inventiveness, the evolution (and death) of whole poetic genres, may also be described by reference to closure. One of the most important constraints on the highly-wrought, aristocratic verse of the Anglo-Saxons, for example, is precisely a constraint on metrical closure – on what sort of syllable can occur in the fourth position of the half-line. Barbara Strang put this most succinctly in her great *History of English* (London: Methuen, 1970), p.326: '[T]here is between half-lines a break, or line-end marker….The end of a half-line is always determinate….[I]f it is occupied by a lift [stressed syllable: McC] that goes without saying, but if it is occupied by a drop there is the special restriction that the drop must there be monosyllabic'.

This closural constraint holds for almost all half-lines in the Anglo-Saxon corpus just as it holds for almost all Eddaic (and Old High German, Old Frisian) verse. Yet the effect of this special restriction (closural marker) is dynamic: if an unstressed syllable appears in the fourth position of a half-line then the immediately-preceding syllable must be some sort of stress, whether primary or secondary:

sē þǣm heađo-rin**cum**

(who with those battle-men; ; **-cum** preceded by secondary stress; *Beowulf*, line 370a)

fōn wiđ fēon**de**

(struggle against the demon; **-de** preceded by primary stress; *Beowulf*, line 439a)

Or again, to take a final example, and as Martin Duffell shows (p.87ff. of his 2008 *History of English Metre*), closure is a key to recognising the achievement of Chaucer in constructing the pentameter from his models, chiefly the *endacasillabo* of Boccaccio and Petrarch. For both Boccaccio and Petrarch it was possible to allow triple-rhythms both before

a mid-line caesura and before the tenth syllable of the line. Thus Italian ten-syllable lines could both begin and end '(de-)de-de-DUM' (io de Parnaso le Muse pregare, *Filostrato* Book 1, example from Duffell, p.86, runs of unstressed material underlined): 'Chaucer's great innovation….was to elevate the iambic rhythm he found in an overwhelming majority of *endecasillabi* to a structural principle, and he did this by not placing lexically strong syllables in odd-numbered positions, and by placing stresses in most even-numbered ones' (Duffell, p.87). By (almost wholly) ruling out triple-time closures, therefore, Chaucer single-handedly constructed 'the first true pentameters in any European language' (Duffell, p.87). In these dynamics a new metre was born.

Many years have passed since I stood sand-tongued on that Manchester podium. What I wanted to say then consisted essentially of reaffirmation: underlying structure exists; OT can probably provide us with interesting ways of conceiving both the creation and perception of measured language; what we've so often called prosody is better conceived as a study of dynamics than the construction of rules. These years on, however, and for all the progress has been made in the description of English and other verse prosodies, much remains to be accomplished. To the affirmations I wished to make a decade ago and for the work I think still remains to be done, I'd like to add a paradox: for poets as for prosodists, closure is no bad place to start.

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6,222 words inclusive title material, footnotes and all examples

Drafted 2012-2015, this draft May 1st 2015.