Meter and Metrical Reading in Temporal Poetics

RICHARD CURETON

Introduction

Meter is the most basic component of rhythm, both structurally and developmentally. Among the rhythmic components (meter, grouping, prolongation, and theme), it develops first and sets the basic parameters for rhythmic organization. The other rhythmic components develop later and presuppose its existence. Meter is foundational to the rhythms of poetry in many ways. It has its locus in the most basic part of the brain (the hind brain). It is a product of our most basic cognitive ability (physical coordination). It is associated with our most basic sense (touch). It organizes the most basic level of linguistic structure (gesture/phonology). It animates the most basic literary genre (song). It is the major determinant of our basic verse forms (e.g., the sonnet). And it appears most fully in the *early* works of poets, poetic traditions, and historical periods.

Experientially, meter is a *beating*, a structure of felt pulsations. As the temporal paradigm documents, the major features of this pulsing (repetition, participation, fixity, subjectivity, iconicity, etc.) inform cyclical time and its evolutionary products.

Richard Cureton, Meter and Metrical Reading in Temporal Poetics.
Thinking Verse II (2012), 112-237.
ISSN 2049-1166.

The Temporal Paradigm

Temporal Features	**Cyclical**	**Centroidal**	**Linear**	**Relative**
event-event relation	similarity	difference-in-similarity	similarity-in-difference	difference
temporal figure	occurrence repetition succession	correspondence prominence proportion	transition direction implication	connection distinction simultaneity
subject-subject relation	participation	obligation	cooperation	individuality
subject-event relation	subjective	objective-in subjective	subjective-in objective	objective
semiotic relation	icon	emblem	index	symbol
cognitive process	reaction passive	affection reciprocal	exploration active	creation improvisatory
clock time: orientation	past	present	future	relative
relational scope	proximate	local	regional	global
event position	initial	medial	final	peripheral
curve of energy	fall	rise-fall	fall-rise	rise
structural volatility	fixed	constrained	volatile	free

The first column in the poetic paradigm lists some of these products, both within language and elsewhere: the family, orality, polytheism, the classical virtues, myth, metaphor, alliteration, syllables, words, past tense, 3rd person, etc.

THE POETIC PARADIGM

Temporality	**Cyclical**	**Centroidal**	**Linear**	**Relative**
I. Psychological and Neurological				
sociobiology	colonial invertebrate	social insect	higher mammal	human
neurology	hind/reptilian brain	mid/mammalian brain	left cortex	right cortex
faculty	perception/body	feeling/emotion	will/action	memory/thought
sense	touch	smell/taste	hearing	sight
vision	primal sketch	full sketch	2 1/2 D	3-d
phylogeny	australopithicus	homo habilis	homo erectus	homo sapiens

ecology	mineral	vegetable	animal	human
ontogeny	child	youth	adult	elder
psycho-pathology	manic-depressive	psychosis	neurosis	amnesia

II. Historical and Cultural

Western culture	Ancient -1100	Medieval/Renaissance 1100-1750	19th Century 1750-1900	Modern 1900-
philosophy	formism	organicism	mechanism	contextualism
economy	hunting/gathering	agriculture	industry	information
religion	polytheism	monotheism	naturalism	humanism
social economy	tribalism	feudalism	capitalism	socialism
settlement	city	state	nation	world
social status	family/kinship	estate/peer	class/citizen	comrade
writing	orality	chirography	typography	cybernetics
logic	conduction	deduction	induction	abduction
temporality	past/traditional	present/apocalyptic	future/utopian	relative/pragmatic
government	monarchy	aristocracy	republic	democracy
spatial art	sculpture	architecture	painting	photography
temporal art	dance	music	literature	film
social ethic	communal fate	personal duty	social progress	individual rights
personal ethic 4	wisdom	faith	intelligence	creativity
3	justice	obedience	responsibility	spontaneity
2	temperance	charity	self-reliance	tolerance
1	courage	purity	self-control	flexibility

III. Literary and Rhetorical

genre	epic	lyric	narrative	dramatic
work	song	poem	prose fiction	play
reader position	language	character	audience	author
creative process	dictation	revelation	discovery	creation
trope	metaphor	synecdoche	metonymy	irony
sound scheme	alliteration	assonance & rhyme	consonance	pararhyme
grouping	fall	rise-fall	fall-rise	rise
meter	tetrameter	pentameter	variable	free
divisioning	stanzaic	paragraphed	chaptered	arranged
prolongation	extensional	chiastic	anticipatory	fragmentary
syntactic scheme	anaphora	antistrophe	epistrophe	symploce
discourse	paratactic	logical	temporal	dialectical
semiotic relation	iconic	emblematic	indexical	symbolic
structure	repetition	pattern	process	network
position	initial	medial	final	peripheral
figuration	opposition	unity	uncertainty	multeity
	contrast	resolution	ambiguity	difference
pattern	concentric	geometrical	asymmetrical	multi-dimensional
process	repetitive	contoured	dynamic	static
	proleptic	climactic	anticipatory	anti-climactic
	contradictory	closed	blurred	open
	fixed	shaped	directed	undirected

IV. Prosodic and Syntactic

level	paralanguage	prosody	syntax	semantics
word stress	weak	tertiary	secondary	primary
prosodic foot	moraic foot	syllabic foot	dipodic foot	word
prosodic hierarchy	clitic phrase	phonological phrase	tone unit	utterance unit
syllable	onset	rhyme	nucleus	coda
intonation	fall	rise-fall	fall-rise	rise
syntactic level	word	phrase	clause	sentence
sentence relations	complexing	rank shift	cohesion	transformation
cohesion	repetition	substitution	pronominalization	ellipsis
rank shift	compounding	incorporation	subordination	parenthesis
case	subjective	genitive	objective	[oblique]
sentence types	simple	compound	complex	compound-complex
sentence types	declarative	exclamative	imperative	interrogative
transformation	preposing	postposing	discontinuity	fragmentation

speech acts	statement	exclamation	command	question
complexing	apposition	conjunction	correlation	comment
clause constituency	subjectivization	predication	transitivity	qualification
clause constituents	subject	predicator	complement	adverbial
clause pattern	intransitive	copular	transitive	adverbial
transitivity	monotransitive	complex-transitive	ditransitive	adverbial
mood	indicative	subjunctive	imperative	infinitive
adverbial	adjunct	subjunct	conjunct	disjunct
phrase structure	head	modifier	complement	specifier
word class	noun	adjective	verb	adverbial
phrase type	noun	adjective	verb	adverb/prep
verbal functions	voice	aspect	modality	tense
voice	passive	middle	active	causative
aspect	perfective	imperfective	progressive	perfect
tense	past	present	future	relative
modality	necessity	obligation	probability	possibility
word formation	compounding	derivation	inflection	conversion
function words	conjunction	interjection	pronoun	specifier
conjunction	coordinating	subordinating	correlative	comparative
reference	generic	specific	definite	proper
person	3rd	1st	2nd	generic
number	generic	singular	plural	mass

V. Semantic and Thematic

archetypal themes/images	earth	sun	stars	moon	
	spring	summer	autumn	winter	
	earth	water	air/wind	fire	
	morning	noon	evening	night	
	child	youth	adult	elder	
	spring	brook/stream	river	ocean/lake	
	heaven	Eden	purgatory	hell	
	white	green/yellow	red/brown	black/blue	
	mineral	vegetable	animal	mental/virtual	
	east	south	west	north	
	sunrise	day(light)	sunset/dsuk	dark	
	gut	heart	hand/foot/arm	head	
	seed/bud	flower/leaf	fruit	branch	
	dew	rain	clouds	snow	
	asexual	homosexual	heterosexual	bisexual	
	one	two	three	four	
	quantity	quality	relation	manner	
	body	feeling/soul	action/will	memory/thought	
	touch	taste/smell	hearing	sight	
	with	from	into	away	
	gold	silver	bronze	iron/lead	
	awaken	daydream	doze	sleep/dream	
	mother	son	father	daughter	
	gluttony	lust	sloth/greed/anger/pride	envy	
	foundation	walls/roof	door	window	
	kitchen	dining room	living room	bedroom	
	pig/bear	dog/lion	horse	bird/cat	
	maze	circle	line	spiral	
	God	Christ/Son	Holy Ghost	Anti-Christ/Satan	
	King/President	church	legislature	courts	
	body/child	garden/farm/house	city	mind/personality/art	
	athlete/general	saint/priest	ruler/senator/judge	artist/performer	
	beginnings	middles	ends	peripheries	
	wall	steeple	room	tower	
	cell	tissue	organ	system	
	stone	wood	steel	plastic	
	mountain	valley	plain/moor	forest/woods	
	grass	flower	bush/hedge	tree	

The most important structure created by beating is the *measure*, a hierarchical structure that includes a strong "downbeat" (or metrical "projection"), one or two weaker beats at a second level, and a third level of intervening pulses. All complex meters, such as occur in most poetic rhythms, are made up of measures of different magnitudes, nested one inside the other, often to a considerable extent. It is the structure of these measures that provides meter's contribution to the rhythm of a poem.

The term *measure* is an appropriate mnemonic for the function of meter within poetic rhythm. In most cases, meter divides verse into units of set lengths, against which units in the other components of rhythm can be measured. This horizontal measuring creates many of the tensions and resolutions that give poetry its emotive precision and complexity.

Metrical beating is always much more than just a horizontal measuring, though. It also moves vertically. Each major beat is both a new metrical prominence and the initiation of a new falling motion, a new downbeat in a procession of nested downbeats within the nested measures that comprise the beating as a whole. Because the other rhythmic components are more varied in direction, they will often rise against this consistently falling motion, in some situations, habitually so.

This repeated clashing between metrical fall and phrasal rise, the repeated movement from metrical projection (and phrasal weakness) to phrasal cadence (and metrical weakness) creates the basic motion in the *phrased measure*, the rhythmic heart of the traditional lyric.

I. Metrical Well-Formedness

Beating

A beating is a structure of felt pulsations, a type of mental gesturing, usually elicited by some stimulus that is also pulsational. As with all our rhythmic capacities, our ability to produce a beating, what we might call our *metrical competence*, is innate (or emergent). None of us needs to be taught to beat. Like hearing and walking, beating is just a part of our nature. Given an appropriate stimulus, we beat spontaneously; we can't help ourselves. In fact, metrical response is often so spontaneous and subconscious that it is difficult to bring it to consciousness at all, much less bring it to consciousness fully and explicitly so that we can describe and evaluate it (as we are attempting here).

We beat in response to many different stimuli—to the feel of our stride as we walk, to patterns of light and shade as they flicker by, to the clatter of horses hoofs, to the bumping of car wheels on the road or train wheels on the track, to the sight and sound of waves on a beach, to the whizzing and flashing of passing cars on a freeway, to dancing bodies of all sorts (people, grass, flowers, trees, insects, etc.), to the dipping and lifting of a paddle or oars, to the swing of an axe or scythe, to the dig and lift of a shovel, to a ticking clock, to a ringing bell.

Among these metrical stimuli, sounds seem especially effective in eliciting a beating; therefore, it is no surprise that we beat in response to language, especially spoken language. Like sights, sounds can be fast, complex, and highly articulated; but unlike sights, sounds are still palpably felt rather than just perceived. Sights can be startlingly effective; but they seldom strike us physically, with a force of a blow, as sounds often do. Smells and tactile stimuli are often slower and less highly articulated. If they elicit rhythmic responses, these responses are usually simple, sluggish, and relatively uninteresting.

Language can be highly metrical, but it is not the most metrical medium by any means. In language, metrical rhythms are often backgrounded; other rhythms are thrust forward for our attention. Relative to the best metrical media, language is

also somewhat sluggish. At low levels of pulsation, it lacks the delicacy to elicit the most powerful beatings.

As everyone recognizes, music is the ultimate metrical medium. In music, the smallest events are so fast that our metrical beating even gives us the illusion of a regular, clock-time divisioning. Each beat seems to occur on the second, half-second, or in the most extreme cases, one sixty-fourth or one hundred and twenty-eighth of a second. Most poetry elicits a meter whose lowest level of beating is much slower than this, some thirty times slower. Therefore, a poetic meter seldom gives this illusion of clock-time divisioning.

The best way to track a beat and bring it to consciousness is to move with it in some exaggerated way, as we do when we dance to music. Most dances track many levels within the musical beat: the feet move to one level of beating, the hips to another, the head to another, the hands and arms to another, and so forth. To exaggerate a poetic beat, you can also move in this way. Tap a finger. Nod your head. I like to move my arms to one level of beating while opening and closing my hands to another. I like to use more dramatic arm movements (together with steppping forward and backward) to indicate even larger levels of beating. In order to bring out the poetic beating, dance to the poetry! Being a structure of felt pulsations, meter is literally a dance (albeit, a dance of the mind).

The best way to notate a metrical beating is with a dot matrix. In this notation, each dot column represents a beat. Each row of dots represents a level of beating. The height of each dot column represents the strength of the beat, the highest level that the beat achieves relative to the other beats in the metrical structure. Levels of beating can be labeled. For the moment, numbers can serve: level 1, level 2, level 3, etc. (We will introduce more meaningful labels in a moment).

For example, in the following metrical representation, there are eight beats, one for each dot column. The first beat is strongest; it has a dot column that extends to level 4. The fifth beat is the next strongest, extending to level 3. The third and seventh beats are next strongest, extending to level 2. The second, fourth, sixth, and eighth beats are the weakest, remaining at level 1.

```
              .                                                   level 4
              .                       .                           level 3
              .           .           .           .               level 2
              .     .     .     .     .     .     .     .         level 1

Beat          1     2     3     4     5     6     7     8
```

Try 'dancing' this meter, using the following gestures for beats (of different strengths).

(start: hands closed, palms down, arms at your waist)

level-4 beat: (raise and then) lower arms from head to waist while opening hands, palms down

level-3 beat: (raise and then) lower arms from chest to waist while opening hands, palms down

level-2 beat: open hands, palms down

level-1 beat: close hands, palms down

This is the meter of the individual lines of many songs and nursery rhymes, such as "Twinkle, twinkle, little star." Try gesturing the metrical beating notated above while saying the first line of "Twinkle, twinkle."

```
            Twin-  kle, twin-  kle,  li- ttle   star,
              .                                           level 4
              .                       .                   level 3
              .           .           .           .       level 2
              .     .     .     .     .     .     .     . level 1

Beat          1     2     3     4     5     6     7     8
```

Metrical Patterns

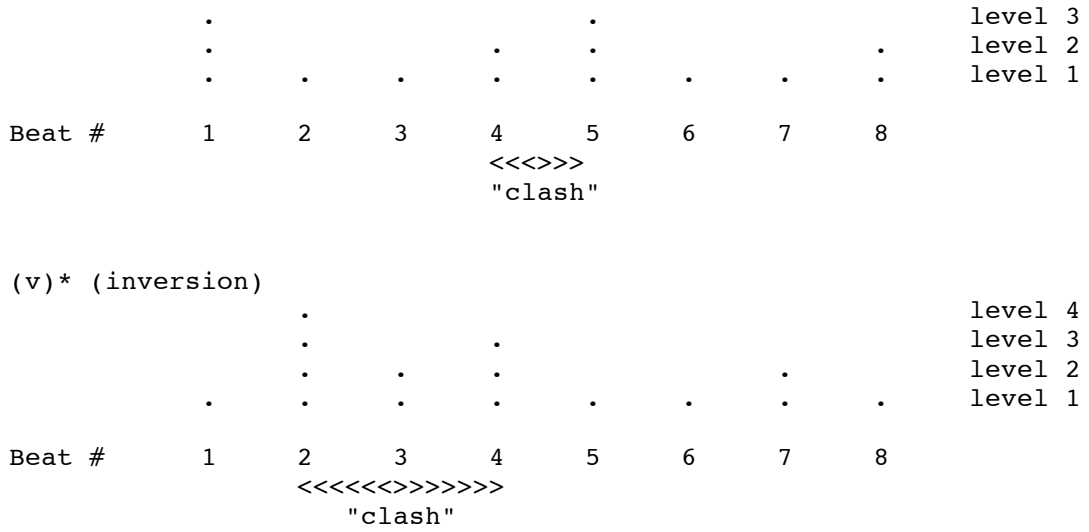
Patterns of beating within a metrical structure are highly constrained. Many patterns of beating that might occur (if meters were just random collections of beats) do not. For whatever reason (neurological limitation, etc.), metrical beating has a coherent design. Structures that do not have this design are not meters.

The following considerations are important to this metrical design.

Alternation

Within a metrical structure, beats alternate in strength; they never "clash." Strong beats are never juxtaposed; they are always separated by one or more weaker beats. This mandatory alternation eliminates many patterns of prominence that occur frequently in the other rhythmic components--crescendo, diminuendo, pyramid (crescendo and then diminuendo), inversion, chiasmus, etc. (* = not well-formed, not metrical).

```
(i)* (crescendo)

                                                .     level 4
                            .                   .     level 3
                    .       .           .       .     level 2
        .       .   .   .   .   .   .   .   .   .     level 1

Beat #      1       2       3       4       5       6       7       8
                            <<<>>>                          <<<>>>
                            "clash"                         "clash"

        .
(ii)* (diminuendo)
        .                                                           level 4
                .                           .
      level 3
        .       .                   .       .                       level 2
        .       .       .       .   .       .       .       .       level 1

Beat #      1       2       3       4       5       6       7       8
            <<<>>>                          <<<>>>
            "clash"                         "clash"


(iii)* (pyramid)
                                    .                               level 4
                                    .       .                       level 3
                            .       .       .       .               level 2
        .       .       .   .       .       .       .       .       level 1

Beat #      1       2       3       4       5       6       7       8
                            <<<<<<<<<<>>>>>>>>>>
                                    "clash"


(iv)* (chiasmus)
        .                                                           level 4
```



Wherever this alternation might derive from—meter's physical basis in pulsation, meter's foregrounding of binary contrast, meter's limitation to local/proximate relations, etc.—a beat is basically a contraction followed by a relaxation, the presentation of something strong and then something weak, continuously realized and locally determined. "Clashing" prominences contradict these qualities.

Modes

At all levels of metrical structure, beats must be separated by no more than two weaker beats. As a result, strong beats are never severely separated; they occur at fairly regular intervals. When beats on some level are consistently followed by just one weaker beat, the meter on this level of beating is *duple*. When beats on some level are consistently followed by two weaker beats, the meter on this level of beating is *triple*. These contrasts between duple and triple beating are called the metrical *modes*.

With these modal limitations, meters avoid many patterns of prominence that occur in the other rhythmic components, for example, a long "run" of weak events followed by a sudden climax of strong ones.

```
              .                               .     .     .     level 2
              .     .     .     .     .     .     .     .     level 1

Beat #        1     2     3     4     5     6     7     8

                    <<<<<<<<<<<>>>>>>>>>     <<<<<<<>>>>>>>
                          "run"              "sudden climax"\
```

Tactus

Meters establish many levels of beating, and all of these levels are important to the metrical structure as a whole. However, one level of beating is particularly important, the level called the *tactus*.

Tactical beating occurs near the rate of the heartbeat, 40-140 beats per minute, with a norm of about 75 beats per minute, or one beat every 3/4 of a second. This rate of beating is neither the fastest nor the slowest; it is somewhere in between. The fastest beating is about 100 times as fast; the slowest beating is about 300 times as slow. Given this full scale, the tactus is closer to the fast extreme, though. Faster levels of beating are more physical. This need for a relatively quick tactus keeps meters firmly grounded in the body.

The tactus can occur in various positions within a metrical hierarchy. For example, speaking at a normal rate, the first line of "Twinkle, twinkle" takes just under four seconds to perform. This tempo makes the second level of beating in "Twinkle" the best candidate for the tactus. At this level, there are four beats to a line. If the line takes four seconds to say, these beats occur at the rate of about one per second, or 60 beats per minute. The eight beats at level 1 proceed at 120 beats per minute; the two beats at level 3, at 30 beats per minute; the beat at level 4, at 15 beats per minute.

```
            Twin-  kle, twin-  kle,  li- ttle   star,
              .                                       Level 4
              .                     .                 Level 3
              .           .         .         .       TACTUS
              .     .     .     .     .     .     .     Level 1

Beat #        1     2     3     4     5     6     7     8
```

Because of the saliency of the tactus, meters whose tactus is at level 2 give a strong impression of alternation. Between each pair of tactical beats there is just one level of subordinate beating. Let's call these meters *alternating*.

In poetic meters, it is also common to have the tactus at levels 1 or 3. If we call the first level of beating the *pulse*, a meter with the tactus at level 1 is *pulsing*. It has no level of beating below the tactus. Most poetry with an accentual versification has a pulsing meter, such as Richard Wilbur's "Junk."

```
   /   /
An axe angles          /         /
              from my neighbor's ashcan;

   .                                          Level 3
   .                  .                       Level 2
   .   .              .         .     PULSE & TACTUS
```

Meters with the tactus at level 3 usually have a dipodic versification; therefore, we might call them *podding*. In these meters, we can call the level of beating between the pulse and the tactus, the *sub-tactus*. Many nursery rhymes have a podding meter, such as "Taffy was a Welshman."

```
Taffy was a Welshman, Taffy was a thief,
 .                                                  Level 5
 .                    .                             Level 4
 .          .         .           .                 TACTUS
 .     .    .    .    .     .     .      .          SUB-TACTUS
 .  .  .  .  ..   .  . .  .  .  .   .   .  .  .     PULSE
```

Besides comically accelerated verse, such as a tongue twister, almost no language can be performed fast enough to have the tactus at the fourth level. Therefore, for our purposes at least, meters with this placement of the tactus need not be named and categorized. A tongue-twister such as the following also has four tactical beats, but each pair of tactical beats is separated by *seven* pulses.

```
How much wood would a woodchuck chuck if a woodchuck could chuck wood.
 .                                                                  level 6
 .                                  .                               level 5
 .                  .               .                    .          TACTUS
 .       .          .         .     .         .          .   .      level 3
 .   .   .    .     .    .    .  .  .    .    .     .    .   .  .   level 2
 . . .  . .  . .    . . . .  . .  .. . . . . . . .  . . . . . . .  pulse
```

Measures

A meter is not just a beating; it is a *projectional* beating. A beating becomes projectional when it creates measures, metrical spans that convey the impression of initiation, continuation, and termination.

Each measure consists of three levels of beating. The initial (and strongest) beat in the measure is the *projectional beat*. The lowest level of beating in the measure supplies the *basic beats* in the measure. The intermediate level of beating provides *alternant beats*. In a duple mode, these terms and concepts yield the following:

```
.                       projectional beat
.           .           alternant beats
.     .     .     .     basic beats

    <----------------->
"measure"/ "metrical projection"
```

This measure of four basic beats is the minimal measure. A measure with only two basic beats would not have three levels of beating. A measure with three basic beats would end with a strong beat, which would clash with the (strong) downbeat of the next measure. In a consistently triple mode, a measure can have as many as nine basic beats. In meters with regularly occurring, which combine modes, measures can have any of the lengths in between: five, six, seven, or eight basic beats. The length of measures can be named as follows:

basic beats	**length of the measure**
four	tetrameter
five	pentameter
six	hexameter
seven	heptameter
eight	octameter
nine	nonameter

In some these cases, different arrangements of beats achieve the same result in terms of length. There is only one tetrameter measure and one nonameter measure. But there are two pentameters and hexameters and three heptameters and nonameters.

TABLE OF POSSIBLE MEASURES

Tetrameter

```
      .                                   projectional beat
      .       .                           alternant beat
      .   .   .   .                       basic beats

      1   2   3   4
```

Pentameter

```
      .                                   projectional beat
      .       .                           alternant beat
      .   .   .   .   .                   basic beats

      1   2   3   4   5
```

or

```
      .                                   projectional beat
      .           .                       alternant beat
      .   .   .   .   .                   basic beats

      1   2   3   4   5
```

Hexameter

```
      .                                   projectional beat
      .           .                       alternant beat
      .   .   .   .   .   .               basic beats

      1   2   3   4   5   6
```

or

```
      .                                   projectional beat
      .       .       .                   alternant beats
      .   .   .   .   .   .               basic beats

      1   2   3   4   5   6
```

Heptameter

```
      .                                   projectional beat
      .         .       .                 alternant beats
      .   .   .   .   .   .   .           basic beats

      1   2   3   4   5   6   7
```

or

```
      .                                   projectional beat
      .       .           .               alternant beats
      .   .   .   .   .   .   .           basic beats

      1   2   3   4   5   6   7
```

or

```
      .                                   projectional beat
      .       .       .                   alternant beats
      .   .   .   .   .   .   .           basic beats

      1   2   3   4   5   6   7
```

Octameter

```
      .                                   projectional beat
      .       .           .               alternant beats
      .   .   .   .   .   .   .   .       basic beats

      1   2   3   4   5   6   7   8
```

or

```
      .                                   projectional beat
      .         .       .                 alternant beats
      .   .   .   .   .   .   .   .       basic beats

      1   2   3   4   5   6   7   8
```

or

```
      .                                   projectional beat
      .         .           .             alternant beats
      .   .   .   .   .   .   .   .       basic beats

      1   2   3   4   5   6   7   8
```

nonamter

```
      .                                    projectional beat
      .         .           .              alternant beat
      .   .   .   .   .   .   .   .   .    basic beats

      1   2   3   4   5   6   7   8   9
```

In order to appreciate meter, it is important to get the feel of these measures. Practice them using the gestural system we introduced above. Only one addition to this gestural system is needed. For the additional weak pulse in a meter with codas (more on this soon), invert your closed hands, so that your palms are up.

Levels of Measuring

In most complex meters, the measures that we have just enumerated are nested one inside the other and can occur at any level in the metrical structure as a whole. As a result, measures of different sorts can occur together in the same structure of beating, for instance, with one type of measure at a low level and another type of measure at a high level. Because of this, it is useful to have a way of referring to the vertical positioning of measures.

The maximal number of levels that a meter can achieve in poetry is about eleven levels. Within these eleven levels, the smallest frequently-used measure is projected by tactical beats in dipodic verse. The largest measure (in a predominantly duple mode) is about 150 lines. Let's call this smallest measure a *pod* and this largest measure, a *canto*. Between these two poles, levels of measuring can be named as follows:

Levels of Measuring

```
canto        (largest)
movement
form
section
stanza
part
line
lobe
pod          (smallest)
```

These level of measuring can be defined as follows:

> A *pod* is a measure based on the pulse and projected by the tactus (in a meter with a sub-tactus).
>
> A *lobe* is a measure based on the pulse (or sub-tactus) but not projected by the tactus.

A *line* is a measure based on the tactus.
A *part* is a measure based on the projectional beats in lobes.
A *stanza* is a measure based on the projectional beats in lines.
A *section* is a measure based on the projectional beats in parts.
A *form* is a measure based on the projectional beats in stanzas.
A *movement* is a measure based on the projectional beats in sections.
A *canto* is a measure based on the projectional beats in forms.

Of these levels, the measure based on the tactus (i.e., the line) is most salient. Among the other measures, metrical salience spreads out from the line in an alternating pattern. Pod, stanza, form, and canto tend to be more salient than lobe, part, section, and movement.

Salience of Measures at Different Levels

Less Salient	*More Salient*
	canto
movement	
	form
section	
	stanza
part	
	line *(most salient)*
lobe	
	pod

Consider the meter of "Taffy was a Welshman."

> Taffy was a Welshman, Taffy was a thief,
> Taffy came to my house and stole a piece of beef;
> I went to Taffy's house, Taffy wasn't in,
> I jumped upon his Sunday hat, and poked it with a pin.
>
> Taffy was a Welshman, Taffy was a sham,
> Taffy came to my house and stole a leg of lamb;
> I went to Taffy's house, Taffy was away,
> I stuffed his socks with sawdust and filled his shoes with clay.
>
> Taffy was a Welshman, Taffy was a cheat,

Taffy came to my house and stole a piece of meat;
I went to Taffy's house, Taffy was not there,
I hung his coat and trousers to roast before a fire.

```
Stanza 1

Taffy was a Welshman, Taffy was a thief,
 .                                                          section
 .                                                          stanza
 .                                                          part
 .                                                          line
 .                    .                                     lobe
 .          .         .           .                         tactus
 .    .     .    .    .     .     .       .                 sub-tactus
 .  .  .  .  . .  .  . .  .  .  .   .   .   .  .            pulse

Taffy came to my house and stole a piece of beef;
 .                                                          line
 .                          .                               lobe
 .            .             .              .                tactus
 .    .       .   .         .      .       . .              sub-tactus
 .  .  .    .  . . .   .     .   .  .    .   ....           pulse

I went to Taffy's house, Taffy wasn't in,
.                                                           part
.                                                           line
.                        .                                  lobe
.          .             .          .                       tactus
.  .       .       .     .     .    .      .                sub-tactus
. ..    .  .  .    .   .  .  .  .  .  .   .  .              pulse

I jumped upon his Sunday hat, and poked it with a pin.
   .                                                        line
   .                               .                        lobe
   .              .                .               .        tactus
   .      .       .      .         .        .      .    .   sub-tactus
.  .     . .   .   .  .   .   .    .    .   .   .  .  . . . pulse


Stanza 2

Taffy was a Welshman, Taffy was a sham,
 .                                                          stanza
 .                                                          part
 .                                                          line
 .                    .                                     lobe
 .          .         .           .                         tactus
 .    .     .    .    .     .     .     .                   sub-tactus
 .  .  .  .  .  . .  .  .  .  .  .   .  .  .  .            pulse


Taffy came to my house and stole a leg of lamb;
 .                                                          line
```

```
 .                         .                                  lobe
 .            .            .            .                     tactus
 .    .       .   .        .     .      .      .              sub-tactus
 .  .  .    .  . . .   .    .   .  .  .   .   .  .  .         pulse

I went to Taffy's house, Taffy was away,
.                                                             part
.                                                             line
.                        .                                    lobe
.         .              .         .                          tactus
.  .      .      .       .    .    .      .                   sub-tactus
. ..    .  .  .    .  .   .  .  .  . .   .  .                 pulse

I stuffed his socks with sawdust and filled his shoes with clay.
    .                                                               ln
    .                                 .                             lb
    .                    .            .                    .       ts
    .          .         . .          .           .        .  .    s-ts
.   .      .   .     .   . ..   .     .     .     .    .   . ... ps


Stanza 3

Taffy was a Welshman, Taffy was a cheat,
 .                                                            stanza
 .                                                            part
 .                                                            line
 .                   .                                        lobe
 .           .       .           .                            tactus
 .    .     .   .    .     .     .      .                      sub-tactus
 .  .  .  .  . .  .  .  .  .  .   .   .  .  .                 pulse

Taffy came to my house and stole a piece of meat;
 .                                                            line
 .                                                            lobe
 .            .           .              .                    tactus
 .    .       .  .        .     .        .      .             sub-tactus
 .  .  .    .  .. .    .     .   .  .    .   .   .  .  .      pulse

I went to Taffy's house, Taffy was not there,
.                                                             part
.                                                             line
.                        .                                    lobe
.         .              .             .                      tactus
.  .      .      .       .     .       .      .               sub-tactus
. ..    .  .  .    .  .   .  .  .   .    .   .  .            pulse



I hung his coat and trousers to roast before a fire.
   .                                                          line
   .                          .                               lobe
   .                .         .             .                 tactus
```

```
   .        .        . .       .       .      .      .    sub-tactus
.  .    .   .   .     . ..    .  .     . .   .  .   .  .  . pulse
```

The meter of "Taffy" uses only two types of measures, one type of hexameter and the basic tetrameter. The hexameter is used at only one level, the highest one, the section. The tetrameter is used at all other levels: stanza, part, line, lobe, and pod. The meter as a whole has six levels of nested measures.

Hexameter

```
      .                                          projectional beat
      .       .       .                          alternant beats
      .   .   .   .   .   .                      basic beats

      1   2   3   4   5   6
```

Level: Section

```
Taffy was a...  I went to... Taffy was a... I went to... Taffy was a... I went to...
 .                                                                      section
 .                          .                          .               stanza
 .              .           .              .           .       .       part
 1              2           3              4           5       6
```

Tetrameter

```
      .                                          projectional beat
      .       .                                  alternant beat
      .   .   .   .                              basic beats
      1   2   3   4
```

Level: pod

```
Taffy was a
 .                                                      tactus
 .     .                                                sub-tactus
 .  .  .  .                                             pulse
 1  2  3  4
```

```
Welshman
 .                                                      tactus
 .     .                                                sub-tactus
 . .   .  .                                             pulse
 1 2   3  4
```

Level: lobe

```
Taffy was a Welshman
```

```
 .                                                          lobe
 .           .                                              tactus
 .     .     .    .                                         sub-tactus
 1     2     3    4
```

```
Taffy was a thief,
 .                                                          lobe
 .            .                                             tactus
 .     .      .     .                                       sub-tactus
 1     2      3     4
```

Level: line

```
Taffy was a Welshman, Taffy was a thief,
 .                                                          line
 .                      .                                   lobe
 .           .          .            .                      tactus
 1           2          3            4
```

```
Taffy came to my house and stole a piece of beef
 .                                                                  line
 .                            .                                     lobe
 .             .              .               .                     tactus
 1             2              3               4
```

Level: part

```
Taffy was a..   Taffy was a..   Taffy came to...   stole a piece of...
 .                                                                  part
 .                               .                                  line
 .              .                .                       .         lobe
 1              2                3                   4
```

```
I went to...   Taffy wasn't... I jumped upon...  poked it with a...
.                                                                  part
.                                 .                                line
.                .                .                .               lobe
1                2                3                4
```

Level: stanza

```
Taffy was a... Taffy came to...I went to...I jumped upon...
 .                                                          stanza
 .                            .                             part
 .             .              .              .              line
```

```
Taffy was a... Taffy came to...I went to...I stuffed his socks...
 .                                                          stanza
 .                            .                             part
 .             .              .              .              line
```

Scope

In comparison to the other rhythmic components, meters have a somewhat limited scope, both vertically and horizontally. To indicate just how limited this scope might be, meters can be named (1) by their number of levels (e.g., five-level, seven-level, etc.) and (2) by their maximal measure (e.g, lineal, stanzaic, sectional, etc.). For example, the meter of "Taffy" is an eight-level, sectional meter.

The minimal vertical scope is three levels. The minimal horizontal scope is a pod. As I mentioned above, the maximal vertical scope is about eleven levels. The maximal horizontal scope is a canto (about 150 lines).

Metrical Variation

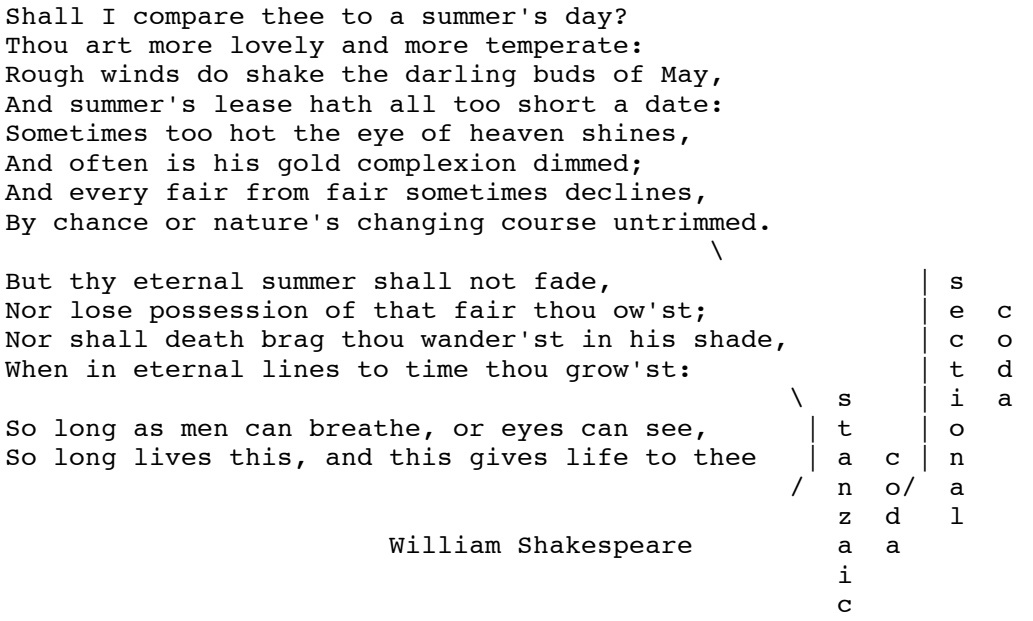
As the most rigid rhythmic component, meter tends to resist variation. Within rhythmic experience as a whole, meter often establishes a fixed figure; phrasal and thematic variations play against this figure. Meters need not be entirely fixed and uniform, however. The following types of metrical variation are common.

Caudation

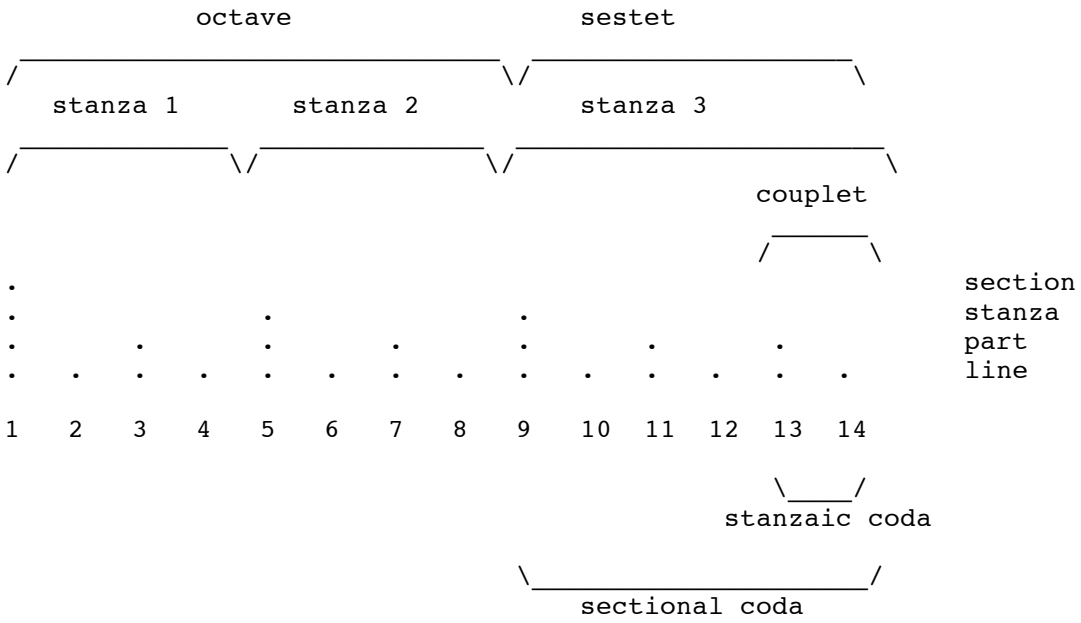
While meter permits a triple beating, duple beating is much more common. In fact, it might be reasonable to claim that triple beating is just an extended duple beating, a duple with an extra weak beat or *coda*.

Additional evidence for this claim might come from our topic here, metrical variation. The most common sort of metrical variation is exactly this sort of *caudation*: In the context of a duple beating, an extra weak beat is added at some point, usually at the end of a large measure. The triple beating that (momentarily) results stretches the meter to the limit, implying termination. This gesture is especially effective if it is performed at two juxtaposed (or closely related) levels simultaneously, creating a *double coda*. Codas can be named by the type of measure they extend/caudate: lobial, lineal, partial, stanzaic, sectional, formal, etc.

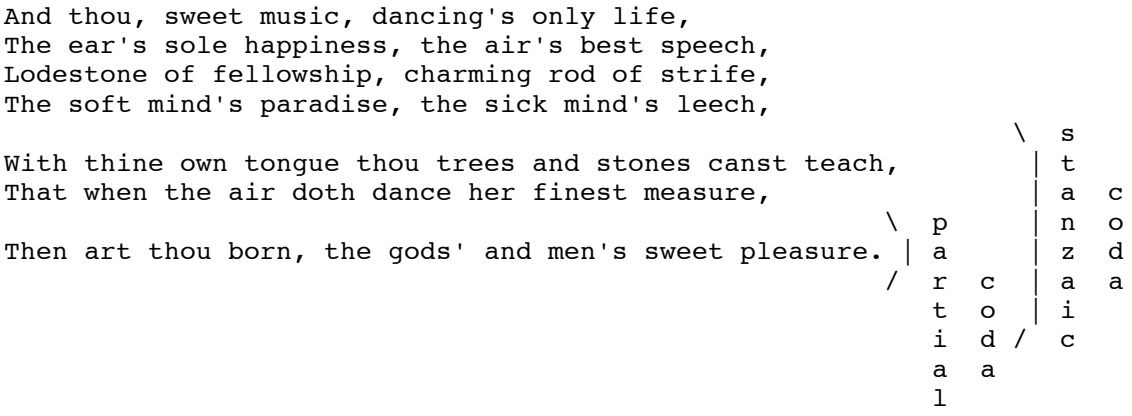
For instance, the metrical pattern at higher levels in the Shakespearean sonnet has a double coda. The fourteen lines of the sonnet add a third stanza (the sestet) containing a third stanzaic part (the couplet) to a standard section of two four-line stanzas (the octave).



Metrical Architecture of the Sonnet

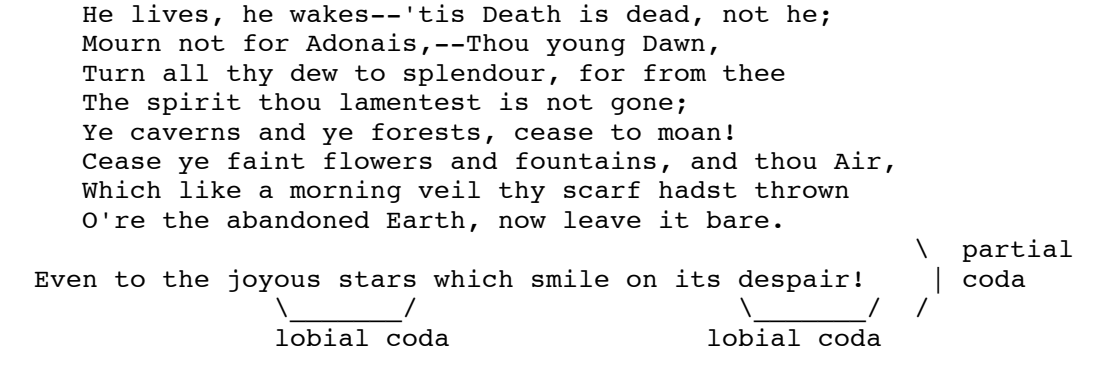


This is also the pattern in rhyme royal, whose seven lines start with a standard quatrain and then add a third stanzaic part (a stanzaic coda) containing a third line (a partial coda).

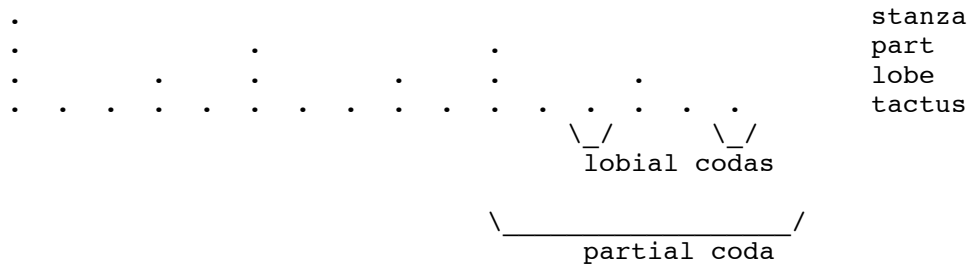


Metrical Architecture of Rhyme Royal

Other standard poetic forms display a similar metrical pattern. The Spenserian stanza starts with a standard section of two quatrain stanzas and then adds an extra line (a partial coda) with an extra tactical beat (a lobial coda).



Metrical Architecture of the Spenserian Stanza (Final Part)

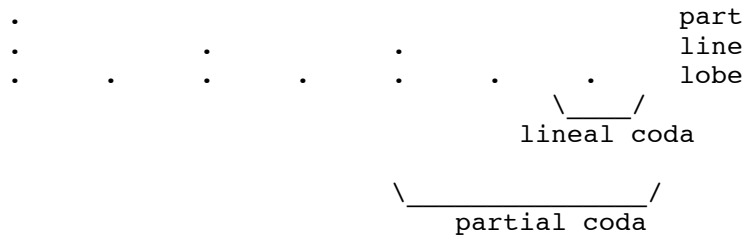


The Sapphic starts with a standard metrical part (a couplet) and adds a third line (a partial coda) containing a third lobe (a lineal coda).

```
All the night sleep came not upon my eyelids,
Shed not dew, nor shook nor unclosed a feather,

                                                  \
Yet with lips shut close and with eyes of iron     | partial
                                          \ lineal | coda
     Stood and beheld me.                  | coda  |
                                          /       /
```

--Algernon Charles Swinburne, "Sapphics," 1-4

Metrical Architecture of Sapphic



These double codas supply our major lyric forms with natural, physical terminations.

Given that the natural place for a double coda is at the end of large measures (or the poem as a whole), it is also a significant event if a coda (or double coda) is placed elsewhere. When this happens, the meter terminates prematurely (and then is picked up again).

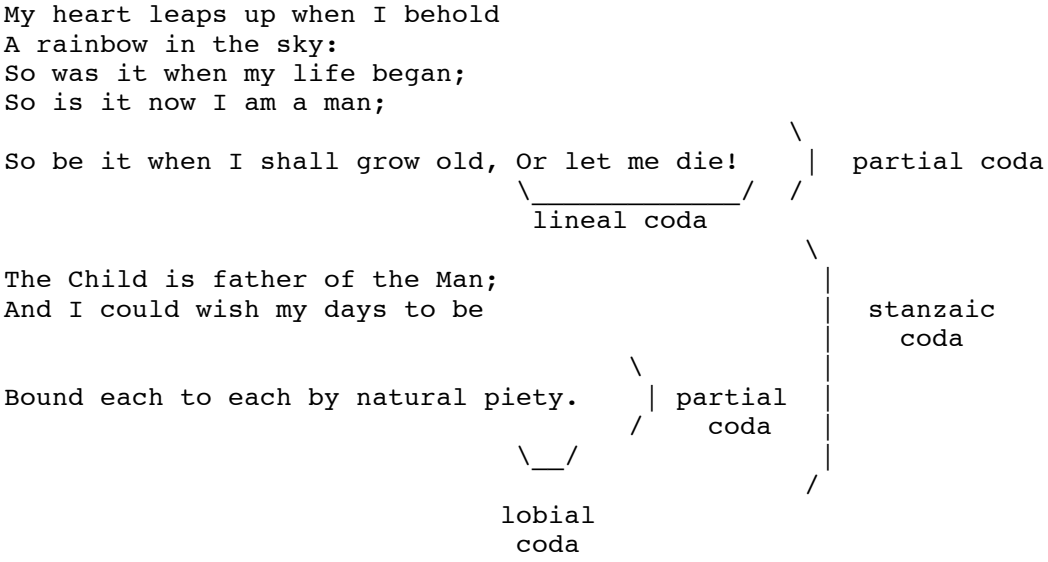
Medial codas can support other kinds of unexpected rhythmic centering, as they often do in Romantic verse. For instance, Wordsworth's "My Heart Leaps Up" ends with a triple coda (visual lines 7-9). But it also has a medial double coda (visual lines 5 & 6). This double coda gives the climactic exclamation at this point ("So be it when I shall grow old, Or let me die!") a surprising physical and emotive weight.

My Heart Leaps Up

My heart leaps up when I behold
  A rainbow in the sky:
So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
  Or let me die!
The Child is father of the Man;
And I could wish my days to be
Bound each to each by natural piety.

William Wordsworth

Caudation in "My Heart Leaps Up"



Decaudation

While it is much more common to vary a meter by adding codas to an uncaudated form, the opposite gesture is also a standard variation. In a consistently caudated texture, a coda can be removed. The effect of this *decaudation* is to simplify, clarify, and square up the meter, moving it from speech toward song. This variation is especially common in refrains, bob-lines, and other songlike continuations and/or terminations.

Life

I made a posy, while the day ran by:
"Here will I smell my remnant out, and tie
        My life within this band."
But Time did beckon to the flowers, and they
By noon most cunningly did steal away,
        And withered in my hand.

My hand was next to them, and then my heart;
I took, without more thinking, in good part
        Time's gentle admonition;
Who did so sweetly death's sad taste convey,
Making my mind to smell my fatal day,
        Yet sugaring the suspicion.

Farewell dear flowers, sweetly your time ye spent,
Fit, while ye lived, for smell or ornament,
        And after death for cures.
I follow straight without complaints or grief,
Since, if my scent by good, I care not if
        It be as short as yours.

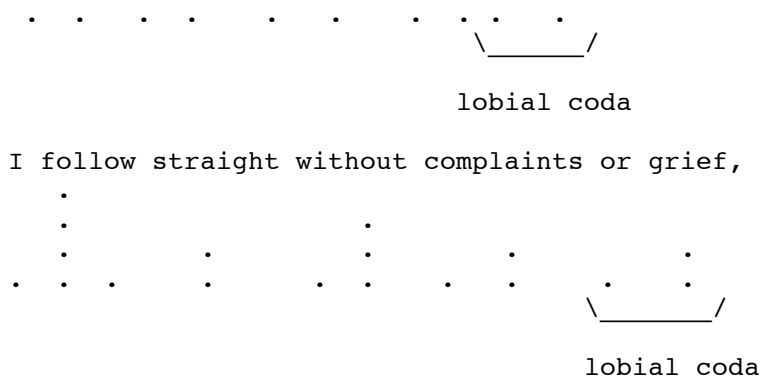
George Herbert

In this poem every third line in the sestet stanzas loses a lobial coda, contracting from a pentameter to a tetrameter.

Pentameters

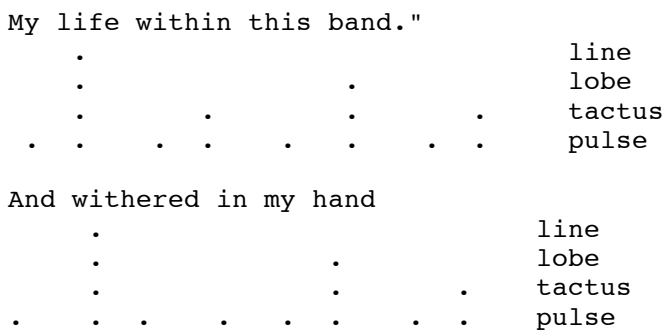
examples:

```
            Making my mind to smell my fatal day
                .
                .               .
                .       .       .       .       .
```



Tetrameters

examples:



Modal Shift

While it is even rarer yet, a meter can also be varied with a more extended shift in mode from duple to triple or triple to duple. For instance, all but the last line of Whitman's "When I Heard the Learn'd Astonomer" encourages a triple beating at the level of the pulse. But versificationally, the last line is perfectly duple and therefore suggests a modal shift. This shift is startling is other ways, because the last line is also pentameter, the major conventional verse form in the language. This shift back from triple to duple mode and from a variable line length to the conventional norm is metrically calming and clarifying, an appropriate rhythmic underpinning for the silent, mystical gaze that concludes the poem's sense.

When I Heard the Learn'd Astronomer

When I heard the learn'd astronomer,
When the proofs, the figures, were ranged in columns before me,

When I was shown the charts and diagrams, to add, divide, and measure
them,
When I sitting heard the astronomer where he lectured with much applause
in the lecture-room,
How soon unaccountable I became tired and sick,
Till rising and gliding out I wander'd off by myself,
In the mystical moist night-air, and from me to time,
Look'd up in perfect silence at the stars.

Walt Whitman

```
When I heard the learn'd astronomer,
        .                                  section
        .                                  stanza
        .                                  part
        .                                  line
        .                  .               lobe
        .         .        .       .       tactus
  .  .  .   .  .   .   . .   . . .   .      pulse


When the proofs, the figures, were ranged in columns before me,
          .                                                          line
          .                        .                                 lobe
          .         .              .         .         .             tactus
  .    .   .    .  .  .  .    .    .    ..   . .     . .    .        pulse

When I was shown the charts and diagrams, to add, divide, and measure them,
            .                                                        part
            .                                                        line
            .                                  .                     lobe
            .        .         .               .       .         .   tactus
     .      .  .  .   .  . .    .   .    . .  .  .  . .   .       .  pulse


When I sitting heard the astonomer where he lectured with much applause
     .                                                               line
     .                                  .                            lobe
     .          .          .            .                    .       tactus
  .  .  .  .    .     . .  .   .    .    .       .    .       .       pulse

       in the lecture-room,
       .       .                                                     tactus
       .   .   .       .                                             pulse


How soon unaccountable I became tired and sick,
     .                                                               stanza
     .                                                               part
     .                                                               line
     .                        .                                      lobe
     .        .           .   .        .                             tactus
 .   .   . .   .     . .    .  ... .  .    .     .                   pulse


Till rising and gliding out I wander'd off by myself,
      .                                                              line
      .                .                                             lobe
```

```
    .         .    .     .     .       .                    tactus
 .  . .   .    ...  . . .  . ..   .   .  . .                 pulse

In the mystical moist night-air, and from time to time,
       .                                                     part
       .                                                     line
       .                          .                          tactus
.   .  .  . .  .  . .  .    .  .    .  .  . .  .    .        pulse


Looked up in perfect silence at the stars.
       .                                                     line
       .                  .                                  lobe
       .    .     .       .      .                           tactus
 .     .  .   .  .   . .   .    .   .                        pulse
```

Vertical Variation

Meter can also be varied vertically, by the addition or subtraction of levels of beatings. Poems can begin with a relatively flat meter and then add levels of beating or begin with a relatively steep meter and then flatten it out. This sort of variation is relatively rare in art verse but it is often used in folk verse. For example, the central effect of some our most popular nursery rhymes depends on this type of metrical thinning and deepening.

For instance, to my intuition, "Ding, Dong, Bell" begins in a pulsing meter, with no level of beating beneath the tactus (*Ding, dong, bell*). Then in the second line, it adds a pulse, deepening to an alternating meter (*Pussy's in the well*). Then it thins back to the pulsing meter in the third line (*Who put her in?*). Then it deepens again to the alternating meter in the fourth line (*Little Johnny Green*); then it returns to the pulsing meter in the fifth line (*Who pulled her out?*); then it deepens again to the alternating meter in the sixth line (*Little Tommy Stout*). Then it *really* deepens for the last four lines. The syntax of the poem equates each of the first six lines with each *pair* of the last four lines, encouraging a dipodic beating. The result is an accelerated motion that is in high contrast to the simple childlike voice(s) of the opening six lines and entirely appropriate to the scolding tone of the (presumably) adult voice that delivers the poem's concluding reprimand (*What a naughty boy...*).

Ding, dong, bell,
Pussy's in the well.
Who put her in?
Little Johnny Green.
Who pulled her out?
Little Tommy Stout.

What a naughty boy was that,
To try to drown poor pussy cat,
Who never did him any harm,
And killed the mice in his father's barn.

```
Ding, dong, bell
 .                                                  section
 .                                                  stanza
 .                                                  part
 .                                                  line
 .           .                                      lobe
 .     .     .     .                                pulse/tactus

Pussy's in the well.
 .                                                  line
 .              .                                   lobe
 .      .       .       .                           tactus
 .  .   .    .  .    .  . .                         pulse


Who put her in?
   .
   .                                                part
   .                                                line
   .         .                                      lobe
   .  .      .    .                                 pulse/tactus


Little Johnny Green.
 .                                                  line
 .              .                                   lobe
 .      .       .         .                         tactus
 .   .  .   .   .    .   .  .                       pulse


Who pulled her out?
   .                                                stanza
   .                                                part
   .                                                line
   .            .                                   lobe
   .  .         .      .                            pulse/tactus

Little Tommy Stout.
 .                                                  line
 .              .                                   lobe
 .      .       .      .                            tactus
 .   .  .  .   .    . .  .                          pulse

What a naughty boy was that,
  .                                                 part
  .                                                 line
  .                                                 lobe
  .             .                                   tactus
```

```
  .     .       .       .                          sub-tactus
  .  .  .    .  .   .    .                          pulse

To try to drown poor pussy cat,
     .                                             lobe
     .                .                            tactus
     .      .         .     .                       sub-tactus
 .   .  .   .    .    .  .  .                       pulse

Who never did him any harm,
     .                                             line
     .                                             lobe
     .            .                                tactus
     .     .      .    .                           sub-tactus
  .  . .   .   .  . .  .                           pulse

And killed the mice in his father's barn.
     .                                             lobe
     .                      .                      tactus
     .          .           .        .             sub-tactus
.    .       .  .   .       .  .     .             pulse
```

Transposition

Metrical variation in poetry is often contained within some less variable versificational frame—a certain number of syllables or tactical beats per line, a certain number of lines per stanza, a certain number of stanzas per poetic form, etc. In this more confined versificational space, the metrical variations we have just mentioned (caudation, decaudation, and deepening/thinning) are not permitted because they alter the versification. However, even here, there is often significant metrical variation.

In this setting, the most common variation is *transposition*, the movement of a coda from one position in the versificational frame to another. For instance, in any pentameter measure—lineal, stanzaic, sectional, etc.—there will always be the option to place caudation in the third basic beat or in the fifth, yielding the two options for the pentameter measure which we listed above:

Pentameter

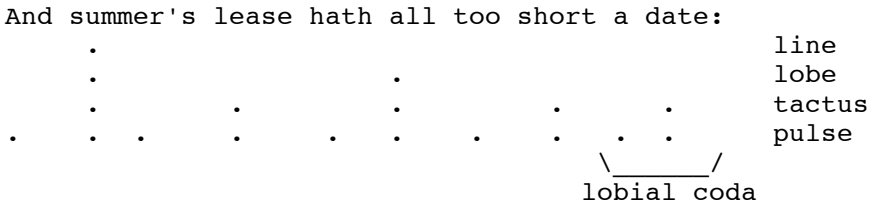
```
      .                    projectional beat
      .       .            alternant beat
      .   .   .   .   .    basic beats

      1   2   3   4   5
                  \__/
```

```
                lobial coda
or
      .                    projectional beat
      .          .         alternant beat
      .   .   .   .   .    basic beats

      1   2   3   4   5
            \__/
         lobial coda
```

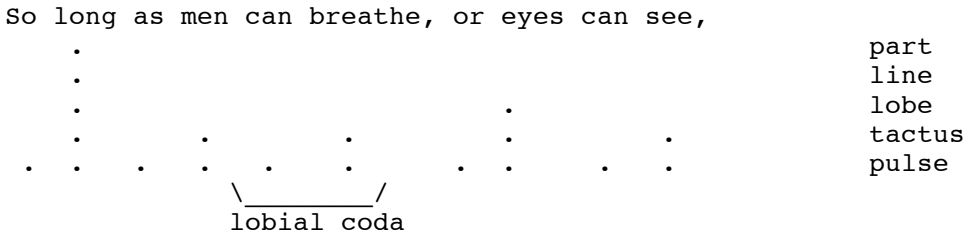
For instance, in the first stanza of Sonnet 18, Shakespeare balances medial lobial codas in the first distich with final codas in the second.

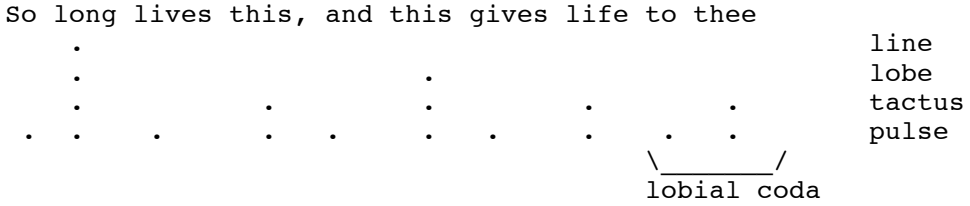
> Shall I compare thee to a summer's day?
> Thou art more lovely and more temperate:
> Rough winds do shake the darling buds of May,
> And summer's lease hath all too short a date:

```
Shall I compare thee to a summer's day?
      .                                          section
      .                                          stanza
      .                                          part
      .                                          line
      .                    .                     lobe
      .     .         .    .        .            tactus
  .   .  .  .     .   . .  .  .     .            pulse
                   \____/
                 lobial coda


Thou art more lovely and more temperate:
     .                                           line
     .                          .                lobe
     .         .     .          .    .           tactus
  .  .    .    .   . .    .    .  . .            pulse
                \____/
                lobial coda


Rough winds do shake the darling buds of May,
       .                                         part
       .                                         line
       .                  .                      lobe
       .         .        .       .       .      tactus
 .     .     .   .     .  .  .    .   .   .      pulse
                                    \______/
                                  lobial coda
```



The result is a classically balanced movement, but laced with a pattern of tension and release—from the less expected (and less resolving) placement of the medial codas to the more normal (and more resolving) placement of the final codas. In the couplet, Shakespeare repeats this pattern in miniature, giving the first line of the couplet a medial coda and the second line, a final coda.





Metrical transposition is also common at the level of the stanza or section. For instance, across the three, eleven-line sections of "To Autumn," Keats varies the metrical measures (in numbers of lines):

```
Section 1   2-2 / 2-3-2
Section 2   2-2-3 / 2-2
Section 3   2-2 / 2-2-3
```

Given the eleven-line pattern, all of the three metrical sections in the poem have two stanzas, one stanzaic coda, and one partial coda--but in different places. The first section (2-2 / 2-3-2) splits the two codas, delivering a final stanzaic coda but centering the partial coda in the second part of the three-part second stanza. The second section (2-2-3 / 2-2) brings the two codas together and delivers a centered double coda (here, in the center of the text). And the third section (2-2 / 2-2-3) moves this double coda to the end of the section (for a satisfying resolution).

To Autumn

1

Season of mists and mellow fruitfulness,
  Close bosom-friend of the maturing sun;
Conspiring with him how to load and bless
  With fruit the vines that round the thatch-eaves run;
To bend with apples the mossed cottage-trees,
  And fill all fruit with ripleness to the core;
    To swell the gourd, and plump the hazel shells
  With a sweet kernel; to set budding more
And still more, later flowers for the bees,(partial coda)
Until they think warm days will neve rcease,
  For Summer has o'er brimmed their clammy cells.

2

Who hath not seen thee oft amid thy store?
  Sometimes whoever seeks abraod may find
Thee sitting careless ona granary floor,
  Thy hair soft-lifted by the winnowing wind,
Or on a half-reaped furrow sound asleep,
  Drowsed with the fume of poppies, while they hook
    Spares the next swath and all its twined flowers:
And sometimes like a gleaner thou dost keep
  Steady thy laden head across a brook;
  Or by a cider-press, with patient look,
    Thou watchest the last-oozings hours by hours.

3

Where are the songs of Spring? Aye, where are they?

Think not of them, thou hast thy music too--
While barred clouds bloom the soft-dying day,
And touch the stubble-plains with rosy hue;
Then in a wailful choir the small gnats mourn
Among the river sallows, borne aloft
Or sinking as the light wind lives or dies;
And full-grown lambs loud bleat from hilly bourn;
Hedge crickets sing; and now with treble soft
The redbreast whistles from a garden-croft;
And gathering swallows twitter in the skies.

John Keats

Section 1, Stanza 1, Part 1

Season of mists and mellow fruitfulness,
Close bosom-friend of the maturing sun;

Section 1, Stanza 1, Part 2

Conspiring with him how to load and bless
With fruit the vines that round the thatch-eaves run;

Section 1, Stanza 2, Part 1

To bend with apples the mossed cottage-trees,
And fill all fruit with ripleness to the core;

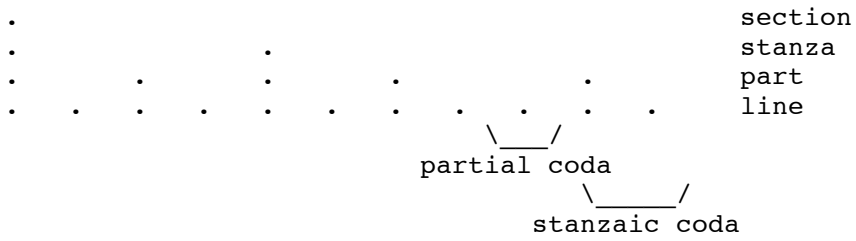
Section 1, Stanza 2, Part 2

To swell the gourd, and plump the hazel shells
With a sweet kernel; to set budding more
And still more, later flowers for the bees, **(partial coda)**

Section 1, Stanza 2, Part 3 (stanzaic coda)

Until they think warm days will never cease,
For Summer has o'er brimmed their clammy cells.

Metrical Architecture of "To Autumn," Section 1



Section 2, Stanza 1, Part 1

Who hath not seen thee oft amid thy store?
  Sometimes whoever seeks abroad may find

Section 2, Stanza 1, Part 2

Thee sitting careless on a granary floor,
  Thy hair soft-lifted by the winnowing wind,

Section 2, Stanza 1, Part 3

Or on a half-reaped furrow sound asleep,
  Drowsed with the fume of poppies, while they hook
    Spares the next swath and all its twined flowers:

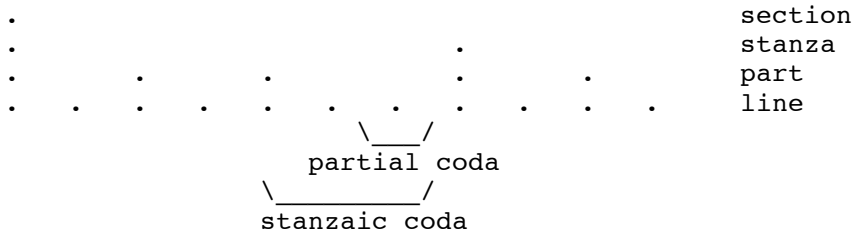
Section 2, Stanza 2, Part 1

And sometimes like a gleaner thou dost keep
  Steady thy laden head across a brook;

Section 2, Stanza 2, Part 2

  Or by a cider-press, with patient look,
    Thou watchest the last-oozings hours by hours.

Metrical Architecture of "To Autumn," Section 2



Section 3, Stanza 1, Part 1

Where are the songs of Spring? Aye, where are they?

```
  Think not of them, thou hast thy music too--
```

Section 3, Stanza 1, Part 2

```
While barred clouds bloom the soft-dying day,
  And touch the stubble-plains with rosy hue;
```

Section 3, Stanza 2, Part 1

```
Then in a wailful choir the small gnats mourn
  Among the river sallows, borne aloft
```

Section 3, Stanza 2, Part 2

```
    Or sinking as the light wind lives or dies;
And full-grown lambs loud bleat from hilly bourn;
```

Section 3, Stanza 2, Part 3 (stanzaic coda)

```
  Hedge crickets sing; and now with treble soft
  The redbreast whistles from a garden-croft;
    And gathering swallows twitter in the skies.   (partial coda)
```

Metrical Architecture of "To Autumn," Section 3

```
.                                                 section
.               .                                 stanza
.       .       .       .       .                 part
.   .   .   .   .   .   .   .   .   .   .         line
                                    \___/
                                 partial coda
                               \___________/
                                stanzaic coda
```

Metrical Performance: Constraints and Preferences

In addition to what beating is and how it can be varied, a major concern in the study of meter is how beating is elicited and performed. In any rich and extended realization, metrical beating is not exactly like anything in language. We do indeed accompany much of our speaking with structures of beating that both respond to and regulate our language. But, while important, this beating is often limited in various ways—in regularity, in richness, in continuity, etc. The beating that accompanies speech tends to be variable, flat, and discontinuous.

Metrical Speech vs. Metrical Poetry

For instance, consider the preceding paragraph. To my intuition, this paragraph is entirely metrical—and typically so. (I did not doctor the paragraph; I decided to scan it after I had written it.)

> *Visually Lineated*
>
> In addition to what beating is and how it can be varied,
> A major concern in the study of meter
> Is how beating is elicited and performed.
> In any rich and extended realization,
> Metrical beating is not exactly like anything in language.
>
> We do indeed accompany much of our speaking with structures of beating that both respond to and regulate our language.
> But, while important, this beating is often limited in various ways—
> In regularity, in richness, in continuity, etc.
> The beating that accompanies speech tends to be
> Variable, flat, and discontinuous.

Metrical Scansion

Section 1, Stanza 1, Part 1

```
In addition to what beating is and how it can be varied,
      .                                                  section
      .                                                  stanza
      .                                                  part
      .                                                  line
      .                            .                     lobe
      .              .      .      .             .       pulse & tactus

a major concern in the study of meter
   .                                                     line
   .                     .                               lobe
   .       .             .      .                        pulse & tactus


is how beating is elicited and performed.   (partial coda)
        .                                                line
        .                          .                     lobe
        .           .              .      .              pulse & tactus
```

Section 1, Stanza 1, Part 2

```
In any rich and extended realization,
        .                                                stanza
```

```
        .                                                   part
        .                                                   line
        .                    .                              lobe
        .          .         .        .                     tactus

metrical beating is not exactly like anything in language.
 .                                                          line
 .                          .                               lobe
 .        .                 .          .            .      pulse & tactus
```

Section 1, Stanza 2, Part 1

```
We do indeed accompany much of our speaking with structures of beating
         .                                                            st
         .                                                          part
         .                                                          line
         .              .                        .                  lobe
         .      .       .            .           .                . p&t

that both respond to and regulate our language.
              .                                                   line
              .                          .                        lobe
              .          .               .        .               pulse & tactus
```

Section 1, Stanza 2, Part 2

```
But, while important, this beating is often limited in various ways--
              .                                                    part
              .                                                    line
              .                        .                .          lobe
              .             .          .      .         .        .  p&t

in regularity, in richness, in continuity, etc.
        .                                          line
        .                             .            lobe
        .          .                  .     .      pulse and tactus
```

Section 1, Stanza 2, Part 3 (Stanzaic coda)

```
The beating that accompanies speech tends to be
     .                                             part
     .                                             line
     .                         .                   lobe
     .              .          .     .             pulse and tactus

variable, flat, and discontinuous.
 .
 .                          .                       lobe
 .          .               .        .              pulse and tactus
```

At the highest levels, this beating is pleasingly shapely. The paragraph falls into a two-stanza, 11-line, metrical section, closely reminiscent of Keats' metrical sectioning of "To Autumn," which we just scanned above. The paragraph ends with a sestet containing a text-final stanzaic coda (*The beating that accompanies speech tends to be / Variable, flat, and discontinuous.*), a standard figure for metrical termination/closure. Seven out the eleven lines are tetrameter, the natural metrical norm.

Tetrameters

A major concern in the study of meter
Is how beating is elicited and performed.
In any rich and extended realization,
That both respond to and regulate our language.
In regularity, in richness, in continuity, etc.
The beating that accompanies speech tends to be
Variable, flat, and discontinuous.

Three of the four tetrameter lines that end with an unvoiced beat are the final lines in their metrical parts, another common indicator of metrical termination.

Part-Final Catalectic Tetrameters

Section 1, Stanza 1, Part 1

```
In addition to what beating is and how it can be varied,
a major concern in the study of meter
is how beating is elicited and performed.
        .                                           line
        .                                           lobe
        .           .           .         .         pulse and tactus
                                          ^
                                    unvoiced beat
```

Section 1, Stanza 2, Part 1

```
We do indeed accompany much of our speaking with structures of beating
that both respond to and regulate our language.
              .                                     line
              .                         .           lobe
              .           .             .       .   pulse and tactus
                                                ^
                                          unvoiced beat
```

Section 1, Stanza 2, Part 3

```
The beating that accompanies speech tends to be
variable, flat, and discontinuous.
 .
 .                          .                          tactus
 .          .               .         .                pulse and tactus
                                      ^
                                 unvoiced beat
```

On the other hand, this meter is still not very poetic. It is just pulsing; therefore it is flatter than most poetic meters. An independent pulse is suggested at one point, but only briefly. The second line moves with a triple pulse, but is surrounded by lines that don't.

```
a major concern in the study of meter
   .                                                      line
   .                      .                               lobe
   .        .             .       .                       tactus
.  . .   .  .   .    .    . . .   .  .                    pulse (?)
```

The high-level metrical variation, where it occurs, is also odd/ungainly. Both hexameters open their stanzaic parts, rather than closing them, as we might expect.

Section 1, Stanza 2, Part 1

```
We do indeed accompany much of our speaking with structures of beating
         .                                                        st
         .                                                        part
         .                                                        line
         .              .                          .             lobe
         .      .       .            .             .           . p&t

that both respond to and regulate our language.
```

Section 1, Stanza 2, Part 2

```
But, while important, this beating is often limited in various ways—
              .                                                   part
              .                                                   line
              .                      .                .           lobe
              .             .        .      .         .      .    p&t

in regularity, in richness, in continuity, etc.
```

And the one partial coda in the text occurs in the opening metrical part, not in a more normal, final position.

Section 1, Stanza 1, Part 1

```
In addition to what beating is and how it can be varied,
a major concern in the study of meter
is how beating is elicited and performed.   (partial coda)
```

In poetry, metrical beating is usually deeper and therefore more physical than this; and infelicities, such as we find here, are either avoided or used for precisely expressive purposes. In many cases, poetry will often use language to *amplify* a meter, too. Even when a meter is naturally steep and strong, poets will often find ways of reinforcing its gestural action even further, giving it an even more prominent place in our rhythmic response to language. In order to pursue these ends, poets use talent, skill, and various poetic conventions (i.e., systems of versification).

II. Metrical Preference

As with all of the rhythmic components, the relation between a poetic beating and the language that elicits it is best thought of as *preferential* (rather than categorical). That is, we do not start beating to language when it achieves some particular shape and then stop beating as soon as this shape is lost. Rather, we have a natural propensity to beat that can be encouraged by many sorts of considerations and therefore many sorts of language. These considerations operate simultaneously in a summative fashion to produce various degrees of beating—weak vs. strong, relaxed vs. strained, subordinated vs. dominating, clear vs. blurred, steep vs. flat, local vs. extended, regular vs. variable, etc. Let's call the considerations that encourage beating our *metrical preferences*. The more metrical preferences that a poem's language achieves, the stronger the metrical beating that it elicits.

Our metrical preferences negotiate between three major considerations—(1) the inherent nature of meter, which, in many ways, is very different from anything in language, (2) meter's relative inflexibility, which can tolerate only certain types and degrees of conflict/resistance/discouragement, and (3) meter's need to coexist with

the other rhythmic components, which, for the most part, are also very different in structure and function. As the most inflexible component of rhythm and the one most different from anything in language itself, beating is not a rhythmic form that language very naturally encourages; and once encouraged, meter does not elaborate itself freely. Rather, to be maintained, meter must be consistently supported, and if it is not supported, it is threatened and can be severely reduced or lost. Among the rhythmic components, this vulnerability to reduction and loss is unique. Unlike the other rhythmic texturings of language (grouping, prolongation, and theme), poetry can become *ametrical*. Therefore, in exploring what determines the presence and strength of a metrical response, we must always attend to two sides of the issue: (1) favorable conditions that encourage meter's inherent propensities and (2) unfavorable conditions that do not destroy meter's ability to function. These concerns are very different, but both are important parts of a full account of metrical performance. The former conditions *enable* meter; the latter *accommodate* it.

Meter and Unversified Language

As the temporal paradigm outlines, meter has a collection of distinctive properties. It is physical, subjective, iconic, initializing, retrospective, repetitive, fixed, falling, reactive, local, equational, etc. The conditions that favor metrical beating invoke most, if not all, of these properties.

Of these properties, the most broadly influential might well be iconicity and initialization. In its most basic action, meter tries to match its pulsating form to the shape of a similarly pulsating stimulus by searching for the edges/onsets of prominent events in the stimulus, marking physically weighty aspects of these edges with large beats.

To this end, a linguistic meter's primary preference is to imitate as closely as possible the prosodic structure of the language—the structure of syllables, of word stress and prosodic feet, of phrasal stress and the prosodic hierarchy, etc. Syllables are the major pulsational events in language, and stress and intonation are the major way that the pulsational energies in syllables are ordered and heightened.

Let's state and number this preference for future reference. (MP = Metrical Preference)

MP1 (Iconicity: Prosodic Structure)
Prefer that metrical structures match prosodic structures and vice versa.

This is a very large preference with many implications. The most important of these implications are: (1) that beats prefer to align with prosodic events (rather than silence, syntactic events, or whatever), (2) that the strength of beats prefers to match the strength of prosodic prominences, and (3) that the boundaries of metrical measures prefer to align with the boundaries of prosodic spans (i.e., prosodic feet and units in the prosodic hierarchy: clitic phrases, phonological phrases, etc.).

Let's state and number these major implications of MP1 (Iconicity: Prosodic Structure).

MP1a (Iconicity: Prosodic Events)
Prefer that beats align with (the onsets of) prosodic events, and vice versa.

MP1b (Iconicity: Prosodic Prominences)
Prefer that the strength of metrical prominences match the strength of prosodic prominences, and vice versa.

MP1c (Iconicity: Prosodic Edges)
Prefer that the boundaries of metrical measures match the boundaries of prosodic structures, and vice versa.

This preference for prosodic iconicity is very broad, is never fully satisfied, and is only a part of much else that must be said. But, even so, it can take us a considerable distance in our attempts to understand the sources of our metrical response to language.

For instance, consider the metrical beating set up by the prose paragraph we scanned above. The first interest of our metrical response would be to establish a maximally prominent and productive tactus.

Let's state this preference explicitly.

MP2 (Physicality: Tactus)
Prefer a maximally prominent and productive tactus.

Where can we find a tactus of this sort in response to this paragraph? According to MP1b (Iconicity: Prosodic Prominences), meter prefers to match the tactus to one of the levels of prominence in the linguistic prosody. Syllables move too quickly, on the average, about 300 per minute; and the peaks of intonational units (and therefore utterance units) are too slow, on the average, about 20 per minute. This leaves tertiary stresses, secondary stresses, primary stresses/clitic phrase peaks, and the peaks of phonological phrases. Of these, the peaks of phonological phrases are often good candidates for a tactus; but like intonational units, in this text, they are sometimes long enough that their peaks are too slow. (e.g., *In any rich and extended realization*). They are also sporadic in their articulation and often become coextensive with the peaks of clitic phrases. This is also the problem with secondary and teritary stresses. Secondary stresses are rare; in fact, in this passage, there aren't any at all. And in a metrically loose prose text such as this, syllabic feet are often left unarticulated and therefore tertiary stresses become coextensive with syllables and also move too quickly.

This leaves primary stresses (or the peaks of clitic phrases), and, sure enough, this appears to be the source of our tactus. In our scansion of the paragraph, all but four tactical beats align with primary stresses, and only six primary stresses do not elicit tactical beats (the stresses in *what*, *how*, *any*, *not*, *both*, and *this*). (Each line in the following has one tactical beat. I use "/" to indicate a clitic phrase boundary; I use "[pause]" to indicate an unvoiced tactical beat).

In addition
to what / beating
is
and how
it can be varied
a major
concern
in the study
of meter
is how / beating
is elicited
and performed
[pause]
in any / rich
and extended
realization
[pause]
metrical
beating
is not / exactly
like anything
in language
We do indeed
accompany
much
of our speaking
with structures
of beating
that both / respond to
and regulate
our language
[pause]
But while important
this / beating
is often
limited
in various
ways
in regularity
in richness
in continuity

et cetera
The beating
that accompanies
speech
tends to be
variable
flat
and discontinuous.
[pause]

MP1b (Iconicity: Prosodic Prominences) might also go a long way toward motivating why tactical beats are not given to the six primary stresses that are overlooked. All of these primary stresses are either subordinated to an immediately following phrasal stress within a phonological phrase (e.g., *in any rich, not exactly, that both respond, this beating*) or are closely juxtaposed to a phonological phrase with more semantic and physical weight (*to what beating*, *Is how beating*).

If given a tactical beat, three of these stresses would fall on the strong, projectional beats in lines, forcing the following subordinate stress to fall on a much lesser beat.

```
    /
is how beating is elicited and performed.   (partial coda)
        .                                           line
        .                         .                 lobe
        .           .             .         .       pulse and tactus

   /
In any rich and extended realization,
        .                                           stanza
        .                                           part
        .                                           line
        .                       .                   lobe
        .           .           .         .         tactus

     /
that both respond to and regulate our language.
             .                                      line
             .                           .          lobe
             .           .               .       .  pulse and tactus
```

MP1b (Iconicity: Prosodic Prominences) would favor that the more prominent phrasal stresses be aligned with the more prominent beats. Therefore, these lexical

stresses might not attract a beat because of competition from neighboring syllables that are more amenable to just the preference we are considering. This explanation also holds, albeit with somewhat less force, for the subordination of *not* in metrical line 5. If given a tactical beat, *not* would carry the strong, 2-dot beat in a lobe.

```
                    /
metrical beating is not exactly like anything in language.
 .                                                  line
 .                      .                           lobe
 .       .              .          .           .     pulse & tactus
```

The remaining two cases might be explained in a similar way. The primary stresses in this case occur in juxtaposed syllables and the strong following stresses both occur on the key word *beating*, a word that expresses the topic of the paragraph and occurs five times in the passage.

```
                /   /
In addition to what beating is and how it can be varied,
      .                                             section
      .                                             stanza
      .                                             part
      .                                             line
      .                           .                 lobe
      .             .     .       .           .     pulse&tactus

                       /  /
But, while important, this beating is often limited in various ways--
              .                                              part
              .                                              line
              .                     .               .        lobe
              .             .       .     .         .      .  p&t
```

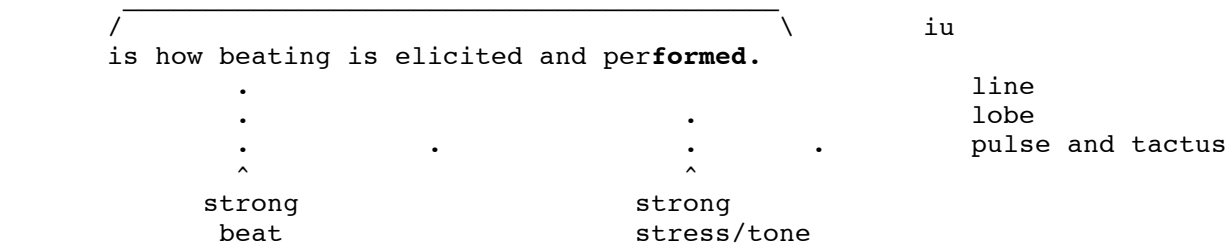
In the second case, the juxtaposed stresses also begin a tone unit, a large prosodic event, where, as we will see in a moment, meter closely searches for a strong, initiating prominence.

```
 _____________________ _____________________________________________
/                     \/                                           \

                       /   /
But, while important, this beating is often limited in various ways--
```

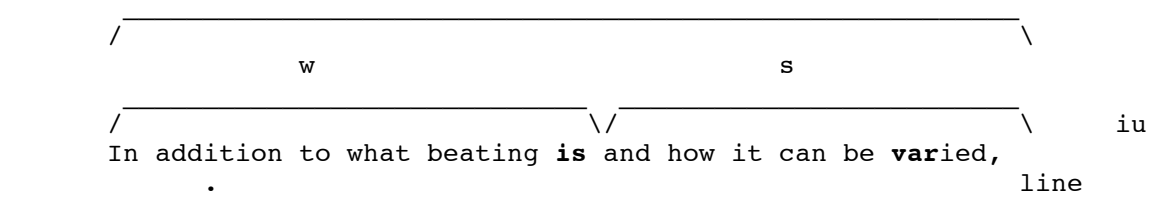
In our metrical scansion of this paragraph, the most consistent mismatches between beating and stressing are at high levels and result from the general asymmetry between the normatively falling motion in meter and the normatively rising motion at higher levels in the linguistic prosody (i.e., phrasal stress and the prosodic hierarchy). Both phrasal stress and intonational focus tend to be finalizing. The strong events in phonological phrases, intonational units, and utterance units tend to come near the end of the units, as they do in most of the tone units in the prose paragraph that are coextensive with poetic lines. (I use **bold print** to indicate tonic syllables and therefore informational focus).

> Is how beating is elicited and per**formed**.
> In any rich and extended reali**za**tion,
> that both respond to and regulate our **lan**guage.

However, as our scansion indicates, the high-level meter of these metrical lines (and all metrical lines) falls against this rising phrasal motion. The strongest beat comes early in the line; the strongest tone/stress/vocalization, comes late.



This high-level conflict also appears within the line, for example, when lines are broken into two tone units.



```
      .                              .                        lobe
      .              .       .       .             .          pulse &
tactus
      ^                      ^       ^             ^
    strong                 strong  strong         strong

     beat             stress/tone   beat         stress/tone
```

In each lobe, the strongest beat comes at the beginning of the lobe, the strongest stress/tone comes at the end. Within the line as a whole, the second tone unit is also stronger than the first, but the strongest beat appears in the first.

This high-level conflict between metrical beating and phrasal/vocal peaking also appears *across* lines—in metrical parts, stanzas, sections, and so forth. For instance, in the prose paragraph, the strongest phrasal group in the first stanzaic part is the last one (the partial coda or third metrical line). But the first line receives the strongest beat. Metrical gesturing winds down, but the voice crescendos.

```
_____________________________________________________________
/                                                             \  6
                     w
_____________________________________ _____________________________
/                                   \/                             \ 5
       w                      s             w             s
_____________ _____________________ _____________ _____________
/             \/                  \/             \/             \ iu
In addition to...and how…be varied,    A major concern…Is how beating...
      .                                      .                        part
      .                      .               .             .         line
```

The major source of this conflict is MP1c (Prosodic Iconicity: Edges). In addition to matching beats and stresses, meter also prefers to match the boundaries of measures to the boundaries of prosodic phrases. And when it does this, it prefers to *initialize* phrases, by placing strong beats early. These preferences follow from one another. Measures are necessarily strong-initial; a projectional beat in a measure is always the first beat in the measure. If measures are matched to phrases, phrases will also be "strong beat early." Even though it follows from MP1c (Iconicity: Prosodic Edges), this preference has an independent motivation in the nature of meter as an *initializer*, a marker of *onsets*.

Let's state and number this additional preference.

MP3 (Onset: Strong Beat Early)
Prefer that a strong beat occur near the beginning of a prosodic phrase.

The matching of phrasal and metrical boundaries (and therefore the placement of a strong beat early in a phrase) occurs pervasively at high levels in the metrical response to our prose paragraph.

For instance, each metrical part that we scanned is a sentence.

Section 1, Stanza 1, Part 1

In addition to what beating is and how it can be varied,
a major concern in the study of meter
is how beating is elicited and performed. **(partial coda)**

Section 1, Stanza 1, Part 2

In any rich and extended realization,
metrical beating is not exactly like anything in language.

Section 1, Stanza 2, Part 1

We do indeed accompany much of our speaking with structures of beating
that both respond to and regulate our language.

Section 1, Stanza 2, Part 2

But, while important, this beating is often limited in various ways--
in regularity, in richness, in continuity, etc.

Section 1, Stanza 2, Part 3 (Stanzaic coda)

The beating that accompanies speech tends to be
variable, flat, and discontinuous.

The major conceptual break in the paragraph is also aligned with the break between metrical stanzas. The first two sentences consider some general theoretical concerns that problematize beating in response to language; the last three

sentences, the practical results of those theoretical concerns. These two parts of the paragraph form a coherent rhythmic phrase.

Section 1, Stanza 1

> In addition to what beating is and how it can be varied,
> a major concern in the study of meter
> is how beating is elicited and performed.
> In any rich and extended realization,
> metrical beating is not exactly like anything in language.

Section 1, Stanza 2

> We do indeed accompany much of our speaking with structures of beating
> that both respond to and regulate our language.
> But, while important, this beating is often limited in various ways--
> in regularity, in richness, in continuity, etc.
> The beating that accompanies speech tends to be
> variable, flat, and discontinuous.

Most of the metrical lines in this paragraph are also coextensive with rhythmic phrases. Usually this phrase is a tone unit:

> a major concern in the study of meter
> is how beating is elicited and performed.
> In any rich and extended realization,
> metrical beating is not exactly like anything in language.

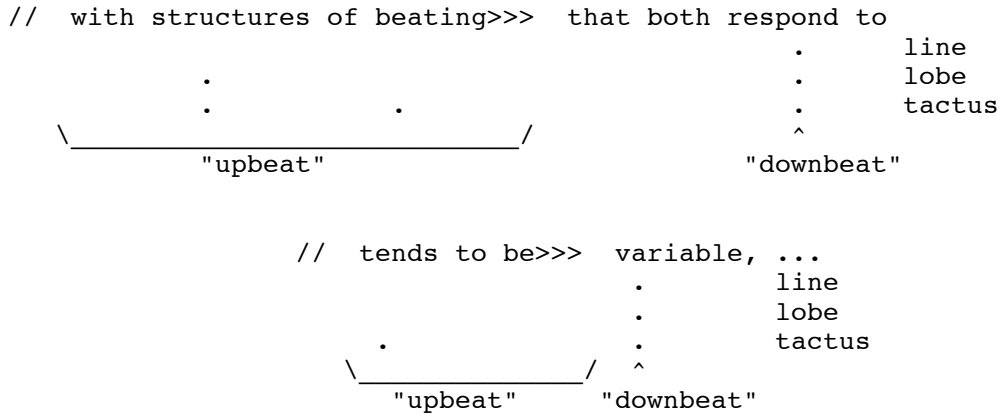
A couple of lines are also prosodic phrases composed of two or more tone units (I use "//" to indicate a break between tone units):

> In addition to what beating is // and how it can be varied,
> But, while important, // this beating is often limited in various ways—
> in regularity, // in richness, // in continuity, etc.

Only two pairs of metrical lines have tone units that are split across a lineal break.

> We do indeed accompany much of our speaking // with structures of beating>>>
> that both respond to and regulate our language.
>
> The beating that accompanies speech // tends to be>>> variable, // flat, // and discontinuous.

And even these anomalies might be seen to fall within the purview of MP1c (Iconicity: Edges) or closely related preferences. In each of these couplets, the last beat in the first line serves as an upbeat to the downbeat in next line, which is felt to be a more significant metrical onset.



In the first case, this might be due to the onset of the large relative clause that arrives in the second line (*that both respond to and regulate our languag*e). In this second case, this might be due to the triplet of coordinated subject complements that appear in the second line (*variable, flat, and discontinuous*). Both of these linguistic units are both imposing and coherent, so much so that they might attract a metrical onset despite their medial intonational positioning. That is, operating here might also be a general metrical preference for rhythmic and linguistic parallelism that extends beyond an iconic sensitivity to prosodic edges. Within both of the concluding lines in these couplets, there are significant internal parallels that suggest a unified and parallel beating.

Let's state and number this further preference.

MP4 (Iconicity: Linguistic Parallelism)
Prefer that linguistic parallels be metrical parallels and vice versa.

MP1b (Iconicity: Prosodic Prominences) and MP1c (Iconicity: Prosodic Edges)/MP3 (Onset: Strong Beat Early) often clash, but the consequences of these clashes are not severe. Because beats are strongest near the tactus, MP1b (Iconicity: Prosodic Prominences) takes precedence at low levels; and because measures are usually established above the level of the tactus, MP1c (Iconicity: Prosodic Edges)/MP3 (Onset: Strong Beat Early) takes precedence at high levels.

The tension generated by a mismatched high-level beat is useful. It gives energy and forward propulsion to the onset of the phrased measure, a forward motion that is usually "cadenced" with a climactic phrasal peak at some later point. Normally, these phrasal cadences are also mismatched to meter, now with prosody stronger than meter; but this clash is also mild. By this point, the high-level meter has lost energy and yields gracefully to the phrasing and the shapeliness of the phrased measure.

The other major principle of iconicity that is relevant to our metrical response to this prose text is the placement of unvoiced beats. Where MP1 (Iconicity: Prosodic Events) cannot be satisfied, beats can occur in silence, in the "gaps" between prosodic events. In our beating in response to the prose text, there are four of these unvoiced beats. Each of these beats occurs at the end of a line; two occur at the end of metrical parts; and one occurs at the end of the text as a whole, a metrical section.

```
is how beating is elicited and performed.
        .                                       line
        .                   .                   lobe
        .           .       .       .           pulse & tactus
                                    ^
                                "unvoiced beat"

In any rich and extended realization,
        .                                       stanza
        .                                       part
        .                                       line
```

```
        .                   .               lobe
        .         .         .       .       tactus
                                      ^
                                "unvoiced beat"


that both respond to and regulate our language.
              .                                 line
              .                   .             lobe
              .         .         .       .     pulse & tactus
                                                ^
                                      "unvoiced beat"

variable, flat, and discontinuous.
 .
 .                        .             tactus
 .          .             .       .     pulse and tactus
                                  ^
                           "unvoiced beat"
```

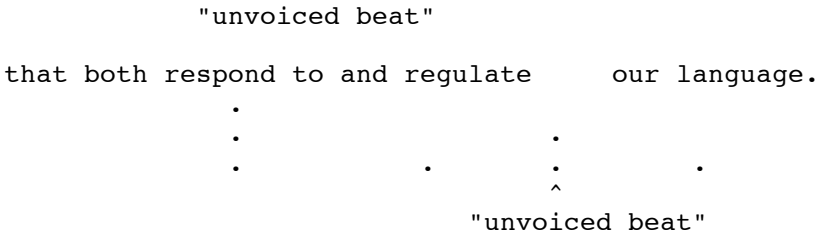
When an unvoiced beat occurs in a prosodic gap, there is a general preference that this gap be large (to make space for the beat). If high-level beats come between low-level prosodic events, they can disrupt the voice.

Let's state and number this preference.

MP1d (Iconicity: Prosodic Gapping)
When unvoiced beats occur, prefer that they appear in (large) gaps between (large) prosodic units, the larger the better.

In the case of our paragraph, these prosodic gaps are large indeed. In three cases, these gaps are between full verse periods; the remaining gap is between tone units. This preference captures the fact that these unvoiced beats are more preferred than, say, the following, which occur in gaps between phonological phrases.

```
is how beating    is elicited and performed.
        .
        .             .
        .     .       .             .
              ^
```



A couple of other preferences affect our metrical response to the paragraph we scanned and might also be mentioned before we move on to other matters. The first is a preference for duple over triple beating at all levels of metrical structure. Our metrical response to the paragraph has one triple stanza, one triple part, two triple lines, and two triple lobes. Otherwise, it is duple. This is typical. Even when there is a consistently triple pulse, much of the rest of metrical structure is usually duple.

Let's state and number this preference.

MP5 (Alternation: Duples)
Prefer duple beating at all metrical levels.

As we mentioned above, this text is also typical in having some final codas (although it violates this preference at times, too). This preference relates to meter's inherent continuity. A medial coda, which implies termination, breaks up the smooth motion within the phrased measure from metrical projection to phrasal cadence.

Let's state and number this preference.

MP6 (Continuity: Final Codas)
Prefer that codas appear finally in higher levels of metrical architecture.

The most prominent case of a final coda in our paragraph is the stanzaic coda that concludes the text. This is the only stanzaic coda in the paragraph.

> We do indeed accompany much of our speaking with structures of beating
> that both respond to and regulate our language.
> But, while important, this beating is often limited in various ways—
> In regularity, in richness, in continuity, etc.
> **The beating that accompanies speech tends to be**
> **Variable, flat, and discontinuous.**

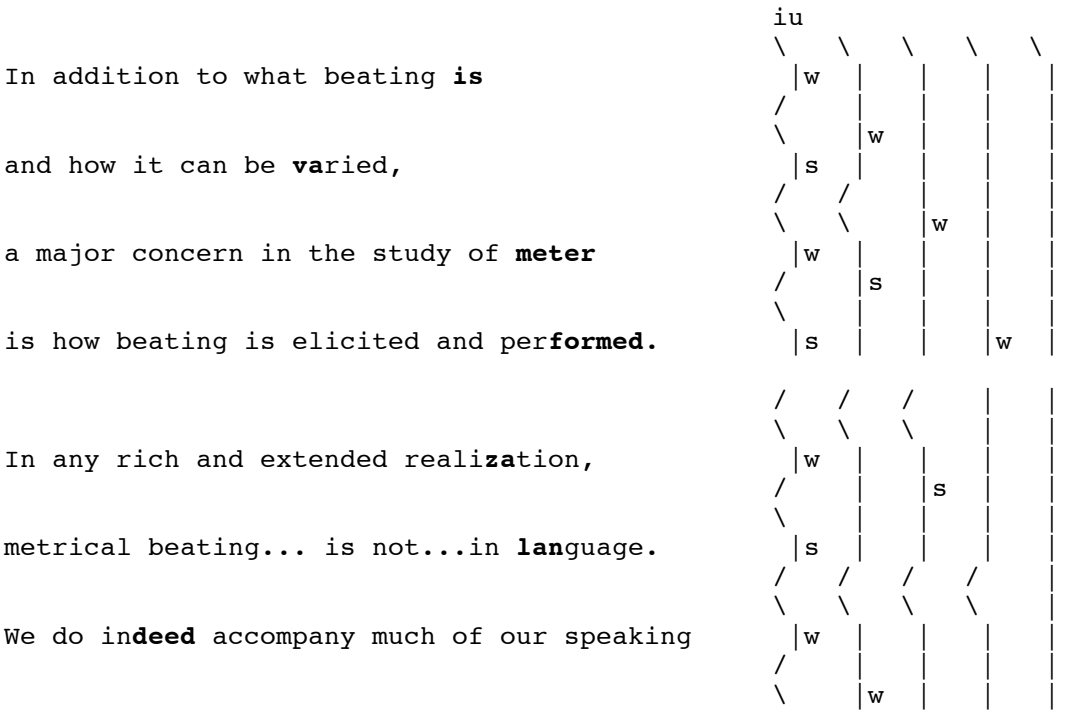
Finally, this text is also typical in placing its unvoiced beats after significant cadences, and in placing these cadences on both strong, local peaks in the phrasing and large metrical beats. When unvoiced beats follow cadences, they give those cadences the illusion, if not substance, of additional length and weight. Three of the four unvoiced beats in our paragraph terminate/cadence phrased measures that combine verse periods and metrical parts. These unvoiced beats lengthen these cadences and appropriately indicate their magnitude.

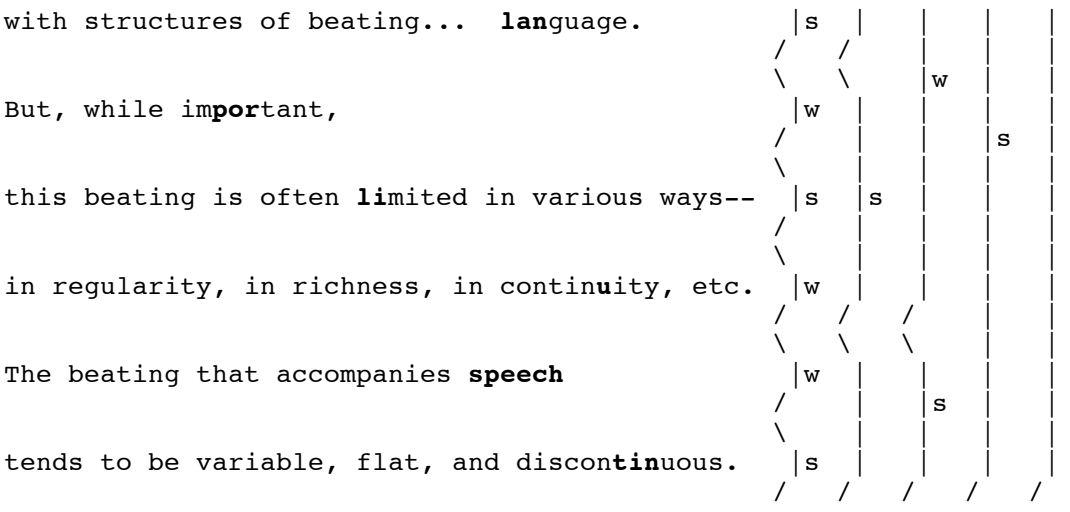
```
In addition to what beating is and how it can be varied,
a major concern in the study of meter
is how beating is elicited and performed.
        .                                           line
        .                       .                   lobe
        .           .           .         .         pulse and tactus
                                              ^
                                    unvoiced beat

We do indeed accompany much of our speaking with structures of beating
that both respond to and regulate our language.
              .                                     line
              .                         .           lobe
              .           .             .       .   pulse and tactus
                                                ^
                                          unvoiced beat

The beating that accompanies speech tends to be
variable, flat, and discontinuous.
 .
 .                          .                       tactus
 .          .               .       .               pulse and tactus
                                    ^
                               unvoiced beat
```

Let's state and number this preference.

MP7 (Continuity: Long Cadences)
Prefer that the strength and number of unvoiced beats after a cadence indicate the strength of the cadence.

It is also typical that major units in our metrical response to this paragraph are usually terminated/cadenced with local prosodic peaks/prosodic strength (rather than prosodic valleys/prosodic weakness). At the tone unit level, the only exceptions are *indeed* in metrical line 6, which delivers its tonic syllable on the projectional beat of its line, and *limited* in metrical line 8, which also delivers its tonic syllable too early, although less dramatically so. At the part level, the only exception is the 8th metrical line (*But, while important, this beating is often limited in various ways*—), which I read as stronger than the concluding line of its stanzaic part (*in regularity, in richness, in continuity, etc.*). The two stanzas and the section as a whole are concluded regularly with strong cadences. (w=weak, s=strong, **bold print** = tonic syllables in tone units).

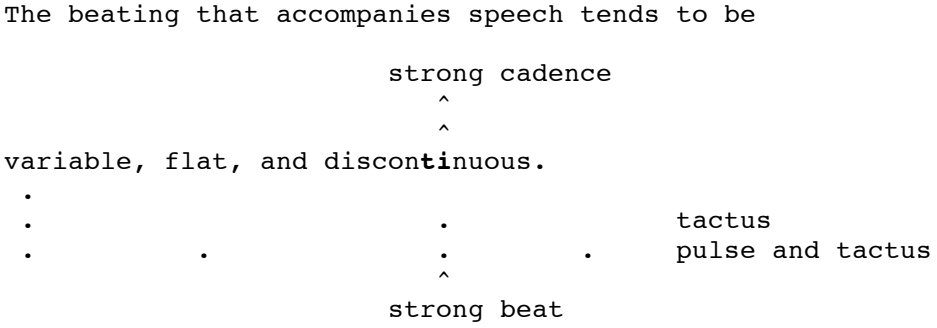




Let's state and number this preference.

MP8 (Continuity: Strong Cadences)
Prefer that cadences be local grouping peaks.

It is also typical that, in our metrical response to this paragraph, the long cadences that are followed with an unvoiced beat are not exceptions to MP8 (Continuity: Strong Cadence) and therefore position their cadences on the stronger, penultimate beat in the 4-beat line. The result is unusually *resolving*. For a moment, the energies of meter and grouping come together (strong beat supporting strong phrasal peak), but in a place where termination is expected (a long, strong cadence). For example:



Let's state and number this preference.

MP9 (Continuity: Resolving Cadences)
Prefer that larger cadences align with larger beats (and smaller cadences with smaller beats).

Summary: Metrical Preferences for Unversified Language

The metrical preferences that we have mentioned to this point are sufficient to handle the beating that accompanies most unversified poetry and non-poetic language. Let's gather these preferences together so that we can keep them in mind as we move forward to consider more artificial meters.

Metrical Preferences (Unversified Language)

MP1 (Iconicity: Prosodic Structure)
Prefer that metrical structures match prosodic structures.

MP1a (Iconicity: Prosodic Events)
Prefer that beats align with (the onsets of) prosodic events, and vice versa.

MP1b (Iconicity: Prosodic Prominences)
Prefer that the strength of metrical prominences match the strength of prosodic prominences, and vice versa.

MP1c (Iconicity: Prosodic Edges)
Prefer that the boundaries of metrical measures match the boundaries of prosodic structures, and vice versa.

MP1d (Iconicity: Prosodic Gapping)
When unvoiced beats occur, prefer that they appear in (large) gaps between (large) prosodic units, the larger the better.

MP2 (Physicality: Tactus)
Prefer a maximally prominent and productive tactus.

MP3 (Onset: Strong Beat Early)

Prefer that a strong beat occur near the beginning of a prosodic phrase.

MP4 (Iconicity: Linguistic Parallelism)
Prefer that linguistic parallels be metrical parallels and vice versa.

MP5 (Alternation: Duples)
Prefer duple beating at all metrical levels.

MP6 (Continuity: Final Codas)
Prefer that codas appear finally in higher levels of metrical architecture.

MP7 (Continuity: Long Cadences)
Prefer that the strength and number of unvoiced beats after a cadence indicate the strength of the cadence.

MP8 (Continuity: Strong Cadences)
Prefer that cadences be local grouping peaks.

MP9 (Continuity: Resolving Cadences)
Prefer that larger cadences align with larger beats (and smaller cadences with smaller beats).

Versified Language

In most versified poetry, meter is strengthened and regularized in a number of ways: (1) hypermetrical variation (i.e., beating above the level of the tactus) is controlled, if not entirely regularized, (2) similarly uniform sub-tactical levels of beating are added by regulating the number and placement of syllables, and (3) the resulting metrical structure is amplified by non-prosodic reflexes of cyclical time (in sound, syntax, semantics, and rhetoric).

This expanded metrical regularity and amplification immediately invokes three new preferences. These three new preferences might be seen as a type of psychological "set" that we bring to the production and consumption of versified poetry. If we know that a poem is versified, we expect its meter to be more regular and prominent than usual, and we expect that the language of the text will help us satisfy this expectation.

MP10 (Regularity: Pulse)
At and below the level of the tactus, prefer that strong beats be uniformly articulated by weak beats.

MP11 (Regularity: Hypermeter)
Prefer to amplify and regularize hypermetrical beating.

MP12 (Regularity: Versification)
Prefer that patterns of alignment between meter and language be maximally uniform.

For the most part, MP11 is rendered unnecessary by the visuality of most high-art poetry. Historically, high-art poetry has been communicated through writing and therefore has been presented in visual lines and stanzas of the poet's choosing. This visual presentation has a considerable stabilizing and amplifying influence on the reception and appreciation of more uniform, versified meters, especially the pentameter.

Let's state this preference explicitly, as a corollary to MP11.

MP11a (Regularity: Visuality)
If visual presentation is uniform, prefer that hypermetrical beating match visual lines, parts, stanzas, sections, etc.

While the pentameter line is not just visual, as some have claimed, we would often be unable to identify the metrical onsets of lines without the visual text. Without the visually lineated text, how many readers can feel the higher-level meter in the following lines (111-134) from Wordsworth's "Tintern Abbey"?

> Nor perchance, if I were not thus taught, should I the more suffer my genial spirits to decay: for thou art with me here upon the banks of this fair river; thou my dearest Friend, my dear, dear Friend; and in thy voice I catch the language of my

```
former heart, and read my former pleasures in the shooting
lights of thy wild eyes. Oh! yet a little while may I behold in
thee what I was once, my dear, dear Sister! and this prayer I
make, knowing that Nature never did betray the heart that loved
her; 'tis her privilege, through all the years of this our life,
to lead from joy to joy: for she can so inform the mind that is
within us, so impress with    quietness and beauty, and so feed
with lofty thoughts, that neither evil tongues, rash judgments,
nor the sneers of selfish men, nor greetings where no kindness
is, nor all the dreary intercourse of daily life, shall e'er
prevail against us, or disturb our cheerful faith, that all
which we behold is full of blessings.
```

```
                  Nor perchance,
If I were not thus taught, should I the more
Suffer my genial spirits to decay:
For thou art with me here upon the banks
Of this fair river; thou my dearest Friend,
My dear, dear Friend; and in thy voice I catch
The language of my former heart, and read
My former pleasures in the shooting lights
Of thy wild eyes. Oh! yet a little while
May I behold in thee what I was once,
My dear, dear Sister! and this prayer I make,
Knowing that Nature never did betray
The heart that loved her; 'tis her privilege,
Through all the years of this our life, to lead
From joy to joy: for she can so inform
The mind that is within us, so impress
With quietness and beauty, and so feed
With lofty thoughts, that neither evil tongues,
Rash judgments, nor the sneers of selfish men,
Nor greetings where no kindness is, nor all
The dreary  intercourse of daily life,
Shall e'er prevail against us, or disturb
Our cheerful faith, that all which we behold
Is full of  blessings.
```

However, with the help of the visual pattern, we can easily bring forward the high-level meter and feel its beautiful counterpoint to the prosody, syntax, and meaning. Without this visual pattern, the lines recede and the full effect of the meter is submerged.

On the other hand, visual form is no unerring guide to meter, especially in later historical eras; therefore, independent of MP11a (Regularity: Visuality), MP11 (Regularity: Hypermeter) is still an important part of any productive interaction with versified poetry. Even in versified poetry, metrical lines are sometimes visually

split and rearranged; and many aspects of metrical response still receive no visual realization. For instance, even folk verse, such as limericks, are standardly printed to follow the patterns of rhyme, not meter.

Arthur
There was an old man of Calcutta,
Who coated his tonsils with butta,
Thus converting his snore
From a thunderous roar
To a soft, oleaginous mutta.

Ogden Nash

Limericks have four metrical lines, each of which has four tactical beats, not five metrical lines of different lengths (3-3-2-2-4?).

```
There was an old man of Calcutta,
       .          .         .       .                tactus

Who coated his tonsils with butta,
     .          .           .      .                tactus

Thus converting his snore From a thunderous roar
         .           .           .         .        tactus

To a soft, oleaginous mutta.
      .       .        .        .                   tactus
```

Many poets have used visual form for extra-metrical purposes, for example, Emily Dickinson.

```
                    249

          Wild Nights--Wild Nights!
          Were I with thee
          Wild Nights should be
          Our luxury!

          Futile--the Winds--
          To a Heart in port--
          Done with the Compass--
          Done with the Chart!

          Rowing in Eden--
```

```
Ah, the Sea!
Might I but moor--Tonight--
In Thee!
```

Metrically, #249 does not have either three four-line stanzas or predominantly two-beat lines, varied in the end, with a three-beat line followed by a one-beat line. It is one sestet of consistently 4-beat lines. There are no such things as one- or two-beat measures.

```
Wild Nights--Wild Nights! Were I with thee
      .           .          .        .       tactus

Wild Nights should be Our luxury!
      .           .      .   .               tactus


Futile--the Winds--To a Heart in port--
   .         .          .        .            tactus

Done with the Compass--Done with the Chart!
      .        .            .         .        tactus

Rowing in Eden--Ah, the Sea!
   .      .     .        .                    tactus

Might I but moor--Tonight--In Thee!
      .      .       .          .              tactus
```

This caveat applies with a vengeance to shaped poems, such as George Herbert's "Easter Wings." Metrically, this poem does indeed contract and then expand, but not in 10-line stanzas, with beats per line arranged in a pattern 5-4-3-2-1-1-2-3-4-5 (with a variation in the 7th line of the second stanza).

```
                  Easter Wings

Lord, who createdst man in wealth and store,
      Though foolishly he lost the same,
           Decaying more and more
               Till he became
                   Most poor:
                   With thee
               O let me rise
           As larks, harmoniously,
      And sing this day thy victories:
```

```
Then shall thy fall further the flight in me.


My tender age    in    sorrow    did  begin
      And still with sicknesses and shame
            Thou didst so punish sin,
               That   I   became
                   Most thin.
                   With thee
               Let me combine,
            And feel this day thy victory;
      For, if I imp my wing on thine,
Affliction  shall  advance the  flight in me.
```

Rather, it is written in two metrical sections, each of which has two quatrains with line lengths patterned 5-4-4-5 in their tactical beating.

Hypermetrical Architecture in "Easter Wings"

Section 1, Stanza 1

Lord, who createdst man in wealth and store,
Though foolishly he lost the same,
Decaying more and more
Till he became most poor:

Section 1, Stanza 2

With thee O let me rise
As larks, harmoniously,
And sing this day thy victories:
Then shall thy fall further the flight in me.

Section 2, Stanza 1

My tender age in sorrow did begin
And still with sicknesses and shame
Thou didst so punish sin,
That I became most thin.

Section 2, Stanza 2

With thee let me combine,
And feel this day thy victory;
For, if I imp my wing on thine,
Affliction shall advance the flight in me.

Lower Level Beating (first stanza)

```
Lord, who createdst man in wealth and store,
       (.)                                        form
       (.)                                        section
        .                                         stanza
        .                                         part
        .                                         line
        .                   .                     lobe
        .    .      .      .          .           tactus
 .      .   .. .    .  .   .    .     .           pulse


Though foolishly he lost the same,
        .                                         line
        .           .                             lobe
        .     .     .       .                     tactus
  .     .  .  .  .  .    .  .                     pulse

Decaying more and more
   .                                              part
   .                                              line
   .              .                               lobe
   .      .       .       .                       tactus
 . . .    .   .   .   .   .                       pulse

Till he became most poor:
      .                                           line
      .             .                             lobe
      .    .        .       .                     tactus
 .    .  . .   .   .   .   .                       pulse
```

Conversely, there are also many important, and often regular, metrical structures that receive no visual support--lobes, stanzas, sections, forms, etc. MP11 claims that, when we read versified poetry, we try to amplify and regularize these metrical possibilities. Two of the most significant instances of these visually unsupported metrical structures are metrical stanzas and sections in blank verse. Much of the music of blank verse is a result of these levels of hypermetrical beating. For instance, this is how the opening of Wordsworth's "Tintern Abbey" (1-23) might be displayed, if its metrical stanzas and sections were given as much visual support as its metrical lines.

> Five years have past; five summers, with the length
> Of five long winters! and again I hear
> These waters, rolling from their mountain-springs

With a soft inland murmur.--Once again
Do I behold these steep and lofty cliffs,
That on a wild secluded scene impress
Thoughts of more deep seclusion; and connect
The landscape with the quiet of the sky.
The day is come when I again repose
Here, under this dark sycamore, and view
These plots of cottage-ground, these orchard-tufts,
Which at this season, with their unripe fruits,
Are clad in one green hue, and lose themselves
'Mid groves and copses. Once again I see
These hedge-rows, hardly hedge-rows, little lines
Of sportive wood run wild; these pastoral farms,
Green to the very door; and wreaths of smoke
Sent up, in silence, from among the trees!
With some uncertain notice, as might seem
Of vagrant dwellers in the houseless woods,
Or of some Hermit's cave, where by his fire
The Hermit sits alone.

Visual Heightening of the Metrical Stanzas and Sections in "Tintern Abbey," 1-23.

Five years have past; five summers, with the length
Of five long winters! and again I hear
These waters, rolling from their mountain-springs
With a soft inland murmur.--Once again

Do I behold these steep and lofty cliffs,
That on a wild secluded scene impress
Thoughts of more deep seclusion; and connect
The landscape with the quiet of the sky.

The day is come when I again repose
Here, under this dark sycamore, and view
These plots of cottage-ground, these orchard-tufts,
Which at this season, with their unripe fruits,
Are clad in one green hue, and lose themselves
'Mid groves and copses. Once again I see

> These hedge-rows, hardly hedge-rows, little lines
> Of sportive wood run wild; these pastoral farms,
> Green to the very door; and wreaths of smoke
> Sent up, in silence, from among the trees!
>
> With some uncertain notice, as might seem
> Of vagrant dwellers in the houseless woods,
> Or of some Hermit's cave, where by his fire
> The Hermit sits alone.

This passage is articulated into two highly regular metrical sections. The first section is a standard pair of standard quatrains. The second section is a revisionary sonnet. It has three quatrains and fourteen lines, but the sestet precedes the octave. This puts the stanzaic coda ("Are clad in one green hue...") in the center of the text, on the first stanza, rather than at the end of the text, on the third stanza. The result is the simultaneously heightened yet muted lyricism of Romantic verse, which is typically more centered and less aggressively climactic and closed than the Renaissance sonnet.

MP10 (Regularity: Pulse) becomes important when a system of versification controls the number, stress and syntactic context of syllables between tactical beats. If this control is sufficient, these syllables can (1) consistently elicit one or more sub-tactical levels of beating, (2) pervasively alter the relation between primary stresses and tactical beating by denying tactical beats to many primary stresses, and (3) occasionally elicit tactical beats themselves. In our unversified prose paragraph, the number and quality of these inter-tactical syllables varies widely. (I mark these syllables with "x").

```
x  x    x    x   x      x      x       x   x   x    x
In addition to what beating is and how it can be varied,
      .             .      .       .             .          pulse and tactus

x    x   x      x    x     x x     x
a major concern in the study of meter
   .       .             .       .                           pulse and tactus

x   x      x   x  x   x x  x    x
is how beating is elicited and performed.
        .           .             .         .               pulse and tactus

x  x x      x   x     x   xx x   x
```

```
In any rich and extended realization,
        .          .           .        .                    pulse and tactus

    x x      x   x   x  x     x  x     x  x   x       x
metrical beating is not exactly like anything in language.
 .        .              .          .           .          pulse and tactus

 x  x x      x     x x      x  x        x    x         x    x      x
We do indeed accompany much of our speaking with structures of beating
         .      .       .          .               .             .     p&t
  x   x    x       x x      x x   x       x
that both respond to and regulate our language.
              .            .            .         .       pulse and tactus

 x    x    x     x      x      x   x     x     x x  x     xx
But, while important, this beating is often limited in various ways--
             .             .         .      .          .       .     p&t

x   x x   x x  x       x    x   x  x  x x  x     x x
in regularity, in richness, in continuity, et cetera
        .           .                 .          .       pulse and tactus

  x     x     x  x     x x                 x  x
The beating that accompanies speech tends to be
     .         .           .     .                        pulse and tactus

   xx  x        x    x   x   x
variable, flat, and discontinuous.
 .          .              .         .                    pulse and tactus
```

By MP1s (Iconicity: Prosodic Events) and MP1b (Iconicity: Prosodic Prominence), sub-tactical levels of beating prefers to establish themselves by having these syllables (1) elitic beats and (2) if more than one level of beating is involved, establish strong and weak beats that match levels of stressing. By MP10 (Regularity: Pulse), these additional levels of beating will prefer to be consistently duple or consistently triple, the hemiolic motion being reserved for higher levels of structure. This means that the ideal case is to have one (and only one) or two (and only two) syllables between tactical beats for each level of sub-tactical beating established.

The problem is: If we connect lines continuously (linking final beats to initial beats across line breaks), our prose paragraph provides inter-tactical syllables in the following numbers:

Metrical Line #	**# Inter-Tactical Syllables**
1	(2)-3-2-2-3-2
2	2-2-2-3
3	3-4-0-3

4	2-4-1-0
5	2-4-2-3-4
6	1-2-2-2-2-4
7	2-3-1-3
8	2-2-1-3-2-3
9	3-4-3-3
10	3-2-0-3
11	3-3-2-0

As we will see, a wide range of irregular syllabic patternings can elicit a regular metrical beating, but, for reasons we will detail shortly, only in contexts where some minimal level of syllabic regularity is established. The pattern of syllables presented here does not achieve this minimal level. The major problem is the long inter-tactical intervals--the intervals of three and four syllables. A small number of these long intervals might be negotiable if they occurred in the context of a majority of shorter intervals, but, in this case, almost half of the intervals (22 out of 49) are of this length.

The most minimal versification, one that is often found in free verse and other prosaic poetry or poetic prose, encourages a triple pulse by reducing the number of these long intervals, as in Whitman's "When I Heard the Learn'd Astronomer," which we scanned above. If we discount the last line, which shifts to a duple mode, only 20% (7 out of 36) of the inter-tactical intervals in the "Astonomer" are this long. Duple and quadraduple intervals occur in about the same concentration as in the prose paragraph, but one-syllable intervals triple in frequency.

```
When I heard the learn'd astronomer,
       .                                                              section
       .                                                              stanza
       .                                                              part
       .                                                              line
       .                  .                                           lobe
       .         .        .      .                                    tactus
  .  .  .   .  .   .   . .   . . .   .                                 pulse

When the proofs, the figures, were ranged in columns before me,
         .                                                            line
         .                         .                                  lobe
         .          .              .        .        .                tactus
  .    .   .    .  .  .  .    .     .  ..    . .    . .    .          pulse

When I was shown the charts and diagrams, to add, divide, and measure them,
           .                                                          part
           .                                                          line
           .                              .                           lobe
           .        .        .           .      .        .           tactus
    .      .  .   .  .  . .    .   .    . .  .  .  .  . .    .       .  pulse
```

```
When I sitting heard the astonomer where he lectured with much applause
     .                                                                  line
     .                                  .                               lobe
     .          .          .            .                    .          tactus
  .  .  .  .    .     . .  .   .    .      .        .    .      .        pulse

       in the lecture-room,
              .                                                         tactus
       .    .  .       .                                                pulse

How soon unaccountable I became tired and sick,
     .                                                                  stanza
     .                                                                  part
     .                                                                  line
     .                        .                                         lobe
     .        .           .   .        .                               tactus
 .   .   . .  .    . .    .  ... .  .    .     .                        pulse

Till rising and gliding out I wander'd off by myself,
      .                                                                 line
      .          .                                                      lobe
      .          .    .     .      .        .                          tactus
 .    . .   .    ...   . . .  . ..    .    .  . .                       pulse

In the mystical moist night-air, and from time to time,
       .                                                                part
       .                                                                line
       .                                  .                             lobe
       .       .          .               .      .                      tactus
.   .  .  . .  .  .  .    .   .    .   .  . .  .    .                   pulse


Looked up in perfect silence at the stars.
      .                                                                 line
      .                   .                                             lobe
      .     .      .      .       .                                      tactus
 .    .  .   .  .   . .   .    .   .                                     pulse
```

Metrical Line # **Inter-Tactical Syllables**

1	1-1-2-2
2	1-2-1-2-4
3	1-1-3-1-1-3
4	2-2-4-4-2-3
5	2-4-0-2-1
6	2-1-1-1-2-2
7	2-1-2-1-1

How is this triple pulse suggested and then maintained? About 40% (14 out of 36) of the inter-tactical intervals have two syllables. By MP1a (Iconicity: Prosodic Events), this establishes the minimal level of regularly needed to suggest a triple pulse. In these intervals, pulses just align with syllables.

```
    as.    tro.      no.     mer    [beat]
         [beat]     When     the    proofs
```

```
          fi.      gures    were   ranged
          co.      lumns     be     fore
           I        si.     tting  heard
         heard      the       as.   tro.     no.    mer
   a.    pplause     in       the    lec.    ture
          soon       un       a     ccoun.   ta.    ble
          ti.        red     and    sick
          ri.       sing     and     gli.   ding
          off        by      my.    self
  my.     self       in      the     my.     sti.   cal
           my-      sti.     cal    moist
night     -air      and      from   time
           .                         .                  tactus
           .         .         .     .                  pulse
```

The many one-syllable intervals (and the one zero-syllable interval) can then be lengthened by invoking MP1d (Iconicity: Prosodic Gapping) and MP10 (Regularity: Pulse). That is, given this invocation of a regular pulse, where needed, we can add unvoiced pulses in prosodic gaps to maintain the regular beating.

```
         heard              the     learned
         learn'd            as.      tro.       no.    mer
         proofs,            the      fi.       gures
         ranged             in        co.      lumns
         shown              the     charts
         charts             and       di.       a.    grams
         add,               di-      vide
  di.    vide,              and      mea.      sure
         sick,              Till
         out                 I
         moist              night-   air
         time               to       time
         time               looked    up
          .                           .              tactus
          .          .         .      .              pulse
```

The gapped pulses inserted here never occur within a clitic phrase and often fall in gaps between tone units (or even larger prosodic phrases). These gapped pulses naturally lengthen the syllables that they follow, creating a song-like, melismatic texture.

These gapped pulses are especially smooth and natural in their positioning because they follow various prominent rhythmic and linguistic events: (1) strong beats, (2) strongly stressed syllables, and (2) heavy syllables. Psychologically, this prominence creates rhythmic "space" for inserted unvoiced pulses. These prominent events are already psychologically "lengthened" in various ways. As we

will see in a moment, this rhythmic "space" in the metrical grid will also be the most natural position for metrically extra, unexpected syllables, too.

Let's state and number these additional preferences.

MP13 (Iconicity: Gapping and Spacing Stresses)
If extrametrical syllables or unvoiced sub-tactical beats occur, prefer that they appear after strongly stressed syllables, the stronger the stresses the better.

MP14 (Iconicity: Gapping & Spacing Beats)
If extrametrical syllables or unvoiced sub-tactical beats occur, prefer that they appear after strong beats, the stronger the beats the better.

MP15 (Iconicity: Gapping Syllabic Weight)
If unvoiced sub-tactical beats occur, prefer that they appear after heavy syllables.

In our scansion of "Astronomer," the placement of two unvoiced pulses invokes these preferences to the point that they conflict with MP1d (Iconicity: Prosodic Gapping). In these two cases, unvoiced pulses appear within words (and therefore clitic phrases), even though a larger prosodic gap is available. Both of these unvoiced pulses are in the sixth metrical line.

```
Till rising and gliding out I wander'd off by myself,
      .                                          line
      .                 .                        lobe
      .          .      .      .         .       tactus
 .    . .   .    ...    . . .  . ..    .    .  . .  pulse
              ^          ^

               gli.          ding       out
               wan.          der'd      off
                .                       .        tactus
                .      .       .        .        pulse
```

Especially in this context, where so many of the unvoiced pulses occur after strong stresses and beats, the alternative placement following MP1d (Iconicity: Prosodic Gapping) is resisted.

```
*gli.  ding              out
*wan.  der'd             off
  .                        .        tactus
  .      .       .         .        pulse
```

This resisted spacing creates what musicians call a "Scotch snap," a more lively, syncopated structure that rides against the natural mental "spacing" created by the patterns of rhythmic and prosodic prominence.

In addition to the regularity of the other alignments in this context, this "Scotch snap" figure might be avoided because it places an unvoiced beat in the position of a metrical coda. If we regard meter as basically duple, all triple beating, even consistent triple beating, is the result of caudation, the adding of an extra weak beat. But in other cases as well, codas are almost always voiced. As we have seen, at the level of the tactus, an unvoiced beat can be added to complete the requirements of a duple, tetrameter measure.

```
Taffy was a Welshman,  Taffy was a thief
 .     .     .    .     .     .      .      .      sub-tactus
                                               ^
                                        "unvoiced pulse"
```

But this metrical "completion" of a measure with an unvoiced beat is not done where the completing gesture is a coda, an already "superfluous" gesture, as in cases of decaudation. In fact, if this were habitually done, most of the effect of decaudation, its intrusion of a song-like measure into a speech-like context, would be lost, as in the literally ringing/singing conclusion of George Herbert's "Jordan (I)" (9-12).

> Who says that fictions only and false hair
> Become a verse? Is there in truth no beauty?
> Is all good structure in a winding stair?
> May no lines pass, except they do their duty
> Not to a true, but painted chair?
>
> Is it no verse, except enchanted groves
> And sudden arbors shadow coarse-spun lines?
> Must purling streams refresh a lover's loves?
> Must all be veiled while he that reads, divines,

Catching the sense at two removes?

Shepherds are honest people: let them sing;
Riddle who list, for me, and pull for prime;
I envy no man's nightingale or spring,
Nor let them punish me with loss of rhyme,
Who plainly say, *My God, My King.*
George Herbert

```
Pentameter

           Must purling streams refresh a lover's loves?
                 .         .         .      .       .       tactus

Tetrameter

           Who plainly say, My God, My King.
                 .      .       .       .         tactus
```

In this poem, three five-line stanzas are each composed of four pentameter lines, topped with a concluding tetrameter. But because the major measure in the poem is the caudated pentameter, the uncaudated tetrameter lines that conclude each stanza are not caudated with unvoiced beats. They retain their song-like strength, symmetry, and binary architecture.

Let's state and number this preference.

MP16 (Alternation: Voiced Coda)
Prefer voiced codas.

As I express in my labeling, MP16 (Alternation: Voiced Coda) might be related to meter's strong preference for *alternation* and therefore duple beating. Duple beating is the preferred metrical norm and therefore can be more easily "implied" by contextual regularities that are not supported overtly by events in the metrical stimulus. In this case, this preference is strengthened by MP14 (Regularity: Versification), which favors consistent patterns of alignment between versification

and language. In 12 out of 14 cases in this poem, unvoiced pulses occur after strong beats aligned with heavy, stressed syllables. This versificational regularity produces a liquid, melismatic texture that would be strongly contradicted by any occurrences of "Scotch snap."

Once the triple norm is established, inter-tactical intervals of three and four syllables can also be accounted for. In this matter, the first consideration is MP1b (Iconicity: Prosodic Prominences). If there are extrametrical syllables that need to be fitted into the "spaces" between beats, these syllables are best unstressed (or of minimal prominence). This accounts for the placements of extrametrical syllables (vs. syllables that are aligned) within four of these long measures. In these, only unstressed syllables are extrametrical.

```
 /    v       \       \             /
di.   a.    grams    to            add
 .                                  .          tactus
 .           .       .              .          pulse

 /     v      \       /      v       /
lec.  tured  with    much    a.    pplause
 .                                  .          tactus
 .           .       .              .          pulse

/     v       \      /               /
lec.  ture-   room   How             soon
 .                                  .          tactus
 .            .      .              .          pulse


 /     v      \      \               /
mea.  sure  them,   when             I
 .                                  .          tactus
 .           .       .              .          pulse
```

Two others combine this consideration with MP13 (Iconicity: Gapping & Spacing Stresses). Two juxtaposed unstressed syllables are rarely both extrametrical. This might be because the second one follows a syllable that, once disregarded, has no stress at all, not even weak stress. This leaves no "space" for another extrametrical syllable.

```
v        /    v     v       \     \         /        v
```

```
   a.    stro.  no.   mer    where   he       lec.     tured
            .                                .              tactus
            .          .       .             .              pulse

          /       v        v    \       v       /
un. a.  count.   a.      ble     I      be      came
           .                                   .          tactus
           .               .     .             .          pulse
```

This leaves only one ambiguous case, the inter-tactical interval that connects the third and fourth lines, whose four non-tactical syllables have level (tertiary) stress. As I indicate in the scansion, I prefer to beat as follows to this interval:

```
                /       \      \       \      \       /
      be       fore     me,    When     I     was    shown
                .                                     .    tactus
                .       .              .              .    pulse
```

But I also find the following entirely acceptable:

```
                /       \      \       \      \       /
      be       fore     me,    When     I     was    shown
                .                                     .    tactus
                .              .       .              .    pulse
```

The versification of Whitman's "Astronomer" is very slight, not entirely "free," but almost so. Because syllable count is so variable, tactical beats must be firmly established by stress rather than by syllable count and positioning.

The next step in this tightening of the syllable count is dol'nik (or duple-triple) versification. By and large, dol'nik verse eliminates both the long inter-tactical intervals of three and four syllables and the short inter-tactical intervals with no syllables, leaving inter- tactical intervals of just one and two syllables. Much of our folk verse is duple-triple/dol'nik verse.

> Little Bo-peep has lost her sheep,
> And can't tell where to find them;
> Leave them alone, and they'll come home,
> And bring their tails behind them.

Dol'nik has also been used for some of our finest art-verse.

> A pity beyond all telling
> Is hid in the heart of love:
> The folk who are buying and selling,
> The clouds on their journey above,
> The cold wet winds ever blowing,
> And the shadowy hazel grove
> Where mouse-grey waters are flowing,
> Threaten the head that I love.
>
> W.B. Yeats, "The Pity of Love"

> I bring fresh showers for the thirsting flowers,
> From the seas and the streams;
> I bear light shade for the leaves when laid
> In their noonday dreams.
> From my wings are shaken the dews that waken
> The sweet buds every one,
> When rocked to rest on their mother's breast,
> As she dances about the sun.
> I wield the flail of the lashing hail,
> And whiten the green plains under,
> And then again I dissolve it in rain,
> And laugh as I pass in thunder.
>
> Percy Bysshe Shelley, "The Cloud," 1-12

> About, about, in reel and rout
> The death-fires danced at night;
> The water, like a witch's oils,
> Burnt green, and blue and white.
>
> And some in dreams assured were
> Of the Spirit that plagued us so;
> Nine fathom deep he had followed us
> From the land of mist and snow.

Samuel Taylor Coleridge, "The Rime of the Ancient Mariner," 127-34

Metrically, the distinctiveness of dol'nik verse is its ability to elicit a duple pulse, a triple pulse, or an ambiguously duple/triple pulse, and in each case with a blurring of the contributions of meter and phrasing, beating and voicing, to the rhythm as a whole. When the beat is triple, the voicing is often duple; when the beat is duple, the voicing is often triple; and in many cases, both beatings are possible, multiplying the performative potential of the verse. With a more constrained syllable-count, demotion and promotion, the placing of vocal prominences off the beat and the vocal weakening of tactical beats, also becomes more possible (although only rarely realized). This gives the verse greater vocal range, both greater vocal strength and greater vocal delicacy. Dol'nik verse also tends to amplify its meter by elaborating other aspects of its language and rhythm with reflexes of cyclical time. This amplification of meter invokes a number of preferences that hold in general for metrical verse, but which we have not yet mentioned.

Let state and number these preferences here.

MP17 (Repetition: Strong Prolongation)
Prefer that a weak beat be a strong prolongation--repetition, apposition, reduplication, synonymy, nonsense, etc.

MP18 (Onset: Linguistic Onset)
Prefer that strong beats align with linguistic onsets—alliteration, topicalization, left-dislocation, subjects, WH-movement, references to beginnings, dawn, birth, children, springs, appearance and disappearance, naming, addressing, etc.

MP19 (Onset: Prolongational Anticipation/Departure)
Prefer that strong beats be prolongational anticipations or departures (not prolongational arrivals or extensions).

MP20 (Physicality: Prosodic Weight)

Prefer that strong beats be aligned within heavy prosodic phrases—phrases with heavy syllables, long clitic phrases, large phonological phrases, extended intonational units, etc.

MP21 (Physicality: Linguistic Weight)
Prefer that strong beats align with weighty/physical language—dense sonic patterning, heavy words, compounds, nouns, nominal modifiers, appositives, metaphor, references to the body, kinship, touch, color, the earth, war, etc.

M22 (Retrospection: Linguistic Anaphora)
Prefer that weak beats be aligned with anaphoric language—anaphoric pronouns, resumptive repetition, etc.

MP23 (Retrospection: Prolongational Extension)
Prefer that a weak beat be a prolongational extension.

These preferences recapitulate the claims of the prosodic paradigm. In poetry that foregrounds meter, such as dol'nik does, other aspects of the language become cyclical and therefore embody features of meter: physicality, initialization/onset, retrospection, repetition, etc.

MP17 (Repetition: Strong Prolongation) claims that language that is more repetitive, more static and echoic, will foreground meter. A strong prolongation is a static linear motion, one that does not advance but turns back upon itself in some way, repeating, renaming, clarifying, exemplifying, etc. Among types of linear motion, strong prolongation is most like meter, which is both repetitive and echoic.

This preference for strong prolongation is not strongly represented in the three passages above, but we see it in the first line of the Coleridge: "About, about...." The second *about* is on a weaker beat, which, like the repetition of *about* itself, is an echo of the preceding stronger beat.

```
About, about in reel and rout
   .                                line
   .             .                  lobe
   .      .      .        .         tactus
```

Language patterning of this sort is very frequent in the rest of the "Rime."

> Below the kirk, below the hill,
> Below the lighthouse top. (23-24)
>
> The ice was here, the ice was there,
> The ice was all around: (60-61)
>
> Water, water, everywhere
> And all the boards did shrink;
> Water, water, everywhere,
> Nor any drop to drink. (120-23)
>
> A weary time! a weary time!
> How glazed each weary eye, (145-46)
>
> Alone, alone, all, all alone,
> Alone on a wide wide sea! (233-34)
>
> Fly, brother, fly! more high, more high!
> Or we shall be belated:
> For slow and slow that ship will go,
> When the Mariner's trance is abated." (426-29)
>
> Swiftly, swiftly flew the ship,
> Yet she sailed softly too:
> Sweetly, sweetly blew the breeze--
> On me alone it blew. (460-63)

MP18 (Onset: Linguistic Onset) claims that any language that foregrounds onsets will also foreground meter. In sound, this in[cl]udes a[ll]iteration, which repeats sy[ll]abic onsets, as in the repeated [l]'s that I have bracketed ([]) in this sentence. In syntax, this includes all fronting/thematicizing structures:

Structural Type	**Syntactic Theme**
	Fronting

(1)	Subjects	*Little Bo-peep*	has lost her sheep.
(2)	Left-Dislocations	*Little Bo-peep*	she has lost her sheep.
(3)	Topicalizations	*Her sheep*	she has lost.
		Not once	has she lost her sheep.
(4)	WH-structures	*What*	has she lost?
		which	she has lost
		whatever	she has lost
(5)	Yes-No Questions	*Has*	she lost her sheep?
(6)	Passives	*Her sheep*	have been lost.
(7)	Vocatives	*Little Bo-peep,*	don't lose your sheep.
(8)	Imperatives	*Lose*	your sheep, Bo-peep
(9)	Existentials	*There*	have been sheep lost before.
(10)	Pseudo-Clefts	*What Bo-peep lost*	were her sheep.
(11)	Expletives	Oh,	what have you lost?
(12)	Conjunctions	if	you lose you sheep

This preference for linguistic onsets is more richly realized in our four passages. For instance, these passages are all strongly alliterated.

[L]ittle [B]o-peep [h]as [l]ost [h]er sheep,
  And [c]an't [t]ell where [t]o find [th]em;
[L]eave [th]em a[l]one, and [th]ey'll [c]ome [h]ome,
  And [br]ing [th]eir [t]ails [b]e[h]ind [th]em.

A pity beyond all telling
Is [h]id in the [h]eart of love:
The [f]olk who are [b]uying and selling,
The [cl]ouds on their journey a[b]ove,
The [c]old [w]et [w]inds ever [bl]owing,
And the shadowy [h]azel [gr]ove
Where mouse-[gr]ey [w]aters are [fl]owing,
Threaten the [h]ead that I love.

I [br]ing [fr]esh [sh]owers [f]or the thirsting [fl]owers,
  [Fr]om the [s]eas and the [str]eams;
I [b]ear [l]ight [sh]ade for the [l]eaves when [l]aid
  In their noonday [d]reams.

```
[Fr]om my [w]ings are [sh]aken the [d]ews that [w]aken
  The [sw]eet [b]uds every [w]one,
[Wh]en [r]ocked to [r]est on their mother's [br]east,
   As she [d]ances a[b]out the [s]un.
I [w]ield the [fl]ail of the [l]ashing hail,
   And [wh]iten the green [pl]ains under,
And then again I dissolve it in [r]ain,
   And [l]augh as I [p]ass in thunder.


A[b]out, a[b]out, in [r]eel and [r]out
The [d]eath-fires [d]anced at night;
The [w]ater, like a [w]itch's oils,
Burnt green, and [b]lue and [wh]ite.
```

The foregrounding of syntactic onsets is less frequent in our passages, but again, this is very frequent in parallel verse, such as nursery rhymes. For instance, eight out of the twelve of the lobial/half-line metrical projections in "Little Boy Blue" are accompanied by syntactic topics/topicalizations.

Little Boy Blue,
  Come blow your horn,
The *sheep's* in the meadow,
  The *cow's* in the corn;
But *where* is the boy
  Who looks after the sheep?
He's under a haycock,
  Fast asleep.
Will you wake him?
  No, not I.
For *if* I do,
  He's sure to cry.

Structural Type	**Topic**
vocative	*Little Boy Blue,*
imperative	*come blow*
subjects	*sheep's, cow's*
WH-structures	*where* (is the boy), *will* (you wake him)
expletive	*No,*
conjunction	*if (I do)*

MP19 (Onset: Prolongational Anticipation/Departure) claims that meter prefers to coordinate its onsets with linear/syntactic onsets. It likes to avoid (what has been

traditionally called) enjambment, a linear movement that extends across the end of a measure and arrives/terminates in the initializing phrase of the next measure. Enjambment is (part) of what submerges the metrical lines in a text such as "Tintern Abbey," which we discussed above. (I indicate strong enjambment with arrows (">>>>>>") at the ends of lines.

> Nor perchance,
> If I were not thus taught, should I the more>>>>>>>>
> Suffer my genial spirits to decay:
> For thou art with me here upon the banks>>>>>>>>>>>>
> Of this fair river; thou my dearest Friend,
> My dear, dear Friend; and in thy voice I catch>>>>>>
> The language of my former heart, and read>>>>>>>>>>>
> My former pleasures in the shooting lights>>>>>>>>>>
> Of thy wild eyes. Oh! yet a little while
> May I behold in thee what I was once,
> My dear, dear Sister! and this prayer I make,
> Knowing that Nature never did betray>>>>>>>>>>>>>>>>
> The heart that loved her; 'tis her privilege,
> Through all the years of this our life, to lead>>>>>
> From joy to joy: for she can so inform>>>>>>
> The mind that is within us, so impress>>>>>>>>>>>>>>
> With quietness and beauty, and so feed>>>>>>>>>>>>>>
> With lofty thoughts, that neither evil tongues,
> Rash judgments, nor the sneers of selfish men,
> Nor greetings where no kindness is, nor all>>>>>>>>>
> The dreary intercourse of daily life,
> Shall e'er prevail against us, or disturb>>>>>>>>>>>
> Our cheerful faith, that all which we behold>>>>>>>>
> Is full of blessings.

Although the evidence can only be negative, MP19 is richly illustrated in our three passages. None of them is densely enjambed.

MP20 (Physicality: Linguistic Weight) claims that meter prefers to enhance the linguistic weight of strong beats in ways that go beyond their prosodic prominence. The most common way to accomplish this is to place these beats within "heavy" prosodic phrases, phrases that are longer, denser, more heavily vocalized, etc.

When within heavier phrases, beats are delivered with more force. In essence, their strength both spreads out into the prosodic context and derives energy from that context. This preference is richly represented in our texts. A major instance of this preference is the general tendency of dol'nik to favor a physically *contracting* and *lightening* form at many levels. The most prominent of these levels is the line. All of our texts illustrate this lineal contraction. For instance, even though the Yeats poem has three voiced tactical beats per line, it alternates feminine and masculine endings, thus tending to lengthen the odd (metrically stronger) lines.

```
A pity beyond all telling              (feminine, 8 syllables)
Is hid in the heart of love:           (masculine, 7 syllables)
The folk who are buying and selling,   (feminine, 9 syllables)
The clouds on their journey above,     (masculine, 8 syllables)
The cold wet winds ever blowing,       (feminine, 8 syllables)
And the shadowy hazel grove            (masculine, 8 syllables)
Where mouse-grey waters are flowing,   (feminine, 8 syllables)
Threaten the head that I love.         (masculine, 7 syllables)
```

All of the extrametrical stresses in the text (*all* in line 1, *wet* and *ever* in line 5, and (perhaps) *-grey* in line in 7) are also in odd (metrically stronger) lines. Our other three texts overtly shorten even lines, using a "common meter" versification, which alternates four voiced tactical beats per line with three. This consistently shortens the even lines in various ways--in numbers of syllables, numbers of stresses, etc.

```
Little Bo-peep has lost her sheep,
 .         .        .         .                        tactus

  And can't tell where to find them;
       .           .       .           .               tactus


I bring fresh showers for the thirsting flowers,
    .           .               .         .            tactus

  From the seas and the streams;
            .   .          .         .                 tactus


About, about, in reel and rout
  .      .        .        .                           tactus
```

```
The death-fires danced at night;
     .          .         .     .                  tactus
```

Notice that in the Shelley passage, there is also a tendency to place weakly stressed tactical beats in the shorter, even lines, "lightening" their language even further.

```
                \
From the seas and the streams
          .   .          .     .                  tactus
\
In their noonday dreams.
.         .         .     .                       tactus
                \
As she dances about the sun.
        .       .       .     .                   tactus
```

A subtler effect is a statistical tendency to place projectional beats of lines and lobes in longer prosodic phrases. Our passage is not very representative, but Shelley's "The Cloud" has many lines such as the following:

```
line 14

    And their great pines        groan         aghast
                .                                        line
                .                                .       lobe
                .                 .              .    .  tactus

line 32

    And his burning               plumes        outspread,
              .                                          line
              .                                    .     lobe
              .                     .              .   .  tactus

line 43

    With wings folded       I rest       on mine airy    nest
                .                                        line
                .                                .       lobe
                .              .                 .     .  tactus

line 55

    When I widen         the rent     in my wind-built   tent,
              .                                          line
              .                              .           lobe
              .                .             .         .  tactus
```

MP21 (Physicality: Linguistic Weight) claims that meter prefers beating that is weighted with other sorts of structures, too. Included here are all types of cyclical language, as these matters are detailed in the poetic paradigm--sound, words, compounds, nouns, syntactic complexes (apposition, conjunction, correlation, etc.), metaphor, and so forth. Notice that the onsets of both of the compound words in our passages, *mouse-grey* and *death-fires,* are placed on projectional beats in lines.

```
The death-fires danced at night
     .                                          line
     .                    .                     lobe
     .          .         .      .           tactus

Where mouse-grey waters are flowing,
       .                                        line
       .                        .               lobe
       .          .             .       .     tactus
```

The sonic intensity of all of these passages is also evident, as we explored in part in our discussion of alliteration. In addition, these passages are all end-rhymed; the nursery rhyme and Shelley passage also have consistent *internal* rhyme in the odd lines ("Little Bo-*peep* has lost her *sheep*," etc; "I bring fresh *showers* for the thirsting *flowers*," etc.); and the Coleridge has freer but similar patterning (e.g., A*bout*, a*bout*, in reel and *rout*").

MP22 (Retrospection: Linguistic Anaphora) claims that metrical contours can also be heightened by anaphoric relations in language. Antecedents are like strong beats; pro-forms are like weaker beats that look back to and echo those antecedents. This is the common pattern in "Bo-peep." For the most part, each stanza uses full noun phrases (*Little Bo-peep, her sheep*) in its opening line (or lobe) and then reduces these noun phrases to pro-forms (*she/her, they/them/their*) in later lines (or lobes), as the meter weakens.

Little Bo-peep has lost ***her sheep***,
  And can't tell where to find *them*;
Leave *them* alone, and *they*'ll come home,
  And bring *their* tails behind *them*.

Little Bo-peep fell fast asleep,
  And dreamt *she* heard *them* bleating;

```
But when she awoke, she found it a joke,
  For they were still all fleeting.
```

MP23 (Retrospection: Prolongational Extension) is the complement to MP19 (Onset: Prolongational Anticipation/Departure). It claims that meter prefers weak beats to be prolongational extensions. Both weak beats and prolongational extensions are retrospective, looking back to stronger beats and points of linear arrival/departure, respectively. For example, with one exception (lines 5-6), the Shelley passage consistently has some sort of syntactic extension (an adveribal, a subordinate clause, a conjoin) in the metrically weaker, even lines of each of its stanzaic parts/distichs.

I bring fresh showers for the thirsting flowers,
From the seas and the streams;
I bear light shade for the leaves when laid
In their noonday dreams.
From my wings are shaken the dews that waken
The sweet buds every one,
When rocked to rest on their mother's breast,
As she dances about the sun.
I wield the flail of the lashing hail,
And whiten the green plains under,
And then again I dissolve it in rain,
And laugh as I pass in thunder.

These matters aside, most of the basic beating in dol'nik can be accounted for with the preferences that we have already established for our metrical response to prose and free verse; in fact, with the addition of the metrical amplification that feeds MPs 17-23, this reading is often much more stable.

For instance, if we give "Bo-Peep" a triple pulse, we respond:

```
Little Bo-peep has lost her sheep
 .                                    stanza
 .                                    part
 .                                    line
 .                .                   lobe
```

```
.          .       .          .          tactus
.   .   .  . . .   .  . .     .   .      pulse
```

Because of the amplification of meter, beating at the level of tactus, lobe, and line is multiply defined—by syntax, intonation, and sound. By MP1b (Iconicity: Prosodic Prominence), tactical beats again track primary stress and clitic phrases in the prosody.

```
 _______ ____ _________ ________
/      \/    \/         \/        \
 s   w  w  s    w    s    w    s
 /   v  \  /    \    /    \    /
Little Bo-peep has lost her sheep
 .         .        .         .          tactus
```

But now these tactical beats are also supported by alliteration (*Little-lost*) and rhyme ([Bo-] *peep-sheep*), with alliteration, the sound pattern that repeats syllabic onsets (MP18 Onset: Linguistic Onset) appropriately reinforcing the onsets of lobes; and with rhyme, the sound pattern that repeats the *complement* of syllabic onsets, reinforcing lobial cadences. These lobial measures are then fronted further by both syntax and intonation (MP4 Iconicity: Linguistic Parallelism; MP18 Onset: Linguistic Onset). At the subject-predicate break in the first clause, the line breaks into two tone units coextensive with lobial measures.

```
 _______________ ___________________
/               \/                   \     iu
 Little Bo-peep has lost her sheep
  .                  .                     lobe
  .         .        .         .           tactus
```

The lineal onset and measure is also very natural and amplified. The lineal projection comes on the very first syllable (MP3 Onset: Strong Beat Early) of a complex, noun-phrase subject composed of polysyllabic words (MP21 Physicality: Linguistic Weight); and being a syntactic subject in search of a predicate, the noun phrase is also a strong syntactic anticipation ((MP19 Onset: Prolongational Anticipation/Departure). By MP1a (Iconicity: Prosodic Events), the triple pulse is then encouraged at the beginning of the line by the two syllables between the tactical beats.

```
 /   v  \  /
Little Bo-peep
 .         .      tactus
 .   .  .  .      pulse
```

And given what follows in the rest of the line, which contracts to a duple phrasing, this maximal vocal support of the triple pulse gives further weight to the lineal onset (MP20 Physicality: Prosodic Weight).

In the rest of the line, this triple pulse is challenged somewhat, but not severely. The pattern of syllables and stresses becomes duple, thus losing support of MP1a (Iconicity: Prosodic Events).

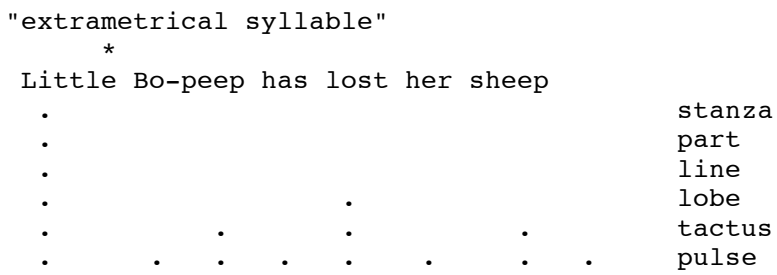
```
  /    \   /    \    /       stress
-peep has lost her sheep
  .        .         .       tactus
  .  . .   .  . .    .
```

But the weight of syllables (MP15 Spacing: Syllables) and the pattern of beats (MP16 Spacing: Spacing) and stresses (MP13 Iconicity: Spacing Stresses) encourages the triple pattern to continue (MP10 Regularity: Pulse) by making ample psychological and physical space for unvoiced pulses between prosodic phrases (MP1d Iconicity: Prosodic Gapping) after heavy, stressed syllables (*peep, lost*).

```
<<____ ___________________
     \/                 \    intonational unit
<<____ _______ _________
     \/       \/        \    phonological phrase
<<____ _______ _________
     \/       \/        \    clitic phrase
  /    \   /    \    /       stress
-peep has lost her sheep
  .        .         .       tactus
  .  . .   .  . .    .
     ^        ^
 "unvoiced pulses"
```

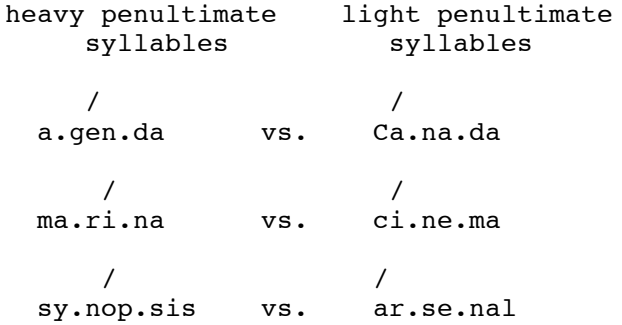
On the other hand, as in all dol'nik, we can also give "Bo-Peep" a duple pulse. In this case, higher levels of beating are established as before, but now the line begins

with an extrametrical syllable and then contracts down to a one-to-one alignment of syllables and pulses.



This response is also favored in various ways. Beating is normatively duple (MP5 Alternation: Duples); and the extrametrical syllable ([li-]*ttle*) is unstressed (MP1b Iconicity: Prosodic Prominence) and follows both a strongly stressed syllable (MP13 Iconicity: Spacing Stresses) and a strong beat (MP14 Iconicity: Spacing Beats), in fact, the strongest beat in the entire poem. As with the unvoiced beat in the triple reading, this extra syllable is also accommodated by its natural weighting of the onset of the first lobe and line (MP20 Physicality: Prosodic Weight).

The only new metrical preference that starts to operate here is deals with the relation between prosodic weight and English word stress. English word stress is sensitive to heavy syllables: Heavy syllables attract stress, as in the penultimate syllables of the nouns in the left column below.



This means that, for the purposes of word stress in English, after a light, stressed syllable, two syllables are often made equivalent to one (or three with two), with numbers of morae being equated rather than numbers of syllables.

```
          /
a.      gen.        da.

          /
        Ca.   na.   da.
               *
```

This prosodic sensitivity to quantity appears in verse, too. If there is an extrametrical syllable in a metrical beating (i.e., a situation where two syllables are being equated with one), there is a preference that it occur after a light, stressed syllable within a word.

Let's state and number this preference.

MP1e (Iconicity: Spacing Compensatory Weight)
If extrametrical syllables occur, prefer that they appear after light, stressed syllables within words.

Read with a duple pulse, this is just what we have in the opening of "Bo-peep." The initial, stressed syllable of *Little* is light and the second syllable is extrametrical. As a result, this extrametrical syllable is only mildly disruptive. It is accomodated naturally by the linguistic prosody.

```
"light, stressed syllable within a word"

        *
      _______
     /       \                    word
       /
      Li.ttle Bo-peep
       .          .               tactus
       .      .   .
           *
   "extrametrical syllable"
```

In the best dol'nik verse, an appeal to MP1e (Iconicity: Spacing Compensatory Weight) combines with an appeal to MP15 (Iconicity: Gapping Syllabic Weight) to create an especially smooth blending of duple and triple beating. In the triple beating, many gapped/unvoiced pulses just add further weight/length to (already) heavy syllables (MP15 (Iconicity: Gapping Syllabic Weight), while in the duple reading, spaced/extrametrical syllables just compensate for the lack of syllabic weight in preceding stresses (MP1e (Iconicity: Spacing Compensatory Weight), as in the fifth line of Yeats' "The Pity of Love."

```
And the shadowy hazel grove.
```

In the triple reading of the pulse, the heavy stressed syllable in *hazel* (*ha-*) is just lengthened further by the following gapped/unvoiced pulse.

```
                "heavy, stressed syllable"
                           *
          And the shadowy hazel grove.
                    .      .      .        .        tactus
                .     .   . . .  ...    .  . .   .   pulse
                            *
                       "gapped/unvoiced pulse"
```

In the duple reading of the pulse, the second, spaced syllable in *shadowy* (*-do*) naturally compensates for the lightness of the initial, stressed syllable (*sha-*).

```
"light, stressed syllable within a word"
                    *
          And the shadowy hazel grove.
                    .      .      .        .          tactus
                .   .   .  . .    .     .  .          pulse
                      *
                "spaced syllable"
```

The result is verse that is delicately sensitive to the distribution of syllabic weight.

While there is undoubtedly personal variation in these matters, dol'nik poems are best read with a pulse in just one of the metrical modes (and not the other). Many considerations bear on this result, but the most important is associated with a negative version of MP1e (Iconicity: Spacing Compensatory Weight): *A triple pulse*

will strongly avoid a gapped/unvoiced pulse after a light, stressed syllable within a word. In this context, the gapped pulse unnaturally prolongs the lax vowel in the light, stressed syllable, rather than providing the compensatory voicing of another syllable, as MP1e (Iconicity: Spacing Compensatory Weight) prefers. For instance, over the course of the whole poem, the "Rime of the Ancient Mariner," if read with a triple pulse, is forced repeatedly into this situation. Therefore, to my taste, it is best read with a duple pulse. The following occur in the poem's first twenty lines.

```
It is an ancient Mariner  (1)          Ma.ri.ner
                                        .     .             tactus
                                        .. .  .             pulse
                                         *

And the stoppeth one of three  (2)     sto.ppeth one
                                         .       .          tactus
                                         . . .   .          pulse
                                           *

May'st hear the merry din.   (8)        me.rry din
                                         .      .           tactus
                                         . . .  .           pulse
                                           *

He holds him with his skinny hand, (13)    ski.nny hand
                                            .      .        tactus
                                            . . .  .        pulse
                                              *

The Wedding Guest stood still,  (18)       We.dding Guest
                                            .         .     tactus
                                            . . .     .     pulse
                                              *

And listens like a three years' child: (19)    li.stens like
                                                .        .  tactus
                                                . . .    .  pulse
                                                   *

The Wedding Guest sat on a stone:   (21)      We.dding Guest
                                               .         .  tactus
                                               . . .     .  pulse
                                                 *

He cannot choose but hear;   (22)             ca.nnot choose
                                               .        .   tactus
                                               . . .    .   pulse

                *
```

```
The bright-eyed Mariner.   (24)          Ma.ri.ner
                                          .     .         tactus
                                          .. .  .         pulse
                                           *
```

On the other hand, when read with a triple pulse, *all* of the light tactical syllables in Yeats' "The Pity of Love" are followed by two unstressed, non-tactic syllables. Therefore, this poem smoothly accommodates the triple reading.

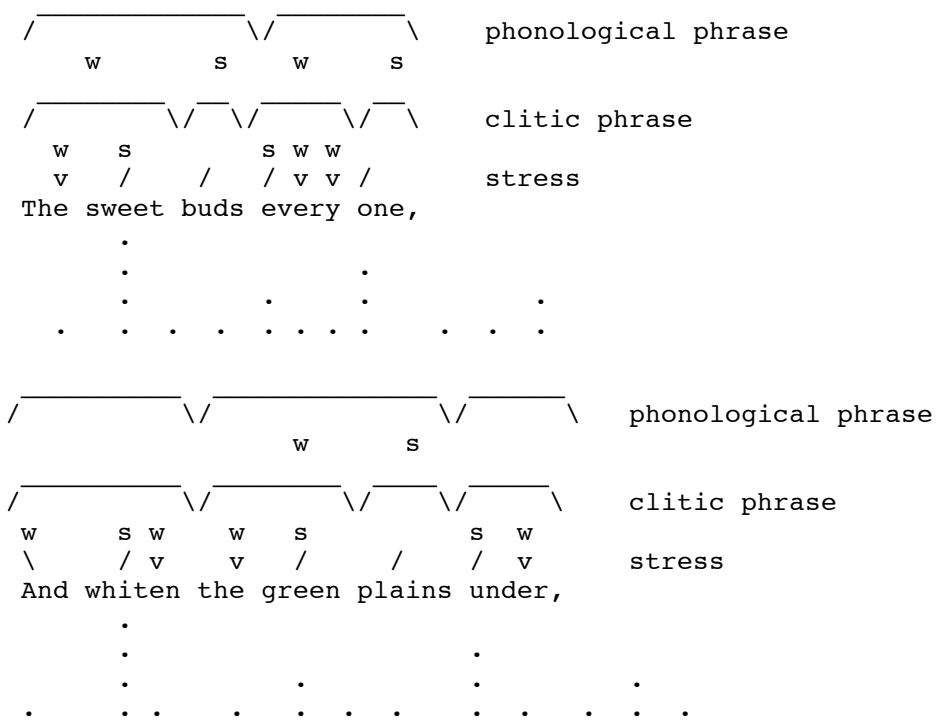
```
A pity beyond all telling              pi.ty be.yond
                                        .        .        tactus
                                        .  .  .  .        pulse

And the shadowy hazel grove            sha.do.wy ha.zel
                                          .        .      tactus
                                          .  .  .  .      pulse

Where mouse-grey waters are flowing      wa.ters are flo.wing
                                           .            .    tactus
                                           .  .   .     .    pulse

Threaten the head that I love.           Threa.ten the head
                                            .           .   tactus
                                            .   .    .  .   pulse
```

Shelley's "The Cloud" lies somewhere between these two extremes, although more toward the Yeats than the Coleridge. Others might well differ, but to my taste, enough of the light tactical syllables in the "Rime" are followed by two syllables to permit the triple reading without leaving the verse too roughly syncopated (i.e., against MP16 (Alternation: Voiced Coda)).

> The sweet buds *every one*, (6)
> In a cavern under is *fettered the thund*er (19)
> *Wherever he dream*, under mountain or stream, (27)
> The *Spirit he loves* remains; (28)
> From the depth of *Heaven above*, (42)
> Glides *glimmering o'er* my fleecelike floor, (47)
> And *wherever the beat* of her unseen feet, (49)
> With *hurricane, fire*, and snow, (68)
> While the moist Earth was *laughing below*. (72)
> I am the *daughter of Earth* and Water, (73)

For after the rain when with *never a stain* (77)
The pavilion of *Heaven is bare*, (78)
And out of the *caverns of rain*, (82)

This (partial) syllabic control in dol'nik also allows more frequent and more conflictive demotion and promotion, strongly stressed non-tactical syllables and weakly stressed tactical ones. Because of (1) the control of tactical beats per line and (2) the general avoidance of small and large inter-tactic intervals (MP12 Regularity: Versification), strong stresses can occur off the beat without confusion or ambiguity, as in the follow from the Shelley passage (I scan with a triple pulse):



In these two lines, phonological phrase peaks (*buds, plains*) are easily demoted to pulses because other alignments of meter and language would create inter-tactical intervals that violate the pattern of the versification. (a) has an inter-tactical interval of no syllables and (b) has both this and an inter-tactical interval with three syllables. Both of these readings could appear in the context of an accentual versification but are unexpected in dol'nik (MP12 Regularity: Versification).

```
(NO GOOD):

      (a)   The sweet buds every one
                        .   .     .      .     tactus
                          <>
                      no syllables

      (b)   And whiten the green plains under,
                    .                .    .         tactus
                      <<<<<<<>>>>>    <<>>
                     three syllables  no syllables
```

Similarly, in lines such as Coleridge's *The water, like a witch's oils* , weakly stressed syllables such as *like* can easily carry a tactical beat because alternative alignments would violate the versification (MP12 Regularity: Versification) by (1) losing a voiced tactical beat and (2) creating inter-tactical intervals that are too long.

```
(NO GOOD):

            The water, like a witch's oils
                 .              .      .     .    tactus
                   <<<<<<<>>>>              ^
                 three syllables         unexpected unvoiced
                                             beat
```

More normal lines in this verisficational position read:

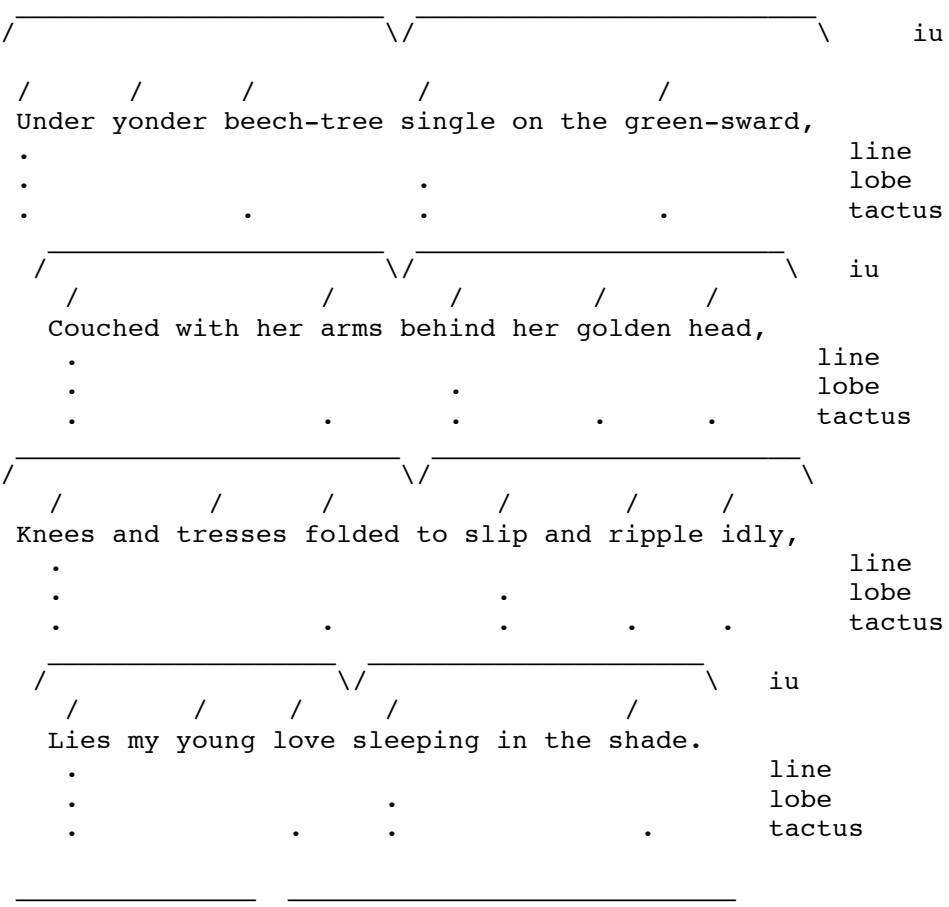
```
            About, about, in reel and rout
              .      .        .        .      tactus
```

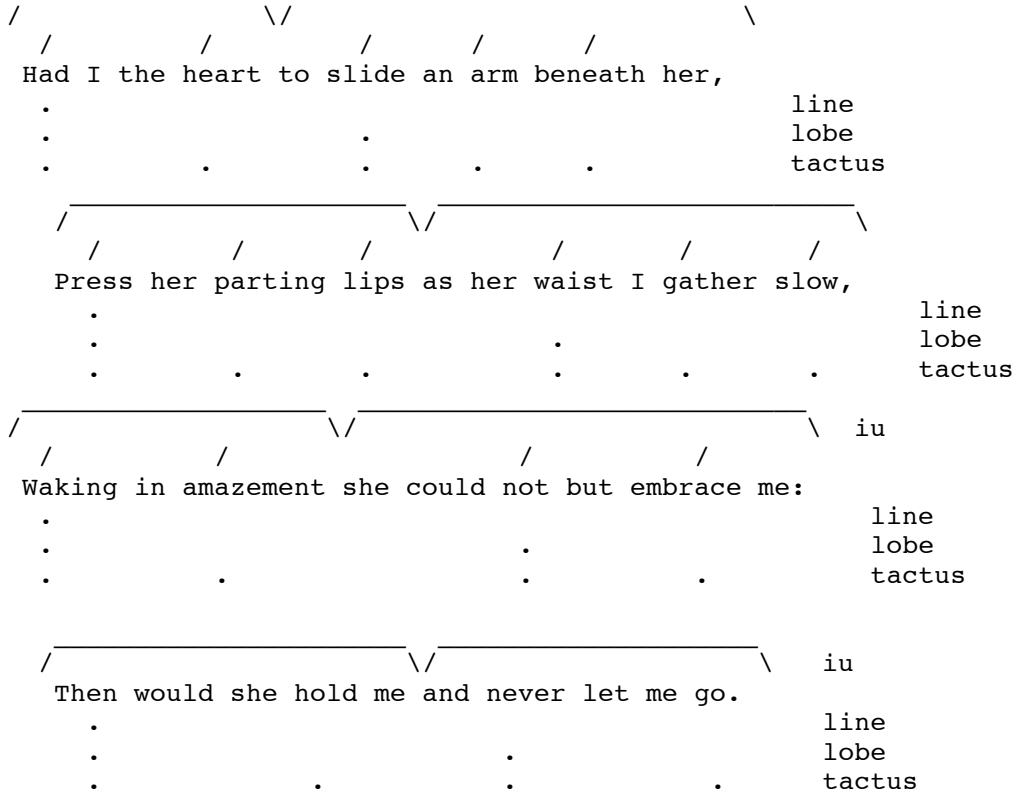
As long as this sensitivity to syllable quantity is maintained, it is also possible to beat to larger inter-tactical intervals—by adding another level of sub-tactical beating. Because this more detailed beating is harder to maintain without distortion or variation, the versification that accompanies this dipodic beating will tend to have many unvoiced beats—often at more than one level (pulse, sub-tactus, and tactus). The heavily cyclical, song-like texture of dipodic verse also favors this melismatic patterning. There is more beating than voicing. The language is

distributed along the metrical grid rather than the other way around--as in the following from George Meredith's "Love in the Valley" (1-8):

> Under yonder beech-tree single on the green-sward,
> with her arms behind her golden head,
> Knees and tresses folded to slip and ripple idly,
> Lies my young love sleeping in the shade.
> Had I the heart to slide an arm beneath her,
> Press her parting lips a sheer waist I gather slow,
> Waking in amazement she could not but embrace me:
> Then would she hold me and never let me go.

With only a few exceptions, lobes in this passage are firmly defined by intonational breaks; and tactical beats, by primary stresses.





On the other hand, dipodic measures vary almost continuously in length. Twelve have four syllables; eight have three; seven have two; and five have one.

(1) Un.der yon.der
(2) beech-tree
(3) sin.gle on the
(4) green-sward
(5) Couched with her
(6) arms be.-
(7) hind her gol.den
(8) head
(9) Knees and tre.sses
(10) fol.ded to
(11) slip and ri.pple
(12) id.ly,
(13) Lies my young
(14) love
(15) slee.ping in the
(16) shade.
(17) Had I the
(18) heart to
(19) slide an arm be-
(20) eath her,
(21) Press her par.ting

```
(22)  lips as her
(23)  waist I ga.ther
(24)  slow,
(25)  Wa.king in a-
(26)  maze.ment she could
(27)  not but em.-
(28)  brace me:
(29   Then would she
(30)  hold me and
(31)  ne.ver let me
(32)  go.
```

In the twelve dipodic measures with a full alignment of four syllables, stress is distributed so that a sub-tactus is clearly encouraged. All of the dipods have a primary stress on their first/projectional syllable; seven of the twelve dipods have primary stress on the third syllable; and no primary stresses occur on the second and fourth syllables. All third syllables also have at least tertiary stress; twenty of the second and fourth syllables are only weakly stressed. It is also important that all of the disyllabic words with light primary stresses (*tresses, ripple, never, gather*) appear in these full measures, where no melismatic gapping of beats is necessary.

```
 /                  v                  /                  v
Un                 der                yon.               der          (1)

 /                  v                  \                    v
sin                gle                on                 the          (3)

 /                 \                   /                  v
hind               her                gol.               den          (7)

  /                \                   /                  v
Knees              and                tre.               sses         (9)

  /                 \                  /                    v
slip               and                ri.                pple         (11)

  /                 v                \                   v
slee.              ping              in                 the          (15)

  /                v                 /                   v
slide              an                arm                be           (19)

  /                 \                 /                  v
Press              her               par.               ting         (21)

  /                \                  /                   v
wrist              I                  ga                 ther         (23)

 /                 v                  \                  v
Wa.                king               in                 a-           (25)

 /                 v                   \                  \
maze.              ment               she                could        (26)

 /                   v                  \                  \
```

```
ne.                ver              let              me              (31)

 .                                                                  tactus
 .                                   .                              sub-tactus
 .                 .                 .               .              pulse
```

The rest of the measures can then be aligned with unvoiced beats according to the metrical preferences we have developed. This is the reading that I prefer, but many other alignments are possible, too.

```
 /                                  \
beech-                             tree                            (2)
  /                                 \
green-                             sward                           (4)
 /                                  \                 \
Couched                            with              her           (5)
/                                                     v
arms                                                  be            (6)
 /
head                                                                (8)
 /                                  v                 \
fol                                  ded               to           (10)
/                                   v
id                                  ly,                            (12)
 /                                  \                 /
Lies                               my                young          (13)
 /
love                                                                (14)
  /
shade.                                                              (16)
 /                                  \                   v
Had                                I                 the            (17)
 /                                  \
heart                              to                              (18)
 /                                  \
neath                              her,                            (20)
 /                                  \                 \
lips                               as                her            (22)
  /
slow                                                                (24)
 /                                  \                 v
not                                but               em-            (27)
 /                                   \
brace                              me:                             (28)
  /                                 \                   \
Then                               would             she            (29)
 /                                  \                  \
hold                               me                and            (30)
 /
go                                                                  (32)
.                                                           tactus
.                                   .                       sub-tactus
.                  .                .                 .     pulse
```

In my alignment, I prefer to follow MPs 13-15 (Iconicity: Gapping [and Spacing] Stresses, Beats and Syllabic Weight) and put unvoiced pulses in second position, after the stressed, heavy, projectional beats in the measures. This reading is often aided by MP1d (Iconicity: Prosodic Gapping), too. After the projectional/tactical

beats in these measures, there is often a phrasal break of some magnitude (e.g., clitic phrase or phonological phrase):

```
(5)       Couched  /  with her (arms)
(6)       arms     /  be(hind her golden head)
(13)      Lies     /  my young
(14)      love     /  (sleeping)
(16)      shade.   /  (Had I...)
(18)      heart    /  to (slide)
(22)      lips     /  as her (wrist)
(24)      slow,    /  (Waking...)
(29)      Then     /   would she (hold me)
(32)      go.      /
```

MP1a (Iconicity: Prosodic Events) and MP1b (Iconicity: Prosodic Prominences) also influence my alignment. Following the contours of prominence in the meter, I prefer to place stronger syllables in the stronger third position, or if only one syllable is available, I prefer to put it in this stronger third position, too. Of course, if only one syllable is available for alignment, I prefer to put it in the strongest, first position.

```
 /                                  \
beech-                               tree                          (2)
  /                                  \
green-                              sward                          (4)
 /
head                                                               (8)
/                                    v
id                                  ly,                            (12)
 /
love                                                               (14)
  /
shade.                                                             (16)
 /                                  \
heart                               to                             (18)
 /                                  \
neath                               her,                           (20)
  /
slow                                                               (24)
 /                                   \
brace                               me:                            (28)
 /
go                                                                 (32)

.                                                          tactus
.                                    .                     sub-tactus
.                    .               .                .    pulse
```

The only exception to this pattern is the my alignment of the fifth dipodic interval, which opposes MP1 (Iconicity: Prosodic Structure) and its corollaries so that a

pulse does not have to be gapped after a light, weak syllable within a word (*be*.hind). The syncopation that results is unusual in this context, but to my taste, preferable to a melismatic lengthening of *be*-(hind).

```
/                                                v
arms                                             be.-
.                                                                tactus
.                                        .                       sub-tactus
.                        .               .       .               pulse
```

In early moments in a high-art tradition and continuing in most folk traditions, verse tends to be predominantly cyclical, using a strong meter, amply supported by cyclical language and strong appeals to metrical preferences. The result is song. At some historical point, however, this metrically-based song tends to yield to a more lyric mode sustained by phrasal rhythms and centroidal language. In this lyric verse, meter is still present, but it is weakened and backgrounded. The rhythmic dominant of the verse favors the maximal use of the phrasing, rather than the maximal amplification of meter. Meter maintains a measure, but more to amplify phrasal values and their conflict with metrical values, rather than assert its independence, much less dominance.

In the English verse tradition (and many others) the major way this is done is to modulate from a tetrameter to a pentameter line (against MP11 (Regularity: Hypermeter) and MP2 (Physicality: Tactus)) while using MP1a (Iconicity: Prosodic Events) and MP12 (Regularity: Versification) to stabilise a duple, alternating pulse in close alignment with the phrasing. This accentual-syllabic, pentameter versification--what has been called iambic pentameter--has a much weaker and indirectly supported tactical beating. Some of the major metrical preferences (MP1b (Iconicity: Prosodic Prominence) and MP1c (Iconicity: Prosodic Edges) are appealed to less often and what are normally only supporting preferences (e.g., MP17-MP23) are used both more subtly and more definitionally.

In terms of overall rhythmic effect, the major innovation in is accentual-syllabic pentameter is the introduction of a continuous *syncopation*. Strong stresses frequently fall off the tactus, on weak pulses, while weak stresses often fall on the tactus. And these demotional and promotional alignments of meter and grouping

are often *juxtaposed*, something that almost never happens in the versificational forms we have discussed so far—speech/prose, free verse, accentual verse, dol'nik/duple-triple verse, or dipodic verse. It is this *juxtaposition* of promotion (i.e., a weak stress on a tactical beat) and demotion (a strong stress on a weak pulse) that creates this syncopated effect. In a syncopation, the tactical beat is adequately supported, but in a dislocated and rhythmically tense manner by having a stress come earlier or later than expected. When the stress comes too early, it is retained and builds tension; then, when the tactical beat arrives, this retained tension is released, providing physical support for the weakly supported beat. When the stress comes too late, the opposite occurs. The tactical beat is retained, while the following stress provides crucial, but slightly delayed, support for its vocal weakness. This syncopated support for the tactus can even be spread in both directions, with an anticpational/preparatory stress preceding the tactical beat and an extensional/compensational stress following. This syncopation, often continuously and densely realized, is the great innovation of iambic pentameter and provides us with the central rhythmic texture of our best lyric verse. The physical gesturing of meter, the "body" of verse, is maintained, but stands in the background, while the voicing that articulates rhythmic grouping, the "soul" of verse, plays around and across this beat, and in doing so, is heightened and foregrounded.

These more complex interactional effects need to be carefully monitored, however, if the intended beat is not to be lost or dissolved into some other beating. This is done by a strong appeal to several metrical preferences that we have not yet mentioned.

Let's name and number these preferences here.

MP24 (Iconicity: Spacing Prosodic Elision)
Prefer that extrametrical syllables be prosodically weak (i.e., capable of prosodic elision).

MP25 (Physicality: Syncopation)

Prefer that weakly supported strong beats derive energy from misaligned stresses immediately preceding and following within the same prosodic phrase, the smaller the phrase the better.

MP26 (Onset: Tense Onsets)
Prefer that metrical-prosodic misalignments involve the onset of large metrical measures and prosodic phrases, the larger the better.

MP26 (Onset: Tense Upbeats)
Within prosodic phrases, prefer metrical-prosodic misalignment on a weak beat that immediately precedes (rather than follows) a strong beat.

MP27 (Rhythmic Harmony: Stable Cadences)
Prefer unsyncopated cadences.

MP24 (Iconicity: Spacing Prosodic Elision) details the major way that accentual-syllabic verse tightens the alignment of syllables and pulses in establishing its versificational expectation (MP12 (Regularity: Versification)): Unaligned syllables are permitted, but with a strong preference that they also be elidable in speech. Prosodic elision of this sort occurs in three major contexts:

(1) Syncope
An unstressed vowel can be elided if its occurs between the primary stress of a word and a continuant consonant followed by another unstressed vowel: *prosperous/prosp'rous*, *frightening/fright'ning*, *personal/pers'nal*, *unfathomable/unfath'mable*, *glowering/glow'ring*, etc.

(2) Synaloepha
An unstressed vowel can be elided if its occurs immediately after a stressed vowel: *skiing/sk'ing*, *higher/high'r*, *poetry/po'try*, etc.

(3) Syneresis
An unstressed high vowel can become a glide immediately before another unstressed vowel: *immediate/immed'[y]ate, graduate/grad'[w]ate*, etc.

Almost all accentual-syllabic verse, especially pentameter verse, makes some use of these possible prosodic elisions in order to accomodate a greater variety of words

within the tight syllabic constraints of its versification, such as the following from Wordsworth's "Tintern Abbey."

```
Line 16

\    /  v    /    /   /      /    /  v v   /         stress
Of sportive wood run wild; these pastoral farms,
     .                                               line
     .                              .                lobe
     .       .       .              .        .       tactus
.    .  .    .    .   .      .     .    .   .       pulse
                                  *
                           "possible prosodic elision" (syncope)


Line 22

  v  /  v   /   v /       /   /   v v    /
The Hermit sits alone. These beauteous  forms
     .                                               part
     .                                               line
     .                         .                     lobe
     .      .     .            .          .          tactus
  .  .  .   .   . .      .     .    .     .          pulse
                                *
                      "possible prosodic elision"  (syneresis)


Line 29

w    s  w   s w  w  w  w  s w
\    /  v   / v  v  \  \  / v   /          stress
And passing even into my purer mind,
     .                                               line
     .                    .                          lobe
     .      .       .     .     .                     tactus
.    .  .   .    .  .  .  . .   .                     pulse
              *
         "possible prosodic elision" (syncope)


Line 32

\   /    /   /    \    / vv  /   \v             stress
As have no slight or trivial influence
    .                                                line
    .                          .                     lobe
    .        .         .      .    .                 tactus
.   .    .   .    .    .  .  .   ..                  pulse
```

```
                        *
              "possible prosodic elision"  (syneresis)
```

```
Line 42

\    \     v v  /  v     /   v  /   \  /           stress
In which the affections gently lead us on,--
     .                                             line
     .                   .                         lobe
     .          .        .      .      .           tactus
.    .     .    .  .     .    .  .   .  .           pulse
            *
  "possible prosodic elision" (syneresis)
```

```
Line 43

v  /     v   /    \    /   \  / vv    /
Until, the breath of this corporeal frame
   .                                               line
   .                   .                           lobe
   .         .         .      .       .            tactus
.  .     .   .    .    .    .  .  .    .            pulse
                                *
                     "possible prosodic elision" (syneresis)
```

```
Line 44

\   / v    v  / v   \  \    / v    /         stress
And even the motion of our human blood
    .                                              line
    .                        .                     lobe
    .         .     .        .      .              tactus
.   .      .  . .   .  .    . .    .               pulse
      *
"possible prosodic elision" (syncope)
```

```
Line 47

  \    \   v  /    /     /v   \   v  / v   stress
While with an eye made quiet by the power
       .                                           line
       .                        .                  lobe
       .      .          .     .      .            tactus
  .    .   .  .    .     ..   .   .  .             pulse
                                    *
                  "possible prosodic elision"  (synaloepha)
```

Line 53

```
w   s w w  w  w     w  s w  w    w  s
\   / v v  v  \     v  / v  \    v  /        stress
Unprofitable, and the fever of the world,
    .                                          line
    .                 .                        lobe
    .         .       .    .       .           tactus
.   .     .   .     .  . .  .    .  .           pulse
      *
"possible prosodic elision"  (syncope)
```

Line 74

```
w     w     s  s w w   s   w
\     \     /  / v v   /   v    /    /    /        stress
And their glad animal movements all gone by)
      .                                          line
      .                          .               lobe
      .        .       .         .         .     tactus
.     .     .  .   .   .   .     .    .    .     pulse
                 *
      "possible prosodic elision"  (syncope)
```

Line 110

```
  v  /       v  /   vv  \   \  /     \    /        stress
The guide, the guardian of my heart, and soul
     .                                           line
     .                         .                 lobe
     .          .       .      .          .      tactus
  .  .       .  .    .  .   .  .     .    .      pulse
                  *
           "possible prosodic elision"  (syneresis)
```

Line 113

```
 /  v   \  / vv    / v    \  v /         stress
Suffer my genial spirits to decay:
    .                                          line
    .                   .                      lobe
    .      .       .    .    .                 tactus
 .  .   .  .  .    . .    .  . .                pulse
            *
    "possible prosodic elision" (syneresis)
```

```
Line 155

\   / vv   /     \   \     \    /   v  /       stress
Of holier love. Nor wilt thou then forget
    .                                          line
    .                            .             lobe
    .      .         .           .      .      tactus
.   .  .   .     .   .     .     .   .  .      pulse
     *
"possible prosodic elision" (syneresis)


Line 156

 \   /  v   / v  /  v v      / v  /         stress
That after many wanderings, many years
     .                                stanza
     .                                part
     .                                line
     .                        .       lobe
     .      .    .           .    .   tactus
  .  .  .   . .  .    .      . .  .   pulse
                  *
        "possible prosodic elision"  (syncope)


Line 158

\     /    /    /  v v   /    \     /    \  \      stress
And this green pastoral landscape, were to me
      .                                          part
      .                                          line
      .                              .           lobe
      .         .        .           .       .    tactus
.     .    .    .    .   .    .     .    .  .    pulse
                  *
       "possible prosodic elision" (syncope)
```

MP24 (Physicality: Syncopation) claims that, where possible, accentual-syllabic verse does not discourage syncopation and might actually prefer it to no support from the medium, like the following syncopations from Wordsworth's "Tintern Abbey."

A. Preparatory Syncopation

7 *Thoughts of* more deep seclusion; and connect
10 *Here, un*der this dark sycamore, and view
17 *Green to* the very door; and wreaths of smoke
28 *Felt in* the blood, and felt along the heart;
67 I came among this hills; *when like* a roe
70 Wherever nature led--*more like* a man
71 *Flying* from something that he dreads than one
77 *Haunted* me like a passion; the tall rock,
86 *Faint I*, nor mourn nor murmur; other gifts
106 Of eye, and ear--*both what* they half create,
113 *Suffer* my genial spirits to decay:
119 Of thy wild eyes. *Oh! yet* a little while
122 *Knowing* that Nature never did betray
135 *Shine on* thee in thy solitary walk;
156 More dear, *both for* themselves and for thy sake!

B. Compensatory Syncopation

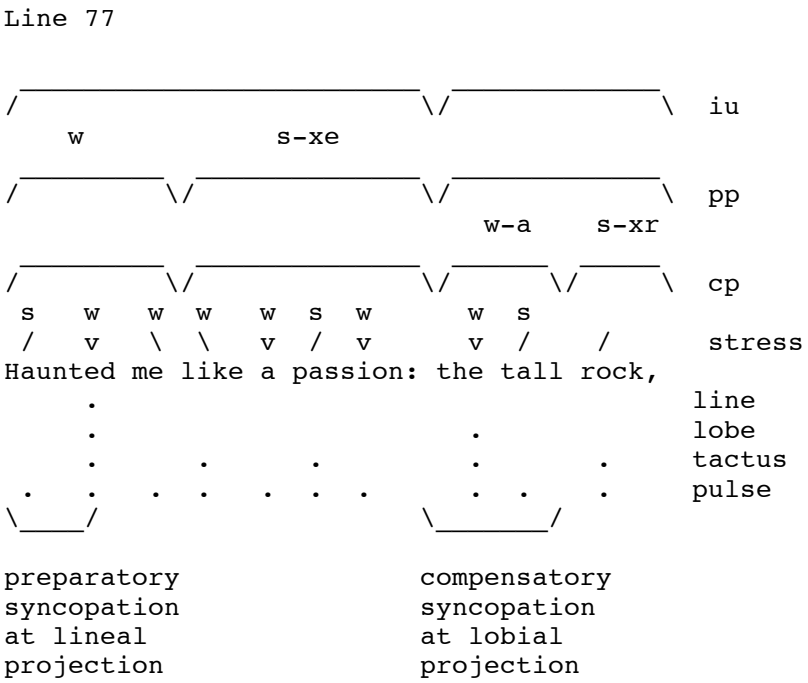
4 *With a soft in*land murmur. Once again
12 *Which at this sea*son, with their unripe fruits,
21 *Or of some Her*mit's cave, where by his fire
23 *Through a long ab*sence, have not been to me
32 *As have no slight* or trivial influence
48 Of harmony, *and the deep power* of joy,
64 *That in this mo*ment there is life and food
69 *Of the deep rivers*, and the lonely streams,
74 *And their glad a*nimal movements all gone by)
75 To me was all in all.--*I cannot paint*
77 Haunted me like a pa*ssion; the tall rock*,
81 *That had no need* of a remoter charm,
98 *And the round ocean* and the living air,
99 *And the blue sky*, and in the mind of man:
119 *Of thy wild eyes*. Oh! yet a little while
127 With quietness and beauty*, and so feed*
142 For all eweet sounds and harm*onies; oh! then,*
159 More dear, both for themselves *and for thy sake!*

In "Tintern," these syncopations at least equal, if not surpass, the number of promotions (i.e., weakly stressed tactical beats without preparatory or compensatory syncopation), at least in comparable metrical positions.

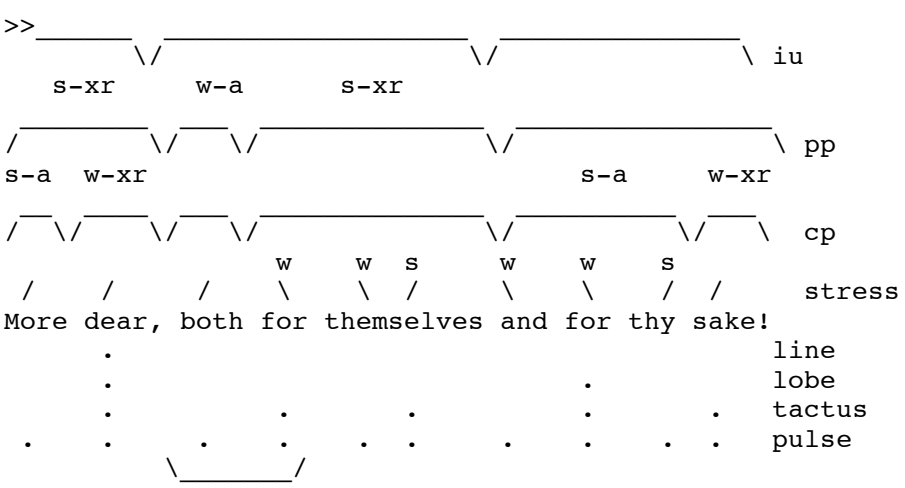
Promotions in Comparable Metrical Positions

5 *Do I behold* these steep and lofty cliffs,
6 *That on a wild* secluded scene impress
7 Thoughts of more deep seclu*sion; and connect*
19 With some uncertain not*ice, as might seem*
21 Or of some Hermit's cave, *where by his fire*
24 *As is a land*scape to a blind man's eye:
25 But oft, in lonely rooms, *and 'mid the din*
31 *Of unremem*bered pleasure: such, perhaps,
38 *In which the bur*then of the mystery,
39 *In which the hea*vy and the weary weight
42 *In which the affec*tions gently lead us on,--
47 *While with an eye* made qui*et by the power*
50 *Be but a vain* belief, yet, oh! how oft--
68 I bounded o'er the moun*tains, by the sides*
88 Abundant recom*pence. For I have* learned
93 To chasten and subdue. *And I have felt*
100 A motion and a spir*it, that impels*
112 *If I were not* thus taught, *should I the more*
113 Suffer my genial spirits to decay:
114 *For thou art with* me here *upon the banks*
120 *May I behold* in thee what I was once*,*
136 *And let the mis*ty mountain-winds be free
138 When these wild ecstasies *shall be matured*
139 *Into a so*ber plea*sure; when thy mind*
140 *Shall be a man*sion of all lovely forms,
147 *If I should be* where I no more can hear
150 *That on the banks* of this delightful stream

MP26 (Onset: Tense Onset) specifies the strong preference that syncopation be limited to metrical projections and phrasal onsets. All but one of the syncopations in "Tintern Abbey" dislocate the stress on the metrical projection at the beginning of a line or lobe, as in line 77, which syncopates both of these. Notice that these metrical onsets are also large phrasal onsets (i.e., of at least tone units).



The one exception (line 156) syncopates the tactical beat between the projection and the cadence of the first lobe of the line, but it still appeals to MP26 (Onset: Tense Onset) because it syncopates the onset of a large phrase (at least a tone unit).



```
"preparatory syncopation"
  onset of large phrase
```

MP27 (Onset: Tense Upbeat) captures the intuition that preparatory syncopation is less strained and more common than compensatory syncopation. In preparatory syncopation, tension builds up naturally and then is released, strengthing the weakly stressed beat. In compensatory syncopation, the weakly sorted beat must be held in mind and then strengthened by following stress and tension, a less natural ordering. While it is frequent in "Tintern Abbey," compensatory syncopation is a fairly late development. Historically, preparatory syncopation develops first and is usually more frequent, even late in the tradition, when compensatory syncopation became more popular. For example, Shakespeare's Sonnet #33 has five preparatory syncopations but no compensatory syncopation. (At the time, *forlorn,* which we now pronounce with final stress*,* was stressed on the first syllable.)

Sonnet 33
Full many a glorious morning have I seen
Flatter the mountain-tops with sovereign eye,
Kissing with golden face the meadows green,
Gilding pale streams with heavenly alchemy;
Anon permit the basest clouds to ride
With ugly rack on his celestial face,
And from the forlorn world his visage hide,
Stealing unseen to west with this disgrace:
Even so my sun one early morn did shine
With all-triumphant splendor on my brow;
But, out, alack! he was but one hour mine,
The region cloud hath hath masked him from me now.
Yet him for this my love no whit disdaineth;
Suns of the world may stain when heaven's sun staineth.

William Shakespeare

MP27 (Onset: Tense Upbeat) also captures the more general preference that, where the versification permits, lineal and lobial anacruses (i.e., extrametrical syllables at the beginnings of lines and lobes) tend to be more extensive and flexible than

extrametrical syllables at the end of lines and lobes. This principle is very important to the structuring and reception of the modern pentameter, which tends to make phrasal and metrical anacruses *very* loose. In general, demotional weighting of beats is much more frequently preceding/preparatory than following/compensatory. All of these generalizations are illustrated in the following from Wallace Stevens.

A Quiet Normal Life

His place, as he sat and as he thought, was not
In anything that he constructed, so frail,
So barely lit, so shadowed over and naught,

As for example, a world in which, like snow,
He became an inhabitant, obedient
To gallant notions on the part of cold.

It was here. This was the setting and the time
Of year. Here in his house and in his room,
In his chair, the most tranquil thought grew peaked

And the oldest and the warmest heart was cut
By gallant notions on the part of night--
Both late and alone, above the crickets' chords,

Babbling, each one, the uniqueness of its sound.
There was no fury in transcendent forms.
But his actual candle blazed with artifice.

Wallace Stevens

The following scans the tactus and italicizes structures that bear upon our discussion of MP27 (Onset: Tense Upbeat).

```
His place, as he sat and as he thought, was not
      .          .     .      .          .      tactus

In anything that he constructed, so frail,
   .    .         .      .          .           tactus
```

So barely lit, *so* shadowed ov*er* and naught,
. . . . . tactus

As for exam*ple*, a world in which, like snow,
. . . . . tactus

*He be*came *an in*habitant, obedient
. . . . . tactus

To gallant notions on the part of cold.
. . . . . tactus

It was here. *This* was the setting and the time
. . . . . tactus

Of year. *Here in* his house and in his room,
. . . . . tactus

In his chair, *the most* tranquil thought *grew* peaked
. . . . . tactus

And the oldest and the warmest heart was cut
. . . . . tactus

By gallant notions on the part of night--
. . . . . tactus

Both late *and a*lone, above the crickets' chords,
. . . . . tactus

Babbling, *each* one, *the u*niqueness of its sound.
. . . . . tactus

There *was no* fury in transcendent forms.
. . . . . tactus

But his act*ual* candle blazed with artifice.
. . . . . tactus

In this poem, some of the looseness in the alignment of meter and language is enclitic and compensatory. Four extrametrical syllables are enclitic (i.e., phrasally connected to a preceding strong beat).

enclitic extrametrical syllables

```
constructed, so frail                    (2)
      .           .           tactus

so shadowed over and naught,             (3)
     .      .          .      tactus

As for example, a world                  (4)
    .    .          .         tactus

But his actual candle                    (15)
        .       .            tactus
```

And there is one compensatory syncopation.

compensatory syncopation

```
  \    \   /  / v
There was no fury                        (14)
       .      .              tactus
```

But there is a general looseness of lineal and lobial anacruses, extrametrical proclitics, and preparatory demotions and syncopations. In line 9, there is even a stressed word (*most*) in one of the proclitic sequences (i.e., among the extrametrical syllables phrasally connected with a following strong beat).

lineal anacruses

```
      He became                                (5)
            .                    tactus
```

```
It was here.                              (7)
        .                       tactus

In his chair,                             (9)
         .                      tactus

And the oldest                            (10)
        .                       tactus

But his actual                            (15)
        .                       tactus
```

lobial anacruses

```
the uniqueness                            (13)
      .                         tactus
```

other proclitics with extrametrical syllables

```
as he sat                                 (1)
       .                        tactus

an inhabitant                             (5)
      .   .                     tactus


the most tranquil                         (9)
           .                    tactus

and alone                                 (12)
      .                         tactus
```

preparatory syncopations

```
   /
This was the setting                      (7)
      .       .                 tactus
  /
Here in his house                         (8)
     .       .                  tactus
  /
Babbling, each one                        (13)
     .         .                tactus
```

preparatory demotions

```
 /
so frail,                                 (2)
     .                          tactus
 /
```

```
so barely lit                              (3)
    .      .                  tactus
 /
so shadowed over                           (3)
     .      .                 tactus
    /
the most tranquil                          (9)
           .                  tactus
  /
grew peaked                                (9)
      .                       tactus
 /
both late                                  (12)
      .                       tactus
            /
Babbling, each one                         (13)
     .         .              tactus
```

In many cases, MP28 (Rhythmic Harmony: Stable Cadences) is just the other side of MP26 (Onset: Tense Onset). Projectional beats and the beginnings of prosodic phrases are often involved in misalignments between meter and prosody. This means that the ends of measures and phrases, where cadences occur, are more stably aligned. Cadences are more than just statistically stable, however. They are almost categorically so. Furthermore, in triple measures (e.g., the long, three-beat lobe in the asymmetrical pentameter line), the beat between the projection and the cadence permits syncopation more readily than the cadence. One of the most famous lines in English poetry illustrates this, the opening line of Milton's *Paradise Lost*.

```
 ____________________________ ____________>>>
/                            \/                   iu

 ____________________________ _____________
/                            \/            \      pp
    w       s       w
 ________ _____ ___________ _____________
/        \/    \/           \/             \     cp
 w   s           w w s ww     w     w   s
 \   /     /     \ v / vv     \     v   /       stress
  Of man's first disobedience, and the fruit
     .                                        line
     .                        .               lobe
     .           .   .        .         .     tactus
 .   .     .     . . . .      .     .   .     pulse
```

The first lobe of this line cadences on the primary stress in *disobedience*, which is stably aligned, not on the second beat in the line, which is unstably syncopated. By MP26 (Onset: Tense Onsets), the position of this preparatory syncopation is not positively preferred. However, unlike most non-initial syncopations, it does not contradict MP28 (Rhythmic Harmony: Stable Cadences) and therefore, to this extent, is not avoided. This line would be more strained if Milton had written *Of man's error, first disobedience* or *First disobedience, and man's error*. These alternatives would destabilize the lobial and lineal cadences in the line in opposition to MP28 (Rhythmic Harmony: Stable Cadences).

Metrical Preference Rules

MP1 (Iconicity: Prosodic Structure)
Prefer that metrical structures match prosodic structures.

MP1a (Iconicity: Prosodic Events)
Prefer that beats align with (the onsets of) a prosodic events, and vice versa.

MP1b (Iconicity: Prosodic Prominences)
Prefer that the strength of metrical prominences match the strength of prosodic prominences, and vice versa.

MP1c (Iconicity: Prosodic Edges)
Prefer that the boundaries of metrical measures match the boundaries of prosodic structures, and vice versa.

MP1d (Iconicity: Gapping Juncture)
When unvoiced beats occur, prefer that they appear in (large) gaps between (large) prosodic units, the larger the better.

MP1e (Iconicity: Spacing Compensatory Weight)
If extrametrical syllables occur, prefer that they appear after light, stressed syllables within words.

MP2 (Physicality: Tactus)
Prefer a maximally prominent and productive tactus.

MP3 (Onset: Strong Beat Early)
Prefer that a strong beat occur near the beginning of a prosodic phrase.

MP4 (Iconicity: Linguistic Parallelism)
Prefer that linguistic parallels be metrical parallels and vice versa.

MP5 (Alternation: Duples)
Prefer duple beating at all metrical levels.

MP6 (Continuity: Final Codas)
Prefer that codas appear finally in higher levels of metrical architecture.

MP7 (Continuity: Long Cadences)
Prefer that the strength and number of unvoiced beats after a cadence indicate the strength of the cadence.

MP8 (Continuity: Strong Cadences)
Prefer that cadences be local grouping peaks.

MP9 (Continuity: Resolving Cadences)
Prefer that larger cadences align with larger beats (and smaller cadences with smaller beats).

MP10 (Regularity: Pulse)
At and below the level of the tactus, prefer that strong beats be uniformly articulated by weak beats.

MP11 (Regularity: Hypermeter)
Prefer to amplify and regularize hypermetrical beating.

MP11a (Regularity: Visuality)
If visual presentation is uniform, prefer that hypermetrical beating match visual lines, parts, stanzas, sections, etc.

MP12 (Regularity: Versification)
Prefer that patterns of alignment between meter and language be maximally uniform.

MP13 (Iconicity: Gapping & Spacing Stresses)
If extrametrical syllables or unvoiced sub-tactical beats occur, prefer that they appear after strongly stressed syllables, the stronger the stresses the better.

MP14 (Iconicity: Gapping & Spacing Beats)
If extrametrical syllables or unvoiced sub-tactical beats occur, prefer that they appear after strong beats, the stronger the beats the better.

MP15 (Iconicity: Gapping Syllabic Weight)
If unvoiced sub-tactical beats occur, prefer that they appear

After heavy syllables.

MP16 (Alternation: Voiced Coda)
Prefer voiced codas.

MP17 (Repetition: Strong Prolongation)
Prefer that a weak beat be a strong prolongation—repetition, apposition, reduplication, synonymy, nonsense, etc.

MP18 (Onset: Linguistic Onset)
Prefer that strong beats align with linguistic onsets—alliteration, topicalization, left-dislocation, subjects, WH-movement, references to beginnings, dawn, birth, children, springs, appearance and disappearance, naming, addressing, etc.

MP19 (Onset: Prolongational Anticipation/Departure)
Prefer that strong beats be prolongational anticipations or departures (not prolongational arrivals or extensions).

MP20 (Physicality: Prosodic Weight)
Prefer that strong beats be aligned within heavy prosodic phrases—phrases with heavy syllables, long clitic phrases, large phonological phrases, extended intonational units, etc.

MP21 (Physicality: Linguistic Weight)
Prefer that strong beats align with weighty/physical language—dense sonic patterning, heavy words, compounds, nouns, nominal modifiers, appositives, metaphor, references to space, time, the body, kinship, touch, color, the earth, war, etc.

M22 (Retrospection: Linguistic Anaphora)
Prefer that weak beats be aligned with anaphoric language—anaphoric pronouns, resumptive repetition, etc.

MP23 (Retrospection: Prolongational Extension)
Prefer that a weak beat be a prolongational extension.

MP24 (Iconicity: Spacing Prosodic Elision)
Prefer that extrametrical syllables be prosodically weak (i.e., capable of prosodic elision).

MP25 (Physicality: Syncopation)
Prefer that weakly supported strong beats derive energy from misaligned stresses immediately preceding and following within the same prosodic phrase, the smaller the phrase the better.

MP26 (Onset: Tense Onsets)
Prefer that metrical-prosodic misalignments involve the onset of large metrical measures and prosodic phrases, the larger the better.

MP27 (Onset: Tense Upbeats)
Within prosodic phrases, prefer metrical-prosodic misalignmenton a weak beat that immediately precedes (rather than follows) a strong beat.

MP28 (Rhythmic Harmony: Stable Cadences)
Prefer unsyncopated cadences.

Conclusion

At the moment, the most popular approaches to poetic meter (foot-substitution prosody, generative metrics, metrical phonology, Slavic metrics, Derek Attridge, etc.) suffer from a number of ills—conceptual and terminological confusions, misplaced emphases, narrow observations, misrepresentations, omissions, etc.—sometimes for substantial reasons, but more often, I think, because of a severely backward-looking traditionalism that finds its precedents in the presuppositions and formalisms of Ancient, Renaissance, and 19th century precursors rather than on fresh observations, new insights, and the best contemporary work on rhythm in other fields of study (e.g., contemporary music theory). As with their historical predecessors, these approaches to meter over-valorize meter vis-à-vis other "components" of rhythm (phrasal, linear, thematic, etc.), considering meter not only foundational but definitional of poetic rhythm more generally. In this traditional view of poetic rhythm, meter is a norm for other sorts of rhythmic organization, and the expressiveness of this other rhythmic organization is just "metrical variation." Being over-valorized, this traditional "concept of meter" tries to do too much, both conceptually and representationally, until meter's relatively simple but powerful organization is obscured entirely with concepts and

representations that are not metrical at all, but something else entirely. In these theories, meter is confused with what elicits it (syllables, stresses, etc.) or accompanies it (e.g., other sorts of rhythms), and therefore, is grouped, like a phrase, allowed to have clashing prominences, like word stress, or no prominences at all, like a string of syllables, is equated with the visual line, like a linguistic technology, is thought to have breaks/pauses and a crescendoing, rather than falling pattern, like an intonational contour, and so on and so forth; while most of the really interesting and powerful things that meter is and does (by establishing a tactus, alternating downbeats at many levels (both sub-tactical and super-tactical), nested measures, codas, double-codas, etc.) are missed entirely. Given these confusions, omissions, misrepresentations, etc., it is no wonder that we have never had the many things that I have attempted in this essay—a workable definition of the metrical line and metrical stanza, a theory of (real) metrical variation, a theory of metrical reading for prosodically variable forms (such as dipodic verse and dol'nik) and non-versified forms (such as conversation, prose, and free verse), and a theory of the profound role played by the qualities of meter, together with the qualities of the other rhythmic components (grouping, prolongation, and theme), in poetic form (linguistic, rhetorical, symbolic) and its contexts of use (physical, biological, socio-historical, cultural, etc.) more generally.

For work on poetic meter, the adage I would suggest is this: A discriminating less is better than an indiscriminate more.