Linguistics and Literature
Language in the Verbal Arts of the World

Nigel Fabb

ow light *sikyangnuptu*. This
here an actual yellow fox or
vn.

es, argues that Hopi names
provide justification for this

2 Meter and Linguistic Theory

Chapters 2–5 are concerned with 'metrical form', a kind of literary form which is an adaptation of the type of linguistic form called prosodic phonological form. Texts have metrical form when they can be divided into lines which are governed by a rule system called a meter ('meter' is the American spelling for this term; the British spelling is 'metre'). The account of meter in these chapters draws primarily on the approach called generative metrics, which is a sub-part of generative linguistics; however, the aim is also to give a reasonably comprehensive overview of kinds of metrical practices, not all of which have been discussed in a generative framework.

2.1 The metrical text

2.1.1 *Identifying a text as metrical*

A text has a prosodic phonological structure, which consists of its sounds, organized into syllables, organized into words, organized into phonological phrases, and so on. Some texts are organized into sections (which we'll call lines) where some part of the prosodic phonological structure conforms to a pre-existing pattern. Texts of this kind are called metrical texts. Consider for example the ending of Milton's *Paradise Lost*, viewed as a continuous text:

Some natural tears they dropped, but wiped them soon; the world was all before them, where to choose their place of rest, and Providence their guide: They hand in hand with wandering steps and slow, through Eden took their solitary way.

This text can be divided into five sections – five lines:

> *Some natural tears they dropped, but wiped them soon;*
> *the world was all before them, where to choose*

> *their place of rest, and Providence their guide:*
> *They hand in hand with wandering steps and slow,*
> *through Eden took their solitary way.*

The prosodic phonological structure of each line conforms to a pre-existing pattern (called 'iambic pentameter'), and it is this which identifies it as metrical. We'll return to a more detailed analysis of this pre-existing pattern later in this chapter, but it can for the moment be stated as: stressed syllables in polysyllabic words tend to be even-numbered syllables in the line.

POLYSYLLABIC WORDS	STRESSED SYLLABLES IN THE WORD	POSITION IN THE LINE
natural	na	second syllable
before	fore	sixth syllable
Providence	pro + dence	sixth and eighth syllables
wandering	wan	sixth syllable
Eden	e	second syllable
solitary	so + ta	sixth and eighth syllables

In this case the pattern refers to some of the even positions within the line (here stated in terms of which number syllable is involved, but this will be restated later), and to a specific aspect of the prosodic phonological structure of the line: the stressed syllables which are in some of the words. The important point is that the meter's control over the text is only partial: *some* but not all of the positions relate to *some* but not all of the components of phonological structure. Thus it is possible for iambic pentameter lines to vary considerably from one another in their prosodic phonological structure, while nevertheless all sharing the same basic pattern. This is typical of all meters: a meter controls some aspect of the prosodic phonological structure of a text while not completely controlling it, and thus allows for prosodic phonological variation between lines.

2.1.2 *Para-metrical phenomena*

A meter is a set of rules which constrain some aspect of the prosodic phonological structure of the line of text. However, many genres of metrical text are also characterized by additional kinds of regularity which are not themselves metrical but which relate to the meter and to the meter's division of a text into lines. These are para-metrical phenomena. In chapter 5 we look in detail at the two most common kinds of para-metrical phenomena, which are sound-patterning

ide:

nd slow,

e conforms to a pre-existing
which identifies it as metrical.
e-existing pattern later in this
ressed syllables in polysyllabic
line.

N   POSITION IN THE LINE

second syllable
sixth syllable
sixth and eighth syllables
sixth syllable
second syllable
sixth and eighth syllables

positions within the line (here
lved, but this will be restated
nological structure of the line:
words. The important point is
rtial: *some* but not all of the
ents of phonological structure.
o vary considerably from one
while nevertheless all sharing
s: a meter controls some aspect
hile not completely controlling
ariation between lines.

ect of the prosodic phonological
enres of metrical text are also
ich are not themselves metrical
's division of a text into lines.
5 we look in detail at the two
a, which are sound-patterning

rules and word-boundary rules. Sound-patterning rules (mostly kinds of alliteration and rhyme) are sensitive to the division of a text into lines and may connect lines together. Word-boundary rules are rules which stipulate that a word boundary must or must not fall between two metrical positions in the template. A caesura rule is the most common kind of word-boundary rule, which requires a word boundary between two constituents; this means that a polysyllabic word cannot be spread across these two positions in the line. A bridge rule has the opposite effect – forbidding a word boundary between two positions, which means that a polysyllabic word must be spread across these two positions. Sound-patterning rules and word-boundary rules are rules which supplement the metrical rules, and at the same time are sensitive to them (or – putting it another way – parasitic on them). These para-metrical rules can be illustrated from the following metrical text:

Dob líonmhur ar leirg an   locha
were numerous on plain of the loch

laoch láidir is   óigfhear   oll
hero strong and young man great/tall

iomdha um   thriath Tatha   taoiseach
many a about the Lord   (of-) Tay leader

sgiath flatha   agus craoiseach corr.
shield of prince and spear   pointed

'Numerous on the lakeside were the stalwart heroes and tall young men; around the lord of Tay was many a leader, many a shield of prince and taper spear' (from the elegy on Sir Duncan Campbell of Glenorchy, who died in 1603; cited by Watson 1959: xxxvii)

This text is governed by *séadna*, a medieval Irish/Gaelic metrical system (see Knott 1957: 16), which includes a meter, a word-boundary rule, and sound-patterning rules. The meter counts syllables into lines: it requires the first and third lines to have eight syllables and the second and fourth lines to have seven syllables. There is a bridge rule operating in the first and third lines, which requires the seventh and eighth syllables to belong to the same word (i.e. a word boundary is forbidden between seventh and eighth positions). And there are several sound-patterning rules, including the requirement that the second and fourth lines must rhyme. In this text, *oll* rhymes with *corr*: notice that even though the sounds are different they are counted as equivalent in this tradition for the purposes of rhyme. This phenomenon of equivalence of different sounds is one of the more interesting problems in the linguistics of sound-patterning, and we discuss it

in 5.5. Another sound-patterning requirement in *séadna* is that there must be alliteration within each line – for example in the repetition of [l] in *leirg* and *locha* – and across lines in specified cases such as between the first and second lines, where *locha* alliterates with *laoch*. In addition to sound-patterning rules which relate individual sounds with other individual sounds, there is a patterning between the sequence of sounds in line 3 and the sequence of sounds in line 4: this might be thought of as a kind of sound-pattern parallelism (and we discuss it in 6.3). Both word-boundary rules and sound-patterning rules have some effect in shaping the prosodic phonology of the texts which they apply to, and thus have an effect which is similar to meter: however, we will treat them as distinct from the meter and explain why in chapter 5.

A metrical text is divided into lines, but in some texts different lines conform to different meters. Where all lines conform to the same meter (as in *Paradise Lost*) the text is called isometric; where different lines conform to different meters the text is called heterometric. The Greek genre of ode is typically characterized by heterometric structure, and more recent imitations often have a similarly heterometric structure as in these lines from Coleridge's 'Dejection. An Ode':

> *Those sounds which oft have raised me, whilst they awed,*
> *And sent my soul abroad,*
> *Might now perhaps their wonted impulse give,*
> *Might startle this dull pain, and make it move and live!*

The first of these four lines has ten syllables, the second has six, the third has ten and the fourth has twelve; the basic 'iambic' rhythm is the same in each line, but the lines are of different lengths, thus making this heterometric. One of the questions which arises for heterometric texts is whether the rules which regulate the sequence of meters are themselves sensitive to linguistic structure (and thus might be thought of as extensions of the meter in some way).

A meter involves the division of a text into metrical lines, but metrical texts can also have a structure larger than the metrical line. Thus metrical lines can often be paired or grouped into larger units which we can call stanzas or strophes (and texts organized in this way can be called strophic texts, as distinct from stichic texts where the line is the largest unit of structure). This grouping into larger units is dependent on metrical structure in several ways. First, the possibility of grouping lines depends on the division into lines, which is an effect of the meter. Second, the grouping of lines into stanzas may relate to sound-patterning rules such as rhyme, which are themselves dependent on metrical structure. Third, lines may be grouped into stanzas according to a particular heterometric pattern. Thus the organization of lines into larger constituents can be thought of as another para-metrical phenomenon.

ory

lna is that there must be allit-
tion of [l] in *leirg* and *locha*
n the first and second lines,
ound-patterning rules which
there is a patterning between
sounds in line 4: this might
n (and we discuss it in 6.3).
es have some effect in shap-
apply to, and thus have an
at them as distinct from the

exts different lines conform
same meter (as in *Paradise*
lines conform to different
re of ode is typically char-
nt imitations often have a
om Coleridge's 'Dejection.

t they awed,

and live!

ond has six, the third has
m is the same in each line,
heterometric. One of the
er the rules which regulate
guistic structure (and thus
ome way).

l lines, but metrical texts
. Thus metrical lines can
we can call stanzas or
strophic texts, as distinct
structure). This grouping
several ways. First, the
o lines, which is an effect
zas may relate to sound-
dependent on metrical
ccording to a particular
o larger constituents can

2.2 Prosodic phonological structure

The prosodic phonology of a language gives an utterance its rhythm: its pattern of more and less prominent parts. The prosodic phonology of an utterance also gives the utterance its constituency, its shape as a sequence of units interrupted by pauses. Prosodic phonology is a characteristic of all spoken utterances, and is not itself a part of verbal art – but metrical texts are a case where verbal art exploits the pre-existing prosodic patterns of the language to develop specifically literary ways of organizing utterances into literary texts. This section is a brief overview of some issues in prosodic phonology which will have particular relevance for the study of meter, word-boundary rules and sound-patterning rules.

Utterances have both prosodic phonological structure and syntactic structure. At the level of syntactic structure, an utterance consists of words which in turn are grouped into syntactic phrases and into sentences. The prosodic phonological structure is a parallel but distinct organization of the utterance as a sequence of sounds which are grouped into other kinds of constituent structure, parallel to the organization into words and sentences, but distinct from it. The relevant levels of prosodic phonological structure for our purposes are: (i) the segment: the smallest prosodic unit corresponding roughly to the individual sound; (ii) the syllable and its component parts – onset, nucleus and coda, and morae; (iii) the word and its permeable or flexible boundaries; (iv) the organization of words into phonological phrases; (v) the organization of syllables into strong and weak members of a hierarchical structure which expresses rhythmic patterns such as stress.

2.2.1 The phonological segment

The basic building-block of prosodic phonological structure is the phonological segment. A segment can be thought of as a sound-carrying unit. Which sound the segment carries is determined by the articulatory instructions attached to the segment. For example we can think of the word *fortification* as a sequence of segments:

sequence of segments X X X X X X X X X X X X

identity of the sounds f ɔ t ɪ f ɪ k e ɪ ʃ n

The first segment is defined by articulatory instructions which make the sound consonantal, labial, voiceless and continuant (i.e. the sound [f], as indicated
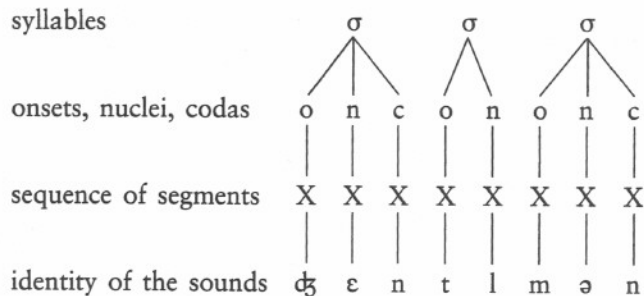
here). The second and third segments are co-defined by the articulatory instructions which make the sound a vowel which is back and mid-height (i.e. the sound [ɔ]). The fact that the same vowel is spread over two segments means that the vowel is 'long' here. In comparison the vowel [ɪ] seen later in the word is attached to single segments and so is always short. The difference between long vowels (taking up two segments) and short vowels (taking up one) is important for syllable weight, as we see below.

2.2.2   *The syllable and its component parts*

Segments are grouped into syllables. At the centre of each syllable is a segment with a high degree of sonorance: in English, high sonorance usually means a segment which is a vowel but can also mean a semivowel, a liquid (like [l] or [r]) or a nasal (like [n] in *fortification*). The segment or segments (where two segments in a row are matched with a long vowel or diphthong) which are at the centre of the syllable are called its nucleus. If we take a word like *gentlemen* we can identify three highly sonorant segments, and hence three syllable nuclei (and hence three syllables):

syllables	σ	σ	σ
nuclei	n	n	n
sequence of segments	X X X X	X X	X X
identity of the sounds	dʒ ɛ n t	l m	ə n
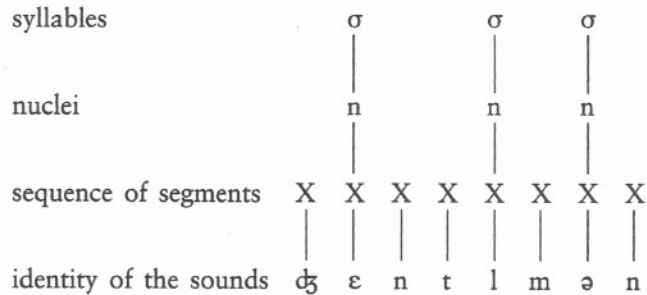
The less sonorant segments which come between nuclei are contained within the syllable, either grouped with the following nucleus as the onset of the syllable, or grouped with the preceding nucleus as the coda of the syllable:

syllables	σ	σ	σ
onsets, nuclei, codas	o n c	o n	o n c
sequence of segments	X X X	X X	X X X
identity of the sounds	dʒ ɛ n	t l	m ə n

syllable is based on the number of segments in the nucleus and coda combined (i.e. in the rime), and is measured in morae. A mora is a prosodic unit, made from segments in the nucleus and coda of the syllable, and itself forming part of the syllable: morae can be argued to be part of the prosodic phonological structure because they directly contribute to the rhythmic structure of an utterance. In English, morae are calculated from a syllable as follows: (i) count the first segment in the nucleus as one mora; (ii) if there are any further segments in the syllable (in either the nucleus or the coda) count these as totalling one further mora. Thus a syllable can have one or two morae. The moraic structure of *gentlemen* can be represented as follows:

syllables	σ		σ		σ		
rimes		r		r		r	
onsets, nuclei, codas	o	n	c	o	n	o	n c
sequence of segments	X	X	X	X	X	X	X X
identity of the sounds	ʤ	ε	n	t	l	m	ə n
sequence of segments	X	X	X	X	X	X	X X
morae		μ	μ		μ	μ	μ
syllables		σ		σ		σ	
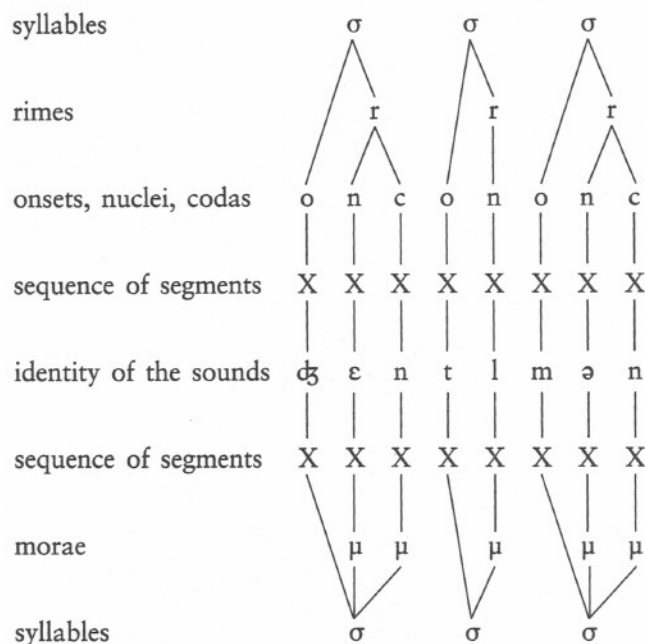
In this diagram, the organization into morae has been distinguished from the organization into onset, nucleus and coda. This is because these appear to be related but distinct dimensions of organization of the syllable, which can therefore be understood as simultaneously organized in the two different dimensions. In most theoretical accounts, the syllable is formulated either as fundamentally organized into onset, nucleus and coda (the top part) or as fundamentally organized into morae (the bottom part): for discussion see Hayes (1995). In this word, the first syllable has two morae and is thus heavy, the second has one and is thus light, while the third has two and is thus heavy.

Languages vary in how they calculate morae from segments. Each segment in a nucleus counts as a mora, with the consequence that a long vowel always

~ory

~ nucleus and coda combined
~ora is a prosodic unit, made
~lable, and itself forming part
~f the prosodic phonological
~ythmic structure of an utter-
~able as follows: (i) count the
~ere are any further segments
~ count these as totalling one
~ morae. The moraic structure

\
r
/\
\
c
|
X
|
n
|
X
|
μ
/

~een distinguished from the
~ecause these appear to be
~ syllable, which can there-
~ two different dimensions.
~ed either as fundamentally
~ or as fundamentally organ-
~Hayes (1995). In this word,
~ second has one and is thus

~n segments. Each segment
~ that a long vowel always

counts as two morae. However, segments in the coda are sometimes counted differently. For example, in Somali a syllable with a CVC structure would contribute one mora (i.e. the single consonant in the coda counts for nothing), while in Arabic the same syllable structure CVC would contribute two morae, with the consonant contributing to the weight. The calculation of morae is very important in some kinds of verse – particularly mora-counting and quantitative verse. Here, the exact number of morae in a line is what makes the line metrical. In practice, each language must be approached on its own terms to decide how the sequence of segments are organized into morae.

(Note: in some descriptions heavy and light syllables are referred to instead as long and short syllables respectively, with syllable weight referred to instead as syllable length. In this book, the terminology of weight is used to differentiate syllables, with the terminology of length used to differentiate vowels.)

2.2.3 The word and its boundaries

Central to the notion of a word is that it is a linguistic unit which can exist in isolation and which has some independent meaning: this characterizes what are called lexical words, such as nouns, verbs, adjectives and adverbs. We also use the term 'word' to describe various grammatical units whose function is to enable lexical words to be put together into meaningful sentences: this characterizes what are called grammatical words, such as articles, quantifiers, pronouns, auxiliaries, modals, negators, and prepositions. The notions of lexical word and grammatical word are dependent on domains of linguistic structure such as the lexicon and syntax; when we look at phonological structure, we can formulate a notion of phonological word. Prototypically, a phonological word is coextensive with a lexical word, but understood in terms of the word's phonological structure: it is another side of the same object. However, there is a complication when it comes to grammatical words; sometimes a grammatical word can be understood as a phonological word on its own, but at other times a grammatical word attaches to a lexical word and together they constitute a larger kind of phonological word sometimes called a clitic group.
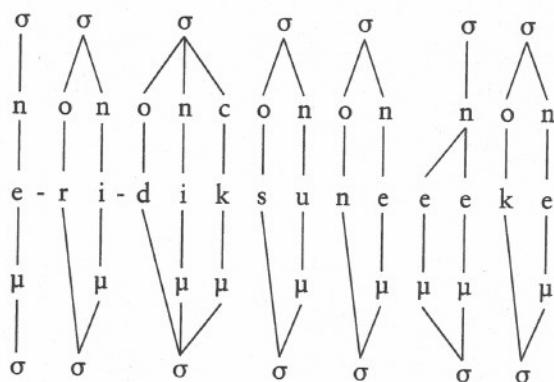
There is another problem with the notion of word, which relates to the syllable structure of a word (and for that matter also the identity of the segments in a word). When words follow one another in an utterance, they can affect each other's phonological shape. In particular, a syllable in one word can lose one of its component segments to a syllable in a neighbouring word, thus potentially changing the pattern of morae and thus syllable weights. This is best illustrated by a Greek example (which is discussed again in 5.2.1). The Greek word *eridi* has the following syllable structure in isolation:

```
   σ       σ       σ
   |      /\      /\
   n     o  n    o  n
   |     |  |    |  |
   e  -  r  i -  d  i
   |     |  |    |  |
   μ     μ  |    μ  |
   |      \ |     \ |
   σ       σ       σ
```
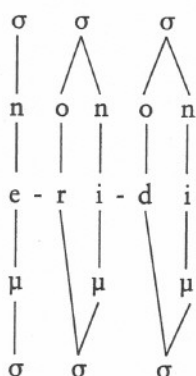
And the Greek word *ksuneeeke* has the following structure in isolation:

```
     σ        σ       σ        σ
    /\       /\      |        /\
   o  n     o  n     n       o  n
   /\ |     | |      /\      |  |
  k s u     n e      e k     e
      \      \ |      \ |     \ |
       μ      μ μ      μ μ      μ
        \      \|       \|       \|
         σ      σ        σ        σ
```
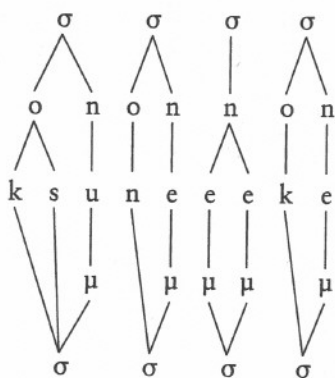
However, when the two words are put together, the initial [k] of *ksuneeeke* re-attaches to become the final segment in the preceding word: and thus adds a mora to that syllable, making it heavy. Thus the overall number of morae in the sequence increases because the segment has moved from an onset where it had no weight to a coda where it does have weight.

```
  σ    σ      σ       σ      σ     σ    σ
  |   /\     /\      /\     /\     |   /\
  n  o  n   o  n  c  o  n  o  n    n  o  n
  |  |  |   |  |  |  |  |  |  |    |  |  |
  e- r  i - d  i  k  s  u  n  e    e  k  e
  |  |  |   |  |  \  |  |  |  |    /\ |  |
  μ  μ  |   μ  μ   \ |  μ  μ  μ    μ  |  μ
  |   \ |    \ |    \|   \|  \|     \ |   \|
  σ    σ      σ       σ     σ      σ    σ
```

2.2.4 *Phonological phrases*

The word is a lexical and syntactic notion and also a phonological notion –
and the two coincide for the most part, though not always. The same is true
of the phrase. When words are organized into syntactic structures, they are first
organized into phrases – so that a sentence is a structure made from phrases
which ultimately contain words. The same appears to be true of utterances,
where phonological words are organized into phonological phrases. The pho-
nological phrases are sometimes coextensive with syntactic phrases and some-
times not.

structure in isolation:

One of the most important characteristics of a phonological phrase from
the perspective of verbal art is that it can typically be followed in performance
by a pause. Thus Dresher (1994) discusses a transcription system used by tenth-
century editors of the Hebrew Bible; this involves a complex system of diacritic
symbols which were intended to preserve the ancient pronunciation and per-
formance of the Biblical text. Some diacritics appear to be used as an indication
that two or more words belong together in the same phonological phrase.
Dresher suggests that other diacritics are intended to indicate the length of
pauses between phonological phrases. He suggests that phonological phrases
are hierarchically grouped, with shorter pauses between phrases lower down
on the hierarchy and longer pauses between phrases higher up in the hierarchy.
The hierarchical complexity of a particular text is its 'grain'. Drawing on this
hypothesis, he suggests that the edited text of the Bible indicates when the per-
former should speak deliberately (with a greater quantity of pauses) and when
less deliberately.

initial [k] of *ksuneeeke* re-
g word: and thus adds a
l number of morae in the
m an onset where it had

2.2.5 *Rhythm and stress*

In most languages there is a fairly salient rhythmic pattern to an utterance,
which is composed partly of the inherent rhythmic patterns of words, and partly
of the rhythmic decisions made by the speaker in putting the utterance together.
In English, the rhythmic pattern is realized as relative stress on syllables.
Stress is a rhythm within the word, which is realized by a combination of
several features: stressed syllables are typically louder, longer and higher in
pitch. (See Hayes 1995, chapter 2 for a very detailed discussion of what
stress is.)

In thinking about English stress, it is necessary to distinguish between stress
within a lexical word and stress within the utterance as a whole. The latter is
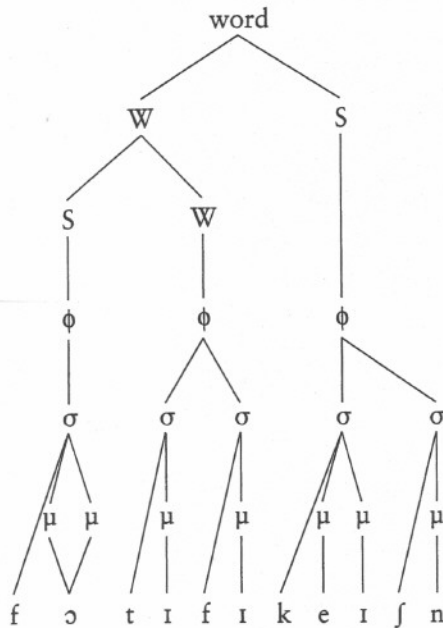constrained primarily by performance considerations, and can be very variable:

the same sequence of words can be given very different patterns of stress within the utterance as a whole. This is called the postlexical stress pattern of the utterance.

Stress within a lexical word, on the other hand, is rigidly constrained by phonological rules of the language, and is part of the basic identity of the word. Thus the words *differ* and *defer* are differentiated in their sound-patterns primarily by the different patterns of stress (*differ* has a stressed–unstressed pattern, while *defer* has an unstressed–stressed pattern). Lexical stress of this kind is not variable at the whim of the speaker (unlike postlexical stress). The various lexical stress patterns of English words are regular, but are also subject to complex rules: a considerable amount of work has been put into trying to understand these in a generative framework since the 1960s, and the matter is still not fully settled. Thus I will present a very simplified account of how stress works within a lexical word.

The basis of stress within a word is that the syllables of the word are organized into constituents (called phonological feet). Consider for example the word *fortification*. The syllables are organized into phonological feet as follows:
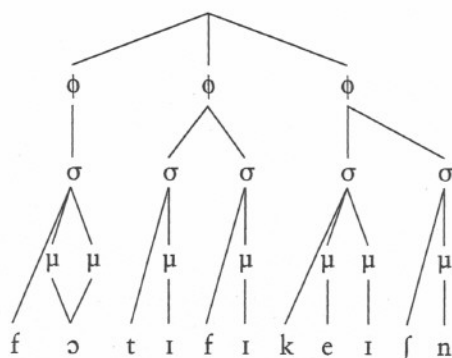
The phonological foot typically contains two morae – either a two-mora (heavy) syllable as in the first and third feet, or two one-morae syllables as in the second foot. The final syllable is 'extrametrical', and appended to the preceding foot. Where there is more than one syllable in a word, some syllables are stronger than others: in a two-syllable word like *differ* the first syllable is said to be a strong constituent relative to the second syllable which is a weak constituent. Where there is more than one phonological foot within the word, the feet also differ from one another in strength. Stress is attracted to strong constituents. Where there are three or more syllables in a word, there will often be more than one strong constituent, and here the strong constituents are strong or weak relative to one another. The patterns of strength in this word are as follows:

ɔry

ent patterns of stress within
exical stress pattern of the

l, is rigidly constrained by
: basic identity of the word.
eir sound-patterns primarily
d–unstressed pattern, while
ess of this kind is not vari-
stress). The various lexical
e also subject to complex
into trying to understand
the matter is still not fully
of how stress works within

yllables of the word are
t). Consider for example
into phonological feet as

            word
          /   \
         W   S
        / \   \
       S   W |
       | | |
       φ   φ   φ
       | |\   / \
       σ   σ σ   σ   σ
      /| | | /|\   \
     μ μ   μ μ μ μ   μ
     | | | | | | |
     f ɔ t ɪ f ɪ k e ɪ ʃ n

ther a two-mora (heavy)
yllables as in the second
to the preceding foot.
e syllables are stronger
: syllable is said to be
ch is a weak constitu-
within the word, the
:tracted to strong con-
ord, there will often be
istituents are strong or
in this word are as

The first syllable containing [ɔ] has stress because it is in a strong foot relative to the neighbouring weak foot containing [tɪfɪ]. This pair of feet are then weak relative to the foot containing [eɪ], which therefore has the strongest stress. Stress within a polysyllabic lexical word is thus dependent on the relations of strength between the syllables.

However, stress can also be assigned where there is no relation of strength: this happens in lexical monosyllables such as *see*. This word has stress on its single syllable, but not because this syllable is relatively strong – there is no other syllable in the word for it to be strong in comparison with. The distinction between stress which is assigned to a monosyllable directly, and stress which is assigned on the basis of strength within a polysyllable, is very important for understanding stress-based meters in English verse, as we now see.

2.3 Shakespeare's iambic pentameter: the problem of rhythmic variation

Iambic pentameter is a meter which is found throughout English poetry, and characterizes some of the major works of the tradition: for example, much of

Chaucer's, Shakespeare's, Milton's and Wordsworth's verse is in this meter. However, despite its familiarity, the meter remains difficult to characterize, and there are disagreements between analysts about the best way to understand its structure. To illustrate the issues which arise, this is a text by Shakespeare in iambic pentameter:

> *Let me not to the marriage of true mindes*
> *Admit impediments, love is not love*
> *Which alters when it alteration findes,*
> *Or bends with the remover to remove.*
> *O no, it is an ever fixed marke*
> *That lookes on tempests and is never shaken;*
> *It is the star to ev(e)ry wand(e)ring barke,*
> *Whose worths unknowne, although his highth be taken.*
> *Lov's not Times foole, though rosie lips and cheeks*
> *Within his bending sickles compasse come,*
> *Love alters not with his breefe hours and weekes,*
> *But beares it out even to the edge of doome:*
> *If this be error and upon me proved,*
> *I never writ, nor no man ever loved.*

The rhythm of this text is manifested as a pattern of stressed and unstressed syllables. However, this text can be quite adequately performed with almost every line having a different pattern of stressed and unstressed syllables. Thus the text can be performed with stresses on the underlined syllables below:

Let	me	<u>not</u>	to	the	<u>ma</u>	rriage	of	<u>true</u>	<u>mindes</u>	
Ad	<u>mit</u>	im	<u>pe</u>	di	ments,	<u>love</u>	is	<u>not</u>	<u>love</u>	
Which	<u>al</u>	ters	when	it	<u>al</u>	te	<u>ra</u>	tion	<u>findes,</u>	
Or	<u>bends</u>	with	the	re	<u>mo</u>	ver	to	re	<u>move.</u>	
O	<u>no,</u>	it	is	an	<u>e</u>	ver	<u>fi</u>	xed	<u>marke</u>	
That	<u>lookes</u>	on	<u>tem</u>	pests	and	is	<u>ne</u>	ver	<u>sha</u>	ken;
It	is	the	<u>star</u>	to	<u>ev</u>	(e)ry	<u>wan</u>	d(e)ring	<u>barke,</u>	
Whose	<u>worths</u>	un	<u>knowne,</u>	al	though	his	<u>highth</u>	be	<u>ta</u>	ken.
<u>Lov's</u>	not	<u>Times</u>	<u>foole,</u>	though	<u>ros</u>	ie	<u>lips</u>	and	<u>cheeks</u>	
Wi	thin	his	<u>ben</u>	ding	<u>si</u>	ckles	<u>com</u>	passe	<u>come,</u>	
<u>Love</u>	<u>al</u>	ters	<u>not</u>	with	his	<u>breefe</u>	<u>hours</u>	and	<u>weekes,</u>	
But	<u>beares</u>	it	<u>out</u>	<u>even</u>	to	the	<u>edge</u>	of	<u>doome:</u>	
If	<u>this</u>	be	<u>e</u>	rror	and	u	<u>pon</u>	me	<u>proved,</u>	
I	<u>ne</u>	ver	<u>writ,</u>	nor	<u>no</u>	man	<u>e</u>	·ver	<u>loved.</u>	

ry

th's verse is in this meter.
lifficult to characterize, and
best way to understand its
s a text by Shakespeare in

be taken.
heeks

kes,

of stressed and unstressed
y performed with almost
unstressed syllables. Thus
:lined syllables below:

true	mindes	
not	love	
tion	findes,	
re	move.	
xed	marke	
ver	sha	ken;
n	d(e)ring	barke,
hth	be	ta ken.
i	and	cheeks
n	passe	come,
irs	and	weekes,
e	of	doome:
l	me	proved,
ver	loved.	

This rhythmic variation from line to line in performance is entirely typical of iambic pentameter, and of many other meters as well. There are basically two ways of understanding it.

One approach, which is more or less the traditional one, is to formulate iambic pentameter as a pattern of stressed and unstressed syllables which is approximated to by actual lines of text, with a certain degree of allowed variability. Thus iambic pentameter might be formulated as a pattern of ten syllables with every even syllable stressed.

$$\sigma \; \acute{\sigma} \; \sigma \; \acute{\sigma} \; \sigma \; \acute{\sigma} \; \sigma \; \acute{\sigma} \; \sigma \; \acute{\sigma}$$

Actual lines would then correspond approximately to this pattern.

The alternative approach is associated with a theoretical approach called generative metrics, presented in detail by Halle and Keyser (1971), and subsequently developed by other phonologists working in the generative linguistics tradition (which includes generative grammar and generative phonology). The notion of a generative grammar was formulated by Noam Chomsky, with the parallel notion of a generative phonology formulated by Chomsky with Morris Halle. The generative grammar of a language is a set of rules which can characterize any sentence as grammatical or ungrammatical: the grammar generates all and only the grammatical sentences in the sense of being able to create just these sentences. The generative phonology of a language is a set of rules which can characterize a word as having a phonological structure which is acceptable in the language. Similarly, a generative metrics for a meter is a set of rules which can characterize any line's rhythmic pattern as metrical or unmetrical: it should be able to specify that a particular line is metrical or unmetrical – and hence the vast majority of actual iambic pentameter lines should be specified as metrical by the rules.

Whereas the traditional approach to metrics is based on a notion of 'approximation', the generative approach is based on the notion of 'abstraction'. The generative approach formulates iambic pentameter at a sufficiently abstract level such that all the rhythmic variations in actual performance in fact have an identical rhythmic pattern if examined at that level. Generative metrics exploits the linguistic structure of the utterance, to show that once we have a better understanding of the linguistic structure we can also see the underlying regularities which are hidden beneath the apparently random variations of rhythmic patterns. In the case of iambic pentameter, the fundamental insight (as formulated for example by Kiparsky 1977) is that while the meter involves stress, it involves some kinds of stress and not others. We saw that it is possible to distinguish three kinds of stress in an English utterance: (1) the stress

within a polysyllable which depends on strength relations between the syllables in the word, (2) the stress on a monosyllable which is assigned directly (and not on the basis of strength), and (3) postlexical stress, the stress pattern of the utterance above the level of the word, which is dependent on the communicative aims of the speaker and is not fixed for a particular sequence of words. Of these three kinds of stress, it is primarily (1) which is relevant to iambic pentameter.

Consider for example postlexical stress. The same sequence of words can be given different patterns of postlexical stress when uttered, sometimes with clear communicative consequences, and sometimes without. Thus if we take the sonnet cited above, the postlexical stress patterns assigned to it could have been different in a different performance. Take for example the first line. Perfectly acceptable alternative realizations of the postlexical stress patterns of this line include:

Let me <u>not</u> to the <u>ma</u> rriage of <u>true</u> <u>mindes</u>
<u>Let</u> me <u>not</u> to the <u>ma</u> rriage of <u>true</u> <u>mindes</u>
Let <u>me</u> not to the <u>ma</u> rriage of <u>true</u> <u>mindes</u>
Let <u>me</u> not <u>to</u> the <u>ma</u> rriage <u>of</u> true <u>mindes</u>

And so on. This variability in possible postlexical stress patterns means that the meter must be formulated to ignore postlexical stress: it is simply irrelevant to the meter. This is because the meter controls the composition of the text rather than its performance, and thus is able to control only those aspects of the prosodic phonology of the text which are invariable (i.e. lexical stress but not postlexical stress).

Thus we are left with lexical stress – on polysyllables and on monosyllables. These kinds of stress are invariant: the stress pattern on *marriage* for example does not vary at the whim of the performer. This means that iambic pentameter must be understood at a more abstract level: as a meter which controls the placement in the line of lexical stress patterns. The basic intuition about iambic pentameter is that there is a difference between odd and even positions: even positions in the line are somehow related to stressed syllables. We now see that this must specifically be the stressed syllables in lexical words. If we look at the sonnet, however, we find that lexical monosyllables are not obviously constrained to appear in either odd or even syllables. In this first line, *true* appears in an odd position (the ninth), for example. But the lexical polysyllables are constrained in their location: it turns out that all the polysyllables *are* placed in lines so that their stressed syllables are in even positions. In the diagram below, polysyllables are boxed:

relations between the syl-
which is assigned directly
al stress, the stress pattern
ich is dependent on the
for a particular sequence
ly (1) which is relevant to

e sequence of words can
uttered, sometimes with
without. Thus if we take
assigned to it could have
xample the first line. Per-
ical stress patterns of this

	even		*even*		*even*		*even*		*even*	
Let	me	not	to	the	ma	rriage	of	true	mindes	
Ad	mit	im	pe	di	ments,	love	is	not	love	
Which	al	ters	when	it	al	te	ra	tion	findes,	
Or	bends	with	the	re	mo	ver	to	re	move.	
O	no,	it	is	an	e	ver	fi	xed	marke	
That	lookes	on	tem	pests	and	is	ne	ver	sha	ken;
It	is	the	star	to	ev	(e)ry	wan	d(e)ring	barke,	
Whose	worths	un	knowne,	al	though	his	highth	be	ta	ken.
Lov's	not	Times	foole,	though	ros	ie	lips	and	cheeks	
Wi	thin	his	ben	ding	si	ckles	com	passe	come,	
Love	al	ters	not	with	his	breefe	hours	and	weekes,	
But	beares	it	out	even	to	the	edge	of	doome:	
If	this	be	e	rror	and	u	pon	me	proved,	
I	ne	ver	writ,	nor	no	man	e	ver	loved.	

Thus we see the fundamental organizing principle of the iambic pentameter:

> Stress in lexical polysyllables must be in even positions in the line.

That's basically it, though there are plenty of supplementary comments to make. In effect, iambic pentameter controls the rhythmic structure of a line by controlling only those words which have their own internal rhythm. Now we need to formulate this basic principle as a set of metrical rules.

patterns means that the
it is simply irrelevant to
sition of the text rather
ly those aspects of the
.e. lexical stress but not

and on monosyllables.
marriage for example
that iambic pentameter
ter which controls the
intuition about iambic
d even positions: even
ables. We now see that
words. If we look at
are not obviously con-
first line, *true* appears
xical polysyllables are
ysyllables *are* placed in
In the diagram below,

2.4   A generative meter for iambic pentameter

Most theories of meter begin with a metrical template, a sequence of metrical positions which are matched with phonological constituents in the line of poetry. A traditional meter typically stops with the template, and requires the lines of poetry to approximate to the metrical template without necessarily exactly fitting

it. A generative meter attempts to formalize exactly which patterns in the line fit the meter and which do not, and this is achieved by formulating sometimes quite abstract rules for matching the metrical template with the line of poetry. Thus a generative meter has two parts: the metrical template and the rules which match the template to the lines.

2.4.1   A metrical template

A metrical template is fundamentally a series of positions. For iambic pentameter there are ten positions. In rhythmic meters like iambic pentameter, the positions are differentiated as strong and weak positions. The series of positions in iambic pentameter is a sequence of weak–strong–weak–strong . . . etc. The template can thus be formulated initially as:

W   S   W   S   W   S   W   S   W   S

There are at least two reasons for thinking that the template might also have a hierarchical constituent structure. The first is that the pattern of positions is periodic, repeating a weak–strong sequence. Thus we could formulate the template as five weak–strong constituents. The second reason for positing a hierarchy is that notions such as strength and weakness are relative notions: the first position is weak relative to the second which is strong. This can be formalized by organizing the line into five binary constituents characterized by the second part of each constituent being stronger than the first. For these two reasons, the template can more fully be represented as organized in constituents: the pairs of metrical positions are called metrical feet, symbolized with F:

```
     F           F           F           F           F
    /\          /\          /\          /\          /\
   W  S        W  S        W  S        W  S        W  S
```

For the moment, we will have relatively little to say about the internal constituency of the metrical template, and we will think of iambic pentameter more simply as a sequence of weak and strong positions.

2.4.2   Matching the template to syllables: a first formulation and extrametricality

The template must correspond to all lines which instantiate the meter. In the case of iambic pentameter, the majority of lines have ten syllables and so as a

ch patterns in the line
ormulating sometimes
vith the line of poetry.
mplate and the rules

For iambic pentameter
ntameter, the positions
of positions in iambic
. etc. The template can

late might also have a
pattern of positions is
formulate the template
positing a hierarchy is
tions: the first position
e formalized by organ-
by the second part of
o reasons, the template
s: the pairs of metrical

he internal constituency
entameter more simply

first

itiate the meter. In the
n syllables and so as a

preliminary attempt we could formulate a matching rule: each syllable in the line must fit into a metrical position in the metrical template. This means that all ten-syllable lines are, at least in this sense, metrical.

However, just as there is variability in the stress pattern of lines, so there is also variability in the number of syllables in a line, and so if these variable-length lines are to be considered metrical, our matching rule must be reformulated to accommodate these lines. One kind of variation is where there is an eleven-syllable line ending on an unstressed syllable: this can be interpreted as resembling a typical ten-syllable line but with an extra syllable at the end. There are two such lines in the sonnet, of which this is one:

That lookes on tem pests and is ne ver sha ken;

Lines where there is an extra syllable after the final stressed syllable can be interpreted as involving 'extrametricality' (a possibility discussed in detail by Kiparsky 1977). The final syllable is extrametrical which means that it is permitted not to match a position in the metrical template. This possibility of extrametricality must be incorporated as part of the matching rules.

If extrametricality was allowed freely, there would in effect be no meter. In fact, there are two characteristics shared by extrametrical syllables which limit their occurrence: they are always unstressed, and they are always found in certain kinds of position. The most common position is at the end of a line, as here. In Shakespeare's iambic pentameter, extrametrical syllables can also appear in the middle of a line, but preceding a pause. These two positions turn out to have something in common: they are both at the end of the large prosodic phonological constituent called the phonological phrase. Thus the rule permitting extrametrical syllables is sensitive to phonological constituent structure at this level.

The following line (cited by Kiparsky 1977: 231) illustrates two extrametrical syllables, one at the end of the line and one in the middle. Both are at the end of a phonological phrase (indicated by square brackets):

W   S   W   S   W   S W   S   W   S
| | | | | | | | | |
σ   σ   σ   σ̆   σ   σ̆ σ   σ   σ   σ̆ σ
[*That* *is* *the* *madman*.][*The lover,*][*all* *as* *frantic*]
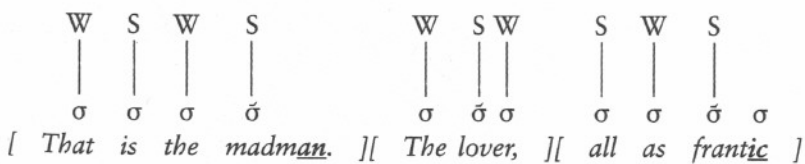
Kiparsky suggests that in iambic pentameter the extrametrical syllable must come after a syllable which corresponds to a metrical strong position, as it does in the line quoted above. A line-final extrametrical syllable in iambic pentameter will of course always be in this position (because the final metrical position is strong); the generalization is more interesting when it comes to line-internal

extrametrical syllables. Notice that this generalization means that in iambic pentameter there will not be two extrametrical syllables one after another, though as the above example shows there might be two in the same line after different metrical positions. Finally, Kiparsky points out that English poets differ in what kinds of syllable they will allow to be extrametrical. For example Shakespeare, as here with *madman*, permits the second half of a compound word to be extra-metrical, while Milton does not.

2.4.3   *The metrical template and stress*

There are three kinds of stress in the line of poetry: stress within a lexical polysyllable, stress on a lexical monosyllable, and postlexical stress (including stress on grammatical words). It is basically the first kind of stress which is controlled by iambic pentameter. If for the moment we just think of this as 'polysyllabic stress', we might consider how exactly it is matched with the metrical template. The template has S and W positions, and where there is polysyllabic stress it is found only in S positions. But S positions are not devoted entirely to polysyllabic stress – other kinds of stress are found here, and there may also be an unstressed syllable in an S position. For example, the following line has *the* and *to* matching strong positions, but neither word carries polysyllabic stress, and in fact on most performances of the line neither word carries any (postlexical) stress at all.

```
W    S    W    S   W   S   W    S   W    S
|    |    |    |   |   |   |    |   |    |
Or  bends with the re  mo  ver  to  re  move.
```

This suggests that the matching constraint is not a constraint on S positions but should be seen from a different angle as a constraint on W positions: specific-ally, that a W position within the metrical template must not match a 'polysyllabic stress'.

How does the meter differentiate between polysyllabic and monosyllabic stress? The difference is that a polysyllabic stress pattern is derived from the relative strengths of syllables within a lexical word: there is no relative strength pattern within a monosyllable because there is nothing for the single syllable to be strong relative to. Hanson and Kiparsky (1996) suggest that this therefore means that the matching constraint should be reformulated so that it does not directly refer to stress at all, but instead refers to strength. A stressed syllable in a poly-syllabic word is also a strong syllable, and is the only example of a syllable which is strong within a word. Thus the matching constraint can be reformulated like

ry

tion means that in iambic
es one after another, though
he same line after different
English poets differ in what
For example Shakespeare,
ompound word to be extra-

ry: stress within a lexical
ostlexical stress (including
st kind of stress which is
we just think of this as
y it is matched with the
ions, and where there is
positions are not devoted
re found here, and there
or example, the following
r word carries polysyllabic
neither word carries any

onstraint on S positions
on W positions: specific-
not match a 'polysyllabic

and monosyllabic stress?
erived from the relative
relative strength pattern
ne single syllable to be
hat this therefore means
that it does not directly
essed syllable in a poly-
nple of a syllable which
an be reformulated like

this: a weak position in the metrical template must not match a strong syllable within the word. This is a radical suggestion about iambic pentameter because it means that the meter does not in fact directly control stress: it has an effect on stress patterns only indirectly through syllables via their strength and only thereby controlling stress.

2.4.4 The metrical template and the phonological foot

One of the variations in the iambic pentameter line involves extra syllables within the line, which cannot be considered extrametrical because they are in the middle of phonological phrases. It is common to find two light syllables between two strong syllables: this situation must be accounted for by the meter, but cannot be accounted for by the matching rules which exist so far. Consider for example this line from *Othello* (cited by Hanson and Kiparsky 1996):

This line has an extrametrical syllable at the end, *it*. The syllable *men* could also be accounted for by saying that it is extrametrical. But this is not the case for the extra syllable in the word *fortification*. Here there are two syllables between the two strong syllables, but only one weak position for these two syllables *ti* and *fi* to fit into. Hanson and Kiparsky suggest that this problem is resolved by looking at the prosodic phonological structure of the word (as shown in 2.2.5), where *ti-fi* constitutes a single phonological foot (comprising two light syllables). They suggest that it is the phonological foot rather than the syllable which is matched to the metrical position.

The problem with *fortification* arose not from Shakespeare's compositional decision but from the structure of the word: this word always has two light syllables between two strong syllables. However, extra syllables can also arise from the composition of the line, where for example two grammatical words come between two strong syllables, as in the following line:

This line has two extra syllables in it (it has twelve syllables). One extra syllable, the *-est* of *youngest*, is extrametrical: it is at the end of a phonological phrase. However, *to* and *the* must be considered as two light syllables belonging to a phonological foot, and are permitted to combine to fill a single metrical position because of this.

These are examples where the two-syllable phonological foot is matched to a weak metrical position. However, it is also possible for a two-syllable phonological foot to match a strong metrical position. In the following line from *Henry V*, the two syllables in *many* fill a single strong position: they are both light syllables, even though one is stressed. Note that in this line the pair of light monosyllables *in one*, which constitute a single phonological foot, also fill a single metrical position:

W	S	W	S	W	S	W	S	W	S
σ	σ́	σ	σ	σ	σ́ σ	σ	σ́	σ σ	σ́
Come	to	one	mark,	as	many	ways	meet	in one	town
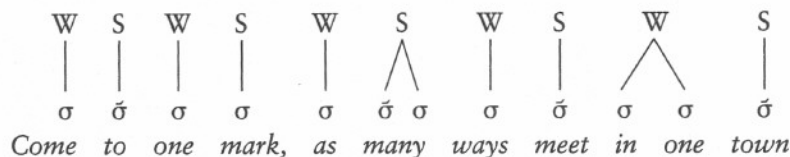
Thus the structure of English words and the compositional practice of Shakespeare both suggest that in his iambic pentameter, the metrical position, while it will normally match a syllable, may also match a phonological foot (i.e. a prosodic phonological constituent containing two light syllables).

2.4.5   Initial freedoms

We have seen that strong syllables may not match weak positions. However, there is a position in the line where this requirement appears to be relaxed: the first position of the line. Here it is not uncommon to find a polysyllabic word with initial stress, even though the first metrical position is weak. Thus a strong syllable matches a weak position. We might expect this phenomenon to be incorporated into the matching rules for the meter. However, there are some reasons for thinking that it manifests a general principle for metrical texts and thus that it should not be incorporated into specific rules. In most meters, and most strikingly in meters in the Indo-European tradition, the metrical matching rules appear to be relaxed at the beginning of a line – but adhered to firmly in the later part of the line. This phenomenon in iambic pentameter might be a reflex of this general phenomenon.

Hayes (1983: 382) suggests that in fact in iambic pentameter the principle of relaxation of matching rules at the beginning relates not to the line but to the phonological phrase: thus 'inversion' of the foot occurs at the beginning of the line and after a pause in the line – both are the beginnings of phonological phrases.

yllables). One extra syllable,
id of a phonological phrase.
ght syllables belonging to a
fill a single metrical position

logical foot is matched to a
e for a two-syllable phono-
ie following line from *Henry*
osition: they are both light
n this line the pair of light
ionological foot, also fill a

W   S
/\ |
σ   σ   σ́

in   one   town

ional practice of Shakespeare
trical position, while it will
logical foot (i.e. a prosodic
bles).

weak positions. However,
t appears to be relaxed: the
to find a polysyllabic word
tion is weak. Thus a strong
us phenomenon to be incor-
ver, there are some reasons
metrical texts and thus that
iost meters, and most strik-
trical matching rules appear
d to firmly in the later part
r might be a reflex of this

pentameter the principle of
s not to the line but to the
urs at the beginning of the
ngs of phonological phrases.

W   S   W   S   W   S   W   S   W   S
| | | | | | | | | |
σ́   σ   σ   σ́   σ́   σ   σ   σ́   σ   σ́
[<u>Ri</u> cher than wealth][<u>Prou</u> der than gar ments cost]

Thus again it seems that certain kinds of variation which are permitted in the matching rules are sensitive to the boundary of a phonological phrase (this was the case also for extrametricality): phonological phrase boundaries appear to allow certain kinds of metrical looseness.

2.4.6 *In summary: the metrical rules for Shakespeare's iambic pentameter*

In summary, we can formulate Shakespeare's version of iambic pentameter as follows:

1 There is a metrical template:

   W S W S W S W S W S

2 There is a set of matching rules:

   Each metrical position must be matched with a phonological constituent no larger than a phonological foot (and normally with a syllable);

   A weak position in the metrical template must not be matched with a strong syllable within a word.

3 There are stipulated exceptions to the matching rules, which apply at the edges of phonological phrases:
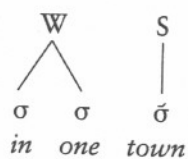
   A syllable at the end of a phonological phrase may be ignored by the matching rules (= extrametricality);

   A weak position in the metrical template may match a strong syllable within a word when that syllable is at the beginning of a phonological phrase.

This is a simplified account of the meter, which nevertheless expresses the basic ideas (for example it does not indicate the foot structure within the metrical template). Other poets modify the meter in various ways, as Hanson and Kiparsky (1996), Hanson (1996) and others have argued.

What, finally, is the relation between this formulation of iambic penta-meter and any line of iambic pentameter poetry? The meter fully constrains certain aspects of the prosodic phonological structure of the line: specifically, it constrains the number of syllables, and the placement of strong syllables. Other

aspects of the phonological structure of the line are not constrained by the meter: these include the postlexical stress patterns. Thus the meter partially determines the prosodic phonological structure of the line. This will be true of all meters: the problem for analysis is to decide which aspects of prosodic phonological structure are determined, and how they are determined.

2.5 Generative metrics and the formulation of a meter

Thus a meter is a template and a set of matching rules and other rules: the meter is a description of the regularities in a certain kind of linguistic behaviour (the composition of a metrical text). This formulation of a meter is associated with generative linguistics, and generative linguistics takes a specific view of the reason for regularities in linguistic behaviour: regularities in linguistic behaviour arise because linguistic behaviour is generated on the basis of linguistic knowledge. Linguistic knowledge in turn can be formulated in part as a set of rules for building linguistic structures. Thus linguists look at regularities in linguistic behaviour in order to discover the nature of the knowledge which underlies linguistic behaviour, a knowledge which is understood in terms of rules. The same principle carries over to metrics: the regularities in a metrical text are understood as arising from the 'metrical knowledge' of the composer of the text. This metrical knowledge is the meter, consisting of the template and the set of rules.

It is worth noting that the knowledge which underlies the regularities in our behaviour, and from which our behaviour is generated, is not necessarily explicit knowledge. This is clearly the case for language: most people can produce utterances which are fully regular, without having any ability to make explicit the rules which characterize those utterances. Furthermore, even where there is explicit description of the rules which characterize the regularities in linguistic behaviour, that explicit description may be incorrect: people have demonstrably false beliefs about their own linguistic behaviour. The work of linguistics is to discover what the actual rules are which determine the regularities in our linguistic behaviour. These comments can be carried over from linguistics to metrics. Thus an author may compose fully regular texts without being able to describe what he or she is doing, and on the other hand there are often detailed theories of metrical composition contemporary with practice (and sometimes formulated by practitioners) which are not fully accurate in their characterization of actual practice. The bottom line for generative metrics is that there can only be one correct characterization of a metrical practice – only one way of formulating a particular meter; the task of metrics is to work out what that formulation is, by

are not constrained by the
1s. Thus the meter partially
f the line. This will be true
e which aspects of prosodic
hey are determined.

mulation

g rules and other rules: the
kind of linguistic behaviour
ion of a meter is associated
s takes a specific view of the
arities in linguistic behaviour
he basis of linguistic know-
ted in part as a set of rules
k at regularities in linguistic
knowledge which underlies
d in terms of rules. The same
a metrical text are under-
e composer of the text. This
emplate and the set of rules.
lerlies the regularities in our
ed, is not necessarily explicit
most people can produce
any ability to make explicit
ermore, even where there is
the regularities in linguistic
t: people have demonstrably
he work of linguistics is to
e the regularities in our lin-
r from linguistics to metrics.
thout being able to describe
e are often detailed theories
(and sometimes formulated
ir characterization of actual
that there can only be one
y one way of formulating a
what that formulation is, by

identifying exactly what the regularities are in the prosodic phonological struc-
ture of metrical texts.

2.5.1 Some terminological issues

One of the minor metatheoretical problems of doing metrics is that technical
terms are used in different ways. In part this is a reflex of the fact that many
traditions of metrical practice are accompanied by their own theoretical traditions,
with their own terminologies – and as terminologies are adapted to new purposes,
possibilities of confusion arise. The aim of this section is thus to clarify how some
of the more complex terms are used in the present book.

We use the term 'meter' to describe the set of rules which consists of metrical
template, matching rules and any related adjustment rules or permitted vari-
ations. 'Meter' is sometimes used to describe these rules plus rules of sound-
patterning and other genre conventions, but the term is not used with this
meaning here. For example, for us 'iambic pentameter' is a meter because it
constrains just the prosodic phonological structure, but 'blank verse' is not a
meter because it adds a constraint relating to sound-patterning (i.e. that there
is no rhyme). Where we need to refer to meters plus other related rules, particu-
larly rules of sound-patterning, we'll use the term 'metrical system'. Thus blank
verse is a metrical system, as is *séadna*; the latter is a metrical system which
includes a meter (which counts syllables) plus other rules of sound-patterning,
etc. Word-boundary rules have a somewhat ambiguous status here – it is not
clear whether they should be thought of as part of the meter or as part of the
broader metrical system (we return to this in chapter 5). 'Prosody' is also some-
times used to describe metrical structure; we restrict the term here to an aspect
of linguistic structure, and generally combine it with 'phonological' to make this
clear. Thus we speak of the 'prosodic phonological structure' of an utterance,
which in itself has nothing to do with literary structure (though it is exploited
by a meter). The term 'meter', which we are restricting to literary texts, is itself
sometimes used for purely linguistic structure (hence there is a theory of 'met-
rical phonology', which in itself has nothing to do with literary texts).

The terms 'meter' and 'prosody' are one terminological source of complica-
tions. The other relates to the names for metrical constituents, and here there
is a clash between emic and etic approaches. The largest metrical constituent is
called a 'line' here; a single metrical line can sometimes be thought of or written
down as a long-line (German *Langzeile*) or a couplet. We define a line as the
stretch of text which is matched with the metrical template, however it is con-
ceived or written down. Within a line, the smallest metrical constituent above
the metrical position is normally called a 'foot'. If there is another intermedi-
ate level of constituency between the foot and the line, we'll generally call it a

'half-line' or 'metron' (borrowing the term from Greek metrics); the two terms really mean the same and we could perhaps have a single term for both. However, we'll distinguish them for convenience by using 'half-line' when the line falls into two such constituents, and 'metron' in other cases.

There are some other terminological pitfalls. 'Caesura', for example, is sometimes used to mean a pause in performance, and sometimes just a rule which requires that a word end at a particular place in the line: we will use the term in this second sense. Finally, there are complications involving classificatory terms such as 'verse', 'poem' and 'song'. To some extent these terms are used interchangeably in this book; if a distinction can be made, we might perhaps use 'verse' to describe any text organized into lines (whether metrical or not), 'poem' to describe any text which is metrical, and 'song' to describe any text which is set to music (which may not be metrical or divided into lines).

2.6   Summary: linguistic form (prosodic phonology) and literary form (meter)

In this chapter we have seen one of the most extensively discussed examples of the adaptation of linguistic form to literary form. Metrical structure is a kind of literary form, involving the division of a text into constituents each of which has its prosodic phonological structure adapted to a certain pattern. The possibility of metrical structure, as a kind of literary form, is entirely dependent on prosodic phonological structure which is a kind of linguistic form that is found in all spoken language (whether literary or not). Thus the meter is sensitive to certain kinds of prosodic phonological constituency, both as the units which are matched (syllables, strong positions, etc.), and as constituents which have boundaries which are places of metrical variation (phonological phrases). Metrical structure is one of the few areas of literary linguistics where there may be some involvement of specialized cognitive mechanisms: thus the possibility of metrical verse may be based on aspects of human cognitive structure, just as the possibility of language is based on aspects of human cognitive structure.

2.7   Further reading

Prosodic phonology and its application to metrical theory is discussed by Nespor and Vogel (1986) and Hayes (1989). Kenstowicz (1994) is a comprehensive introduction to phonological structure; see also Hogg and McCully (1987).

eory

Greek metrics); the two terms
a single term for both. How-
using 'half-line' when the line
other cases.

aesura', for example, is some-
sometimes just a rule which
the line: we will use the term
tions involving classificatory
extent these terms are used
made, we might perhaps use
ether metrical or not), 'poem'
to describe any text which is
ed into lines).

sodic

r)

sively discussed examples of
Metrical structure is a kind
constituents each of which
ertain pattern. The possibility
tirely dependent on prosodic
c form that is found in all
meter is sensitive to certain
the units which are matched
nts which have boundaries
phrases). Metrical structure
re may be some involvement
bility of metrical verse may
ust as the possibility of lan-
ture.

al theory is discussed by
icz (1994) is a comprehens-
Hogg and McCully (1987).

Ladefoged and Maddieson (1996) and Pullum and Ladusaw (1986) are useful reference works for phonetics. Generative metrics has consistently returned to the problems presented by iambic pentameter; key discussions which illustrate the development of ideas about the meter can be found in Halle and Keyser (1971), Kiparsky (1977), Hayes (1983, 1988, 1989), Youmans (1986) and Hanson and Kiparsky (1996). Hanson (1996) explores the history of iambic pentameter, both in its origins and in its development. Attridge (1982, 1995) and Tarlinskaja (1989) present influential alternative approaches to iambic pentameter; a traditional approach can be found in Fussell (1979); see also Cureton (1994). Kiparsky and Youmans (1989) is a useful anthology on metrics.

2.8   Exercises

2.8.1   *Holinshed and Shakespeare*

This exercise is intended to give you some practice in matching a metrical template to lines of poetry; it also offers an opportunity to look at the working methods of one of the major practitioners of the iambic pentameter meter, Shakespeare.

Instructions

Work on the text line by line (i.e. do all questions for the first line, then the second line). Lines particularly worth paying attention to are 12 and 13.

(a) Identify all the syllables in each line, and write σ above each one.
(b) Identify polysyllabic words and work out which syllables have stress in each word.
(c) Match the iambic pentameter template to the sequence of syllables. There are some extrametrical syllables and some cases where two light syllables fit into one metrical position.
(d) Is each line metrical, according to the rule for Shakespeare's iambic pentameter formulated in this chapter?
(e) Discuss any changes which Shakespeare made to identifiable pieces of text in the source version (by Raphael Holinshed); can these changes be explained in terms of his need to reshape the lines into iambic pentameter? You might explore this by trying to rewrite parts of Holinshed's text in iambic pentameter and comparing your efforts with Shakespeare's.

Sample answer

As an illustration of what you should do, here is the analysis of the third line.

(a) Syllables are indicated:

σ   σ   σ   σ σ σ   σ   σ   σ   σ
Joined with an enemy proclaimed and fixed

Note that the spelling of the words does not necessarily tell you how many syllables are in them: *joined* is a monosyllable (the written vowel *e* is not pronounced).

(b) Lexical stressed syllables are marked with an accent:

σ̋   σ   σ   σ̋ σ σ̋   σ   σ̋   σ   σ̋
Joined with an enemy proclaimed and fixed

(c) There are no extra or missing syllables in this line. This is the matching of syllables to template:

W   S   W   SW S   W   S   W   S
| | | ||| | | | | |
σ̋   σ   σ   σ̋σ σ̋   σ   σ̋   σ   σ̋
Joined with an enemy proclaimed and fixed

(d) This line is metrical: all syllables fit into the template, and there are no cases where stressed syllables in the polysyllables *enemy* and *proclaimed* (i.e. strong syllables) match weak positions.

(e) There is very little of this line in the Holinshed text with the exception of the word *enemy*, which is placed here in a metrically acceptable position.

Texts

> KING HENRY:
> *God 'quit you in his mercy. Hear your sentence.*
> *You have conspired against our royal person,*
> *Joined with an enemy proclaimed and fixed,*
> *And from his coffers*
> 5 *Received the golden earnest of our death,*
> *Wherein you would have sold your king to slaughter,*

the analysis of the third line.

ed

essarily tell you how many
(the written vowel e is not

n accent:

ed

line. This is the matching

d

mplate, and there are no
enemy and proclaimed (i.e.

text with the exception of
lly acceptable position.

ntence.
son,
ed,

slaughter,

> *His princes and his peers to servitude,*
> *His subjects to oppression and contempt,*
> *And his whole kingdom into desolation.*
> 10 *Touching our person seek we no revenge,*
> *But we our kingdom's safety must so tender,*
> *Whose ruin you sought, that to her laws*
> *We do deliver you. Get ye therefore hence,*
> *Poor miserable wretches, to your death;*
> 15 *The taste whereof, God of his mercy give*
> *You patience to endure, and true repentance*
> *Of all your dear offences. – Bear them hence.*

This iambic pentameter text by Shakespeare (from *Henry V*, 1623 edition) is a development of a prose text from Raphael Holinshed's *Histories* (1587):

Having thus conspired the death and destruction of me, which am the head of the realm and governor of the people, it may be (no doubt) but that you likewise have sworn the confusion of all that are here with me, and also the desolation of your own country. To what horror (O lord) for any true English heart to consider, that such an execrable iniquity should ever so bewrap you, as for pleasing of a foreign enemy to imbrue your hands in your blood, and to ruin your own native soil. Revenge herein touching my person, though I seek not; yet for the safeguard of you my dear friends, and for due preservation of all sorts, I am by office to cause example to be showed. Get ye hence, therefore, ye poor miserable wretches, to the receiving of your just reward; wherein God's majesty give you grace of his mercy and repentance of your heinous offences.

2.8.2 *Monosyllabic adjective + noun sequences in Shakespeare and Milton*

This exercise (based on a comment by Kiparsky 1976: 89) begins with a selection of unconnected lines taken from the first 500 of Book V of Milton's *Paradise Lost*, in each of which there is a sequence of monosyllabic adjective plus monosyllabic noun. In ordinary speech, the postlexical stressing of such a sequence would tend to give both parts fairly similar stress, with a slight tendency towards stronger stress on the second member.

(a)   Are the monosyllabic adjective–noun sequences (such as *best gift*, *fresh field* etc.) consistently placed with regard to strong and weak metrical positions in the line? (Note: where there is a sequence of adjective–adjective–noun as

in *last best gift*, focus on the final adjective–noun sequence. Treat 'heaven' as a monosyllable.)

> *Heaven's last best gift, my ever new delight*
> *Awake, the morning shines, and the fresh field*
> *At such bold words vouched with a deed so bold*
> *Wild work produces oft, and most in dreams*
> *So cheered he his fair spouse, and she was cheered*
> *Their maker, in fit strains pronounced or sung*
> *And when high noon hast gained, and when thou fall'st*
> *With the fixed stars, fixed in their orb that flies*
> *Vary to our great maker still new praise*
> *To hill, or valley, fountain, or fresh shade*
> *Among sweet dews and flowers; where any row*
> *With pity heaven's high king, and to him called*
> *Left to his own free will, his will though free*
> *A phoenix, gazed by all, as that sole bird*
> *Of his cool bower, while now the mounted sun*
> *Of God inspired, small store will serve, where store*
> *Rough, or smooth rind, or bearded husk, or shell*
> *Mean while our primitive great sire, to meet*
> *At heaven's high feasts to have fed: yet what compare?*
> *Springs lighter the green stalk, from thence the leaves*
> *No inconvenient diet, nor too light fare*

(b)   The following lines have a monosyllabic quantifier + monosyllabic noun sequence: *all things* and *each hand*. How do these compare with the adjective + noun sequences in terms of their placement with regard to metrical constituent structure?

> *And nourish all things, let your ceaseless change*
> *On each hand parting, to his speech gave way*

(c)   Based on your findings in (a) and (b), how does Milton's iambic pentameter differ from Shakespeare's iambic pentameter (as described in 2.4.6)? Rewrite one of the matching rules to capture this difference.

(d)   Now we look at some adjective + noun sequences taken from the first 500 lines of Shakespeare's *The Rape of Lucrece*. Kiparsky comments that Shakespeare allows greater variety in the placement of monosyllabic adjective + noun sequences. Based on this example, is Kiparsky right?

sequence. Treat 'heaven' as

ht
field
so bold
ns
as cheered
ung
en thou fall'st
flies

y row
alled
e

sun
ere store
r shell
t
hat compare?
the leaves

ntifier + monosyllabic noun
compare with the adjective
regard to metrical constitu-

hange
vay

loes Milton's iambic penta-
er (as described in 2.4.6)?
difference.

ences taken from the first
. Kiparsky comments that
nt of monosyllabic adject-
Kiparsky right?

Of Collatine's fair love, Lucrece the chaste
O rash false heat, wrapp'd in repentant cold
Which Tarquin view'd in her fair face's field
In their pure ranks his traitor eye encloses
In that high task hath done her beauty wrong
And decks with praises Collatine's high name
The silly lambs: pure thoughts are dead and still
That from the cold stone sparks of fire do fly
As from this cold·flint I enforced this fire
Fair torch, burn out thy light, and lend it not
O impious act, including all foul harms!
Who fears a sentence or an old man's saw
And with good thoughts make dispensation
Fearing some hard news from the warlike band
Sad pause and deep regard beseem the sage
Full of foul hope and full of fond mistrust
But his hot heart, which fond desire doth scorch
He in the worst sense construes their denial
Huge rocks, high winds, strong pirates, shelves and sands
That his foul thoughts might compass his fair fair
In his clear bed might have reposed still
Without the bed her other fair hand was
From this fair throne to heave the owner out
As the grim lion fawneth o'er his prey