Spanish Verse and the Theory of Meter

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Romance Linguistics and Literature

by

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ABSTRACT OF THE DISSERTATION

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This is a study on the foundations of the theory of syllabo-tonic meter. It is based on data from Spanish, but takes also into account the results of research on other Romance languages, English, German, and Russian. It differs from previous treatments of meter in the generative spirit in that it is mostly concerned with the requirements that an explanatory theory of meter must meet, and only secondarily with the rules through which a particular metrical pattern is instantiated in a particular poetic tradition.

The nature of explanatory, descriptive and observational adequacy in metrical matters is briefly discussed in Chapter 1, where Spanish prosodic phenomena are also
introduced to the reader. Chapter 2 analyzes Garcilaso de la Vega's endecasílabo and motivates the main constructs to be used in the remainder of the study, in particular a general constraint on metrical patterns called the Even Distribution Provision. Chapter 3 proceeds to consider the nature of metrical feet in general, and proposes a set of rules intended to generate syllabo-tonic metrical patterns. Chapter 4 complements the study of a Spanish binary meter in Chapter 2 with that of a pre-Renaissance ternary meter, the controversial arte mayor. Chapter 5 discusses the respective contributions of specifically metrical constraints and general phonological properties of language to meter as we know it: its main topics are the nature of caesuras, the properties of longer versus shorter meters -the latter exemplified by the Spanish octosílabo- and the measure of line complexity.
PRELIMINARIES

Je me permettra donc aujourd'hui d'être quelque peu abstrait; mais, par là, il me sera possible d'être bref.

Valéry, Propos sur la poésie.

1.1. On the goals of the theory of meter

Ideally, an account of a particular meter M in a language Z within a general theory of the metrics of Z should predict:

(1a) which utterances of Z can be considered instances of M (call this set L_M), and

b. which utterances of Z, although not in L_M, can be combined with members of L_M in the same composition without yielding unmetrical results (if there are any such cases).

(1) characterizes, perhaps not exhaustively, what we might call in standard Chomskyan terminology an observation-
ally adequate account of M in \( \mathcal{I} \). For descriptive adequacy, at least the following are also necessary:

\begin{enumerate}
\item an account of how members of \( L_M \) differ in metrical complexity, also called tension,
\item a distinction between the rules governing M and the rules governing the correspondence between M and the members of \( L_M \), and
\item a distinction between two types of correspondence rules, in the above sense: those which permit a given sequence of elements of \( \mathcal{I} \) to be correlated with M and those by which such a sequence can be declared metrical, i.e. in \( L_M \), or unmetrical.
\end{enumerate}

Regarding complexity, consider English iambic pentameter lines where the leftmost position (of the pattern \( M \)) is absent: Bootless home, and weather-beaten back. These lines are clearly felt to be more complex than, say, Who will believe my verse in time to come, and are predictably less frequent. Let us call prosodic rules the first type of rules mentioned in (2)c, metrical rules the second type. A metrical rule of English will tell us that in iambic pentameter lines (\( L_M \), for \( M = \) iambic pentameter) the position corresponding to the first one in \( M \) can in certain cases and under certain conditions be unrealized. Prosodic rules of
English will tell us when a word stressed on the third syllable from the end may close an iambic pentameter in one of two ways: with its main stress corresponding to the last stress of the line (To try her gracious fortune with Lord Angelo) or with its last syllable corresponding to the last stress of the line (Do you not smile at this, Lord Angelo?). Suppose, on the other hand, that the metrical pattern for the iambic pentameter is a sequence of weak and strong positions \( \text{w s w s w s w s} \), as in Halle and Keyser (1971). Whatever specifies that this is so will not belong among the rules of (2)c, but among the first type of rules mentioned in (2)b—call them pattern generating rules.

If we wished to attain explanatory adequacy we would need to concern ourselves with rules of both (2)b and (2)c in order to determine:

(3)a. what is a possible metrical pattern \( M \) of \( x \) given the properties of \( x \),

b. under what conditions a line \( L \) can be a member of \( L_M \) for any \( M, L \), i.e. what is a possible metrical rule, and

c. to what restrictions a sequence of elements of \( x \) can be subject in order to be considered a possible line of \( x \) for any \( x \), i.e. what is a possible prosodic rule.
In the present state of metrical theory, studies of particular meters can only strive towards explanatory adequacy and will necessarily contain much that is tentative. However, in many obvious ways, such as the choice of relevant units and theoretical constructs, they will require decisions based on putative explanatory—and therefore universal—relevance. It is a very stimulating fact that such decisions can be made at all nowadays. For there seems to exist no human community without poetry and all advances in metrical theory must in the long run lead to our making explicit why this should be so, presumably by linking general properties of metrical patterns to general properties of language and human nature. In turn, the discovery of any such patterning principles will constitute an essential step towards the foundation—and delimitation—of a future theory of aesthetics.  

1.2. **Prosodic Rules**

Prosodic rules could be treated as part of (1)a; if a language happened to impose different prosodic restrictions on lines of different meters, it would be descriptively, and hence observationally, adequate to list those restrictions as part of the characterization of the corresponding meter. But the evidence available seems to indicate that metrical patterns and prosodic rules are by and large independent of each other, and therefore that the observationally adequate
alternative of treating prosodic rules as aspects of the pattern engenders much needless redundancy and is to be rejected.

That this type of rule has nontrivial properties can be gathered from the work of Jerzy Kuryłowicz (e.g. Kuryłowicz, 1972: chapter 10), Milner (1974) and others; these will be discussed briefly in section 5.7 below. I shall make no attempt now to go beyond an informal mention of the prosodic rules of Spanish which we need to know at this point. Although formulated in widely disparate ways, they are well known to romanists.

The first rule we need is (4):

(4) In a line of Spanish verse, the metrically relevant positions are those up to and including the rightmost stressed position.

Thus the following three lines would be metrically equivalent:

(5)a. el páramo
    1 2 3 4
    'the wasteland'

b. el paro
    1 2 3
    'the stoppage'
Since in Spanish, aside from certain combinations involving postverbal clitics, there are no words whose stress occurs more than three syllables away from the end, we might consider formulating (4) as a license to have one or two unstressed positions after the last stress of the line. The formulation given above has been chosen because it appears to be valid in languages where more than two unstressed syllables may follow a word stress. Thus, in Italian there are "bisdruccioli" lines, with three final weaks (Halle and Keyser, to appear), and Nabokov (1964:95) gives as metrically equivalent the following two Russian couplets:

(6) Est' rífmí próchníe, napráshivayushchiesya
I mnogonózhki űst', podkáshivayushchiesya.
Est' rífmí tóchníe, i űst'
Drugie. Vseh ne perechést'. 4

In any case, under both of the above alternatives such usual terms of Spanish and Italian metrics as 'hendecasyllable' -i.e. 'eleven-syllable lines'- are misnomers (Halle and Keyser, to appear). The Portuguese theorists, through French influence, call 'decasyllable' a meter which is un-
disputably the same as our 'hendecasyllable'; assuming for the time being that in Romance syllables correspond one to one to metrically relevant positions, the former term is certainly more adequate. As a rule, and in all probability due to the stress patterns predominant in the corresponding languages, lines with one final weak syllable (versos llanos, versi piani) outnumber in Italian and Spanish -but also in Portuguese- those with no final weaks (agudos, tronchi) or two final weaks (esdrújulos, śdruccioli); also, one or the other of the latter two varieties has sometimes been considered inelegant (Navarro, 1956:174) or used for special effects (see, e.g., Clarke, 1939, 1941; Reid, 1939; Hilborn, 1942; Carilla, 1949). But none of this is sufficient reason for abandoning the unchallenged notion that they are all varieties of the same meter, most often alternating in the same poem; all the more so since, as rule (4) makes clear, the property in question is shared by all Spanish post-Renaissance meters. In spite of all this, however, the traditional terminology will be respected here, and a meter with seven metrically relevant positions will be called an octosyllable, eneasyllable a meter whose positions are eight and so forth.

The second rule we need to consider is exemplified in the following lines from Garcilaso de la Vega (1501-1536):
(7)a. amargo al gusto más que la retama
   (Egloga III, 314)

b. comigo ya que ver en malo o en bueno
   (Canción I, 54)

c. ¿Cómo te faltó en mí el conocimiento?
   (Egl. I, 185)

d. del alto sol ardiente ora quebranta
   (Egl. II, 737)

(7) indicates that any number of adjacent vowels -be they identical or different, stressed or not, and regardless of whether the leftmost or the rightmost one is stressed- may count in principle as part of a single metrical position. Were it not for this property of Spanish verse, traditionally called synaloepha, (7)a would have twelve syllables or positions plus the final weak, and would not qualify as a hendecasyllable. We can capture this property as rule (8):

(8) A line of Spanish poetry has as many metrically relevant positions as there are vowels in it, two or more adjacent vowels counting as one position.

(Subject of course to the provisions of rule (4))

Rule (8), however, is insufficient as stated. First,
allowance must be made for sporadic cases of word-internal hiatus - best treated, I assume without proof, as inducing additional complexity:

(9) por el hervor del sol demasiado  
    (Canción I, 2)

Hiatus is, as in this example, the breaking of a diphthong by treating a glide as an independent syllabic nucleus, with the opposite effects to those of (8): here the four syllables of de-ma-sia-do become de-ma-si-a-do.

Second, and more importantly, rule (8) cannot apply word-internally in general:

(10) que por alguna vía t'avisasse  
    (Egl. II, 361)

The disyllabic word vía would render this example unmetrical if converted by (8) into a monosyllable. Compare with (11), where an identical sequence of a stressed i and an unstressed a, belonging this time to different words, is treated as a unit in conformity with (8):

(11) que, despertando, a Elissa vi_a mi lado  
    (Egl. I, 258)

To the modern ear at least, a monosyllabic pronunciation in (10) and a disyllabic one in (11) would both constitute an
artificial "poetic license", even if the lines were amended so as to make those pronunciations metrically acceptable.\textsuperscript{6} Let us then modify (4) and (8) to the effect of (12) and (13):

(12) \textbf{Prosodic Rule I:}
Adjacent vowels belonging to different words correspond to a single metrically relevant position.

(13) \textbf{Prosodic Rule II:}
All the remaining metrical positions correspond one to one to the vowels in the line, up to and including the rightmost stressed one.

Several other formulations are conceivable, for instance in terms of syllables; since in Spanish only vowels can constitute the nucleus of a syllable an account in such terms would be -observationally- equivalent to (12)-(13). Notice that (12) and (13) can be overruled in specific cases by hiatus, both word-internally and between words:

(14) en quanto me detengo aquí\textsubscript{x} un poco\textsuperscript{7} (Egl. II, 1002)

The treatment given here to cases such as (14) implies that, by being exceptions to rule (12), they are more complex than those in (7) above. (The opposite analysis is implicit in

We can now proceed to particular Spanish meters.
2

BINARY METER:

THE HENDECASYLLABLE IN SPANISH

In textbooks of literature we sometimes encounter a superstitious contraposition of syllabism as a mere mechanical count of syllables to the lively pulsation of accentual verse.

Roman Jakobson, "Linguistics and Poetics"

2.1. The form

The meter that will occupy us here can be argued to be the most successful of all Romance meters. In its present form it is first clearly documented in Italy; such masterpieces as Dante's Commedia and Petrarch's Canzoniere spread it throughout Europe, where many felt with Dante, its first theorist, that it was "superior to any other meter". It then became the most important learned meter in the literary traditions of Portugal and Spain, among other countries.

After some unsatisfactory early attempts, it was successfully introduced into Spanish literature jointly by Juan
Boscán and Garcilaso de la Vega. The latter, one of the very greatest poets of the language, so thoroughly explored the possibilities of his instrument that later Spanish poetry has not felt the need to add further formal diversity to the hendecasyllable in any essential respect.²

A long uninterrupted poetic tradition stems from him. A concomitant Romance tradition of metrical analysis has classified the varieties of this meter, according to whether a "constitutive accent" falls on the 6th or on the 4th syllable (Baehr, 1962: 88ff.), into two groups further subdivided as follows:

(1) Type A or "a maiore": stress on the 6th and 10th syllables.
Subtypes:
A1 or "emphatic" (stress on syllables 1, 6 and 10)
A2 or "heroic" (stress on 2, 6 and 10)
A3 or "melodic" (stress on 3, 6 and 10)

Type B or "a minore": stress on the 4th and 10th syllables.
Subtypes:
(B1 -with stress on 4 and 10 only- has been thought incompatible with Spanish prosody)
B2 or "sapphic": B2a (stress on 4, 8 and 10)
B2b (stress on 4, 6 and 10)
B3 or "dactylic" (stress on 4, 7 and 10)³
Compositions using only one of the above varieties are rare: the most common by far are the so-called polyrhythmic, in which every type of line can appear. Therefore, a theory of Spanish metrics must at least be able to state what these different types have in common.

Spanish metrics has sometimes been characterized as being "syllabic", and the hendecasyllable as an eleven-syllable line. But not all such lines qualify as hendecasyllables. Even if we keep the 10th syllable stress —judging from (1), obviously a necessary condition for metricality—we may easily concoct deviating lines such as (2):

(2) Triste, pálido, feroz y violento

1 2 3 4 5 6 7 8 9 10 11
'sad, pale, ferocious and violent'

(2), stressed as indicated over the numbers below the line, does not conform to any of the patterns in (1) and is glaringly unmetrical. This type of fact provides a justification for the term "accentual-syllabic", or "syllabo-tonic"; by which metrical systems with similar properties are most often referred to. Besides having a fixed number of syllables —subject to the general condition given in 1.2 as Prosodic Rule II—, these lines have a stress pattern in common.

It is the purpose of this chapter to go beyond the
classificatory spirit of (1) in defining such a pattern—a definition which should amount to fulfilling the requirements of (1)a of section 1.1.

2.2. Some properties of traditionally accepted hendecasyllabic configurations

It has long been recognized that a distinction must be drawn between "verse design" and "verse instance", to use Roman Jakobson's terms (Jakobson, 1960). Prosodic rules as formulated above presuppose such a distinction, since it is through them that particular lines—verse instances—can be compared with the underlying pattern that they are assumed to have in common. Let us assume for the moment that (1) comprises all the right "verse design" configurations, or patterns. Is there a set of rules that would give us all and only the types of (1)?

The Spanish linguist T. Navarro Tomás (1956, 1973), adhering to a variant of the musical theory of metrical scan-sion—which requires metrical rhythm to be counted from the first downbeat of the line, as in music—, contends that all hendecasyllables are uniformly trochaic (strong-weak) from the first stress on; hence, that the varieties in (1) differ only as determined by the location of the first stress. Given that Navarro's proposal has been widely accepted, I will consider first what I take to be an ambiguity in it.
He can account for "heroic" and "sapphic" lines: from the 2nd or 4th syllable on, we expect stresses on 4, 6, 8 and 10. An example is (3):

(3) por ti la verde yerva, el fresco viento

2 4 6 8 10 (Egl. I, 102)

Some of those stresses may not actually occur but this is expected: the actual line only approximately matches the abstract metrical pattern and it is of course the interplay between the two that the poet exploits for his purposes. What we call the metrical complexity, or tension, of a line is the intricacy of such an interplay. Notice in (3) that the patterns in (1) are not intended to specify all the possible stress locations in each line, and also that ambiguities of classification with respect to the types in (1) arise easily.

Less obvious is the analysis of the "emphatic" and "melodic" lines within Navarro's postulates. Consider the latter: a trochaic series starting with the third syllable would yield stresses on 5, 7, 9 and 11. This is not one of the patterns in (1). Most clearly, it has no 10th syllable stress. Suppose we decree the 10th syllable stress to be untouchable. Then the trochaic regularity vanishes. Navarro represents this type of line as (4), with two syllables in anacrusis -i.e., in leftmost extrametrical position- and an
Navarro was no doubt aware of this, but to my knowledge he does not attempt to solve this apparent contradiction. His analysis is consistent with his claim that "the sixth syllable represents in all cases the center of the rhythmic period" (Navarro, 1956: 104, n. 4), but how to interpret this claim is not immediately obvious in view of such examples as (5), where the sixth syllable is a clitic:

(5) y esto que digo me contaron quando (Egl. II, 137)

(For the "musical scansion" theory, cf. 4.1 below; my observations here concern only the hendecasyllable)

A glance at (1) will indicate that at least in one point Navarro is right, at the metrical pattern level that we are considering exclusively so far: in none of these patterns can we find adjacent stresses. This fact, which has been taken for granted by most scholars, would by no means constitute a necessary feature of an accentual-syllabic metrics. It would have to be shown that a pattern like (6)a, for instance, is better motivated in some sense than (6)b,
something that a theory based on the repetition of certain types of feet-like units predicts automatically:

(6)a. o{o{o{o{o{o}

b. o{o{o{o{o{o

In this section, I will try to formulate a set of conditions which will yield a number of basic patterns with essentially the properties of those in (1). If we reject Navarro's trochaic analysis, which amounts to one such set of conditions, we may attempt to capture the restriction against adjacent stresses at the pattern level by explicitly forbidding them:

(7) *ss, where s = strong, as opposed to w = weak, and each of s, w occupies a metrical position in the pattern.

We have already come across two further characteristics of the hendecasyllable: its fixed number of positions and its tenth syllable stress. A basic pattern (8) reflects these characteristics:

(8) [s]s[s]s[s]s[s]s[s]s[s]s, where curly brackets indicate optionality
(7) and (8) allow many more configurations than are represented in (1). Further restrictions are then called for. In (1) no more than three unstressed positions occur between two stresses or between the beginning of the line and the first stress. Let us capture this as restriction (9):

(9) * w w w w

Both (7) and (9) could be general properties of Spanish metrical patterns, in which case the only distinctive feature of the hendecasyllable would be the number of its positions as specified by (8). Still, (7), (8) and (9) reduce the number of possible combinations to 28, of which 18 are metrical and 10 are not (see Appendix to this chapter). It is important to observe that the ten unmetrical cases are not unlawful as "verse design" or metrical patterns only. They cannot occur as verse instances either. In other words, a line thus constituted would not be a legitimate variation on the metrical patterns which would add to them an admissible amount of complexity: it would be a downright unmetrical line. The reader is referred to Navarro's "Correspondencia del endecasílabo" (in Navarro, 1973), where 171 accentually different instances of hendecasyllables are listed. Our deviant configurations, listed below as (10), do not occur there.6
(10) Unmetrical structure not excluded by (7), (8) and (9) above:

a. 3-7-10  
f. 1-3-5-7-10
b. 3-5-7-10  
g. 1-3-7-10
c. 3-5-7-8-10  
h. 1-5-8-10
d. 2-5-7-10  
i. 1-5-7-10
e. 2-5-8-10  
j. 1-3-5-8-10

Two causes of unmetricality are apparent in (10). Let us list them tentatively as conditions (11) and (12):

(11) A pattern whose fifth syllable is stressed is an unmetrical pattern.

(12) A pattern whose seventh syllable is stressed is an unmetrical pattern if its fourth syllable is not also stressed.

By using (7), (8), (9), (11) and (12) we specify, I believe, all the structures of what we may call a primary level of metrical complexity. We go a little beyond (1) in explicitness, but all the configurations we obtain are traditionally accepted as legitimate. Let us call Theory I the theory of the hendecasyllable constituted by these five regulations.

This theory is clearly a fairly successful one. How-
ever, (11) and (12) look quite arbitrary. Why 4-7 and not 3-7? Why is stress on 5 so strictly forbidden?

These questions are not easy to answer if the metrical pattern is taken to be rigorously linear like (8), for in such a pattern no position is privileged with respect to any other. Furthermore, it will be evident that little would be gained by postulating some kind of a caesura; this would be an unnatural construct here in any case—if taken literally, as e.g. in the French Classical alexandrine—: any two adjacent positions in any of the types of (1) can be occupied since the earliest poets by two syllables of the same word.

2.3. Advantages of feet-based analyses in the description of line complexity

What we have called Theory I has also other disadvantages. Recall that it is made up of five statements: neither of them would lead us to expect differences of complexity in the structures they define. But, of the different patterns in (1), some have been observed to occur less frequently than others. The "dactylic" (4-7-10) was not used during the 17th century outside popular poetry and, in Gare­cilaso, is always preceded and followed by a different kind of line. Instances strictly corresponding to the "emphatic" (1-6-10) have always been less frequent than those of the other Type A varieties, and there seem to be no poems writ-
ten entirely in strict "emphatics" till the late 19th centu-
ry. The "melodic" (3-6-10) is less common than A2 and B2.

This, again, requires an explanation, presumably in
terms of relative complexity. Neither Theory I nor the
classification in (1) provide us with it. An obvious way
out would consist in supplementing Theory I with further
norms, by which some structures would be specified as more
peculiar, or "marked", than others. However, this is clear-
ly the least desirable possibility, to be adopted only if
more encompassing ones prove inadequate. In other words,
both the list (1) and Theory I appear to be good candidates
to observational adequacy, if coupled with meter-line cor-
respondence rules. But neither meets the descriptive ade-
quacy requirements of section 1.1 above. New statements can
be added to them to satisfy those requirements, but such
statements would not follow from them; worse: they would
necessarily miss the point to some extent. For, if the
structures compatible with (1) or with Theory I are taken to
be manifestations of the metrical pattern, as above, then
they should not be expected to differ in complexity from
each other. Additional statements on complexity would mean,
quite simply, that the metrical pattern for the hendecasyl-
lable can be more or less straightforwardly metrical—a
strange, if not contradictory, result. If we could show
that there is one pattern—or perhaps a limited number of
them—and that complexity is always a property of lines, not
of patterns, we would be closer to whatever intuitions we have on these matters, to the parallel requirements of descriptive adequacy and to what seems to be the case in other languages—in short, to a consistent theory of meter.

Consider a comparable issue. In actual lines, adjacent stresses do occur:

(13) Vos, altos promontorios, entretanto (Elegía I, 166)

\begin{verbatim}
1 2 6 10
\end{verbatim}

Theory I does not allow this at the pattern level. Would we want to relax it to accommodate (13) and similar examples? Clearly not: if we did, we would probably end up with no structure for the hendecasyllable aside from the number of its positions, for adjacent stresses can occasionally appear anywhere in the line (up to the tenth position, as expected):

(14)a. Amor quiere que calle; yo no puedo

\begin{verbatim}
2 3
\end{verbatim}

(Egl. II, 367)

b. y estará presto en manos de Gravina

\begin{verbatim}
3 4
\end{verbatim}

(Egl. II, 719)

c. de mi cantar, pues, yo te vía agradada

\begin{verbatim}
4 5 6
\end{verbatim}

(Egl. I, 172)
d. con gran razón podrá ser la presente

6 7

(El. I, 61)

e. ninguna cosa en mayor precio estimo

7 8

(Epístola a Boscán, 39)

f. No passo deste valle; aquí está cierto

8 9

(Egl. II, 729)

g. la cumbre y señorío terná solo

9 10

(Egl. II, 1756)

As shown by (10) above—and as has been accepted by the vast majority of theorists—we need more than a fixed number of positions to describe the hendecasyllable. Even if we had no other argument, we would conclude from this fact that it is better to treat adjacent stresses as a property of the lines, not of the pattern, and that the examples in (13) and (14) must be taken to be more complex than those which show no adjacent stresses.

The measure of verse complexity where no adjacent stresses are involved seems to be an entirely parallel case. But our accounts of the hendecasyllable so far treat it differently, namely as a property of the patterns. I take this to mean that they must be revised in essential respects.

Let us consider first the differences between the "marked" and "unmarked" varieties of Type A hendecasyllables.
Examples are given as (15):

(15)a. lloravan una nympha delicada (Egl. III, 226)

\[ 2 \quad 6 \quad 10 \] A2 or "heroic"

b. Todas, con el cabello desparzido (Egl. III, 225)

\[ 1 \quad 6 \quad 10 \] A1 or "emphatic"

c. sin mostrar un pequeño sentimiento (Egl. I, 86)

\[ 3 \quad 6 \quad 10 \] A3 or "melodic"

We want our theory to predict that (15)b and c are more complex than (15)a. Let us then assume that (15)a is closer to the basic pattern than the other two examples. In traditional Germanic prosody—as summarized for English, e.g., in Fussell (1965)—metrical patterns are assumed to be made up of "feet" and exceptions to regular manifestations of the pattern in individual lines are accounted for, among other things, as "inversions" of feet (as when an expected iamb \-weak-strong- appears as a trochee \-strong-weak-) and "weakenings" (when a foot exhibits no stressed element). Similar accounts are also traditional in Slavic and elsewhere. Within such a framework, considering that the stress configuration in (15)a or (3) appears to be of nearly minimal complexity, the pattern for the hendecasyllable would be divided in groups of two positions from left to right. The second of each such positions would be assumed to be strong,
and the pattern therefore declared "iambic". Then the extra complexity of (15)b and c would be attributed to the presence in each of them of an "inverted foot": the first foot in (15)b, the second in (15)c. (The three examples in (15) have also two "weak", or "pyrrhic", "feet": the first in c, the second in a and b, the fourth in all three; no weakening occurs in the example given as (3) or in (16) below).

This approach is consistent with the fact that stresses on even positions (4, 6 and 10) seem to be particularly relevant, as (1) shows: this is to be expected in "iambic" meters, while "trochaic" meters would depend crucially on odd stresses. Strictly "iambic" verse instances do occur in Spanish — again, within the provisions of Prosodic Rule II—; examples are (3) above and (16):

(16) rogar, fingir, temer y estar queioso

2 4 6 8 10 (Egl. II, 50)

It will be self-evident that Type B hendecasyllables are amenable to the same kind of analysis as Type A:

(17)a. le despojó su charo y dulce nido (Egl. I, 327)

4 6 8 10
b. el aspereza de mis males quiero (Canción IV, 1)
    4     8       10       B2a

c. y moriré a lo menos confessado (Canción IV, 6)
    4     6       10       B2b

d. y de mis males arrepentimiento (Canc. I, 21)
    4     10       B1

"Dactylic" varieties:

e. Tus claros ojos ¿a quién los bolviste?
    2     4       7       10 (Egl. I, 128)

f. y se convierta ado [a do] piense salvarse
    4     7       10
    (Canc. I, 19)
    B3

Since this system does not have the equivalent to restriction (9), it can accommodate Type B1. This is positive, because lines like (17)d occur repeatedly in Garcilaso. (On the "legitimacy" of B1, as well as for some of Garcilaso's examples, see Díez Echarri (1949:225ff., n.18)).

In (17), as well as in (15), "inversion" of the first "foot" is also possible to obtain initial stress:

(18)a. ¡Qué montaña dexó de ser pisada (Egl. II, 185)
    1     3       6       8       10
b. mandan que complazerte sea mi officio
   1 6 8 10 (Egl. II, 148)

c. más elada que nieve, Galatea  (Egl. I, 59)
   1 3 6 10

d. y ésta es la suma, en fin, d'aquesta cuenta
   1 4 6 8 10
   (Egl. II, 337)

e. verme morir entre memorias tristes  (Son. X, 14)
   1 4 8 10

f. ¿Quién sufrirá tan áspera mudanza  (Son. IV, 5)
   1 4 6 10

  g. ¿Qué es el cuello que como en cadena
     1 4 10 (Egl. I, 131)

h. ¿Cómo pudiste tan presto olvidarte (Egl. II, 578)
   1 4 7 10

These configurations, among others, can be accounted for easily within a foot-based theory. It would be a rather powerful theory, which is hardly a virtue, but it would have a built-in system for the description, and probably measurement, of line complexity.

Let us call a theory like the one just described informally Theory II. Theory I would be descriptively inferior
to it, I repeat, in that it provides no criterion for measuring differences in complexity among the structures it allows in conformity with the requirements of (2)a of 1.1. Description (1) would also be inferior in another respect: the fact that configurations with more stresses on even positions than those it specifies do not increase complexity is also accidental there, while it follows from assuming that the hendecasyllable is iambic. It also follows from this assumption, as I have pointed out already, that stress on positions 4, 6 and 10—as well as, conceivably, 2 and 8—can be essential to the hendecasyllabic pattern, in some sense, while positions 1, 3, 5, 7 and 9 could not have this property.

Evidence for an iambic pattern comes also from other quarters. Metrists treat all the cases in, e.g., (18) as variants of the patterns of (1) —exemplified in (15) and (17). Consider (18)f. Its first and fourth syllables are stressed, and so is its sixth syllable: should it be classified as "sapphic", as "emphatic" or as "heroic"? Classification conflicts often arise in these and other cases, which clearly argues against taking (1) too literally. But it is interesting to observe that the serious metrists have followed a series of implicit criteria which are not at all a necessary consequence of their framework. Subject to sporadic modification—due, for instance, to having taken phrasal stress into account—their criteria for classifica-
tion are as follows:

(19)a. Stress on 3 prevails over stress on 1.

b. Stress on 4 prevails over stress on 1.

c. Stress on 4 prevails over stress on 2.

d. Stress on 6 prevails over stress on 8.

To put it differently, everything else being equal a line with stress on 1, 3 and 6 will be called "melodic", not "emphatic", and so forth. Except for (19)a, these criteria are eminently compatible with an iambic structure, but reflect little more than the central role attributed to positions 4 and 6. However, when it comes to scanning lines with adjacent stresses, the criterion is the following:

(20) A stress on an even position prevails over an adjacent stress on an odd position.

I circle the most prominent syllable among those in conflict in Navarro's scansions ("Correspondencia...", in Navarro, 1973). Many other examples could be given:

(21)a. donde, si el mal yo viesses, ya no puedo

4 5 6 8 9 11(El.II,112)
b. ¡O crudo, o riguroso, o fiero Marte (El. II, 94)

(21) is, again, an obvious consequence of implicitly ac-
knowledging that hendecasyllables are iambic; within the
framework of (1), scholars adhering to (21) would merely
show an irrational preference for certain line structures.

We have thus quite a few reasons to postulate an iambic
pattern. With a minimum of further structure, it could be
represented as (22):

(22) w s w s w s w s w s

The notions of "inversion" and "weakening", however,
along with similar ones in standard Germanic and Slavic met-
rics, do not impose themselves so clearly. As Halle and
Keyser (1971:167) observe, "a shortcoming of the standard
theory is that it deals with allowable derivations by means
of a list, thus implying that there is nothing in common
among the allowable deviations since there are no qualifica-
tions for membership in this list". Furthermore, in our
case this kind of a theory turns out to be insufficient.
In connection with Theory I it was pointed out that restric-
tions (11) and (12) were totally unrelated to the remaining
criteria for metricality. They exclude unmetrical lines
like those in (23):
(23)a. Muchos corazones desanimados

   1  5  10

b. (= (2)) Triste, pálido, feroz y violento

   1  3  7  10

Theory II, which would be constituted by (22) and a list of allowable deviations, is no better than Theory I in this regard. (23)a would include an inversion in the third foot, (23)b one in the fourth, plus some other inversions and weakenings which nothing prohibits. We would thus be forced to add (11) and (12), in whatever form, as specifying impermissible liberties: they would not follow from the rest of the hypothesis, and would still appear unmotivated.

2.4. A condition on metrical patterns

Slight variants of pattern (22) have been proposed by many authors for the English iambic pentameter. Within the generative framework it was first used in Halle and Keyser (1966). Kiparsky (1977) argues for the traditional notion of the foot, hence pairing the entities in (22) as in (24):

(24) \[ \overline{WS} \overline{WS} \overline{WS} \overline{WS} \overline{WS} \overline{WS} \]

The proposal in this section will provide evidence for the correctness of Kiparsky's central claim, the claim that some
structure must be postulated in metrical patterns beyond that of a juxtaposition of terminal entities.

Such a claim has been made particularly plausible by developments in the theory of phonology arising from Liberman (1975). Indeed, in some of these developments (among others, Halle and Vergnaud (1978), Selkirk (1978, 1980), McCarthy (1979), several contributions to Safir (1979) and Hayes (1980)) a variously defined concept of feet plays a prominent role, quite apart from metrics. There is no a priori reason to expect metrical feet, if they exist, to strictly correspond to those other constructs — in fact I argue in the next chapter that they do not—, but if there are levels of phonological organization above the syllable or the segment we may reasonably expect metrical patterns to take them into account. It seems that all sorts of phonological primes can be put to use in poetry: segmental features (consonantal, vocalic, etc.) in rhyme and alliteration, tone in tone languages (see now Chen (1979) and Yip (to appear)), quantity as in the Classical languages and Arabic and of course stress. On the other hand, it has been observed that poetic traditions do not resort to devices which the structure of the language they use does not provide: no language without tones develops —or borrows and keeps— an artificially tone-based poetry.

Suppose then that stress in a given language has "non-linear" properties. For instance, that stressable positions
are marked as strong or weak in pairs—one strong, one weak—and that each pair enters into further s(trong)-w(eak) pairs until the entire maximal intonational unit has been exhaustively labelled. Let us assume right-branching in the structure to be erected and a principle by which, of two nodes n and n', the righthand one is strong if and only if it branches; otherwise, the lefthand one is strong. Assume the first strong position in the structure to be given by convention. We then get:

(25)a.  
\[ \text{da-dum} \]

b.  
\[ \text{da-dum da-dum} \]

c.  
\[ \text{da-dum da-dum da-dum} \]
Suppose further that this language uses a metrical pattern that can be described with some accuracy as (22) above. We might then wonder whether we might not predict properties of metrical systems which have otherwise resisted analysis by organizing the linear arrangements of patterns like (22) in the larger units of (25) —in conformity with the principles of organization available to phonological theory and also perhaps with other, strictly metrical, principles. Such better predictions would again not be a necessary consequence of a "nonlinear" phonological theory: a language might have the properties of (25) and still its metrical rules might nullify the effects of nonterminal structure for the purpose of meter-line comparison. But contingent hypotheses are more interesting in empirical studies than necessary ones, if nothing else because they can make independent predictions.

One of the properties of stress trees like those in (25) is that they represent differences in degrees of stress. The "designated terminal element" (henceforth d.t.e.) in structures like (25) is that terminal element
which is only dominated by nodes labelled "strong" all the way to the root of the tree, e.g. the node under the rightmost s in (25)d. That element will have the strongest stress of all the elements under the same tree. If we take the subtree under the topmost w node in (25)d, then its rightmost lower s node will dominate the d.t.e. of the subtree -which will be the second strongest element under the larger tree considered before.

Let us now return to the hendecasyllable. The strongest stress in it is without question the one on the tenth position, being the only one that necessarily has to occur. The complexity of verse pairs with "enjambement" also argues in favor of this view; in Spanish as in English, lines whose end does not coincide with a major syntactic break -(26)a, (27)a- are more complex than the rest -(26)b, (27)b-:

(26)a. How like a winter hath my absence been
   From thee, the pleasure of the fleeting year!
   (Son. 97, 1-2)

b. Let me confess that we two must be twain
   Although our undivided loves are one
   (Son. 36, 1-2)
As in many other poetic traditions, enjambement is a comparatively late development in Spanish, and clearly felt to increase poetic tension (Quilis, 1964). This would be consistent with the recognition of special strength in endline stresses. Recall in this connection that "synaloepha" through Prosodic Rule I does not apply between lines. 12

None of this follows from our two previous approaches to the hendecasyllable: explicit stipulation is required in both cases. Suppose, however, that we build a tree on (22) according to the directions given above. We then obtain the configurations (28):

(28) a.
It is necessary to introduce some definitions. I will call minimal metrical pair a pair of metrical nodes each of whose elements depends for its labelling on the labelling of the other element. A minimal metrical pair will thus be a pair of nodes which cannot both have the same -strong or weak- label. Let $n_1, n_2, \ldots, n_i$ be the terminal nodes in a tree, $n_1^1, n_2^1, \ldots, n_i^1$ the nodes immediately dominating minimal
metrical pairs of $n_1 \ldots n_i$, $n_1^2 \ldots n_k^2$ the nodes immediately
dominating metrical pairs of $n_1^1 \ldots n_j^1$, and so forth. Let us
call parallel rows in a metrical tree each of the series
$n_1 \ldots n_i$, $n_1^1 \ldots n_j^1$, $n_1^2 \ldots n_k^2$, ... A metrical tree will then be
evenly distributed if it is exhaustively organized in parallel rows. Thus (25)d above will be the only possible even arrangement of an eight node terminal sequence, (29)a and b being two of its non-evenly distributed trees:

(29)a.

```
     n_1
    /   \
 n_2   n_3
   / \
 n_4 n_5
```

(29)b.

```
     n_1
    /   \
 n_2   n_3
   / \
 n_4 n_5
```

I would like to suggest that Spanish metrics has a provision intended to maximize even distribution. It can be formulated as (30):
(30) **Even Distribution Provision** (to be revised as (22) of 3.2):

The following configurations are disallowed:

```
  n_1 n_2 n_3 n_4
```

where \( n_1 \ldots n_4 \) belong to the same parallel row.

Simpler but perhaps less perspicuous formulations of this provision are conceivable. (30), in any case, amounts to requiring that nodes in parallel rows be paired whenever possible. Three nodes can be bracketed only as \( \end{alignat*} \) or \( \begin{alignat*} \end{alignat*} \). But four nodes can yield \( \end{alignat*} \), \( \begin{alignat*} \end{alignat*} \), or \( \begin{alignat*} \end{alignat*} \); only the latter structure would be permissible, given (30).

Consider now the patterns in (28). Only two of them obey the Even Distribution Provision, namely (28)a and (28)b. They both have the same number of nodes in parallel rows - the maximum such number, given the circumstances. The strongest stress falls in both cases on the tenth position. The second strongest stress falls in (28)a on the sixth position, in (28)b on the fourth position. I therefore propose that we take (28)a to be the abstract metrical pattern for Type A hendecasyllables, and (28)b to be that of Type B.

Within this hypothesis, these two types are not just two different arrangements of stresses which happen to be somehow preferred when it comes to writing lines with ten positions. They are the only two possibilities of organiza-
tion for patterns of binary units with ten terminal positions of which the tenth is strong, given the conventions for labelling and bracketing adopted above. Furthermore, given that a tree on five binary units admits of no exhaustive even distribution—as opposed to the example in (25)d—, it is predicted that, everything else being equal, there will be two possible patterns for the hendecasyllable, not one.

2.5. Metrical rules

The account in the preceding section is partially dependent on the accuracy of the notion that stresses on either the sixth or the fourth syllable are essential in the hendecasyllable. But, as traditionally stated, this notion has no more than a classificatory function, and not a very clear one since, on the one hand, classification conflicts are bound to arise whenever a line is stressed both on 4 and on 6 and, on the other, lines with neither of those stresses may be perfectly metrical:

(31) que ya no me refrenará el temor (Canc. II, 37)

I must therefore give now reasons why I take the traditional intuition to be a sound one. The unmetrical configurations
(23) have not yet been accounted for satisfactorily. Their deviance will be explained in this section as a consequence of the peculiar status of the sixth and fourth positions, the second strongest positions in patterns (28)a and (28)b respectively.

As pointed out above, adjacent stresses may occur anywhere in the line. One of them will necessarily occupy a position corresponding to a w in the pattern. An obvious conclusion is that any w in the pattern may correspond to a stressed position in the line—with a corresponding increment in the line's complexity. This may seem to contradict (11)-(12), repeated as (32)-(33) for convenience:

(32) A pattern whose fifth syllable is stressed is an unmetrical pattern.

(33) A pattern whose seventh syllable is stressed is an unmetrical pattern if its fourth syllable is not also stressed.

The contradiction is not quite real, however, for these restrictions were part of Theory I and were stated in terms of what that theory took to be patterns, not in terms of lines. They constitute an informal generalization intended to select possible stress configurations of some restricted complexity in hendecasyllabic structures. But it did presup-
pose a basically non-unitary account of the nature of the hendecasyllable, and we have rejected such an account in favor of structures (28)a and (28)b—which are but two manifestations of the same pattern. If we want to capture whatever is valid in (32)-(33) within the unitary system we must state it in different terms.

This will be consistent with the arguments in section 2.3, which led us to postulate the iambic pattern in the first place. For, within the unitary account, configurations such as 3-6-10 or 1-4-10 are not patterns, but labels for groups of lines deviating from strict correspondence with the pattern in some limited fashion. But notice that (32) and (33) cannot be given as properties of lines: they would be immediately falsified by examples like (34)a, where position 5 is stressed, and (34)b, where position 7 is but 4 is not; these lines are admittedly complex, but metrical:

(34)a. tanto como yo dél, ni tan temida (Canc. V, 60)

1 5 6 10

b. Allí mi corazón tuvo su nido (El. II, 40)

2 6 7 10

Clearly, what we want to say is that lines stressed on 5, or on 7 and not on 4, are unmetrical provided that the offending stresses are not adjacent to another stress. This
is reminiscent of the properties of the English iambic pentameter that Halle and Keyser (1971:169) capture by using the notion of "stress maximum". They define a "stress maximum" as a syllable occurring "between two unstressed syllables in the same syntactic constituent within a line of verse"; they then characterize the maximally complex configurations allowed in iambic pentameter lines as those where "stress maxima occur in s positions only but not in all s positions" (of a pattern like (22) above).

Stress maxima, in this sense, do occur in weak positions in the Spanish hendecasyllable:

(35) No contenta con esto, la enemiga (El. I, 97)

1 3 6 10

By the definition given above, a stress maximum cannot occur in position 1, since no unstressed syllable could appear to its left. Given this, and cases like (35) where a stress maximum occurs in position 3, we are left with three weak positions where stress maxima could occur: positions 5, 7 and 9. In 5, stress maxima are disallowed, as exemplified in the unmetrical (23)a. The same situation obtains in 9 since, as we noted, stress on 10 is obligatory. As for 7, it can correspond to a stress maximum in cases like (36), i.e. within the limits informally captured by (33):
Suppose we define a **colon** in a metrical pattern -e.g. (28)a, b- as each of the subtrees whose root is a member of the topmost minimal metrical pair; in other words, as each of the maximal proper subtrees. Then we can capture the restrictions on 5, 7 and 9 by means of the single provision (37):

(37) **Spanish metrical filter I:**

Stress maxima cannot be adjacent to the designated terminal element of a colon.

The designated terminal element of a (sub)tree, it will be recalled, is its strongest element. In both of our hendecasyllabic patterns, reproduced below for convenience, the designated terminal element of the righthand colon -and, as we know, of the entire pattern, since the righthand colon is strong and the lefthand colon is weak- is position 10:
(38) a. Type A:

\[ \text{Diagram of Type A} \]

b. Type B:

\[ \text{Diagram of Type B} \]

Also in both of them, position 5 is adjacent to the d.t.e. of the lefthand colon, namely position 6 in Type A and position 4 in Type B. But it is only in Type A that position 7 is adjacent to the d.t.e. of the colon. (37) therefore correctly excludes stress maxima in 7 in Type A, not in Type B. This is the generalization behind the informal statement (33): just as "melodic" hendecasyllables (3-6-10) can only belong to Type A, "dactylic" lines (4-7-10) can only belong to Type B, for stress maxima in 3 violate the Spanish metrical filter in Type B and stress maxima in 7 violate it in Type A.

The following possibilities are thus excluded by the filter:
Stress maxima ($S_m$), therefore, may occur and are forbidden (*) in the following positions:

(40)a. Type A:

```
1 2 3 4 5 6 7 8 9 10
  ws ws ws ws ws ws
  S_m *S_m *S_m *S_m
```

b. Type B:

```
1 2 3 4 5 6 7 8 9 10
  ws ws ws ws ws ws
  *S_m *S_m S_m *S_m
```

In this light, all the apparent arbitrariness of (32)-(33) vanishes. It may not be necessary to insist that this has been made possible by the notion of colon, which in turn is based on, and motivated by, the nonlinear representation of the pattern in (38).
2.6. **Further metrical rules: tension**

Violations of filter (37) would lead to unmetricality. To describe the minimal requirements for metricality—correspondingly, to describe maximally complex metrical lines—the filter is however not sufficient. We still allow lines stressed on 8 and 9, but not on 10, and such lines are unmetrical. Let us therefore postulate the very natural condition in (41):

(41) **Spanish metrical filter II:**

The designated terminal element of the line may not be unstressed.¹⁴

A descriptively adequate account of the hendecasyllable will incorporate a scale of line complexity. What we have so far is a description of its maximal point. The minimal point will be represented by such lines as (16), stressed on 2, 4, 6, 8 and 10, which are by no means the most frequent—and predictably so, both because the same is true in other languages and because Spanish words are often polysyllabic. The scale of complexity to be proposed below is only tentative, since there are few published scansion counts and the published ones are no more than relatively helpful. For clarity, I will label + and − the stressed and unstressed positions in the line, s and w, as above, the
lower nodes in the pattern: this is not intended to imply that there is any difference between $s$ and $+ or w$ and $-$, respectively. A first approximation at a complexity scale, then, will rank each deviation along the lines of (42):

\[(42)\] Complexity 0: $+$ corresponds only to $s$

Complexity 1: $-$ corresponds to $s$ outside the d.t.e. of the cola, or $+$ corresponds to $w$

Complexity 2: $-$ corresponds to $s$ in the d.t.e. of a colon

In other words, "inversions", which consist of two deviations, are more costly than "weakenings" and "weakenings" in colon-final "feet" are more costly than elsewhere. Notice that by this metric adjacent stresses are considered in principle neither more nor less complex than "weakenings". I believe that this is correct, since lines with many adjacent stresses such as (43) are not perceived as exceedingly complex:

\[(43)\] Ya puedes ver quán gran plazer sería

\[1\ 2\ 4\ 5\ 6\ 8\ 10\ \text{(Egl. II, 290)}\]

Of course, if any of the options in (42) is exercised and the line thus obtained violates either of the filters, the
line is unmetrical.

The types of line in (1) can be used as examples of relative complexity as measured by (42):

(44)  w s w s w s w s w s

+ + + A1
+ + + A2
+ + + A3
+ + + B2a
+ + + B2b
+ + + B3

That A1, A3 and B3 are more complex than A2 and B2 is clear from the table. The latter two show two deviations of complexity 1, while the first three show four deviations of complexity 1.

The scale in (42) does not allow us to make distinctions between the complexity of A1, A3 and B3. It is not altogether clear that such distinctions are necessary. Given the scansion criterion (19)a, the rather frequent 1-3-6-10 lines count in published scansion as 3-6-10, and therefore the notion that the latter are more frequent than 1-6-10 lines is perhaps unfounded. As for the reason why such a scansion criterion has been adopted, it will be apparent from the arguments in section 2.5: a stress on 1 does not indicate to which of the pattern variants the line bel-
longs, while a stress on 3 conclusively adscribes it to Type A in (38). 15

The relative complexity of B3 lines raises a different issue. It has been traditionally assumed that they became comparatively unusual during the 17th and 18th centuries because of their similarity with dactylic popular meters whose pattern probably has the terminal structure in (45):

\[(45) \text{s w w s w w s w w s w w}\]

Since in these popular meters an s position may correspond to an unstressed syllable—and this is especially true of the first and third s in (45)—, and since they are also subject to Prosodic Rule II, with the consequence that one or both final w's may not correspond to anything in the line, a line identical to a B3 hendecasyllable is indeed often obtained:

\[(46) \text{Cómo bailé con la gaita gallega} \quad \text{(popular)}\]

1 4 7 10

The traditional explanation is therefore not unsound. Neither is it a necessary one, however. Alternatives come to mind, e.g. in terms of relative strength of the cola: a colon-internal deviation might be less complex in the weak (first) colon than in the strong (second) one. But this is
a topic that I must leave aside now. The Renaissance hendecasyllable is adequately described by (42).

2.7. The reality of metrical patterns

I have argued that a particular meter in a particular language is best characterized in relation to a pattern which is a) nonlinear, and b) subject to a specifically metrical requirement, the Even Distribution Provision (30). All of its nonlinear properties, aside from even bracketing maximization, are standard properties of stress configurations.

Even bracketing guarantees that the terminal elements of the line are going to be arranged in groups of two or at most three units, in other words that there are not going to be "feet" of more than three elements in languages and metrical systems having the properties that Spanish has. It does not guarantee, in its present form, that these groups are going to be repeated, i.e. that meters based as in (47) are excluded:

(47)a. w s s w w s s w

b. w w s w s w s w w

But such meters do not exist. I will therefore propose a further tentative principle of pattern construction without
raising the issue of the independent reality of feet, which will be discussed in the next chapter.

What follows is a summary of the properties of the patterns in which the new principle appears as (48)Ba:

(48) A metrical pattern in Spanish is

A. subject to the following general phonological conventions:
   a. its righthand nodes are labelled strong if and only if they branch
   b. it is a right-branching pattern

B. subject to the following specifically metrical restrictions:
   a. its terminal elements constitute a sequence of repeated configurations
   b. the Even Distribution Provision applies.

(48) has been shown in previous sections to be necessary and sufficient to account for the properties of the hendecasyllable at the pattern level. Furthermore, this is a principled account, and one which makes empirical claims about the nature of a type of metrical system and, in particular, about other Spanish meters. It is therefore interesting to note that the nature of precisely those meters which may alternate with the hendecasyllable in the same
composition can be predicted on the basis of (48).

Hendecasyllables may alternate with heptasyllables in Garcilaso—e.g. in the Ode ad florem Gnidi; an example has been given in (27)a. Such combinations have since become very common. Less frequent in the Renaissance was the combination of hendecasyllables and pentasyllables, one of whose forms, the so-called sapphic stanza, dates back perhaps to the 15th century and will become very popular in the 18th (Navarro, 1956, pars. 119, 172, 239). No other meter alternates with the hendecasyllable before modern times. Now a heptasyllabic pattern, if generated according to (48), will be undistinguishable from the left-hand colon of a Type A hendecasyllable:

\[(49)a.\]

\[\begin{array}{c}
\text{S} \\
\text{W S W S W S} \\
\text{W S W S} \\
\text{W S}
\end{array}\]

b. sentir si ya del todo (cf. (27)a)

2 4 6

And a pentasyllable is undistinguishable from the left-hand colon of a Type B hendecasyllable:
We may conjecture that, in general, two Spanish meters could be combined if they shared the same "foot" composition, in the sense of (48)Ba—see below, 5.5—: whether the poets chose to exercise this option would then be due to historical, not metrical, causes. But polymetry would suggest itself more readily whenever the shorter meter actually corresponds to a major component of the longer one. What is a major component in a meter cannot be defined easily outside a theory lacking the concept of the colon, which derives from (48). Thus the limits of Spanish polymetry provide a confirmation for the theory of metrical patterns developed here.

Returning to the requirements of the theory of meter presented in 1.1, it will be clear that, although we have concentrated on the issue of the metrical patterns, we now have answers to (1)a and b and to (2)a, b and c of 1.1. Much more work needs to be done in some of those areas,
notably in that of complexity: there are a number of topics—some of them studied by Kiparsky (1975, 1977)—, whose possible relevance has not even been considered. On the other hand, "a theory of meter cannot restrict itself to one poetic tradition, any more than a theory of grammar can restrict itself to one language" (Kiparsky, 1975: 611). Hence the importance of proposals aiming at explanatory adequacy, in the sense of (3) of 1.1. The discussion of a Spanish meter has led us to propose principles of considerable potential generality, which are summarized in (48). It is by discussing general principles of that sort that an explanatory theory of meter will eventually come to be formulated.
3

FEET

The foot is not really an element in the actual phonetic realization of the line and consequently does not belong to the province of "rhythm"; it is an abstract unit of repetition, a pattern of alternation established for the metrical scheme and applied only in relation to the meter of the poem.

V. Zhirmunskij, Introduction to Metrics

3.1. Introduction

The notion of the foot is a basic one in modern Western metrics. The Classical prosodists had used it to classify the repeated combinations of light and heavy syllables on which Greek verse -and Latin verse after it- was based; in the Renaissance it was applied to the metrical systems.
languages with no distinctive vowel quantity, by equating stressed positions with heavy ('long') ones and unstressed positions with light ('short') ones. Thus, for instance, a Greek or Latin line might be based on the repeated occurrence of the configuration -u, where - stands for a syllable which contains a long vowel and/or ends in a consonant and u for any other line-internal syllable. -u is a particular foot (a trochee); its mirror image (u-) is an iamb. The feet to which most frequent reference will be made in this study are listed below:

(1) trochee  -u  dactyl  -uu  
iamb       u-       anapest  uu-  
spondee     --       amphibrach  u-u  
pyrrhic     uu  

When the term iamb is applied to English it designates a sequence of an unstressed and a stressed syllable, as in complete; consul might be called a trochee, animal a dactyl and so forth.

Few have doubted that feet are relevant to the description of Classical meters (but see Maas, 1962). Their relevance to syllabo-tonic metrics is far less obvious: thus, recently Halle and Keyser (1971), Kiparsky (1975), Bjorklund (1978) and others find no use for feet, while Kiparsky (1977) argues in favor of them. I now turn to an examina-
tion of this issue in the light of the principles introduced in the preceding chapter.

3.2. Types of feet

I expect to have shown that a satisfactory account of a particular meter must in all probability make use of properties which cannot be described as strictly linear. The foot in Classical languages appears to be a linear construct: a sequence of light and heavy positions. But if stress is to be represented hierarchically, a stress-based foot must be amenable by its very nature to a nonlinear representation. This in itself would be trivial: a sequence of weak and strong positions becomes a branching structure as soon as 'weak' and 'strong' are defined as in the references given above. Thus [‑stress] [+stress] is w's, etc. To go beyond this we must therefore consider:

a) whether in the framework of the present study we are required to postulate a level of 'feet' whose properties are not an automatic consequence of independent principles, and
b) whether our framework allows us to predict general properties of what have been called 'feet' which must otherwise be stipulated in an ad hoc fashion. The first question concerns descriptive adequacy, the second raises again the issue of explanatory value in metrical theory.

Let us go back for a second to the metrical pattern of
the hendecasyllable, as derived from (48) of the preceding chapter. It was stipulated there that the line is a sequence of repeated configurations, each having in our case the structure \( \text{w s} \). If such a stipulation is necessary, then there probably is a separate level of feet. If, on the other hand, we can deduce the structure of this lower level from independently motivated constraints affecting the entire pattern, then a term like 'foot' would be no more than a convenient label. Notice that, in both cases, if the sequence \( \text{w s} \) is called an iamb, it is justifiable to identify the pattern of the hendecasyllable with that of the iambic pentameter, for both meters are made up of five iambs. This was clearly the position of, among others, the great linguist Andrés Bello: those who cultivated this "verso nobilíssimo", he writes, include Dante, Milton, Herrera and Camoës (Bello, 1859: section vi). The issue here is not the similarity of these two patterns, but only the theoretical status of their respective lower levels.

The lower level in the hendecasyllabic pattern appears to have clear properties of its own. For instance, in (2) we have a sequence of ten terminal positions of which the tenth is strong:

\[
(2) \text{w s w w s w s w w s}
\]

This sequence can be evenly bracketed according to the defi-
ition given, as in (3), but (3) is not an hendecasyllable:

(3)

I conclude provisionally that metrical patterns can be two-level entities. The lower level has traditionally been described as a concatenation of feet, and we have found no reason to question this characterization.

Still, it is not enough to postulate that syllabo-tonic meters are based on concatenations of repeated sequences. Let us reserve the term 'foot' for exactly those sequences of weak and strong positions on which meters can be based. We must ask ourselves whether any sequence of positions is a legitimate foot. Quite clearly, this is not the case: no foot-based analysis has presumably been proposed in which a meter is based on feet of nine or more units.1 Traditional descriptions of Classical meters make use of feet having up to five elements: binary and ternary ones as in (1) and also such longer feet as the paeon I (- u u u) and the dochmiac (u - - u -). For syllabo-tonic metrics the repertoire of feet appears to be still more reduced. I am not aware of any theory requiring five-unit stress-based feet; as for
feet of four units, they have certainly been used, but only in so far as they "substitute" -in the sense of 2.3 above- for a sequence of two binary feet: thus Bielyj talked about paeons I, II, etc. (- u u u, u - u u, ...) when an expected sequence of two iambics was instantiated as + - - -, - + - - , and so forth (Zhirmunskij, 1966:39), and Malof (1970: 66-72) mentions choriambic (- u u -) and ionic (u u -) substitutions. If we reject theories based on foot substitution in favor of pattern-line correspondence rules, as we did in Chapter 2, then we need not recognize these sporadically appearing entities.

We thus need only binary and ternary feet. The latter have long been recognized, and the next chapter will provide a detailed analysis of one particular ternary meter; a binary meter was discussed in Chapter 2. Again, if we do not take into account those feet which are said to appear only as "substitutions", we may further restrict the class of syllabo-tonic feet: it is a common feature of all the feet which have been found necessary for the description of syllabo-tonic patterns that they exhibit one and only one strong position. The pyrrhics and spondees which are sometimes used in Slavic (Zhirmunskij, 1966) or English metrics (Malof, 1970) are no more than instances of iambics or trochees where the strong position corresponds to an unstressed syllable -(4)- or where the weak position corresponds to a stressed syllable -(5)-, respectively:
(4) And in mine own love's strength seem to decay
/ - - /
(Son. 23, 7)

(5) When in disgrace with Fortune and men's eyes
/ + + /
(Son. 29, 1)

Our theory has as little use for these feet as it has for
trochaic substitutions in iambic verse -(6)- or iambic sub­
stitutions in trochaic verse -(7)-:

(6) Being your slave, what should I do but tend
/ + - /
(Son. 57, 1)

(7) The blue deep thou wingest
/ - + /
(Shelley, "To a sky­lark", cit. by
Kiparsky (1975))

Suppose we stipulate that feet cannot dominate more
than three terminal nodes, on which more will be said later.
To list then the feet that are theoretically possible we may
 provisionally allow two lower-level s labels to appear: giv­
en the subordination properties that characterize stress
assignment, only one of them would correspond to the strong
position of traditional linear feet. By these same general
principles of stress assignment, on the other hand, binary
feet with two identical labels are excluded. A list of con-
ceivable feet follows:

(8) Binary feet:
1. 
   \[
   \begin{array}{c}
   S \\
   W \\
   \end{array}
   \]
2. 
   \[
   \begin{array}{c}
   S \\
   W \\
   \end{array}
   \]

Ternary feet:
3. 
   \[
   \begin{array}{c}
   W \\
   S \\
   S \\
   W \\
   S \\
   \end{array}
   \]
4. 
   \[
   \begin{array}{c}
   S \\
   W \\
   S \\
   W \\
   S \\
   \end{array}
   \]
5. 
   \[
   \begin{array}{c}
   W \\
   S \\
   W \\
   W \\
   \end{array}
   \]
6. 
   \[
   \begin{array}{c}
   S \\
   W \\
   W \\
   W \\
   \end{array}
   \]
7. 
   \[
   \begin{array}{c}
   W \\
   S \\
   S \\
   S \\
   \end{array}
   \]
8. 
   \[
   \begin{array}{c}
   S \\
   W \\
   S \\
   S \\
   \end{array}
   \]
9. 
   \[
   \begin{array}{c}
   W \\
   W \\
   W \\
   W \\
   \end{array}
   \]
10. 
    \[
    \begin{array}{c}
    S \\
    W \\
    S \\
    S \\
    \end{array}
    \]
11. 
    \[
    \begin{array}{c}
    W \\
    S \\
    S \\
    S \\
    W \\
    \end{array}
    \]
12. 
    \[
    \begin{array}{c}
    S \\
    S \\
    S \\
    S \\
    W \\
    \end{array}
    \]
13. 
    \[
    \begin{array}{c}
    W \\
    S \\
    W \\
    W \\
    \end{array}
    \]
14. 
    \[
    \begin{array}{c}
    S \\
    W \\
    S \\
    W \\
    \end{array}
    \]
The binary feet in (8) do not pose any difficulty: they correspond to the traditional iamb and trochee in a transparent way. The starred items in the list of ternary feet are those that violate basic constraints of phonological theory: the labels weak and strong being relative to each other, there cannot be any binary bracketing of two elements both of which exhibit the same label. We must now consider which
of the remaining ternary feet have been claimed to exist, and whether there is a principled way of excluding the ones that have not.

Kiparsky (1977:228-9) claims that in some varieties of English anapestic verse the first of the weak positions, but not the second, may be implemented by a stressed syllable, and concludes that a structure \( ww^{-3} \), in (8) above—must be postulated for these feet. He reports a similar observation by Alan Prince for English dactylics, which he accounts for by postulating a structure \( \wedge w \), while Finnish, Swedish and German provide him with examples of dactylics which seem to require, given his system, a structure \( s^3 \). These two dactylics correspond to 6 and 23 of (8), respectively. Possible examples are:

(9) Anapests:

In thy once smiling garden the hemlock and thistle
\[ + - + \] (Byron, "Newstead Abbey")

Dactylics:

No more I trace the light footsteps of pleasure but sorrow and sad sighing care
\[ + + - \] (Burns, "Where are the joys")

Kiparsky adds: "Among the dendrologically possible trisyl-
labic feet, the ones that seem to be missing are dactyls or anapests with a *rising* weak part*, and gives as examples of non-occurring configurations our 7 and 15. If he is cor-
correct, only structure 22, an anapest, and the amphibrachic 14 and 26 remain to be dismissed or exemplified in (8).

Kiparsky's observation on English anapests had been made for Russian by Zhirmunskij (1966:57-59), who notes: "Especially common is the supplementary stressing of the first (unaccented) syllable in the anapest" (p. 57). So common, indeed, that repeated initial stressing becomes a systematic device:

(10) P'iu za zdrávie Méri,
Míloj Méri moéj.
Tíxo záper ja dvéri  (Pushkin, cit. by Zhirmunskij p.58)

Spanish "decasyllables" have often been anapestic:

(11) Con las perlas redimes mis culpas

3 6 9

con las flechas me hieres de amor  (Sor Juana Inés de la Cruz

3 6 9 (1651-1695),
cit. by Navarro (1956: par. 201)
Initial stressing at the beginning of the line, as in (10), is quite common in Spanish decasyllables:

(12) Tárraga, por aquí van a Málaga

1   6 (7)   9
Tárraga, por aquí van allá (Popular, 17th century, cit. by Navarro (1956: par. 201))

If the lines in (12) are not an exception to Prosodic Rule II of Chapter 1, they cannot be analyzed as dactylic; in fact, no dactylic decasyllable is possible, since a dactylic trimeter would be stressed on the seventh position and a dactylic tetrameter on the tenth, never on the ninth. The comparative frequency of stress patterns like those in (12) might therefore be taken to be an indication that Spanish anapests are also, sometimes at least, adequately described by structure 3 of (8). As for the absence of stress under the strongest position of the first foot in (12) —yielding a stress pattern which would be unmetrical in English or Russian—, it should not surprise us in the Spanish metrical tradition, where the configuration $s$ is in general allowed to occur very freely, particularly in verse-initial feet. This same freedom, however, makes it difficult at this point to assert anything definite concerning the internal structure of Spanish ternary feet. Thus, in a poem other-
wise openly anapestic, Rosalía de Castro (1837-1885) allows one foot to correspond to \(- + +:\)

(13) Ya el viajero allí nunca va su sed a apagar

\[- + +\] (En las orillas del Sar, 26)

although she certainly prefers structures of the form \(+ - +:\)

(14) tiende en torno del agua su fresquísimas sombra

\[+ - +\] (ibid.)

I will therefore take our task here to be that of specifying, quite provisionally, the universally available repertoire of syllabo-tonic ternary feet, and assume that Kiparsky and his sources have drawn the correct conclusions from the data. We then notice two lacunae in Kiparsky's exposition: a) an asymmetry between dactyls, of which there are two types (6 and 23), and anapests, of which only one is mentioned (3); and b) the fact that no mention is made of amphibrachs.

Considering point a) first, notice that type 22 of (8) is linearly the mirror image of the German and Finnish dactyl 23. It does have a rising (\(w s\)) contour under the embedded node, like the structures (7 and 15) that Kiparsky wants to reject, but it differs from them in that this node is not weak. There is thus every reason, in principle, for
expecting to find it exemplified. However, I have not found undisputable evidence for it, i.e. long compositions in which the first position of an anapest is not even stressed line-initially, although in Russian that is the only position where it can be.

As for amphibrachs, Kiparsky's omission is undoubtedly a consequence of his being mostly concerned with Germanic metrics. No mention is made either of English amphibrachic verse, to give a typical example, in the corresponding article of the Princeton Encyclopedia of Poetry and Poetics. Indeed, clear, systematic instances of English amphibrachs occur mostly in limericks, and the popularity of this type of comic stanza would perhaps suffice to exclude amphibractic rhythms from graver poetry. But Bridges, who calls them "britannics", recognized "mid-stress trisyllabics" (1901, Appendix J, par. 12). Amphibrachs have long been used also in standard descriptions of Russian poetry (Unbegaun, 1956: 45-46, 48-49; Shengeli, 1940: 33-40) and, on the face of it, they seem to be eminently adequate for Spanish examples like the following:
The next chapter will include a justification of amphibrachs by means of an analysis of a Spanish Renaissance meter which, I contend —again in the tradition of Bello (1859)—, requires us to postulate them.

If I am correct, then, we must acknowledge at most the following types of feet:

(16) Binary feet:

Iamb

Trochee

\[
\text{Iamb} \quad \begin{array}{c}
\text{S} \\
\text{W}
\end{array} \\
\text{Trochee} \\
\begin{array}{c}
\text{W} \\
\text{S}
\end{array}
\]
Ternary feet:

Anapest I

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

Anapest II

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

Dactyl I

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

Dactyl II

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

Amphibrach I

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

Amphibrach II

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

(I am assuming with Kiparsky that types 7 and 15 of (8) are not attested)

A disturbing property of the set of feet in (16) is that none of the procedures hitherto proposed for generating metrical structures in phonology may be used to generate it. Halle and Vergnaud (1978) propose two conventions for labelling—which I have felt free to rename—and two conventions for bracketing:

(17) **Labelling Convention A:**

Given two sister nodes, $n_1$ and $n_2$, label them $w$ and $s$ respectively if and only if $n_2$ branches.

(If $n_2$ does not branch, the nodes are labelled $s$ and $w$ respectively)
Labelling Convention B:
Under the same conditions, label these nodes s and w respectively, or w and s if \( n_2 \) does not branch.

Bracketing Convention R:
The metrical tree is right-branching.

Bracketing Convention L:
The metrical tree is left-branching.

If we label by A and bracket by R, we obtain only Anapest I and Amphibrach I; by A and L, Dactyl I and Amphibrach II; by B and R, Dactyl II; by B and L, Anapest II. And we cannot claim that the structures in (16) are the result of freely letting these different conventions interplay, for this would produce quite a few other structures which do not seem to be relevant to metrics.

We may hypothesize, then, that foot construction is subject to some additional constraints, perhaps of a specifically metrical character. One such constraint has recently been studied in privately circulated work by Alan Prince. Prince suggests that, if metrical positions are equivalent to musical beats, then a subdivision within a foot must be expected to produce a trochaic sequence. Thus, he points out, when quarter notes are split into eighth notes the natural, unsyncopated accent is attributed to the first unit of the newly formed pair: \( \uparrow \uparrow \uparrow \uparrow \) . So, again, for any
further subdivision. This analysis, Prince observes, is clearly compatible with the fact that extrametrical syllables are allowed in verse, be it verse-finally or -as in the English iambic pentameter or the Italian cases mentioned in footnote 13 to 2.5- inside the line, but these are always weak and always follow a strong position; Prince would analyze these cases as involving a split of the form s~w within a strong position of the line. This topic will be taken up in section 3.3 below; I will now simply assume that Prince is right (but not that his suggestion is necessarily more than a private, tentative move on his part).

If we may disallow, then, as a matter of general convention, any w's foot-internal split, the set of feet in (16) is reduced to the following:

(18) Binary feet:

Iamb

\[
\text{w} \downarrow \text{s}
\]

Trochee

\[
\text{s} \downarrow \text{w}
\]
Ternary feet:

Anapest (= Anapest II)

Dactyl I

Dactyl II

Amphibrach (= Amphibrach I)

This is consistent with Kiparsky's observations reported above, and with the elusiveness of the evidence for Anapest I. Let us tentatively implement the restriction of possible feet to (18) by adopting a rule like (19):

(19) Split Node Filter

\[
*[_{x \text{Foot}} [w \ s] y]
\]

where \(x, y\) are variables ranging over \(w, s\) and null, and cannot both be null

Filter (19) does not of course suffice to guarantee that we are going to generate all and only the forms in (18). In particular, we have arbitrarily stipulated that feet cannot be more than ternary, but we have not made this move.
explicit. Turning, then, to this limitation on the number of terminal nodes per foot, it will be noticed that the Even Distribution Provision excludes a good number of quaternary structures —and, a fortiori, of structures of a higher order—: since foot-terminal nodes constitute a parallel row, by Even Distribution feet cannot have the structures or . However, when this provision was formulated we had in mind only regularly right-branching or regularly left-branching structures. If the set of possible feet is as in (18), we must allow for both right- and left-branching. This may give rise to structures wherein the direction of branching has been reversed, as in (20), and we have no way of excluding them yet:

(20)

A reformulation of the Even Distribution Provision is thus called for. Call row 1 the (parallel) row of terminal nodes in a stress tree. Then, for any two metrical nodes and of which immediately dominates , we will say that if belongs to row then belongs to row . A node will belong to the row in which it has the highest row cardinality. Thus, rows are assigned as in (21):
We are now in a position to exclude the structures in (20) by means of (22), which supersedes the version in Chapter 2.

(22) **Even Distribution Provision** (cf. 5.7 below):

The root of the tree exhaustively dominating four nodes in a parallel row of cardinality k may not belong to a row whose cardinality is higher than k+2.

We can exclude all feet of more than three terminal units merely by letting the Even Distribution Provision, which has been justified independently, apply at the foot level. At this point, therefore, we may take a syllabotonic metrical pattern to be given by the following rules, where L stands for "line" and F for "foot":

(23)A. Rewriting rule schema:

\[ L \rightarrow F^n \]
B. Foot-level constraints:
   a. Even Distribution
   b. Split Node Filter

C. Pattern-level constraints:
   a. Even Distribution
   b. Right-branching, labelling by Convention A of (17).

It will be clear to the reader that a rule rewriting F is also necessary. We will attend to it now.

3.3. Foot formation rules

Let us first consider a difficulty with the analysis given above of dactyls and anapests. English anapestic lines may be "truncated" or "procatalectic", i.e. the left-most position in the pattern may not be realized at all in the actual line:

(24) Like the leaves of the forest where summer is green
Ø That host/with their ban/ners at sun/set were seen

(Byron, "The Destruction of Sennacherib")

These truncations are also attested in iambic meters (the
first English example in 1.1 above is one such instance), but they are infinitely more common in anapestics. On the other hand, it is well known that they do not occur in trochaic verse. In dactylics, they would turn a line like (25)a into something like (25)b:

(25)a. After the pangs of a desperate lover

(Dryden, "An Evening's Love")

b. And the pangs of a desperate lover

(25)b is a perfect anapestic line but, so far as I can determine, the likes of it do not occur in clearly syllabo-tonic dactylic compositions. If we accept that this is indeed the case we have reached the traditional conclusion that truncated lines "occur only in rising meters" (Malof, 1970: 44).

How are we to account for this asymmetry? The obvious intuitive generalization is that the leftmost weak position in an English metrical pattern may correspond to \(\emptyset\) in the line. But if anapests have the structure in (18) \[\text{w} \quad \text{s} \quad \text{w} \quad \text{s}\]

we may not identify weak position, in this sense, with a pattern-terminal \(w\): the leftmost position in an anapestic line will be dominated by \(s\). However, we want to avoid admitting the structure \[\emptyset\], because falling meters -trochaics
and dactyls- are incompatible with truncation.

We might consider taking advantage of the analysis of ternary feet as split binary entities and exclude procatalectic dactylics and trochaics by somehow stipulating that the upper-level strong beat may not dominate Ø. I will therefore pause briefly to expand on the properties of the different tree levels.

One of the properties of stress trees is that they encode information on the different levels of stress of the sequence they dominate. We saw in the discussion of the hendecasyllable that the second most heavily stressed element in the pattern could be determined from the pattern tree. In general, a terminal s node will dominate an element whose stress level will be determined by that subtree of which it is the designated terminal element. Assuming that primary stress is represented by the numeral 1 and subsequently lower stresses by subsequently higher numerals, the algorithm that will determine the stress level will be the converse of the one determining row cardinality: the root of the tree will be marked 1, each of the nodes it dominates will be marked 2, and so on till the lower row is reached. (This includes a minor variation on some standard computations, in which the root is marked zero). Primary stress will be assigned to the d.t.e. of the tree whose root is marked 1, stress level 2 to the d.t.e. of the tree whose root is marked 2, et cetera.
Let us exemplify secondary stress assignment on the pattern for a Type B hendecasyllable:

(26)

\[
\begin{array}{c}
\text{d.t.e. level 2} \\
\text{d.t.e. level 1}
\end{array}
\]

We can now return to meter.

Kiparsky (1975, 1977) has shown that secondary stresses in English are relevant to metricality, which is confirmed for English and German by Bjorklund (1978). A study of the distribution of words exhibiting them indicates that they do not occur in those positions where their secondary stress would violate a restriction on the occurrence of a stressed unit; typically, then, secondary stresses are restricted from occupying w positions essentially like primary stresses are. The leftmost terminal s in an anapest of the form \( w_s w_s \) corresponds clearly to the secondary stress in the foot, and we might see a generalization in the recognition of secondary stresses both at the line level, as in Kiparsky's work, and at the pattern level.

Notice, however, that secondary stresses in the line
are supposed to have a role in so far as they are stresses, i.e. that their being secondary is irrelevant to metricality proper. On the other hand, if we want to claim that anapestic lines can be truncated because their initial s is secondary, our recognition of secondary stresses at the pattern level proceeds in the opposite direction. Furthermore, Kiparsky was led to postulate the structure of Dactyl II and Anapest II of (16) because they allowed him to keep the same metrical rules for binary and ternary meters. All of his metrical rules are of a form that can be paraphrased as (27):

\[
(27) \text{The configuration } \begin{array}{c} \text{I} \\ \text{+} \end{array} \text{ is prohibited under circumstance X.}
\]

Since the circumstances under which + appeared in the first position of the anapest and the second of the dactyl did not seem to be constrained as in X of (27), it was reasonable to conclude that they were not w positions. Thus, again, the secondary stress postulated for ternary feet is relevant here in its capacity as stress, and has no property that could be correlated with its being secondary.

From the point of view of a theory having Anapest II of (16), line-initial truncation in anapestics is therefore an anomaly. To stipulate that line-initial s can dominate Ø requires reference to tree levels -equivalently, to the
distinction between primary and secondary stress-, if we do not want to allow \( \emptyset \) in iambics or dactylics. Moreover, the generalization that truncation is instead possible in trochaics and anapestics cannot be stated, for in trochees it would be represented by \( w \emptyset \) (see chapter 4 for an example of the configuration \( w \emptyset \) in amphibrachs).

In view of all this, it seems reasonable to attempt to formulate a more traditional theory of feet in which only one lower \( s \) element per foot is allowed. Such a theory would embody the metatheoretical notion that the constitutive element in a foot is a downbeat. Let us replace (23) by the following:

\[ (28) \]

A. **Rewriting Rules:**

\[ a. \ L \rightarrow F_1 \ldots F_i \ldots F_n, \text{ where } F_1, F_i, F_n = \emptyset, \emptyset \]

ranging over the structures in (18).

\[ b. \ F \rightarrow x s y \]

B. **Foot Filter:**

\[ *[x s y s z]_F \]

C. **Constraints (both levels):**

\[ a. \text{ Even Distribution} \]

\[ b. \text{ Right-branching, labelling by Convention A}^4 \]

The foot-level filter (28)B permits us to extend to
feet the same conventions on bracketing and labelling that apply to lines. This is presumably a desirable result. Notice that no parallel to the Split Foot Filter obtains at the pattern level at least in such iambics as were studied in the previous chapter. Neither do "falling" meters correspond to equally "falling" patterns: the d.t.e. of a trochaic line is at line-end just as in iambics. This indicates that the structure of, for instance, a trochaic tetrameter is not:

\[(29)\]

\[
\begin{array}{cccc}
S & W & S & W \\
S & W & S & W \\
S & W & S & W \\
S & W & S & W \\
\end{array}
\]

-which would be consistent with a version of the Split Node Filter applied to the pattern- but rather, as in iambics:

\[(30)\]

\[
\begin{array}{cccc}
W & S & W & S \\
S & W & S & W \\
S & W & S & W \\
S & W & S & W \\
\end{array}
\]

In other words, not even when parametrized in order to encompass only meters based on s-w, and not w-s, sequences does the Split Node Filter seem to be correct at the line
level. To give a more extreme example, one might expect a preference for s-w structures, as expressed in the Split Node Filter, in languages where stress patterns tend also to be "falling". But in Finnish, a language with word-initial stress, the Kalevala meter shows the following tendency (Kiparsky, 1968; p. 168 in the 1970 edition):

(31) Other things being equal, the words of a line are arranged in order of increasing length.

This distribution of "weight" in lines will be shown later in this study -5.2 and 5.3- to correlate with accentual prominence. This suggests that the pattern for the Kalevala meter — a trochaic octosyllable — corresponds to (30), and does not conform to the Split Node Filter.

I am therefore proposing that the following types of syllabo-tonic feet exist (in effect the types marked I in (16) above):

(32) **Binary feet:**

- Iamb
- Trochee

\[
\begin{array}{c}
\text{Iamb} \\
W \rightarrow S
\end{array}
\quad
\begin{array}{c}
\text{Trochee} \\
S \rightarrow W
\end{array}
\]
Ternary feet:

Anapest

\[
\begin{align*}
&/ \quad w \quad w \quad s \\
&\quad w \quad w \quad s
\end{align*}
\]

Dactyl

\[
\begin{align*}
&/ \quad w \quad w \quad s\quad s
\\
&\quad s \quad w \quad w
\end{align*}
\]

Amphibrach

\[
\begin{align*}
&/ \quad s \\
&\quad w \quad s \quad w
\end{align*}
\]

It is incumbent on one who proposes a similar restriction on the types of feet to provide an alternative account of the regularities that Kiparsky captured by postulating Anapest II and Dactyl II. Recall that they concerned the fact that weak positions in the pattern were restricted in a way in which the first position of the anapest and the second of the dactyl were not. I will suggest that the former two positions have a property in common which manifests itself within the line:

\begin{align*}
(33) \text{Anapestic line:} & \quad w \quad w \quad s \quad w \quad w \quad s \quad w \quad w \quad \ldots \\
\text{Dactylic line:} & \quad s \quad w \quad w \quad s \quad w \quad s \quad w \quad w \quad \ldots
\end{align*}

Since they occur in ternary meters, the positions in question are separated by another \( w \) from the next \( s \) to their...
right. Recall schema (27), to which Kiparsky's metrical rules conformed. It implies that w positions are restricted, whereas s positions are not. It would seem from (33) that they are restricted not only in so far as they are weak, but also in so far as they precede an s. This would allow us to keep only one type of rule within Kiparsky's system for both binary and ternary meters, since in binary meters a weak position necessarily precedes a strong one. A corresponding reformulation of Kiparsky's rule schema would be:

\[ w \quad s \]

(34) The configuration is prohibited under circumstance X.

From this reformulation it follows that the first position in an anapestic line is going to be totally unrestricted, which perhaps accounts for the comparative frequency of truncated anapestics as opposed to trochaics and in any case guarantees that line-initial anapests exhibit the same freedom for first position stressing as is shown within the line. Note in any case that Kiparsky's two dactylic types correlate with a stylistic distinction, Type I being used in more elevated compositions than Type II. It may often be more adequate to deal with such distinctions by means of metrical rules than by postulating different foot types.
Lighter styles may admit of less strictures, in this instance, whereas in the graver mood (34) may be strengthened by dropping the contextual s—the kind of move that would be favored by German Rigoristen and similar prosodists.

We can now formulate the generalization that provided the initial stimulus for eliminating feet with two terminal s nodes. It has the form:

\[
\begin{array}{c}
W \\
\emptyset \\
\end{array}
\]

3.4. On not having feet as metrical primitives

One aspect of the rules in (28) above deserves special comment, namely the provision in A.a. requiring feet to be equal. I will not prejudge now the issue of how it is to be relaxed for intersubstitution of feet types as in the Classical dactylic hexameter, where most positions can be filled by either -uu or --, or, more relevantly here, in successful adaptations of this meter to the German and other syllabo-tonic metrical traditions. Notice that this provision is at any rate also required in (23); without it we would generate random sequences of feet of different types. What I would like to stress is that it reflects
one of the three -or perhaps more- aspects in which syllabotonic meter differs qualitatively from language in general: its use of identity, its use of cardinality -as when it specifies that the hendecasyllable has five feet- and its use of Even Distribution. Identity and cardinality will also be basic elements in the description of such higher order notions of metrics as those of stanza and (regular) poem. For example, to define the sonnet we will need a similar restriction of its component lines to one single type (see Hendrick, 1979, for a formal statement of line identity requirements). This suggests that a departure from the strictness of general phonological descriptions to accommodate identity and cardinality as primitives may be desirable, in so far as it amounts to acknowledging the specificity of meter.

The identity requirement in the rewriting schema for L is thus an empirically sound condition. But it is difficult and, I believe, inappropriate, to include such a condition in a phrase structure rule, a device whose attractiveness is due to its restricted power. We might think of resorting to an output filter, but for all purposes this would be a positive filter, i.e. a rule specifying that a certain sequence must be composed of elements of a certain type. Since this is a formal device which seems to be unnecessarily powerful elsewhere in linguistics, the opportunity of
its use here is questionable.

It must have been noticed that our present difficulty arises from the separation of the foot level from the pattern. A pattern, according to (28), has the shape:

\[(35)\]

\[\begin{array}{c}
L \\
F_1 \ldots F_n \\
\end{array}\]

But now we have no reason to keep the L and F levels separate in the sense that is implicit in the rewriting rule for F. The symbol F has only been used in the filter (28)B, and seems to play no role elsewhere in either pattern-generating or metrical rules: it would be an interesting restriction on the theory of syllabo-tonic metrics if none of its rules turned out to mention F. The shape of feet is restricted to the types in (32) by conditions applying to the pattern in general -(28)C-. If we can meet the foot identity requirements and reformulate (28)B without mentioning F, then there will be only one rewriting rule in the pattern generator and patterns will be of the form:

\[(36)\]

\[\begin{array}{c}
L \\
\end{array}\]
Both restrictions are easy to meet. The rule for rewriting \( L \) may be of the form:

\[
(37) \quad L \rightarrow (x s y)^n
\]

and the filter may not mention \( F \) if a condition is added as in (38):

\[
(38) \quad *[x s y s z], \text{ where the variables do not include } [,.].
\]

(This filter is a version of one proposed by Hendrick (1979).) The condition on the variables is perhaps redundant, if it can be shown to follow from independent restrictions on the general class of filters which would make them necessarily local. Furthermore, the effect of the filter itself might be incorporated into (37). Thirdly, the variables in (37) and (38) can really be omitted under the general condition prohibiting \( s \) and \( w \) labels outside of a minimal metrical pair. I will not pursue these simplifications, the last two of which are possibly trivial. (37) and (38) express adequately that a syllabo-tonic line is a sequence of downbeats and that these admit of no further subdivision.

The foot need not be, therefore, a primitive notion in syllabo-tonic metrics. This is not to deny that, as the
repeated element in the lowest regulated sequence of minimal metrical pairs, it plays a role. For instance, Kiparsky (1977) argues that line complexity is a consequence of $w$ and $s$ correspondences ("labelling mismatches") and also of "bracketing mismatches", as in:

\[(39) \text{Pattern: } \begin{array}{c} \ \ \ \text{The lion dying trusteth forth his paw} \\
\end{array} \]

The correctness of Kiparsky's position clearly does not hinge on whether the bracketing in the pattern is due or not to the independent existence of feet.

It may be worth recalling that those linguists who contend that there are feet in natural languages outside of metrics, such as Halle and Vergnaud (1978), Selkirk (1980) and Hayes (1980), do not propose foot types which could be identified with the ones used in poetry. This is a straightforward consequence of our negative conclusion concerning metrical feet.

To summarize what has been said so far, I am proposing that syllabo-tonic metrical patterns are derived by the application of only the four following rules and conditions:
(40) A. \( L \rightarrow (x s y)^n \)

B. \*\([x s y s z]\), where the variables do not include \([,]\).

C. Even Distribution

D. Right-branching, labelling by Convention A.

In the remainder of this study, I will still use the term foot as a convenient designation for the units repeated at the lowest pattern level, since no confusion is likely to arise from it. Let me also mention a further inaccuracy on my part: the representations in (35) and (36) above do not really reflect the situation. \( L \) is rewritten as a linear sequence, and therefore, strictly speaking, is not an appropriate symbol for the root of the stress tree. Whatever nonlinear structure exists in patterns is merely the result of applying (40) C and D on the rewriting of \( L \).

To conclude, recall that in 2.2 above two conditions -(7) and (9)- were seen to be descriptively applicable to the pattern for the hendecasyllable. They are reproduced as (41):

(41) a. \*s s

b. \*w w w w
Both conditions follow from (40) above for all syllabotonic patterns without further specification.
4

TERNARY METER:

ARTE MAYOR

Como las telas que dan las arañas
Juan de Mena, El Laberinto
de Fortuna

4.1. Amphibrachs and anacrusis

The "verso de arte mayor" is relevant to us for many reasons. It had a central role in the Castilian literature of a particular period, it is the only major ternary meter in Romance outside Galician-Portuguese before the Romantic era, and it has long been a metrists' nightmare. If Bello and others are correct, it is also an amphibrachic meter, and the existence itself of amphibrachs is open to question. I will pause briefly to consider the latter issue.

Suppose that some variant of Prosodic Rule II of 1.2 holds for all syllabo-tonic metrical systems. Then extra-metrical syllables are allowed at the end of the line, following its rightmost stressed position. These are called feminine endings, on the basis of French where they often mark the gender of words. But, by the same principle, weak
positions following the last s in the pattern need not correspond to anything in the line:

(1) /s w/ s w / s w / s w /

What the hammer? what the chain? Ø

(Blake, "The Tyger")

Given this possibility, scansion of isolated ternary lines in, e.g., English is bound to give ambiguous results whenever anapestic lines may be stressed in the first position like typical dactyls or dactylics may have an unstressed first position like typical anapestics, for both may end either in a strong position or in a strong-weak sequence.

The situation is further complicated by the availability in certain metrical traditions of extrametrical weaks before the beginning of the line (so-called anacrusis; cf. Zhirmunskij, 1966: 129-136; Malof, 1970: 43). In English, these are typical of trochaic meter, as in the example that Halle and Keyser give (1971: 168):

(2) s w s w s w s w

All the buds and bells of May Ø

Ø s w s w s w s w

From dewy sward or thorny spray Ø

(Keats, "Fancy")
Clearly, a dactylic line with one syllable in anacrusis and a final weak -(3)a- would be undistinguishable in scansion from an amphibrachic line with the same number of feet -(3)b-:

(3) a. (x) x x x x x x x x x x x x ∅
   b. x x x x x x x x x x x x

Compositions systematically adhering to the rhythm of (3)b are more frequent in German than they are in English (Bennett, 1963: 85), but it is standard in German metrics to treat them as formed by dactylics with anacrusis (Arndt, 1968: 187). It was of course the fact that this possibility exists which led to the formation of the "musical scansion" school of metrics. This school, which we have encountered in Navarro's work, reduces all meters to trochaic and dactylic measures by liberally resorting to anacrusis. Our objections to it were not directed against the scansion thus arrived at, for these are certainly accurate, but against its limited understanding of the nature of metrical patterning and the negative consequences this entailed in such areas as the evaluation of line complexity. Any principled, successful analysis of a méter as iambic, anapestic or amphibrachic may constitute an implicit argument against the "musical" approach; on the other hand, the admission of such meters does not imply a rejection of anacrusis as a possible
property of line instances. Following Zhirmunskij, "we shall therefore speak of anacrusis only in those cases when the number of unstressed syllables before the accent is a variable quantity" (1966: 131) and -for this is not a sufficient condition- when this variability is not due to truncation. The evidence for truncation or anacrusis in particular lines will be derived from other properties of the meter.

The complexities of "arte mayor" will be analyzed with this in mind.

4.2. The form

From the 14th century up to about 1550, but culminating in the 15th century, a number of Castilian poems are cast in the so-called "verso de arte mayor". This meter lacks obvious antecedents -see 4.6- and certainly has no clear parallel in the contemporary literatures of the European Renaissance and Pre-Renaissance outside the Iberian Peninsula. Till it was displaced by the hendecasyllable, only the less solemn octosyllable was used as frequently. From a somewhat obscure statement of Juan de Mena (1411-1456), we know that its practitioners considered themselves "modern" (Composition 16 in Foulché-Delbosc, 1912: p. 184, column 2, line 18), an important philological clue in metrical matters; from another statement by the Marquis of
Santillana (1398-1458), that they viewed arte mayor as an "elevated" meter (La Comedieta de Ponça, 101, 4).²

The formal characteristics of this meter appear to have baffled most of the scholars who ever attempted to define them. One of the most recent, Jacques Roubaud, typically calls the first section of his study "Le mystère du vers d'Arte Mayor" (1971: 379). Like Roubaud, I will quote from Clarke's extremely thorough book (1964: 51) to give the reader an idea of how difficult it has been found to reconcile the claims of observational adequacy with the need for a general characterization of the meter: "The verso de Arte Mayor is a metrically simple but rhythmically complex form. It may be roughly defined as a verse whose time measure is 6+6 syllables, and whose basic pattern is: (U)'UU'(U)//(U)'UU'(U). The caesura is movable between stresses, the secondary stresses are not absolutely fixed in required presence or position, and the unstressed syllables in parenthesis are optional except that at the caesura at least one of the unstressed syllables is usually present" (emphasis mine, C.P.). Later she adds that in arte mayor "variation is not a license but a norm" (p. 52).

Clarke's description underscores the fact that syllabic regularity is hardly the main criterion to be used here:

(4)a. Retia, Germania la superior (Juan de Mena, El Laberinto de Fortuna, 44, 6)
b. Non buenamente te puedo callar (ibid., 91,1)

c. Como las telas que dan las arañas (ibid., 82,1)

d. Entrando tras él por el agua dezían

   (ibid., 182,1)

e. que de casas e fierro padecen ynopia

   (ibid., 49,8)

There are nine syllables in example a, ten in b, eleven in c, twelve in d and thirteen in e. It is important to notice that this diversity cannot be discarded by adducing the equivalence of oxytone, paroxytone and proparoxytone endings which was to become the rule in Spanish poetry: a and b above are both oxytonic, c, d and e are paroxytonic.

Significantly, the poet just quoted, Mena, is famous for his liberal use of proparoxytones (esdrújulos), many of them of his own coinage -cf. Clarke (1943), Lida (1950:283-286), Lázaro (1976:passim)-; however, none of the 2376 lines of his Laberinto de Fortuna ends in a proparoxytone. Neither can we attribute this syllabic variation to the possibility of having oxytones and/or paroxytones at the end of both hemistichs. The following examples, from the Laberinto, of ten, eleven and twelve syllable lines, respectively, all have a paroxytone at the end and an oxytone at the caesura:
(5) a. es a saber, de priessa tan braua
   b. o religión religada de males
   c. Al gamaleón que en el ayre se cria

On the other hand, (6) a. is oxytonic both at line-end and at the caesura and has ten syllables, while (6) b. has eleven syllables under the same circumstances:

(6) a. aquel corazón que si non querer
   b. de tu claro rey e de su magestad

In what is usually taken to be the first modern analysis of arte mayor, Morel-Fatio described it as a "décasyllable" with two equal hemistichs. These could be reduced by one syllable, which, he suggested (1894: 214), entailed oxytonic stressing of their final paroxytones; this in turn he attributed to their musical accompaniment, since, "rhythmiquement parlant", these hemistichs "sont des monstres" in so far as "en les lisant, il est nécessaire de porter le frappé sur la dernière syllabe atone" (1894: 221). However, it is practically certain that most of the arte mayor poems were not sung (Foulché-Delbosc, 1902: 86-87; Blecua, 1943: cx; Le Gentil, 1952: n. 87, p. 379). Furthermore, Foulché-Delbosc shows that, even if they were, music would not suf-
fice to account for their alleged irregularity (1902: 86). Perhaps as a consequence of this, the only later description of arte mayor in purely syllabic terms is the one given by Burger, and it is not among the most useful in his valuable book: "un vers d'une grande liberté de forme: 5+5/5+4/4+5/4+4 dont chaque hémistiche pouvait être suivi d'une ou de deux inaccentuées" (Burger, 1957: 45-46).

As for accentual regularity alone, it is easy to show that it provides an insufficient criterion. For one thing, the length of the lines in Mena's Laberinto fluctuates only as exemplified in (4), and elsewhere there are also "four to six (or seven -rarely more) syllables per hemistich" (Clarke, 1964: 56). Notice, incidentally, how these hemistich-based descriptions predict eight-syllable lines, whose conspicuous absence from all major poems must then be explained away.

The analysis to be undertaken here will be based, like those in most of the references given, on Juan de Mena's Laberinto de Fortuna, the masterpiece of this form of verse by quite a long distance and an essential part of Spanish literature. Clarke (1964: 167, 191) criticizes her predecessors for having done this, instead of trying to encompass the numerous lesser poems that she takes into account. Surely, however, the advantages of Clarke's latitude are outweighed by those of dealing with a consistent -and still sizeable- corpus, joined to the accumulated benefits of
previous scholarship. I should also count the assurance of the contemporaries' esteem for Mena; he was called simply "the Poet", like Virgil, by Nebrija (1492, IV, viii: 134, 17-18 in the text used). That Sanctius, the author of the Minerva, published an edition of his work in 1582 indicates that this was no passing fad - and perhaps also that there is some arrogance in the comparative neglect of modern critics. For our purposes here, Mena's cult is important because it is a guarantee of metricity, and thus justifies a necessary methodological idealization on our part; besides, some of his contemporaries were of the hack persuasion, judging from their compositions in other meters.

My proposals are consistent with the analyses in Foulché-Delbosc (1902), Le Gentil (1953: 363-383) and Lazaro Carreter (1976). I expect to show that the thrust of their generalizations is correct; a clearer distinction between pattern and instance than they were in a position to make reveals that the perplexing surface of arte mayor is not the consequence of an equally perplexing meter. In this, I believe, these authors benefit from their not adhering to the empiricistic limitations that determine Clarke's approach and detract from the usefulness of her excellent book.
4.3. A first approximation

According to Foulché-Delbosc's scansions (1902: 99-101 -reproduced in the more accessible Blecua (1943: lxxxviii-lxxxix) -), 1140 lines in the Laberinto are of the form:

(7) $x \hat{x} x x \hat{x} x x \hat{x} x x \hat{x} x$

This amounts to a considerable 47.97% of the poem. Examples follow:

(8)a. Caonia, Molosia, Eladia, Boeçia (45,3)

b. los títulos todos de todos sus nombres (161,3)

c. doblando sus fuerças con miedos agenos (179,8)

d. Amores me dieron corona de amores (106,1)

The high frequency of such lines is all the more noteworthy since the next most frequent type occurs in 566 instances, i.e. in 20.48% of the cases or 0.49 times as often. This type, (9), is exemplified in (10):

(9) $\hat{x} x x \hat{x} x x \hat{x} x x \hat{x} x$

(10)a. Dale salida, velloso Ceruero (248,1)
b. Tales palabras el conde dezía (174,1)

c. quantos fizieron palabras osadas (257,3)

d. Córdoua madre, tu fijo perdona (124,2)

The next most frequent type occurs 116 times, or 4.19% of the total:

(11) x x x x x x x x x x

(12)a. Agora, respuse, conosco mejor (236,1)

b. los quales amansan la furia del mar (171,3)

c. enantes matarlo pesar que dolor (193,4)

d. ganó los Ganzules, después a la fin (284,3)

The type of line in (14) -not the next in frequency- has 58 instances or 2.09% of the poem:

(13) x x x x x x x x x x

(14)a. deue los puertos seguros tomar (133,8)

b. danos linage mejor de morir (182,7)

c. muertos los suyos, non quiso beuir (195,4)
d. pudo a un Archiles, tan gran domador (120,8)

In view of the extremely high number of type (7) lines, we may wonder why this type has not been taken more often to correspond to the basic pattern, as was done by Bello (1859: V, pp. 168-170 of the ed. used) and perhaps Hanssen (1906: 17). The obvious answer lies in the difficulty of stating the rules which should link it to the other occurring configurations. Blecua (1943: xc) states this explicitly: "the most frequent rhythm is that of (...) a line made up of four amphibrachic feet (...) but this would not explain satisfactorily why a different type of verse is used in combination with it". A satisfactory explanation would be that no such different type is involved, as I will attempt to show.

Consider first the line types exemplified above. (9) could be derived from the structure underlying (7) by dropping the verse-initial slack syllable, thus yielding a truncated, or "procatalectic" line, as in the English example in (2). (11) does exactly the same thing at line-end; it is, in other words, an oxytonic variant of (7). (13), finally, combines the effect of (9) and (11) in a truncated oxytonic line.

There is one type of line whose frequency, according to Foulché-Delbosc, is intermediate between that of (11) and that of (13). It has an unstressed syllable corre-
sponding to the first stressed position of (7), as in (15). Next after (13) comes the type in which the third stressed position of (7) corresponds to an unstressed syllable - (17) -:

(15) \[x \times x \times \hat{x} \times x \hat{x} \times x \hat{x} x\]

(16) a. e los oradores mejor recibidos \( (86,2) \)
    b. a los amadores sin gozo cadena \( (115,6) \)
    c. de los que la muestran e de los mostrados \( (129,4) \)
    d. de los ynuasores e grandes tiranos \( (214,6) \)

(17) \[x \hat{x} \times x \hat{x} \times x \times x \times x \hat{x} x\]

(18) a. los quales ynclino so las correcciones \( (33,5) \)
    b. e toda la tierra de los numidanos \( (50,3) \)
    c. punir a los grandes como a los pequeños \( (81,7) \)
    d. sepulcro rabioso de cartagineses \( (139,2) \)

Eschewing for the moment the polemics that surround these "one-stress hemistichs" (Saavedra Molina, 1946; Le Gentil, 1953; Lázaro, 1976; see footnote 13 below), let us note that forms parallel to (15) and (17) but where the unstressed
syllable would correspond to the second and fourth stresses of (7) -lines with the structure of (19) and (20)- are not attested:

(19) x x x x x x x x x x x x x x x x

(20) x x x x x x x x x x x x x x

On the other hand, both the varieties in (15) and (17) can be combined in two-stress lines:

(21) x x x x x x x x x x x x x x

(22)a. de los capadoçes e los amorreos (40,5)

b. la de Tarragona, la de Çeltiberia (48,2)

c. e las ferrerías de los milaneses (150,2)

d. e las condicjones de los seruidores (262,4)

Thus, (7), which we have reason to believe corresponds most closely to the metrical pattern, has four stressed positions. Assuming that these are strong positions in the pattern, we might say that the odd strong positions in the pattern may correspond to stressless tokens in the line, while the even ones may not.
To give a more principled account of this and the preceding generalization we must turn now to somewhat stricter terminology and manner of exposition.

4.4. Pattern and lines: the amphibrachic analysis

For the sake of clarity, I will keep the symbols s and w for the metrical pattern and + and - for the actual line. I will assume without proof that Navarro's criteria for deciding which words are stressless (Navarro, 1925) were already essentially valid in 15th century Spanish. I will further assume in my scansion that the "range of metrical-ly relevant phonological representations" (Kiparsky, 1977), as yielded by the prosodic rules, is the same for Mena as it is for Garcilaso and later poets. Specifically, syna- loepha is required for the scansion of examples (14)d and (18)c above, as well as many others; these include instances at what is usually identified as the caesura:

(23)a. qual el Penatígero_entrando_en el Tibre       (31,7)

b. e con fortaleza_en el tiempo deuido         (212,8)

Hiatus, on the other hand, also occurs, both at the caesura -(24)- and elsewhere -(25)-:

(24) así mi persona_x_estaua sujeta          (30,5)
No modification of the prosodic rules of Chapter I appears thus to be necessary—but see (55) in 4.7 below.

From 4.3 I deduce that the metrical pattern for the "verso de arte mayor" must have at least the structure of (26):

(26) \text{wsw wsw wsw wsw}

This pattern corresponds to only one of the hierarchical foot-like structures introduced in chapter 3:

(27)

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

By the Even Distribution Provision and branching and labelling as elsewhere, we obtain (28) as the metrical pattern for arte mayor:

(28)

\begin{array}{c}
\text{w} \\
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}

\begin{array}{c}
\text{wsw} \\
\text{ws} \\
\text{w} \\
\end{array}
As for the metrical rules, it must have been noticed that they need not account for the distinction between (7) and (11), and between (9) and (13), respectively. The availability of both paroxytonic and oxytonic lines is a consequence of Prosodic Rule II. In this case, however, some modification of the rule seems to be in order if we want to disallow line-end proparoxytones; let us simply assume now that some such revision of the rule is in effect, until we take up this issue in 4.7.

The phenomena exemplified by (15), (16) and (21) can be described by saying that the terminal s nodes may correspond to an unstressed position when they occur in feet labelled w. These feet have also other properties. The first weak position was not represented in the line in (9); in (29), more unexpectedly, it is the first weak position in the second weak foot that is missing:

\( \text{(29) los campos de Frigia tanto llorados} \quad (41,5) \)
\[-+--+-/+-/-+-]\n
Both of these weaks may be unrealized in the same line:

\( \text{(30) Caria, Ysauria vimos en pronto} \quad (41,6) \)
\[/+/-/-+/-/+/-/+-\]

With the corresponding increase in metrical complexity,
unrealized weaks may also correspond to feet where s dominates '-' as in (15) and (17); these feet can be line-initial:

(31) de la materia de cada una espera (68,8)
\ [- -/ - + - - + - + - ]

or line-internal:

(32) estaua sus fijos despedaçando (130,5)
- + - - + - / - - + -

As in later Spanish poetry, adjacent stresses increase complexity but are admitted in any weak position except the third one in the fourth foot:

(33)a. qué gloria, qué fama, qué prosa, qué verso (79,7)
\ [+ + - / + + - / + - / + + - ]

b. Baxé más mis ojos mirando las gentes (159,1)
\ [- + + / - + - - + - - - ]

c. e a Benamezi más a punto seyendo (289,8)
\ - - / - + + / - + - - + -

d. para mostrarse por sí cada vno (161,6)
\ [+ - - + - / - + + / - + ]

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The extra adjacent stresses in (33)a. correspond to the first weak position of each of the feet; in b, c and d, to the second position of feet 1, 2 and 3, respectively.

The first and third feet have the additional property of admitting the configuration \( w \) not only as adjacent to the strong position of the foot, but also as the only stress in their domain:

\[
(34)a. \ e \ los \ viles \ vsos \ en \ que \ se \ despienden \quad (95,3)\\
/- - + /
\]

b. vestido de engaño de las brauas ondas \quad (160,2)\\
/- - + /

c. cómicos, satíricos con erositas \quad (123,6)\\
/+ - - /

d. vimos a vno lleno de prudencia \quad (125,6)\\
/+ - - /

The configurations in (34) are assuredly a cause of considerable added tension: they occur in 6.7% of the lines -5.5 of which in the "second hemistich"-, if I add Clarke's percentages correctly (1964:15). The relevant fact here is just that they do not occur in feet 2 and 4.
4.5. Hemistichs

The verse of the *Laberinto*, in Lida's opinion, "is rigid, and its caesura so marked that only a few lines do not appear like two stumps vainly striving to join" (1950: 284). Leaving aside the implicit aesthetic judgement—the standard one with Spanish-speaking critics, starting in the modern period with Menéndez y Pelayo (1893)—, we must note that most critics and metrists have attributed interesting properties to this bipartition of the line (Le Gentil, 1952: 382). As Navarro puts it (1956; par. 54), "hexasyllabic hemistichs indistinctly occupy both parts of the line, while pentasyllabic ones occur mainly in the first part and heptasyllabic ones in the second". This is a peculiar distribution, and in no way does it follow from the general characterization of the meter given by the same author: "Both the first and the second hemistich can be paroxytonic, oxytonic, or proparoxytonic. Both are stressed on their second and fifth syllables. They also tolerate the suppression of the unstressed first syllable or the addition of an extra one". Why the nine resulting types do not combine more freely is not explained.

The asymmetric distribution of the hemistichs was first noticed by Bello (1859: V - p. 169). Foulché-Delbosc (1902: 97) specified how that "compensation" obtains; we can summarize his description as in (35):
Lázaro Carreter observes quite correctly that these regularities tend to make the caesura "vanish" (1976: 85). One may therefore wonder how this is compatible with the caesural stiffness that Lida and many others have perceived.

My explanation for what is heard as rigidity is this: no living Spanish meter determines an obligatory midline stress unless a caesura follows. Thus, the Spanish alexandrine may have fourteen syllables -two paroxytonic hemistichs-, 13 syllables -one oxytonic hemistich-, 12 syllables -two oxytonic hemistichs- and the combinations thereof with proparoxytonic hemistichs. The last two alexandrines in this fragment from a contemporary poet have both 13 syllables -the first, because it has an oxytone at the caesura, the second because it ends in an oxytone:

(36) deslelase el cetro bordado en su justillo
    7/ 7
quieta estaba la luz en sus ojos de corza
    6/ 7

115
Note that no compensation obtains in (36): if the first hemistich is of the shorter variety, the entire line shortens. What this reveals is that the system in Mena's Laberinto is different. There is an obligatory midline stress, corresponding to the strong position of the third foot. But there are no caesura phenomena whatsoever at the line level. It may be legitimate to call caesura the break that follows the obligatory stress, but this break has no metrical properties. That it occurs is, of course, the consequence of a bipartition in the metrical pattern: since words in Spanish can only be stressed on one of the last three syllables, there will be a word boundary either immediately after the midline stress or after one of the two succeeding syllables. But this is not a caesura like the one in (36). Its properties are entirely predictable from the rule requiring a stressed token in the second strong position and from the accentual rules of the language; those of the break in (36) are, on the contrary, a feature of the corresponding meter, or a consequence of some feature of it.

Let me give examples of so-called hemistich compensation, corresponding to the alternatives in (35); the verti-
cal dots indicate a word boundary:

(37) a.1. tener abraçados sus miembros garridos (294,6)
   + - - +
   a.2. cayda por tierra gente ynfinita (56,6)
   + - +
   b.1. e goze verdad de memoria durante (141,8)
   + - +
   b.2. mas non dexare dezir lo que siento (80,6)
   + - +
   c. a los menos méritos más galardones (115,8)
   + - - - +

Alternatives a.2 and b.2 are those where the second colon in the pattern (28) is realized as truncated. Given this possibility, all the instances in (35) are summarized in the schema:

(38) Ending of foot 2   Beginning of foot 3
   + -   (-) +

This predicts that no variant corresponding to a.2 and b.2 will be found to involve lines like c in the Laberinto: the final unstressed syllable of a proparoxytone whose
stress is the midline obligatory one will always correspond to the first weak position of the third foot.

Strictly speaking, this prediction should not be made. Foulché-Delbosc's description involves a certain amount of idealization, for it is given, as in (35), only in terms of lines where the third s is stressed. But this is not an obligatory stress, as shown by (17), (21), (32), (34)b and (34)d. We must then expect to find variants of the examples in (37) where the second + sign given there is replaced by a - sign, while still maintaining "hemistich compensation":

\[
\begin{align*}
(39)a.1. & \quad \text{la villa que estaua desapercebida} \quad (175,8) \\
& + - - - - + - \\
& \text{a.2. Medea la ynútil nigromantessa} \quad (130,6) \\
& + - - - + - \\
& \text{b.1. de tu claro rey e de su magestad} \quad (285,2) \\
& + - - - - + \\
& \text{b.2. al enperador de Costantinopla} \quad (286,6) \\
& + - - - + - \\
& \text{c. una solícita inquisidora} \quad (99,4) \\
& + - - - - + - \\
& \text{de candida púrpura su vestidura} \quad (72,1) \\
& + - - - - + - 
\end{align*}
\]
I give two examples of configuration (39)c to underscore the fact that one possible variety is not attested: a c.2 variant of (37) is impossible, for it would stress the last syllable of a proparoxytone; this is however not the case if the third foot is stressless, as in (39). The possible examples I find of a hypothetical (39)c.2 -119,8; 123,5- are better analyzed as involving hiatus. This absence arises presumably from the extreme complexity of the construction involved: it would imply, in Kiparsky's terms (1977), a bracketing mismatch, a labelling mismatch and a truncation, all simultaneously as shown in (41)' below (for these notions see 5.7). Any two of these phenomena do co-occur, but this would be the only case where all three could take place. I prefer at this point this explanation, which does not rule out absolutely the possibility of such lines as de nuestro retórico Quintiliano, read without hiatus (119,8), but adopting a metrical rule which would exclude them would in principle pose no difficulty. Notice, in any case, that "one-stress" hemistichs are definitely rare: 8.8% in the "first hemistich", 7.3% in the "second", according to Clarke (1964: 15).

Returning to the topic of "compensation", the hypothesis presented here is therefore that the pattern for the Laberinto lines is bisected by Even Distribution, given that it is made up of four (ternary) feet. Metrical rules require the feet dominated by s in each colon to have their
strong position matched by a stressed unit in the line. Hence a word break will appear after the fifth, sixth, or seventh position -or the fourth, fifth or sixth if the line is procatalectic. This is the break that has been analyzed as a caesura. For example, assuming now that the line is not procatalectic, if the break occurs after position 6, the next stress in a regular half-line will appear two positions later -or one position later if the first weak of the second colon is unrealized. This is the situation described as a. in (35). (40) summarizes the different alternatives:

(40)

\[ \begin{align*}
(40)a. \\
&\text{Diagram (40)a.}
\end{align*} \]

\[ \begin{align*}
&\text{Diagram (40)b.}
\end{align*} \]
No rule of any kind is necessary to guarantee that this will be the distribution of words in Mena's lines. With relative infrequency, as in all ternary meters (cf. Kiparsky 1975: 609), the configuration occurs where it is not forbidden: here, in the third (and the first) foot, giving us the rather complex variants in (39) above. The variant

is not attested, but its extreme complexity, even for practitioners of arte mayor, is readily apparent from the diagram, where the '-' tokens following the first '+' must be part of the same word as this stressed unit.
4.6. The dactylic analysis

The hypothesis formulated in the preceding section is more or less implied by Bello, who says that "the two hemistichs really constitute one line, not two as some have thought" (1859: 169). Clarke, I believe, points to the same conclusion in one of her early articles (1943: 264): "at the end of the first hemistich, proparoxytones are convenient, since they offer both the required final stress and the two unstressed syllables normally to be found between the last stressed syllable of the first hemistich and the first stressed one of the second" (see also Clarke, 1964: 169). This runs counter to a tradition emanating—at least—from Nebrija, according to which arte mayor is a double (doblado) meter (Nebrija, 1492, II, ix). But this tradition is also right: one would not expect procatalexis to be possible in the middle of a homogeneous line. It has often been pointed out that arte mayor, part and parcel of "la poesia moderna abusiva" of Mena's Claro escuro (Foulché-Delbosc, 1912, 184), is a tense, conflictive medium; Lázaro Carreter (1976) has successfully developed the implicit poetics of those who struggled with this difficult instrument and were proud of doing so. However, this tension between bipartition and line unity, which pervades the history of arte mayor, has not, in my opinion, been adequately stressed.
The very common alternation of + −−, + −− and + at line-end, by Prosodic Rule II or its variants in other languages, makes it tempting to suggest that colon-final alternations—as in (36) above—are less costly than colon-initial ones—as in procatalexis. Hence an analysis of arte mayor as a dactylic meter with colon-final optional weaks in the line might reduce somehow the tension that we are forced to postulate as intrinsic to this meter. The standard analysis appeals to such weaks at the end of the first colon regardless of the foot composition, but we have seen that by excluding them we accounted for the otherwise mysterious hemistich compensation phenomena. A dactylic analysis avoids that difficulty just as well as the one given above:

\[(42) \text{ s w w s w w s w w s w w} \quad \begin{array}{c} \text{ w w w w w} \\ \text{ + - (-) +} \end{array}\]

What is required, besides frequent line-initial anacrusis, is to replace optional truncation in the amphibrachic second colon by optional omission of the last weak in the dactylic first colon.

To this analysis it might be objected that, as a matter of principle—and unless universal metrics required us to exclude, in our case, amphibrachs—, there is not much reason to adopt as a model for the pattern a configuration
that occurs in only 32.7% of the cases, by Clarke's count. A frequency of almost seventy percent for a special operation—in this case anacrusis—is too high, if indeed it is a special operation. In Santillana, Mena's illustrious contemporary, anacrusis would have to be postulated in 98.6% of the lines (Clarke, 1964: 16). Of the poets studied by Clarke only two have compositions where anacrusis would not need to be stipulated in more than 50% of the cases: Imperial—or rather the author of the Decir a las sieve virtudes, whose "ignorance of the refined form of arte mayor" is well-known (Clarke, 1964: 149)—and, in one composition, Péres de Gusmán. Others, including Juan Alfonso de Baena, have no composition that could not be classified as strictly amphibrachic.

This objection lacks force. Consider line-final paroxytomes. If the analysis of the hendecasyllable given in the previous chapter is correct, all paroxytonic hendecasyllables contain an extrametrical unit, and still they constitute the vast majority of the verse instances of this meter in Spanish. The same might be true of dactylic tetrameters with anacrusis in arte mayor.

There is, however, one piece of evidence against the dactylic analysis of arte mayor. A syllable in anacrusis is by definition a stressless syllable. But there are instances where this position corresponds to a stressed unit; the example given as (34)c —(43) below—has this stress in
a lexical word and no other stress in the domain of the first foot:

\[(43) \text{cónicos, satíricos con erostas} \quad (123,6)\]

\[
+ - - / - + -/- - -/--+ -
\]

This is the only totally uncontroversial example of its kind that I find in the Laberinto; there are less clear cases, and also many instances of stressed items in position one adjacent to a stress in position two, but these, it could be objected, might be subject to prosodic destressing of some kind (cf. Kiparsky, 1977: 232-233). Clarke finds "leftward shift of a secondary stress" in the "first hemistich", which is exactly what we are concerned with, in 0.4% of the lines in the Laberinto and, to give another example, in 5.2% of the lines by Santillana (1964: 15-16); however, she does not make clear what her criteria for scansion are, and I fear that mine would be more stringent.

Since the existence of amphibrachs has been doubted, let me make a brief excursus on the verso de serranilla, which permits us to make an argument identical to the one just made but offers abundant documentation. This is a verse used in light compositions, often grossly comparable to pastourelles, and cultivated in particular by Santillana. It is identical to one arte mayor colon:

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The metrical rules are the same as for arte mayor, excluding of course all reference to midline d.t.e.'s, but, at least in Santillana, there is no procatalexis. We have, then, stress on any position in the first foot, which can also be stressless:

(45)a. entrambos pastores  (Serranilla IX\textsuperscript{a}, comp. 266) 
\begin{tabular}{l}
 2 & 5 \\
\end{tabular}

b. que me fizo gana  (Serranilla III\textsuperscript{a})
\begin{tabular}{l}
 3 & 5 \\
\end{tabular}

c. Juro por Santana  (Serranilla III\textsuperscript{a})
\begin{tabular}{l}
 1 & 5 \\
\end{tabular}

d. los encobridores  (Serranilla IX\textsuperscript{a})
\begin{tabular}{l}
 & 5 \\
\end{tabular}

The amphibrachic structure, as in (44) and (45)a, is as clearly predominant, statistically, as in arte mayor.

Now in this meter no argument for a dactylic analysis can be based on procatalexis, since there is none. On the other hand, stresses on the hypothetical anacrusis syllable
that this analysis would require are quite common. To (45)c we can add examples like:

(46) Moça tan fermosa
    dixo: "Bien vengades"
    púsome en amores
    fresca como rosa
    1      5

(Serranilla VI\textsuperscript{a})
(ibidem)
(Serranilla IX\textsuperscript{a})
(ibidem)

At any rate, returning to arte mayor, if we do not want to rule out lines like (43) as unmetrical we must conclude that the amphibrachic analysis is preferable to one making use of dactylics with anacrusis. Were we to extend the meaning of anacrusis to cover stressed tokens we would open the door of metrical theory to many forms that are not attested and, more importantly, we would lose whatever motivation there was for recognizing anacrusis in the first place.

It seems thus that arte mayor has the somewhat unusual property of having two cola both of which may be procatalectic. I believe that Clarke is right when she says that "the liberty in the use or omission of the first...syllable of the hemistich is the thing that saves the line from utter monotony. When the poets later in the century virtually curtailed that freedom, the verse soon succumbed to tedium, and rigor mortis set in without delay" (1964: 169).
She is right because the need to accommodate frequent Spanish polysyllables in a comparatively short ternary pattern with, or even without, obligatory midline stresses turns the meter into a straight jacket unless other, compensating liberties can be taken. One such liberty is perhaps the dactylic-trochaic alternation in imitations of Classical hexameters. Another is this peculiarity of arte mayor metrical rules. But the inner pressure that poets felt to get rid of this freedom is also understandable, because there is something contradictory about it.

If section 4.5 is not misguided, arte mayor is the first unitary longer meter in Spanish (see also Clarke, 1964: 52). To make it thoroughly unitary it would be required to do away with midline truncation. But doing so would imply for instance that the most likely midline stress, that of a paroxytone, would normally be followed either by a sequence stressed in the second syllable or by a sequence of four weaks, the latter being always a marked phenomenon in verse. Notice that in amphibrachs shifting the stress in a foot always leads to creating a stress maximum under a \( w \) position of the pattern, and therefore that the alternative of \( \frac{w}{+} \) configurations was bound from the beginning to be fairly restricted. It is no wonder, then, that total unification of the line was resisted; neither is it that, although an exceptional poet like Mena could use arte mayor admirably, the subtler rhythm of the hendecasyll-
lable came to displace this intrinsically unsatisfactory meter.

Arte mayor was most probably a Castilian or local variant on the predominantly ternary Galician-Portuguese cancioneiro meters of the longer variety (13th-early 14th centuries). Many instances of these must be analyzed as involving either truncation or anacrusis both at the beginning and in the middle of the line:

(47) Ø Donna et senhor de grande vallia
nom sei se cuidastes que tenho cuidado
Ø d'enojos feitos, mai bem juraria
que nom tenho outro Ø tam aficado

(Cancioneiro da Vaticana 668, quoted from Clarke, 1943: 270; cf. Le Gentil, 1952: 415)

But internal gaps in these meters were not a problem, for these lines were sung, and therefore empty positions in them could correspond to actual rhythmical pauses. I would conjecture that internal procatalexis can be traced back to these forms, and that it did not come to be annoying till it occurred in dezires (sayings), not cantigas (songs), in the terminology of the Cancionero de Baena (cf. Le Gentil, 1953: 411-439). In spoken verse of a certain line length the need for internal unity—which, incidentally, is ex-
pressed by Even Distribution; see below, 5.7- becomes paramount; hence the abolition of the caesura in mature arte mayor and hence, also, much of the instability of a meter which could not dispense with a remainder of duality.

4.7. Metrical rules and rhyme

Suppose, then, that the pattern for Mena's arte mayor verse is as in (28) above. The corresponding metrical rules are fairly straightforward:

(48) Arte Mayor Metrical Rule I (first alternative):
The designated terminal element of a colon may not be unstressed.

(49) Arte Mayor Metrical Rule II:
Ø in the line may correspond to the first w position of each colon

Mena's verse has one further property which has not been considered yet. It is reflected only in two lines of the Laberinto (Lázaro, 1976: 84 -where he corrects Clarke-) but this is of course no reason to exclude it. The lines are:

(50)a. que de casas e fierro padecen ynopia   (49, 8)
b. Aristótiles cerca del padre Platón (118,3)

These examples have in common the presence of a line-initial extrametrical slack syllable; no such possibility exists at the beginning of the second colon. We may—and perhaps must—accommodate these lines by reformulating slightly Prosodic Rule II, for anacrusis is a very general phenomenon in different traditions and Spanish poetic practice was far from stabilized in the 15th century. In the informal version that has been given of this rule such reformulation would pose no difficulty. However, in the absence of independent evidence for this solution I will simply add a metrical rule for anacrusis; it is a natural line-pattern correspondence option but it is exercised so rarely that we may consider it fossilized by Mena's time, and therefore as something to be explicitly allowed instead of an unmarked possibility. Thus, tentatively, let us propose

(51) **Arte Mayor Metrical Rule III:**

A line-initial unstressed position may correspond to $\emptyset$ in the pattern.

It was pointed out in 4.2 that, contrary to modern practice, line-final proparoxytones do not occur in Mena. Notice now how incompatible this fact appears to be with
the strict hemistich division criticized in 4.5, an essential feature of which is the treatment of proparoxytonic first hemistichs on a par with modern proparoxytonic line endings—we will come back to this once again. This appearance is somewhat misleading, however, for I would contend that line-final proparoxytones are not really prohibited; to put it differently, that we do not need a new metrical rule to exclude them. They are indeed absent not only from the mature works of Mena, but from most arte mayor, which was not always regulated by the same rules as the Laberinto. Still, the following arte mayor proparoxytonic lines by Villasandino (Foulché-Delbosc, 1915: 382-383) show that they were possible:

(52) Ffyłosofo fyrme e grant metafýsyco
  en todos los cuentos de naturaleza,
  fundado en artes de grant sotileza,
  non entendades que sso tan çentífico
  que ossase fablar ningunt verbo auténtico
  a vuestra quistión tan fuerte intrycada,
  mas essa tal dueña asy ocupada
  fue madre dun santo muy puro cathólico.

(cf. Foulché-Delbosc, 1902: 102; Clarke, 1941: 373 and Clarke, 1943: 268-269)

The rhyme schema in (52) is very different from the
one that came eventually to be used with proparoxytones. Perfect rhyme in Spanish—as opposed to assonance—is based on the identity of all the segments including and following the last stressed vowel, i.e. in the identity of a sequence—disregarding glides—:

(53) \( \hat{V} C_o (V C_o j V C_o) \)

What is supposed to rhyme in (52) is only the content of the outside parentheses in (53), as in auténtico with cathólico. It seems as though the formula for rhyme in a language with only paroxytones and oxytones in wide circulation, as Spanish had then been till recently, is used in (52) without being aware of the role that stress plays in it; such a formula would of course be:

(54) \( \hat{V} C_o (V C_o) \)

Not all the examples of proparoxytone rhyme are as in (52): the two other cases reported by Clarke (1943: 268-269) are regular by modern standards (estrólogos/prólogo; purísimo/sutilísimo) although it may be noted that they constitute isolated pairs, not more difficult quadruples as the rhymes in (52). The fact remains that the rules for rhyming these endings were for a time problematic. Add to this the fact that, in general, proparoxytones are known to
have devastating effects on rhyme and it ceases to be sur-
prising that the first long series of proparoxytonic lines
do not occur in Spanish till 1559 (Montemayor's Diana) or
thereabouts (Reid, 1939: 279 and 281), and that such early
rhymes are confined "almost exclusively to gerunds with
enclitic pronouns, superlatives, and past tenses of verbs"
(Reid, 1939: 281). It is not till the time of Lope de Vega
and Góngora that these "esdrújulo" rhymes—and, especially,
"esdrújulo" blank verse—become comparatively common.

I think, therefore, that there are historical reasons
for not excluding proparoxytonic line endings by means of
a metrical rule, although such a rule would be very simple.
The reasons for their absence are instead to be found in
the fact that poets simply did not know how to use them
with reasonable elegance, and elegance is a concept of
poetics which lies outside metrical theory.

Before leaving the topic of metrical rules it must be
mentioned that Prosodic Rule I of 1.2 should most probably be amended for arte mayor to read:

(55) Adjacent vowels belonging to different words
under the same colon correspond to a single met-
rically relevant position.

That is to say that synaloepha is not a marked phenomenon
in general, but it is between cola—see 5.7 below. This
would account for the fact that there are only nineteen cases of midline synaloepha in Mena and none in Santillana (Lázaro, 1976: 85; cf. fn. 8 of 1.2).

4.8. More on metrical rules: monosyllables

The following three lines might be considered problematic in the light of Metrical Rule I:

(56)a. tanto, que los que de allí peleauan (180,5)

b. secondo la su juventud virtuosa (189,3)

c. tanto que non se menbraua do quepa (283,3)

The midline stressed position that Rule I requires is occupied here by nonlexical monosyllables.

I have few doubts as to the metricality of (56)c within the system of 4.7. The corresponding word in contemporary Spanish, no, is still stressed (Navarro, 1925: 267-268). Su is not in most contemporary dialects, outside Asturias, León and the Older Castile (Navarro, 1925: 360); but these latter regions are closest to the prestige dialect of Mena's period, which perhaps he did not speak himself, being a Southerner, but which was his readers' dialect. In general, it must be remembered that the prestige dialect of Spanish had emerged slowly from a phase where the prevailing international pattern, which determined frequent enclisis, was
much more like that of the Northwestern dialects than it is today (Otero, 1976: 67-117). In spite of this, we cannot be sure that su was stressed; a stressing of los in a free relative construction like that of a. is not impossible in Mena's period but there is still less evidence for it (Quilis, 1964: 76).

It is not clear that the evidence forces us to modify Metrical Rule I, considering the different possibilities available. But I would like to present an alternative which is presumably not valid for Mena and Santillana, but must be postulated for other poets, in particular Pablo de Santa María; in his works there are not only lines like those in (56), but even cases where the strongest element of the first colon corresponds to an unstressed element in a lexical polysyllable:

\[(57)\]

\[a. \text{de todos los } \underline{\text{e} } \text{mperadores } \underline{\text{d} } \text{iré} \]

\[b. \text{que fizo sus } \underline{\text{c} } \text{aualleros matar} \]

(in Clarke, 1964: 77; cf. Lázaro, 76: 85 for an isolated example from Santillana)

Santa María is admittedly a very irregular poet; Clarke uses a fairly generous criterion for metricality, and still she finds "a good 2 1/2% of practically scansion-resistant verses" (1964: 78). The one thing that makes him interesting for us is that he represents, in this period of striv-
ing toward a satisfactory verse, one of the clearest cases of an attempt to unify the line. The metrical rules required by (57) and similar lines are exactly the same as those of the hendecasyllable: the strongest s in the first colon may dominate '−', but it may not be adjacent to a stress maximum. Metrical Rule I must therefore be replaced for Santa María by:

(58) Arte Mayor Metrical Rule I (second alternative)

A. Stress maxima cannot be adjacent to the designated terminal element of a colon.

B. The designated terminal element of the line may not be unstressed.

Suppose finally that we wanted to admit the lines in (56) and exclude those in (57), while still considering that in the first group the first formulation of Metrical Rule I is violated. We would then be arguing that Mena admits '−' as the d.t.e. of the first colon only if it corresponds to a nonlexical monosyllable. But this is not an arbitrary rule. It was pointed out in footnote 14 to 2.6 above that "modernista" poetry sought to gain freedom from the required endline stress by allowing unstressed monosyllables in that position. This produces a very marked effect, in a proclitic language, of strained or playful enjambement, and is therefore always used sparingly; never-
theless, it can even be found in a monometer:

(59) Dando su amable doctrina
    trina
    el ruiseñor ante ti,
    y
    el que se acerca a tu llama
    ama.10 (Rubén Darío (1867-1916),
"A una colombiana")

Recall that precedents for this liberty are attested sporadically, mostly in short lines and in the freer medium of drama (Morley, 1927); an example is:

(60) -Basta adoralla y servilla.
     -Yo para mí la querré.
     -Oye un cuento mientras te abotonas la ropilla.
     (Francisco de Rojas (1607-1648), Cada qual lo que le toca; in Navarro, 1925: 359)

These lines, and the prosodists' reactions to them are thoroughly discussed in chapter I of Quilis (1964). Tomás de Iriarte (1750-1791) was a very metrically-conscious writer, as many fabulists have been perhaps after La Fontaine set the example; he satyrized this liberty in the following
Muchos dicen que porque al verso siguiente va con las palabras de otro, don Fulano pasa por mal versista; pero aun con tal error, cumple como buen poeta, pues poniendo en sus versos cabales las sílabas, deja a otro más hábil colocarlas bien. (cit. after Robles Dégano (1905: 98) in Quilis (1964: 101))

The underlined words are unquestionably stressless; these monosyllables carry the -oxytonic- rhyme, as happened before in (59) and (60), just like stressed monosyllables do in (62):

mar de ver;
fin de ser;
ley de grey;
hiel de cruz;
miel de luz (M. de Unamuno (1864-1936), Cancionero, 950)
I believe that the predominance of monosyllables in modern examples like the ones we have discussed is merely due to the fact that the relevant nonlexical words are mostly monosyllabic. But, since Mena's text does not provide any internal evidence for this hypothesis, I will formulate the corresponding rule without making reference to it. To allow, therefore, the lines in (56) to be exceptions to Arte Mayor Metrical Rule I as formulated in (48), let us propose the following:

(63) Arte Mayor Metrical Rule I (third alternative):

A. The designated terminal element of the line may not be unstressed

B. The designated terminal element of the first colon may not be unstressed, unless it is a nonlexical monosyllable.

In spite of the scant evidence, this is the formulation that I would propose for Mena, on the basis of considerations of general metrics (Santillana's Comedieta de Ponça adheres to (48)). It amounts to saying that midline d.t.e.'s behave like endline d.t.e.'s do in, say, Rubén Darío or Juan Ramón Jiménez. A similar formulation is perfectly adequate to describe a comparable state of intermediate freedom in a bipartite meter like the alexandrine. The more constrained variety is exemplified in (36) of 4.4,
and its midline stress permits a variety of endings at the caesura (+, + -, + - -):

(64) Soy un hijo de América, soy un nieto de España

(Darío, "Los cisnes", in Cantos de vida y de esperanza)

Allowing nonlexical words in the midline's position, as in

(65) Pasó ya el tiempo de la juvenil sonrisa

(Darío, "De otoño", ibidem),

leads to total abolition of the caesura, in forms which parallel those of Santa María in arte mayor, but this time are successful:

(66) dejad la responsabilidad a las Normas

(Darío, "Filosofía", ibidem)

4.9. Tension

Lida (1950) and Lázaro (1976), in particular, have studied in detail the tension that arte mayor imposes on the linguistic material. Lázaro has argued convincingly that such a tension is a constitutive feature of the overall poetics of the period. He shows that certain words,
especially classical proper names, are subject to adaptation to the requirements of rhyme or meter. The name Gabino is arbitrarily changed to Gabiano to have it rhyme with romano (119,1), Crates is called Cratón without an absolutely compelling reason (118,1), Aníbal rhymes with moral (Respuesta de Johan de Mena al marqués de Santillana, in Foulché-Delbosc, 1912: 532), etc. Lida attributed most of these peculiarities to the lack of a generalized system for the naturalization of cultisms and Classical loan words. She is undoubtedly right in many cases: Mares (Marte in today's Spanish) could appear in 138,1 because of the rhyme pares, but in 141,1 Marte would have been equally appropriate, and Mena, as we will see, was not one to refrain from using two forms of the same word; the only arbitrariness here is that in contemporary Spanish the name of one god derives from the Latin accusative (Marte, not Mares, a resyllabification of the nominative found also in Santillana, El sueño 3,1) and that of another (Venus, not *Vĕnere a[ in Italian) from the nominative. There is however no point in attempting to palliate the arbitrariness of such examples as Gabiano, and Lázaro insists rightly that cases involving not hesitation, but deliberate submission to poetic form, extend beyond the domain of proper names. Thus, the same learned suffix may receive two different stress patterns:
(67) a. las aues noturnas e las funereas  
(rhyme: peleas; 164,7)  

b. por venas sulfúreas faziendo passada (244,4)  

In Mena's verse there are cases where we must postulate unfamiliar stressings. Clearly machina must be stressed in the medial syllable and not as in present-day máquina since it rhymes with ayna, marina and dotrina:

(68) con toda la otra mundana machina (32,8)  

The same stress pattern must be attributed to diafana (cf. Lázaro, 1967; fn. 14) in:

(69) por la diafana claror de los cantos (15, 6);  

this is confirmed by the fact that Santillana rhymes diafana with Adriana, thebana and mançana:

(70) vi mas a Europa, qual forma diafana (La comedieetá de Ponça, 103,5)  

Finally, as Lázaro points out, Penelope must be read as a paroxytone in
(71) tu, Penelope, la qual en la tela

and -although stressing it as above would only render the line very complex- as a proparoxytone in

(72) nueva Penelope aquesta por suerte.

Once these necessary adjustments are made, there does not remain any line in Foulché-Delbosc's edition of Mena's Laberinto that is unmetrical by the system presented here.¹¹

This is not to say that pronunciation of many lines does not ask for an unusual effort to establish, physically or mentally, their correlation with the pattern. Of the authors who have been aware of this, Le Gentil seems to believe that contemporary reading habits did not impose the pattern stresses at the expense of the natural stress configuration of the line, while Lázaro gives sound arguments to the contrary. There is no need for us to go into that issue. What matters here is that whatever pattern-line mismatches occur are constrained by Metrical Rules I, II and III. No tension above the upper limit set by these rules is attested in the Laberinto. This upper limit is fairly high for a ternary meter with midline stress in a polysyllabic language. It probably could not be lower without giving in to doggerel, but Lázaro is surely right in stressing that the tension thus created is extreme.
To consider now briefly the measure of tension in arte mayor we will examine some of Clarke's figures—which have already been given-. They have the advantage of allowing comparison with the practice of many different poets; at least their magnitude relative to each other is consistent with my own scansions, and it is with relative deviation that we are concerned here. According to them—in my terms—stressless first feet are somewhat more frequent in the _Laberinto_ than stressless third feet (8.8 versus 7.3%). A more significant distributional discrepancy obtains with the configuration \(+\) clearly less used in the first foot than in the third (0.4 and 0.8% in the first and third \(w\) versus 3.1 and 2.4%, respectively). But we must not attribute undue weight to this asymmetry. In the contemporary works of Santillana, for which the metrical system presented here is equally valid, it simply does not exist: Clarke's figures for it are 5.2, 4.8, 5.4 and 4.5%, respectively. The conclusions to be drawn from the figures for Mena are therefore of a stylistic order: he had a definite preference for regularity at the beginning of the line, but this does not appear to be dictated by strictly metrical differences between the complexity of deviations from the norm in feet 1 and 3.

We may then simply apply to arte mayor the complexity scale that was proposed for the hendecasyllable. If Metrical Rule I is used in the form given as (58) or as in (63),
clearly no modification is required. If the first version is adopted -(48)-, then no configurations of complexity 3 can occur, for the structure \( s \) is forbidden in the d.t.e. of both cola; the complexity scale may still be left as in chapter 2, for its lowest proviso can only be applied vacuously. We will later consider the topic of complexity in general; this will suffice for arte mayor.

4.10. The limits of arte mayor

I have stressed that we are concerned with a meter having a symmetrical bipartite structure. In the mature form of arte mayor literature, this did not deter the poets from adopting metrical rules which amounted to treating it as a unit, thus creating the first longer unitary meter in the language. This remarkable achievement was marred by the need to preserve line-internal procatalexis, a feature of bipartite lines. Hence the "groping for an artistically satisfying long verse" (Clarke, 1964: 187), many laborious failures on the part of minor versifiers and some variation in the metrical rules adopted, with diverse fortune, during the fifteenth century.

I would suggest that the function of metrical rules -as opposed to pattern-generating rules- is to guarantee within a particular tradition that a meter is recognized in a line. Although never unmotivated, they are therefore historical, variable and subject to revision. Donne's
"dromedary trotting" may become familiar, and we know that readers used to the fixed internal downbeat of arte mayor heard only prose in the new Italianate lines (Lázaro, 1976: 82). In any case, one should not attempt to account metrically for all the lines written as attempts at arte mayor.

When Santillana praises King Alphonse of Aragon for counting syllables and respecting stresses ("las silabas cuenta e guarda el acento/producto e correto", Comedia 27, 1-2), he shows that he knows what he is doing, to some extent, but also that not everyone did. What is surprising about the system presented here — whose paternity is collective — is that it accounts in a principled way for so many thousands of lines. Arte mayor turns out after all to have been rather homogeneous.

So far as I can tell, the only reported lines that escape this system and clearly belong together in a group are a few instances of proparoxytonic first hemistichs. They occur with relative frequency in the minor works of Mena (nineteen instances, listed in Clarke, 1943: 271-272), which is all the more surprising since they are absent from the Laberinto and from Santillana's verse:

(73) razones sufísticas e malas fundando

(Dezir...sobre la justicia e pleytos,
5,4: Foulché-Delbosc, 1912, p. 200)
Examples from López de Ayala's clumsy La nao de San Pedro (four in the most regular manuscript) are also given by Clarke (1964: 97).

The obvious account would register in these lines the presence of extrametrical weaks after the fashion of usual line endings. The availability of this account is no doubt the reason why copists and editors have had no qualms in introducing midline proparoxytones so often (Foulché-Delbosc, 1902: 93). But it does not explain why oxytonic first hemistichs are avoided, in the same compositions and elsewhere, before procatalexis. Notice that invoking a potential stress clash would not do, since the third foot can be stressless. The only fairly uncontroversial example I find of this configuration is Ruy Páez de Rivera's

(74) E pues que al Señor plugo elegir (Canc. de Baena 288,27; Clarke 1964: 157)

if read with synaloepha between the last two words. I do not doubt that there must be others but their rarity is, to say the least, remarkable.

We see here once again that arte mayor was threatened by all the devices that might have set it free. Actual line bipartition is not necessarily a regressive phenomenon, whatever that may mean; the richness of the alexandrine
attests to the fluidity that it can bring to poetry. Fifteenth century Castilian poets enjoyed proparoxytones above all things; their regular use in midline position would have opened the door to alternations of all word-end stress patterns there. But not only was there at the time a general movement towards unified lines: midline proparoxytones simply made no sense without endline proparoxytones. And these, as we saw in 4.6, would have posed a serious problem. Lines like (73) were a dead end, and the choice was made -unconsciously, to be sure, and with occasional lapses- of a lesser evil.

The configuration in (73) reflects thus something of a step retraced back. It must be accounted for by explicitly making allowance, in the system of these poems, for a midline extrametrical weak. This phenomenon is attested elsewhere, as in English iambic pentameters or in Petrach (Serretta, 1938), but nowhere has it been quite successful. That Mena should have avoided it in his main bid for immortality is not surprising. When resorting to it he might have had in mind a revision of something which can be seen as Prosodic Rule II: he could think of the example of the earlier cuaderna via verse (Fitz-Gerald, 1905: xiii) or of the Gallo-Romance "feminine" first hemistichs. But no such revision could be made wholeheartedly, and it was not made. What occurred instead was a complication of an already difficult verse, and careful versification would avoid it.
From yet another quarter, then, we find it confirmed that arte mayor could not be different from what it was, but could never be adequate. It can be a majestic verse because of its very strictness, and even its contorted tension is suited to Mena's pleas in the void and to those of his ill-fated characters. Still, little could humanly be done to mend its defective nature without destroying its beauty. It is fitting that the author of La Celestina should have used this meter. 12
ON METRICAL FORM

The conception of the form lies in the desire to distinguish. Granted this desire, we cannot escape the form, although we can see it any way we please.

G. Spencer-Brown, Laws of Form.

5.1. The relevance of caesuras

Although "the insufficiency of the (...) classification of verse into syllabic, accentual, and quantitative" (Jakobson, 1936: 149) has often been deplored, that classification is still currently used. As a consequence, my use of the term syllabo-tonic (alternatively, accentual-syllabic) for the Spanish meters discussed here in any detail may have seemed in need of a more direct justification. Zhirmunskij observes that "so-called syllabic verse also belongs, in actuality, to the syllabo-tonic system, since here too the metrical structure is not determined by the number of syllables alone, but by the recurrence after a specified number of syllables of the obligatory stress"
(1966: 32). I would like to go somewhat further in the same direction.

The hypothesis that emerges from this study is that the distinction between systems generally recognized as syllabo-tonic and some so-called syllabic systems does not reflect a disparity of metrical pattern structure, but a difference in the strictness of the metrical rules through which this structure is instantiated in particular lines. This distinction is therefore one of degree. A strictly syllabic system is conceivable: Japanese may indeed supply us with an example of it, along with the more indirectly relevant sung forms of Syriac and Medieval Latin (for the fascinating case of Czech, cf. Hrabáč (1964) and references cited there). In such a system, the location of any accent in the line would be irrelevant. But as long as stress location is fixed or determines subsidiary phenomena in a constant fashion we have a reason to go beyond syllable count. If it turns out that such stress distribution facts always follow from assuming a pattern governed by rules based on stress, then by Occam’s razor the postulation of a system dependent on the number of syllables but with certain fixed stresses is an unnecessary addition to the set of primitive metrical alternatives available to humans.

The fact that stress is fixed in "syllabic" verse at the end of the line is an entirely accidental one within the traditional classification. But in any metrical pat-
tern subject to the restrictions in (40) of 3.4 that will be; the location of the strongest stress, and therefore the point at which the line will be most strictly constrained. Constraints affect primarily the correspondence between line and pattern; the pattern being an arrangement of strong and weak positions, it is to be expected that at the most strictly constrained point that correspondence will simply be required to mean identity of the variable in question, namely strength.

Notice that the obligatory stress at the end of the line cannot be attributed only to the requirements of rhyme; rhymeless verse exists in all the relevant languages and in it that stress is respected. Were it determined by rhyme only, we would expect blank verse to tend towards the strictly syllabic and disregard stresses.

Rhyme is a phenomenon based on stress, not vice versa. In the few exceptional cases where rhyme has been treated independently of the natural stress patterns of the language in question, the reader—more exactly the singer—must do violence to these patterns and stress the corresponding words on the rhyming syllables. This will be made clearer by an example. Many medieval Latin lyrics, both liturgical and lay, must be taken to rhyme in the last vowel regardless of the place of the Latin accent:¹
(1) Flos est puellarum
   quam diligo
   et rosa rosarum
   quae saepe video (from the Carmina Burana)

This type of rhyme clearly correlates with the fact that these poems were sung (Norberg, 1958: 136); those that require it are still interpreted as oxytonic in the Roman Catholic liturgy. Since Latin, being dead, could be tampered with rather freely (cf. Lázaro, 1976: 81; Norberg, 1958: 47), I will give Spanish examples -probably not unrelated to these Latin origins. Traditional Spanish songs, most of which are documented very early, may occasionally impose a stress on an unstressed syllable. A still popular example is:

(2) Eres alta y delgada
    como tu madrè
    morená, saladá (regular: mädre, moréna, saláda)

The version given by Góngora of another song shows how this can interact with rhyme:
There would be no rhyme between polvo and no if the stress on the former word were not dislocated. This is a totally artificial phenomenon which does not live outside of a few songs of this traditional type. As proof of its artificiality consider the rhyme pattern in the very popular (4):

(4) Tres hojitas, madre,
    tiene el arbolé;
    la una en la rama,
    las dos en el pie (regular: árbol)

The e in arbolé is the much written about 'paragogic e' of medieval Spanish poetry. Menéndez Pidal once wrote that this normally stressless vowel can only be accounted for by appealing to music ("las únicas razones satisfactorias de este fenómeno son musicales", in 1896: 418); this must be qualified, and Menéndez Pidal himself did so later, but the role of music in preserving this archaism -and extending it beyond its original domain- has never been doubted.
It is used to preserve rhyme in certain cases:

(5) - De dónde venís, amore?
   - Bien sé yo de dónde. (regular: amor)

(Number 316 in Alín, 1968)

What matters here is that the stressed vowel in arbolé not only is not the one normally bearing the stress, but has been put there for purely metrical reasons in the first place.

There is, therefore, final stress without rhyme, but there is no rhyme independent of stress. None of the marginal cases mentioned above can be sung, let alone read, without stress dislocation. This is a very perceptible act of violence to language; it only occurs, let me insist, in a few instances under the decisive influence of music. But it would be unnecessary anyway, if rhyme happened to be a primitive phenomenon with a reality of its own, to actually dislocate stresses when reading those lines.

It has never been suggested, but someone might conclude that if rhyme does not exist without stress the pursuit of rhyme might bring about endline stress regularity. This would be an unsatisfactory hypothesis for two reasons: it would not explain how lines come to be syllabically regular and, since caesuras are not normally rhymed, would leave unexplained any regularities occurring at the caesura.
I turn now to the latter topic.

Romance meter, when described as syllabic, is said to depend on syllable count, endline stress when it is mentioned and, in longer meters, the precise location of a caesura. Why caesuras should be relevant to syllabic meters is not usually made clear. I have given in chapter 2 examples of midline phenomena which cannot be described as caesural but are easily deduced from the hypothesis of a stress-based pattern; this is enough to show that the classification of the corresponding meters as syllabic, in the above terms, is insufficient. But consider now caesuras proper. A caesura is defined as something of an obligatory stop: in the strictest cases, a word must end at the caesura. Again, why the end of a word might be a significant primitive in a syllabic system is left obscure.

To start with the simplest case, take a language with obligatory word-final stress. In the poetry of that language, requiring a caesura will be equivalent to requiring a stress in the position immediately preceding it; notice how this is consistent with the fact that clitics, i.e. stressless words, are disallowed in these languages in pre-caesural position. Take now a language like Spanish where words can be stressed on one—and only one—of the last three syllables. If caesuras were independent of stress we would expect them to mean that any word, regardless of its stress pattern, might end at the point indicated by the
caesura. But of course this is not the case. Given that
the caesura expresses the requirement for a midline stress,
Spanish (or Italian, etc.) had two choices. One was to have
any word stress in the required position, and let it be
followed by two, one or zero extrametrical syllables; that
was the option adopted for the Spanish alexandr ine, as
shown by (36) and (64) of the previous chapter. The other
choice is negative: it consists in abandoning the word
break and respecting only the stress requirement, either
directly, keeping it as obligatory (arte mayor) or indirect­
ly, having metrical rules depend on it (hendecasyllable).
The reason why caesuras have proven so stable in French
-basically a word-final stress language-, as opposed to
Italian, Portuguese or Spanish, will now, I hope, be clear
(see 5.6 below).

The system presented here and summarized in (40) of
3.4 not only is consistent with a treatment of caesuras as
related to stress distribution, it is intended to predict
their location. Under the assumption that the caesural
stress will be the second strongest in the pattern, the lo­
cation of the caesuras will follow from the Even Distribu­
tion Provision. A related topic is this: certain patterns,
apparently the longer ones, determine caesural phenomena,
while others do not; the metrist must look for the exact
regularities underlying this variation. The next section
is the detour through which we will get to a more detailed
treatment of these topics in 5.3 and 5.6.

5.2. Constituent weight

It has been known since Pañini (see the references in Allen, 1973: 119-120) that many conjunctive and similar constructions tend to be arranged so that their elements appear in order of increasing length. This was christened by O. Behaghel (1909), in typical period fashion, 'das Gesetz der wachsenden Glieder', and was assumed, to my mind correctly, to be a stylistic phenomenon. Examples range from 'We few, we happy few, we band of brothers' to 'oil and vinegar' or 'salt and pepper', not to mention 'Rules and representations,' or 'Principles and parameters' and, in Spanish, 'vinos y cervezas', 'radio y televisión' or 'bombones y caramelos'. In both languages, compare 'damas y caballeros' / 'ladies and gentlemen' with 'hombres y mujeres' / 'men and women'. Latin and Greek rhetors advised future public speakers that they should adhere to this order. As for verse, we have already encountered, in (31) of 3.3, an example of its relevance to the Kalevala.

Considering the extent of this phenomenon, it is rather surprising that we have no way of expressing it. We can, of course, state it as such, but so far there is nothing in our theory from which it would follow, and the specific primitive required for stating it -word length- would appear here for the first time. Still, it is also obvious
that stress trees encode, perhaps more than stress, something like its multiplying factors.

The fact remains that in any stress tree the designated terminal element will be assigned stress level 1 and the second strongest element will be assigned stress level 2. (The reader may want to go back to 3.3 and verify that this is indeed the case). The length of the elements placed to the right has no bearing whatsoever on the prominence relations defined on strong elements by the tree.

There is, however, one aspect of stress relations which, in our formalism, is affected by word length, namely the weakness of weak nodes. In Halle and Vergnaud's words, "the stress level of a terminal element is equal to the stress level of the maximal constituent of which it is the designated element". Their notion of 'designated element' implies an extension of Liberman and Prince's 'designated terminal element': "a designated element in a constituent is that terminal element of the subtree which is separated from its root by no w nodes". The new notion can therefore apply to terminal nodes under w as well as to those under s. If we follow them in defining "the stress level of a terminal element" as "equal to the stress level of the maximal constituent of which it is the designated element", then we are claiming that the stress level of terminal strong nodes is inversely proportional to their depth of embedding, while that of terminal weak nodes is directly proportional.
to it. Their own example will clarify this, if necessary:

\[(6) \quad (1) \quad s(2) \quad s(3) \quad s(4) \quad w_2 \quad w_3 \quad w_4 \quad s(5) \quad w_5 \]

\[z \: a \: p \: a \: n \: i \: \ddi \: t \: y \: w \: a \: \ddi \]

In the Polish word given in (6), primary stress falls on the penultimate vowel, which is the designated element of the entire tree: it is assigned stress level 1. The last vowel is under the most deeply embedded w node, and is the designated element of only this immediately dominating sub-tree: its stress level is therefore 5. All vowels dominated by w will be the designated element of the node dominating them, just like this vowel, but since this node can be more or less deeply embedded their stress level will vary accordingly. Thus the first vowel in (6), which is the least deeply embedded, will be assigned stress level 2.

Some such system of stress level computation is implicit in any procedure for assigning subsidiary stresses. In Chomsky and Halle (1968) and elsewhere, it is assumed that "it is necessary to formulate a principle for interpretation of phonetic representations that nullifies distinctions that go beyond a certain level of refinement" (Chomsky and
Halle, 1968: 23): as pointed out in 3.3 above, phonological treatments of subsidiary stress in English and other languages generally assume that distinctions of stress levels beyond level 4 can be considered irrelevant, hence that 4 = 0.

The fact that "the numbers go down as the stress goes up" is "admittedly a disadvantage of this notation" (Chomsky and Halle, 1968: 16). A notation making use of the opposite convention -primary stress = 4, etc.- has also been in use among phonologists: to mention one case relevant to metrics, this is the notation in Jespersen (1933). But in either case it has been taken for granted that the choice of one system or the other was a matter of mere notational convenience, and no substantive argument has been offered for such a choice.

Although I will not attempt a solution, I would like to suggest that this is presumably an empirical, not a notational issue (see also footnote 5 to 5.6 below). Obviously the claims made by both systems concerning strong positions are identical whenever shorter stretches of linguistic material are studied. But consider Behaghel's "law". In the system where primary stress is represented by higher figures, it can be described as a preference for structures where the higher word stress corresponds to the phrasal stress. In the other system, the only observable correlation is one between phrasal stress and the weakness of the
weaker nodes in the constituent that bears it. I would submit that the former correlation is closer to descriptive adequacy.

An argument for the opposite system will be presented shortly. Let us now see how our stress tree notation can accommodate a representation of stress in which 1 designates the weakest nodes in a constituent. Clearly, the only thing required is to compute stress levels from the bottom up, as with row cardinality in 3.2 above, otherwise keeping the stress level definitions given by Halle and Vergnaud. Compare now as an example the prominence figures in a Type B hendecasyllabic pattern that would be yielded by this system -(7)a- with those from the standard computation -(7)b; cf. (26) of 3.3-:

(7)a.

```
            5
           /\  
          /  \ 
         /    \  
        /      \ 
       /        \ 
      /          \  
     /            
    /              
   /                
  /                  
 /                    
/                      
```

Stress levels: 1 2 1 3 1 2 1 2 1 5
The main disadvantage of the system used in (7)a will be apparent from the diagram. Just as before we were forced to ascribe every primary stress to level 1, we must now give level 1 for every terminal weak node. But there are cases where a distinction between such nodes is necessary: the word in (6) is one such case, and the frequent syncopes and reductions of medial vowels in proparoxytones—as in Latin *saeculum* > Spanish *siglo*—provides another example, assuming a structure *saeculum*.

Exploring the hypothesis that both strength and weakness may be scalar would take us too far away from metrics proper. I will define instead a notion of constituent weight which I hope will be both descriptively adequate and sufficient for our purposes:

(8) The weight of a constituent is the row cardinality of the root of its stress tree.
I will suggest later that constituent weight plays a determining role in the division of spoken utterances: "if a linguistic expression reaches a certain level of complexity, it will be divided into successive parts that we will call 'phonological phrases', each of which is the maximum domain for phonological processes (...) The analysis into phonological phrases depends in part on syntactic structure, but it is not always syntactically motivated in the sense just mentioned. If the syntactic component were to be connected to an orthographic rather than a phonetic output system, the reanalysis into phonological phrases would be unnecessary" (Chomsky and Halle, 1968: 9-10). A specification of the strictly phonological factors triggering this process of reanalysis is likely to involve a construct with the essential properties defined by (8), in terms of which the "level of complexity" mentioned by Chomsky and Halle might be said to approach a limit. I will come back to this in 5.6 below.

On a less speculative level, we turn now to certain metrical implications of constituent weight. A positive feature of this new construct, from a methodological point of view, is that it is only indirectly associated with stress. I will take advantage of this and refer in the subsequent discussion, although sparsely, to a number of metrical systems whose relation to stress is itself indirect or obscure. The exact nature of that relation will have to be
explored elsewhere. It seems to me that much progress is to be expected from research along the lines of Allen (1973), where a system of subsidiary stresses is postulated above, and independently of, that of tonal word accent in Ancient Greek. Halle and Vergnaud (1978) comparably distinguish a foot level from a word level for stress systems, from which certain differences between primary and subsidiary stresses may follow. Whether the term stress is adequate or not for all of these secondary systems of suprasegmental organization cannot be established now; if they can be treated as determining distribution patterns isomorphic with those determined by stress, as in (7)a and (7)b, the phonetic nature of such an isomorphism will at any rate constitute the answer to a question put more clearly than we could put it now.

5.3. A parameter for Even Distribution

A number of well-studied meters are apparent exceptions to Even Distribution. Closest to us among them is the medieval Provençal, French and -later- Catalan "décasyllabe", i.e. an hendecasyllable by the Italian-Spanish count. Two varieties of this meter are usually distinguished, and both are described as obligatorily stressed on the fourth position. If there is 'epic caesura', an unstressed syllable after the fourth position and within the word that contains
it will be treated as extrametrical:

(9) Dis blanches mu(les) fist amener Marsilies

4th position 10th position

(Chanson de Roland, 89)

If there is 'lyrical caesura', such a syllable will count as a metrical position; this is the most common arrangement in Provençal and French lyrics, and would be the rule in Catalan:

(10) la tramontana e'1 fers e'1h caramida

4th 10th

(Sordel, 31 in Appel, 1920)

Assume that these are varieties of the same meter and that their metrical pattern is correctly described by the same rules as the later Spanish and Italian hendecasyllable. Then the 4th position stress is an anomaly, for we would expect it to alternate with a stress on the 6th position. This restriction of a pattern to only one of the variants permitted by Even Distribution is what I intend to account for by proposing the constraint in (11):
(11) **Constituent Weight Restriction** (first formulation): If by Even Distribution a pattern has two realizations and a metrical tradition selects only one of them, the variant preferred will be the one where the second colon has greater constituent weight than the first colon.

This predicts, for instance, that we may find traditions with only Type B hendecasyllables, but that if Type A is used Type B will also be. This is the case in Romance, and also in the early, Romance-inspired Russian iambic pentameter.

In certain longer meters - e.g. hexameters-, Even Distribution actually permits three structures (F below stands for foot):

(12)a. 

```
    F F F F F F
```

b. 

```
    F F F F F F
```
The preferred pattern in these cases—an example of which is perhaps the French alexandrine (cf. Bowers, 1980)—is most often the one in (12)a. (11) above can be reformulated accordingly:

(13) **Constituent Weight Restriction:**

If by Even Distribution a pattern has more than one realization and a metrical tradition selects only one of them, the variant preferred will be the one where:

- a) both cola have the same constituent weight
- or, if variant a) does not occur:
- b) the second colon has greater constituent weight than the first.

This restriction is typically applied either in early phases of the history of a meter or in very metrically-conscious periods, when prescriptive metrics may have some influence. It is no less typically neglected by poets who deliberately set out to take maximum advantage of the possibilities of a meter; thus, Paul Valéry's "décasyllabes"
are free from the obligatoriness of the fourth position stress:

\[(14) \text{La scintillation sereine sème} \]
\[
\begin{array}{c|c}
4 & 6 \\
- & +
\end{array}
\]

(Le Cimetière marin, 23)

Comparably, Catalan poetry adopts Type A "hendecasyllables", which were unknown to such classical poets as Ausias March, after the 19th century Renaixença.

The fact that a restriction like (13) can be adopted by entire schools and be in effect for centuries should not obscure its essentially "stylistic" character, not quite different from that of the prose constructions discussed in the previous section. One might expect, given this character, that exceptions to it will appear in periods when it has not been turned into a widely respected, explicit precept. This is certainly the case in medieval French and, still more, in Provençal (Burger, 1957: 21-25):

\[(15) \text{que'us duptavon mais qu'ome nait de maire} \]
\[
\begin{array}{c|c}
4 & 6 \\
- & +
\end{array}
\]

(Gaucelm Faidit, 82 in Appel, 1920)

The structure of the line in (15) is extremely common in lyrical poetry where it often exhibits a stress on the
third position. A variant of it also occurs in certain French epics, where it can determine an 'epic caesura' after the sixth stressed position:

(16) E fu tros a la fer(te) de San Romeu

\[ \begin{array}{ll}
4 & 6 \\
- & +
\end{array} \]

(Girart de Rossillon, 15, in Burger, 1957: 21)

Whether the restriction in (13) can also account for other attested asymmetrical meters - the examples of the Serbocroatian epic verse (Jakobson, 1952) and the Indic hendecasyllable (Arnold, 1905; Nagy, 1974) come readily to mind-, I must leave to the specialists. Given the extraordinary generality of 'Behaghel's law', on which it is based, it would not be surprising if it had cross-linguistic validity. Its history in Romance meters of ten metrical positions is at any rate illustrative of the function that similar restrictions have and of how, not unlike metrical rules, they are superseded when poets feel confident that they can handle considerable complexity.

5.4. The Spanish octosyllable and the specific properties of shorter meters

Ternary meters are used comparatively little in Romance. The time and place of their golden period are the
13th, 14th and 15th centuries in the Iberian Peninsula, where Galician-Portuguese cancioneiro poetry was followed by arte mayor. The renewal of their popularity in the 19th century never came close to turning them into serious competitors of binary patterns. They have certain clear disadvantages, although arte mayor is no doubt excessive as an example of the difficulties they pose. All ternary meters suffer from their engendering long sequences of stressless or irregular syllables whenever any violation of the strict correspondence between line and pattern occurs (Kiparsky, 1975: 609). I would conjecture, however, that arte mayor has the further disadvantage of creating stress maxima next to a strong position in the pattern every time that the configuration \( w \) is used in it outside a pair of adjacent stresses; hence perhaps the boring regularity of later instances of amphibrachics, broken only by occasional examples of \( S_w w \) or, as underlined below, by \( S_w s + \) next to the expected \( + \) 

(17) En locas faunalias no sientes el viento que arrecia,  
el viento que arrecia del lado del férreo Berlín,  
y allí, bajo el templo que tu alma pagana desprecia,  
tu vate, hecho polvo, no puede sonar su clarín.  

(Darío, "A Francia", El canto errante) 

In any case, since all ternary meters are much less favored
than binary ones in Spanish, let us concentrate on the latter from now on.

It would be possible to apply to Spanish, *mutatis mutandis*, an observation made for French by Walther Suchier (1952: 20): "So wie der Alexandriner werden auch die andern Versarten von gerader Silbenzahl jambisch rhythmisiert, während die Verse von ungerader Silbenzahl trochäischen Rhythmus erhalten". In the terminology of Spanish metrics, this would mean that lines consisting of an odd number of syllables are somehow iambic whereas lines with an even number of syllables are somehow trochaic.

Given correspondences between pattern and line positions as per Prosodic Rule II of 1.2, and disregarding extrametrical syllables where they occur, this would be an almost automatic consequence of the pattern-generating rules in (40) of 3.4. A pattern with d.t.e. stress on the tenth syllable may correspond to a line where this strong position is followed by zero to two syllables. The remaining nine syllables in a binary pattern can only correspond to iambics:

(18)a. w s w s w s w s w s Iambic hendecasyllable
   9 positions   position 10
b. s w s w s w s w s w Hypothetic trochaic
   unfilled 9 positions    position 10 hendecasyllable
The only realization rule that would allow structure (18)b. to be instantiated in hendecasyllables would be the equivalent of (35) of 3.3 for a strong position in the pattern, i.e., a license to have truncated lines where the unrealized element is strong. But no such license seems to exist in metrics; it certainly does not in Spanish and, even if it did, it would have to always apply in a pattern based on (18)b, which is absurd, for its corresponding lines to be hendecasyllabic.

If line-initial positions cannot correspond to $\varnothing$ in Spanish, any type of binary line whose strongest element is preceded by an odd number of syllables will be iambic. Analogously, if we disallow systematic and exceptionless application of line-initial $\text{w}$, any type of binary line whose strongest element is preceded by an even number of syllables will be trochaic. Hence, e.g., an octosyllable, which by the Italian-Spanish count will have position seven as its strongest position, will be trochaic:

\[(19) \quad \underline{s \, w \, s \, w \, s \, w \, s \, w} \quad \text{w} \quad \begin{array}{c}
\text{6 positions position 7}
\end{array}
\]

and an eneasyllable will be iambic:

\[(20) \quad \underline{w \, s \, w \, s \, w \, s \, w \, s} \quad \text{w} \quad \begin{array}{c}
\text{7 positions position 8}
\end{array}
\]
In both cases, the rightmost s may be followed by zero to two unstressed syllables in the line, given the stress pattern of Spanish words; this obscures the relation between their number of syllables and their foot composition.

I fail to see what explanation can be given in a purely syllabic framework for the fact that 'even' meters only alternate regularly with other even meters, while 'odd' meters also alternate regularly only among themselves. From the above, as suggested already in 2.7, it may be concluded that the reason is the identical foot composition of all the members of each of these classes.

These considerations all but impose upon us a trochaic analysis for the Spanish octosyllable. Let us see whether it is viable.

This meter was so popular in 1660 that Juan Caramuel could write that, while other meters were due to art, this one was due to nature ("todos los versos son hijos del arte, menos el octosílabo, que lo es de la naturaleza"; cit. in Saavedra Molina, 1945: 5). Its popularity was already old: we have fairly clear examples from the early 14th century, and in the 15th it was cultivated by all the cancionero poets. Later, Cervantes, Quevedo, Gongora, Lope de Vega and all the dramatic poets used it; it is the meter of Martín Fierro and of Lorca's Romancero gitano. Most typically, it is the meter of romances, a prodigiously rich tradition of ballads which is still a living one in Spain, among the
Sephardim, in the Mexican "corridos" and elsewhere in America (for a valuable introduction in English see Smith, 1964).

There would be nothing unusual in classifying the octosyllable as trochaic. Francisco de Cascales, who also took the hendecasyllable to be iambic, did so in his 1617 Tablas poéticas. So did more recently Bello (1859, v, pp. 153-154). Perfectly trochaic examples can be given from all periods, as in these well-known examples:

(21)a. Rey don Sancho, rey don Sancho

1 3 5 7

b. Quién hubiera tal ventura (both from romances viejos)

(21)c. Ríñes mucho y comes poco (Cervantes, "Hermosita, hermosita")

d. dulces lazos, tiernas redes (Góngora, "Servía en Orán...")

e. Veinte presas hemos hecho (Espronceda, "La canción del pirata")

f. Huye, luna, luna, luna (Lorca, "Romance de la luna luna")

But most examples are far from being so unambiguous.
Bello himself (1859, v; pp. 162-163) proposed another type of octosyllable, the dactylic. His example is

(22) ¡Vuelve la paz a los hombres!

Within the system of the present study a dactylic octosyllable is not impossible: it would be composed of three dactylic feet ("cláusulas", in Bello's perhaps more adequate terminology). Compositions using only variations on a noticeable 1-4-7 pattern are rare; Navarro (1956: par. 41) seems to suggest that this pattern is older in the Iberian Peninsula than the general Romance trochaic, a suggestion which is consistent both with the rhythm of Hispano-Arabic kharjāt and with the clearly ternary tendencies of North-western cancioneiros (cf. Otero, 1976).

I would agree with Bello that a dactylic octosyllable is possible. Certain popular octosyllabic compositions are set to a 3/4 measure and tend to exhibit stress on the 1st and 4th positions. This is typical of some -not all- romances de ciego, often narratives of contemporary bloody events sung in Spanish fairs until quite recently:
Esta es la historia, señores,
1 4 7
de una mujer asesina
1 4 7

This is not enough evidence for ascribing them to a separate dactylic type, however. I am at present unable to produce a conclusive example of a dactylic octosyllabic composition, although I suspect that the Neoclassic and early Romantic periods may have produced them.

The fact remains that a 1-4-7 octosyllable can appear in the same composition as a 1-3-5-7. For instance, the second part of the romance by Gongora quoted in (21)c begins:

Entre los sueltos caballos
1 4 7

I differ from Navarro Tomás in that I would take it to be a basic methodological principle in metrics that whenever a certain number of configurations alternate in a composition the deeper regularity underlying them must be uncovered. Notice that identity in the number of syllables cannot be sufficient to establish such a regularity: for example, an 11-syllable line stressed on 5 and 10 may qualify as arte mayor but not as an Italianate hendecasyllable. There are,
so it seems, two types of octosyllabic patterns, one trochaic and the other dactylic. It may be that the former is realized in rhythmically dactylic lines through the operation of metrical rules, as was the hendecasyllable, but in principle we would require independent evidence to accept the conclusion that the two types actually are interchangeable.

Let us therefore go back to our metrical rules. They allow both $\text{S}_1 \text{W}_1$ and $\text{S}_1 \text{W}_2$ within the line, as do those of other languages under rather more restrictive conditions. They limit the occurrence of these configurations at two points: the end of the line and the end of the first colon. The difference between the octosyllable and the longer meters that we have been discussing is not related to the diversity of their foot composition, but to another well-known parameter of general metrics, usually identified as line length. Neither in the octosyllable nor in any of the even shorter meters are there midline restrictions of any sort, and as a consequence a purely syllabic analysis of them runs into fewer difficulties than it would in the case of the hendecasyllable or the alexandrine. This has always been the case in Spanish, and we have already seen an example of it in the metro de seguidilla briefly discussed in 4.6.

Since midline phenomena are generally recognized only when they manifest themselves in real or alleged caesural requirements, it is to the treatment of these that we must
turn to find parallels in studies on other languages. In English poetry, medial extrametrical syllables do not occur in shorter meters; for some authors, "nearly every line of verse of three or more feet contains a (...) caesura" (Woods, 1936: 9). Zhirmunskij writes of Russian that "in ternary meters, there is usually a caesura for tetrameters and lines longer than tetrameters" (1966: 142), while the iambic pentameter may or may not have it (140-141) and "in binary meters having a larger number of feet (...) the caesura is obligatory" (141). In German (Minor, 1902: 219), "bei mehr als vier Füssen ist die Casura auf die Dauer unvermeidlich; kürzere Verse kommen öfter ohne weitere Gliederung vor". There was a caesura in French, Provençal and Catalan "décasyllabes" and in French alexandrines; none in shorter meters.

We are thus dealing here with a language-independent phenomenon: a specified number of positions appears to determine restrictions on the d.t.e. of the first colon of the pattern, but no similar restrictions occur below that number. We can apparently take the relevant figures to be five binary and, judging from Zhirmunskij's statement, four ternary feet.

A possible way of capturing this generalization is the following:
(25) Specific restrictions affecting the d.t.e. of the first colon in a metrical pattern occur when the constituent weight of the pattern is 5 or greater than 5.

5 is the constituent weight of binary pentameters

(26)

\[
\begin{array}{c}
5 \\
4 \\
3 \\
2 \\
1 \ 1 \ 1 \ 1 \ 1
\end{array}
\]

of ternary tetrameters such as the verso de arte mayor:

(27)

\[
\begin{array}{c}
5 \\
4 \\
3 \\
2 \\
1 \ 1 \ 1 \ 1 \ 1
\end{array}
\]

and of binary hexameters such as, I would suggest, an alexandrine:
On the other hand, binary tetrameters will have a constituent weight of 4. A trochaic octosyllable, given Even Distribution, will have the structure in (29), where constituent weight has been indicated:

The statement in (25) is not formulated as an 'if-and-only-if' conditional. The relevant evidence is not entirely clear. By Even Distribution, all the meters with an odd number of feet will have two possible patterns, and therefore those authors who refuse to see a proper caesura in the iambic pentameter of English or -in its more common variety-Russian are entirely correct (Young, 1928: 91-92; Zhirmunskij, 1966: 141; Unbegaun, 1956: 61). Only the additional operation of the Constituent Weight Restriction may -but need not- produce a caesura in those meters, by turning
the d.t.e. of the first colon into a fixed position. This is particularly relevant here because ternary trimeters do have a constituent weight of 5; an example would be a dactylic octosyllable:

Indirect midline requirements such as those to which the Spanish hendecasyllable is subject would no more be recognized in cases like (30) than they have been in that meter. But I doubt that such requirements ever existed specifically in ternary trimeters. Line-initial feet, be they binary or ternary, are subject to all sorts of weakenings regardless of the length of the line (cf., e.g., Wimsatt and Beardsley, 1959: 106-107), and notice that the d.t.e. of the first colon in (30) -the structure consistent with a hypothetic application of the Constituent Weight Restriction- corresponds to the first foot. For example, the following anapestic trimeter exhibits truncation, as discussed in 3.3:
(31) My right there is none to dispute

(Cowper, "Verses Supposed to be written by Alexander Selkirk", cit. by Malof, 1970: 32)

and in the following dactylic dimeter the second position is stronger than the first:

(32) While horse and hero fell (Tennyson, The Charge of the Light Brigade)

According to the metric proposed by Halle and Vergnaud the leftmost foot in many meters will not be the weakest; it is not, in particular, in (31): the weakest foot is the second, which is regular there and in the rest of the composition. The reason for the peculiar weakness of line-initial feet must therefore be found elsewhere —possibly in the nature of metrical rules, deprived there of a left context, as both Halle and Keyser (1971: 167-168) and Kiparsky (1977: 217-218) have seen.

Both Even Distribution and the peculiar status of line-initial feet militate therefore against the presence of clearly identifiable signs of midline restrictions in ternary trimeters. Pending further investigation of this topic, I will assume then that the statement in (25) is correct. It must have been noticed that a comparable statement in terms of the number of positions of the correspond-
ing meters runs into much the same difficulty; it would not predict any distinction between a dactylic trimeter and a trochaic tetrameter, both having seven stressable positions.

5.5. The trochaic octosyllable

I will discuss in the next section the nature and implications of the generalization in (25). As far as the octosyllable is concerned, it means that if its metrical rules are the same as those of the hendecasyllable there will be no direct evidence for its being trochaic. Only Metrical Filter II is applicable, and therefore we expect to find, with a corresponding increase in complexity, stressless syllables in any but the seventh position. The lines in (33) provide examples for all the even positions. The following are examples of stressless 1, 3 and 5, respectively, in lines otherwise perfectly trochaic:

(33)a. Amarrado al duro banco (Góngora, "Amarrado...")

(1) ¹ ¹ ¹

b. noble capitán valiente (Góngora, "Servía en Orán...")

(3) ¹ ¹

c. Quién pudiera imaginar (Góngora, "Servía en Orán...")

(5) ¹
We may also expect "inversions" in any of the first three feet, and therefore stresses on 2 and 4:

(34)a. Gallardo moro, le dice  (Góngora, "Servía...")
    2  4  7

b. Servía en Orán al rey  (ibid.)
    2  5  7

c. viendo tus golpes crueles  (ibid.)
    1  4  7

It will be noticed that (34)c is undistinguishable from a dactylic octosyllable, as expected.

None of this is any different from what happens in, say, the hexasyllabic second colon of a Type B hendecasyllable. It would be far more surprising to find different metrical rules in this meter. Given (25) and the fact that the metrical rules apply in Spanish to any meter, no other alternative exists. Spanish being frequently polysyllabic, most instances of the octosyllable will not exhibit a regularly alternating stressing; given furthermore the alternatives in (34), a sequence of octosyllables by a skillful poet will in general be characterized by constant rhythmic variation.

Nothing except (25), which is independently motivated, must be added to our theory to predict that this is indeed
going to be the case. Such variability is not therefore a difficulty for us, but a confirmation. To bring in additional evidence for the trochaic octosyllable -the longest trochaic meter in Spanish, according to Bello-, I will consider three topics: internal rhyme and line bipartition, the meters which alternate with the octosyllable and the analyses of other metrists.

If rhyme is based on stress, as was argued in 5.1 and is generally accepted, we would expect lines exhibiting internal rhyme to do so in the second strongest position, i.e. in the strongest line-internal point. Internal rhyme is thus a clue to the nature of the first colon in the pattern. Systematic internal rhyme ("leonine rhyme") occurs in the sixth position of some series of Type A hendecasyllables by Garcilaso:

(35) ¡Ay dulce fuente mía y de cuán alto
con solo un sobresalto m'arrojaste!
¿Sabes que me quitaste, fuente clara,
los ojos de la cara?, que no quiero
menos un compañero que yo amaba (Egl. II, 744-748)

The following Type B Italian hendecasyllables by Giacomo da Lentino exhibit also internal rhyme:
Both these systematic rhymes and, when frequent enough, analogous but non-systematic cases are partial evidence for the structure of the underlying pattern, as in the two examples above.

Some of the early octosyllabic compositions in Galician-Portuguese cancioneiros show a definite tendency towards internal rhyme based on position 3. Among these compositions, in which Clarke (1942) sees the immediate source of the Spanish octosyllable, are the famous cantiga de Leonoreta and several others quoted by Rodrigues Lapa (1929: 307):

(37)a. Martin Gil, un homem vil (Canc. da Vaticana, 921)

   b. O genete pois remete          (ibid., 74)

In the more elaborate lyrics of the later Spanish courtly poets this effect is a stylistic variant among many, and therefore unrevealing:
(38) mal casada y mal trobada (Cancionero de Amberes, cit. in Alín, 1968, number 38)

Ballads, on the other hand, although rarely giving in to internal rhyme, very often present examples of strict line bipartition in two paroxytonic groups and clearly favor repetitions of four-syllable paroxytones or formulaic units having this stress pattern:

(39)a. Rey don Sancho, rey don Sancho

b. Fontefrida, Fontefrida

3 7

c. Abenámar, Abenámar

3 7

d. Durandarte, Durandarte

3 7

e. Nuño Vero, Nuño Vero (from romances viejos)

1 3 5 7

No such repetitions occur of elements stressed differently (e.g.: Córdoba, Córdoba, Córdoba). This traditional usage reappears in later romances by known poets:
(40) **Hermosita, hermosita** (Cervantes, in *La Gitanilla*)

If 15th century lyrics do not provide evidence based on internal rhyme, they have instead an equally interesting property. In many Spanish stanzas the regular meter alternates with a shorter one, called *its quebrado*. The typical *quebrado* for the hendecasyllable is, as pointed out in 2.7, the heptasyllable, equivalent to the first colon of its Type A. Examples of octosyllabic compositions with a *quebrado* are Jorge Manrique's *Coplas por la muerte de su padre* -(41)a- and Santillana's *Proverbios* -(41)b- (in Foulché-Delbosc, 1912, 1915):

(41)a. como, a nuestro parescer,

quéquiera tiempo pasado

fue mejor

1 3

b. Fijo mio mucho amado

para mientes

1 3

These *quebrados* are tetrasyllables, i.e. lines stressed on the third position. If the octosyllable is trochaic, and therefore has the pattern in (29) above, it follows that
its quebrado is equivalent to its first colon:

(42)

\[
\begin{array}{cccc}
W & s & W \\
S & W & S & W \\
\end{array}
\]

para mientes

1 3

All of the above regularities would derive from assuming that the second strongest position in the octosyllable is the third (recall that in a dactylic pattern that position would normally be the first, perhaps also alternating with the fourth). This in turn is, in our system, a consequence of its being trochaic, if all Spanish patterns are governed by Even Distribution.

The singularity of the third position, although not reflected in metrical rules, has been pointed out by previous students of this meter. Le Gentil writes that "un accent accessoire apparaît souvent sur la troisième syllabe, ce qui donne au vers un rythme trochaïque" (1952: 322). Saavedra Molina notes that, when the third syllable constitutes what he calls the second vortex -the main internal stressed unit-, the line has maximum fluidity, "como si éste fuese el octosílabo por excelencia" (1945: 42). As for Navarro's proposal of a trochaic analysis, it may this time be taken literally: see his scansion in "El octosílabo y
sus modalidades", included in Navarro (1973).

Neither of these metrists was trying to state a surface regularity, since the third syllable accent is often missing and lines without a trochaic rhythm in any obvious sense can easily be found. Bello distinguished between acentos rítmicos and acentos antirítmicos or accidentales: these and similar distinctions are intended to capture the difference between $S^\uparrow W^\downarrow$ and $S^\downarrow W^\uparrow$ configurations, the latter being assumed to contribute, even if minimally, to the overall complexity of the line. Much as in segmental phonology /f/ is said to be a more marked segment than /p/, regardless even of statistical considerations, so in metrics a line structure is 'unmarked' or marked' according to its correspondence with the postulated pattern, although in most traditions lines strictly congruous with the pattern tend to sound mechanical. I am not aware of any criticism of Bello's system that does not appear to have missed this point. Perhaps typically, Saavedra Molina seems close to accepting it when he writes that it is not stress that creates rhythmic structure, but stress in a rhythmic position (1945: 28). But then an empiricist prejudice forces him to attempt to determine which positions are rhythmical—in his sense, which takes Bello's as a point of departure—in readings of poems, and predictably rejects Bello's theory. However, when he stresses elements which do not carry stress in normal speech, he often adheres to a postulated
trochaic rhythm which nothing in his approach to the octosyllable would make us expect (Saavedra Molina, 1945: 58):

(43) Íbase pará París (regular: pāra)

He attributes this to a "tendency" on the part of the "rhythmic mould" to "become" his type a, i.e. a line stressed on 1, 3, 5 and 7, or a trochaic line (1945: 58).

I conclude that a trochaic analysis for the standard octosyllable is well motivated. In our system, that such a meter is possible follows from the pattern-generating rules. This does not necessarily mean that it is going to exist in a particular tradition, but it is of some importance that nothing must be added to our set of rules to predict that it will be available in theory. As for the particular form that lines representative of this meter are going to have in Spanish, it also follows from the metrical rules that have been motivated for other meters in that language, given the general provision (25) above.

Saavedra Molina and other metrists -but, as we have seen, not all of them- have resisted this conclusion on the basis of considerations of rhythm. I will close this section by pointing out that the meter of a poem does not determine its rhythm. The meter of a poem is its measure, in the musical sense; its rhythm comes from the interaction of the normal stress configuration of its lines and the meas-
ure to which it is set (Otero, 1972: 129ff.). This is the reason why lines which adhere to the pattern are tedious: "verse is written and read with reference to a norm (...) but this is a norm which is no ideal" (Wimsatt, 1971: 211). The meter, therefore, has no physical reality, in a way, but neither has the rhythm -unless, it is identified, self-defeatingly, with that of common, unmetrical speech; the existence of metrical poetry would in this view be a capricious, unjustifiable accident.

5.6. The limits of patterns and the pattern of limits

The notion of constituent weight defined in 5.2 is related to the 'metrical grids' used by Liberman and Prince (1977). 'Grids' were formalized as rows of correlative integers -these being used merely as place-holders-. The rows can be straightforwardly mapped onto the stress tree of the corresponding constituent through an algorithm whereby successive levels of stress, as reflected in the tree by each assignment of the label s, are places (=numbers) in a column; one of their examples is:
Liberman and Prince used this formalism only to make precise the context for the operation of the 'Rhythm Rule' which gives, e.g., the contour *thirteen men* instead of the predictable *thirteen men*. Since this rule can be expressed at least equally well in other terms (Kiparsky, 1979; Hayes, 1980; Bing, 1980), the study of the properties of the 'grids' has not been pursued.

It will be clear to the reader that the first row in the grid in (44) corresponds to constituent weight 1, the second to constituent weight 2 and the third to constituent weight 3:
In (44) it can be said that having three strength levels is a property of the entire phrase, and also that it is a property of the constituent men. Only the first relation can be expressed in terms of constituent weight. The second is of course identical to the measure of stress in the low stress-low number system presented in 5.2. We may take one further step in our mimicry of that system and adopt the following definition:

(46) The scalar strength of a terminal constituent is the row cardinality of the tree of which it is the designated element.

(where 'designated element' is used in the sense of Halle and Vergnaud (1978), as in 5.2 above).

Within any larger constituent, the differences in scalar strength of the terminal elements are strictly "syntagmatic" or contextual, just like the differences in stress level in the standard notation. Scalar strength can in theory be infinitely high, and stress level in the standard notation can be infinitely low; within stress trees, however, both constructs measure the difference between the designated terminal element and the weakest terminal element, and, moreover, that difference is the same in both cases. When I suggested in 5.2 that there might be empirical grounds for choosing one or the other measure of stress
(see footnote 5 below), I was not therefore denying that for most purposes both systems are notational variants of each other. I will be concerned in this section with prominence differences between terminal elements in a constituent. I will refer mostly to scalar strength as their measure, for the convenience afforded by its straightforward correlation with constituent weight, but I want to make it clear that those differences are undistinguishable from stress level differences in the languages with which we are concerned.

This being so, the fact becomes relevant that four levels of stress have been considered sufficient by many phonologists (Jespersen, 1933; Träger and Smith, 1951; Chomsky and Halle, 1968, etc.). Quite a few other scholars have been puzzled by the apparent arbitrariness of this figure (cf. Lehiste, 1970: 149-150): "for all we know, there may be, not four, but five degrees of English stress, or eight", write Wimsatt and Beardsley (1959: 105); they go on to assert that, even if correct, this scale would be useless in metrics: "The discriminations are not needed for discerning the meter - but only the degrees of more and less (...) How much more is always irrelevant" (105). I would like now to question this latter observation, although not quite in the domain that Wimsatt and Beardsley had in mind.

The generalization stated as (25) of 5.4 is at least approximately correct. It is in principle possible for
patterns having a constituent weight of 5 to be exempt from midline requirements due to the operation of other interfering parameters: ternary trimeters, as has been pointed out, supply perhaps examples of this. Also, musical requirements or -usually with only partial success- the foreign borrowings, rulings and fancies of preceptive metrics may impose constraints beyond those established as minimal by metrical rules with general validity. For instance, as noted in footnote 2 of 2.1, there existed briefly in Spanish a hendecasyllable with systematic stress on an oxytone ending in the fourth position. These additional constraints, I would contend, cannot contradict the basic ones of the corresponding metrical tradition, but they may always go one or several steps further. As a consequence of this, we must not rule out the possibility that midline requirements be imposed on lines whose pattern has a constituent weight of less than 5.

None of this detracts from the intrinsic validity that I am postulating for (25). As long as apparent exceptions to a regularity can be attributed to its being overruled by the effect of some parameter, it is sound scientific practice not to abandon the hypothesis that the regularity in question has substantive content. This often repeated caveat is particularly pertinent in the study of meter, where historical accidents and conscious interventions constantly mask the noncontingent metrical facts.
Consider, then, the implications of a constituent weight of 5. It means that the d.t.e. will have a scalar strength of 5, or that 5 will be the stress level of the weakest constituent. In other words, that the gap between the strongest and the weakest terminal elements will be one of four degrees, whose description will require more than the four points usually recognized as relevant in phonological analyses of stress. As I have already reported in 5.2, it is assumed —indeed it must be assumed— that beyond a certain point such distinctions are nullified; hence, the use of four degrees contains an implicit hypothesis with respect to the point at which further discrimination becomes irrelevant to the linguist. Suppose that we take it to reflect the point at which discrimination is made impossible, or simply difficult, to the speaker-hearer. Then the point where a linguist expression reaches the "level of complexity" mentioned by Chomsky and Halle (1968: 9; cf. 5.2 above and Kean, 1980: 252) as determining its division into phonological phrases may well be, in the simpler cases, the point where a discriminatory maximum has been attained. If there are four "phonological" degrees of stress or scalar strength, the point of maximum possible discrimination will be reached in phrases with a constituent weight of 4: the difference between their primary and their weakest stresses will be of three degrees. Phrases with a constituent weight of 5 would force the speaker-hearer to take into

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account a difference of four degrees; at that point, we may assume, it becomes necessary to split the constituent into two successive "phonological phrases".

Each of these phonological phrases will have to be marked as self-contained, by abolishing the dependence of the weaker one on its stronger sister constituent. One way of representing this is simply to divide the original tree into two separate ones:

![Diagram](image)

The flattening of prominence distinctions exemplified in (47) turns the d.t.e. of the lefthand tree into a bearer of main stress. It is my hypothesis that such a main stress has stronger metrical implications than lower-level stresses, and that the fact that midline requirements correlate with constituent weight, possibly as in (25), is due to the effects of the same principle that operates in (47).

The principle in question—call it the Flattening Rule—will rarely operate under the minimal conditioning of the need to preserve manageable prominence distinctions. Most often its output will also be affected by the syntactic
phrase bracketing of the expression, which will have determined the internal structure of the tree anyway; as a result of this, frequently prominence distinctions will not be reduced to the ideal maximum of four degrees. Keeping this important limitation in mind, we can formulate the rule—or rather a crude approximation to it—as follows ([...]) being a constituent of weight i):

(48) **Flattening Rule** (optional)

In a constituent [n[x][y]], n ≥ 5, erase the outer brackets.

I have purposely avoided linking this discussion of relative prominence to particular languages. Notice that it is not clear that it should be: the availability of four possible degrees for the discrimination among stresses does not entail that a four-way distinction is going to be used in the phonology of a language even if the language has the Flattening Rule. This rule may be rooted in perceptual or articulatory limitations, and these are language-independent by their very nature. Thus, a language not distinguishing four degrees of stress may have the rule; on the other hand, if it were shown conclusively that more than four degrees are distinguished in some language the rule would have to be parametrized or revised accordingly. It is therefore of some interest that such statistical studies as exist of spo-
ken utterance division point towards an average of seven syllables for phonological phrases in English and Spanish (see Navarro, 1939 and references cited there). These studies are old and their value as confirmations can only be quite indirect, but the number of syllables that could be expected under normal conditions of bracketing to yield a constituent weight of 4 would tend to cluster statistically around that figure.6

Returning to meter, notice that patterns are not themselves subject to the Flattening Rule, which can only apply to actual linguistic expressions. A pattern is an ideal object, and only particular instances of it will provide the input to phonological rules. For example, a sequence of nonsense syllables strictly adhering to the meter of the Spanish hendecasyllable will be split by the Flattening Rule into two groups (phonological phrases) along the colon boundaries:

\[(49)a. \text{da dum da dum da dum da dum da dum} \]
\[b. \text{da dum da dum da dum da dum da dum} \]

The importance of the constituent weight of the pattern with respect to these splits, as reflected in (49), is not directly correlated with the scalar strength of the d.t.e of the cola: for instance, the d.t.e. of the first colon of a
Type B hendecasyllable such as (7) is just as strong as that of the lefthand colon in an octosyllable, i.e. 3. But in the least marked case that would be the position of the lefthand main stress in the line, and hence it is the preferred or, in certain meters, the obligatory position of the precaesural stress.

There are thus two tendencies simultaneously working towards the same effect in pattern-line correspondences. Stronger will tend to correspond to stronger, because such would be the correspondence in hypothetical lines perfectly matching the pattern: this applies in principle to any meter—see 5.7 below. At the same time, main lefthand line stress will tend to correspond to main lefthand colon stress, because in such hypothetical lines the stress in question would be the mark of a separate phonological phrase; this is the case in meters with a constituent weight of 5 or higher.

Whether a meter of this latter type has a caesura or not will then depend, in particular, on whether Even Distribution determines a single colon structure or allows two alternatives, unless the Constituent Weight Restriction selects one of these. If there is only one colon analysis for the pattern, then an identifiable break will be perceived in most attempts at implementing it. Recall that even in the highly flexible hendecasyllable of Garcilaso most lines were actually stressed in the colon d.t.e. position. A metrical
rule requiring colon d.t.e. stress, as in the first formulation given for arte mayor—which is valid for some of its practitioners—, is a more straightforward metrical alternative than the subtle Metrical Filter I of the hendecasyllable. The reason for this lies in the closer correspondence to the pattern thereby ensured, from which, as will be seen shortly, an important reduction follows in the possibilities open to line tension. A formulation of such a rule in terms of caesuras will always be feasible if the d.t.e. stress has a constant, predictable position.

Another factor in determining the viability of a caesura is the word stress pattern of the language, as was pointed out in 5.1 above. It is always possible in principle to require colon d.t.e. stress, but if the language allows one or several unstressed syllables after the main stress of the word where it falls a decision must be made as to the metrical function of these syllables. They can be considered extrametrical, as in "décasyllabes" with epic caesura or in the standard Spanish alexandrine (cf. (36) and (64) of chapter 4)—and notice how any metrical system that allows this alternative escapes from strict syllabicity. This is potentially a cause of conflict with the tendency towards a one-to-one correspondence between pattern and line, a tendency arising again from the resistance to line complexity. Where this tendency prevails, weak syllables following the main midline stress in the same word actually fill metrical posi-
tions, as in the arte mayor of Mena's Laberinto or in "déca-
syllabes" with lyrical caesura. Then the caesura is no more
a fixed break. Furthermore, maintaining the requirement of
a midline stress becomes then a frequent cause of complexity
elsewhere: in binary meters, a proparoxytone in lyrical cae-
sura necessarily implies that the strong position in the
next foot will correspond to a stressless syllable (and cre-
ate a "bracketing mismatch" at a particularly sensitive
point). The replacement of obligatory midline stress by
such alternatives as Metrical Filter I is facilitated by
this; it even becomes something of a trade-off.

A language like French avoids this trap because it has
no proparoxytones and because of its prosodic rule for
e muet (cf. Milner, 1974). The French equivalent to syna-
loepha applies only to word-final e muet (schwa, the only
word-final stressless vowel in the language), which is sim-
ply dropped before a following vowel:

(50) Oui, je viens dans son temple adorer l'Eternel
∅ (Racine, Athalie, I, i, l)

Feminine endings at the caesura can therefore be kept when-
ever a word-initial vowel follows -(50)-, but not before a
c consonant:
(51) Oui, je viens dans son temple vénérer l'Éternel
Oui, je viens dans ses temples adorer l'Éternel

Classical French caesuras will always correspond to midline obligatory stresses at the cost of avoiding the configurations in (51).  

5.7. Line complexity, prosody and the nature of Even Distribution

In the light of the preceding sections of this chapter the implications of the Even Distribution Provision become somewhat clearer. This provision forbids patterns where certain groups of four nodes are exhaustively dominated by a node that is, in a very precise sense, too high; let me repeat the formulation in 3.2:

(52) The root of the tree exhaustively dominating four nodes in a parallel row of cardinality k may not belong to a row whose cardinality is higher than k+2.

In the simpler case, the four nodes in question will be pattern-terminal. Consider the stress level and scalar strength relations that have been prohibited in this case:
In all the forbidden configurations a span of four degrees would have been created. But this is the maximum allowable span, if the hypotheses put forward in 5.6 are correct.

(52) amounts to prohibiting pattern-internal configurations with a constituent weight of 4, and therefore differences equivalent to the maximum allowable difference between, in this case, adjacent pattern-terminal nodes in internal position (the rightmost foot will always span as many degrees as are necessary to specify the constituent weight of the pattern).

Non-terminal nodes in a parallel row will transmit their embedding asymmetries to their daughter terminal nodes and these will reflect them in the form of stress level differences. The terminal nodes in question need not be adjacent, in this case, and the differences thus transmitted may be of more than four degrees. The net effect of the Even Distribution Provision is therefore to discourage line-internal differences of stress level spanning the maximum four degrees and, a fortiori, any wider differences.

One might think then of paraphrasing the Even Distribu-
(54) In syllabo-tonic meter, avoid internal stress differences spanning more than three degrees.

This is not, however, an accurate enough rendering of the Provision. Length and embedding factors in the pattern will produce such stress differences in constructions otherwise adhering to Even Distribution. This is typically the case with respect to binary pentameters with longer first colon (and all longer binary meters) as in (55):

![Diagram of (55)]

and ternary tetrameters with longer first colon (and all longer ternary meters) as in (56):

![Diagram of (56)]
The above are, it will be obvious, some of the minimal input structures for the application of (25), i.e. the minimal structures whose corresponding lines may be subject to the Flattening Rule. My account of caesural phenomena has been couched in terms of this rule both for expository reasons and because of the intrinsic interest of the rule, but it clearly need not be: we might simply say that a meter determines specific midline restrictions whenever one of its cola spans the maximum four degree stress distance, thus clarifying somewhat the content of (25) without committing ourselves to a particular hypothesis on phonological flattening. One thing is clear, at any rate: whatever maximum stress differences are allowed verse-internally in spite of Even Distribution correlate directly with midline, caesural-like phenomena.

A better characterization than (54) of Even Distribution would therefore be the following: it guarantees that maximum stress differences will only occur by virtue of extrametrical facts. The intrinsic constituent weight of the pattern—or of its cola—has effects of its own, realizations of the pattern not being exempt from the general phonological properties of any constituent, but meter aims in every other respect at homogeneity.

This has important correlates in two domains: the aesthetic and the prosodic. I cannot deal here with the first; let me just say that, to my mind, this is one of the clear-
est cases of a specific requirement of integritas, to use the terminology in which Aquinas states the requirements for beauty ("ad pulchritudinem tria requiruntur [...] (…) integritas siue perfectio (…) consonantia (…) claritas"; Summa Theologica, Ia, 39, 8).

As for prosody, it has often been pointed out that the metrical line has the prosodic characteristics of a word or, more generally, of a unitary phonological group in the language. It is the rule that sandhi phenomena, sometimes optional elsewhere, become a systematic feature of the prosodic rules in the narrow sense, i.e. the rules relating linguistic expression and metrical pattern. Examples of this are the Spanish synaloepha (cf. 1.2) and the French e muet rule, both of which correspond to phonological rules in these languages; for other examples see, e.g., Kuryłowicz, 1970. However related to non-metrical rules, these are turned into properties of the line; as Halle and Keyser indicate (1971:141, from Baehr, 1962:21), they apply even when the words they relate are spoken by two different characters, which is of course alien to normal speech. An example is:

(57) CAMILA Suélame ya la mano, que el aliento me falta de congoja.
ALBANIO He muy gran miedo.

(Garcilaso, Egl. II, 832-833)
For the second line to be metrical, synaloepha must be applied between the last vowel of congoja and the one in he: congoja he has three metrical positions. A parallel instance in French:

(58) PHÈDRE il n'était point coupable.
   THÉSÉE Ah! père infortuné!
   (Racine, Phèdre, V, vii, 26)

Milner (1974) gives a formulation of these regularities intended to have universal validity. I quote in full from his not very accessible article (p. 19):

(59) -si dans une langue, il existe un système poétique, où la notion de séquence finie ou vers joue un rôle crucial, et si dans cette langue, les processus phonologiques doivent distinguer entre les extrémités du mot et l'intérieur du mot (étant donné une définition universelle de cette entité), alors:

1) le début du vers est traité comme le début d'un mot et la fin du vers comme la fin d'un mot, même si les conditions de la définition ne sont pas satisfaites;
2) l'intérieur du vers est traité comme un mot unique, même si, suivant la définition, il en
One of the numerous implications of this, which Milner notes (18), is that it provides a criterion by which to distinguish, in a given language, between poetry and prose—a criterion whose existence has often been doubted.

I feel that Milner's generalization is substantially correct, although it will bear some clarification. He uses 'mot' in the sense of 'phonological word'; this is defined in Chomsky and Halle (1968: 366-369) and Selkirk (1972) as the output of some 'readjustment rules' applying to the bracketed sequences of lexical items yielded by the syntactic component of the grammar. These lexical items are separated by boundary signs and some of these are deleted or changed by the readjustment rules. Leaving aside recent criticisms and revisions of the notions of boundary and readjustment rule (Rotenberg, 1978; Selkirk, 1980), which do not affect the spirit of the proposals considered here, I will simply present Milner's example in his own terms. The sequence le petit livre before a verb phrase will appear in the input to the phonological component as:

\[(60) [S#[NP#[Art+le+][A#petit#][N#livre#]#][VP#]]\]

# is a major category boundary, associated with N, V, A and the phrases NP, VP, S, etc.; + is a boundary associated with
any other lexical unit. S, N, V, A, Art stand as usual for Sentence, Noun, Verb, Adjective, Article; NP and VP for Noun Phrase and Verb Phrase. A (phonological) word is defined as that which is enclosed in word boundaries, these having one of three forms: \#][#, #]#s or [s#[#. There are thus two words in (60), and a readjustment rule specific to French applies to them:

(61) Reduce to + every # boundary associated with a lexical category (N, V or A).

This gives:

(62) [s#[NP#[Art+le+][\# petit +][N+livre +]#NP][VP#

which constitutes a single phonological word.

The rule in (61), which reduces # boundaries to the weaker +, is more powerful than parallel rules in other languages. In French, the distinction between phonological word and phonological phrase may not be necessary, at least at a certain level of analysis: all prenominal modifiers, for instance, including adjectives, could be treated as proclitics to the (rightmost) head noun, as in a way is done in (62) (cf. Chomsky and Halle, 1968: 368). But in Spanish, for example, all adjectives keep a stress within larger phrases (Navarro, 1925): el pequeño libro. The sequences
thus created cannot then be assimilated to sequences formed by a noun preceded by proclitics: en el libro. Moreover, in Spanish there are no word-level subsidiary stresses in the usual sense, i.e. those represented as level 3 stresses in standard descriptions of English (manifest); only compounds (político-económico, México-capitál) and adverbs in -mente -the equivalent to English -ly adverbs, which have been analyzed by Suñer (1975) as involving an internal word boundary-, exhibit this type of subsidiary stressing (larga-ménte, pesadamente). It would then be an abuse of terminology to call 'word' every sequence of lexical elements within a terminal phrase, as Milner does in French, thus including multiple-stress constructions.

There is, furthermore, direct evidence that Spanish prosodic rules are not word-internal rules. As was pointed out in 1.2, synaloepha does not apply within words, and neither does internal vowel sandhi, the parallel rule in normal speech, at least not systematically; even in dialects and styles of speech where poeta tends to reduce to a disyllable, previous rules of raising and gliding must apply to the segment /o/:[pweta]. No such rule is required for /e/ and /o/ between words in normal speech or in the reading of poetry (on the 'distinctness' of segments in synaloepha cf. Bello, 1859, par. 3,4; Hanssen, 1906, note 1 to p. 11).

I conclude that Milner's generalization -(59)- can be maintained with qualifications to be given below, if the
term 'word' is replaced in it by '(phonological) phrase'.
Since phonological phrases correlate perhaps more directly
with syntactically motivated constituent analyses than phono-
logical words correlate with lexical items, this may per-
mit a simpler account of the processes covered by (59) (cf.
Rotenberg, 1978); it is, in any case, a move which is im-
posed on us by fairly uncontroversial data.

Now a phonological phrase is either a syntactic phrase
or the result of subjecting a syntactic phrase to some such
readjustment process as the Flattening Rule. If this rule
is anything near correct, the only strictly phonological
property of phonological phrases is their reluctance to en-
compassing more than $n$ degrees of relative prominence, $n$
being possibly 4. Hence, in the least complex case, the
fact that a line is to be treated in principle as constitut-
ing a phrase simply follows from the Even Distribution Pro-
vision. "The autonomy of metrical structures and their in-
dependence from syntax" (Kuryłłowicz, 1970: 422) -which is
expressed by Milner's principles- is therefore both con-
firmed and shown not to be a primitive fact: it is a conse-
quence of a specifically metrical property of patterns.

Although, once modified as above, a rule of general
prosody like (59) has the status of a corollary within met-
rical theory, its particular embodiment in each language and
tradition needs to be stated. Sandhi rules may appear and,
like French liaison, may disappear in certain contexts. The
stability of pattern-line correspondences requires often that attention not be paid to these historical developments, and results sometimes in apparently artificial prosodic conventions: thus, French liaison, even if not made verse-internally, would determine the count of metrical positions; Milner's example is Rimbaud's:

(63) Forêts, soleils, rives, savanes! il s'aidait

A final s like that in savanes is only pronounced before a following vowel in certain sandhi (liaison) contexts (Selkirk, 1974 and references cited there). The phrase boundary in (63) is not such a context, predictably, but the e muet rule would apply to savane il, depriving the line of one position, if, contrary to fact, the s did not count as a syllable-final consonant.

Another well-known parameter for the line-phrase correspondence is the caesural break. If there is a point internal to the line across which prosodic rules do not apply, that point corresponds to the end of the first colon. In non-caesural meters no such point exists; in caesural meters, or meters otherwise respecting colon d.t.e.'s, a tradition may take these to be prosodically relevant, as I suggested might have happened in arte mayor or as happened in Classical Greek: we then have an "obligatory hiatus" at the caesura, i.e. a barrier for sandhi. It is quite common,
however, for the tendency towards line unity to progressively "spread the sandhi combinations across the whole verse-line" (Kuryłowicz, 1970: 424): this is what we have, for instance, in otherwise clearly bipartite meters like the French and Spanish alexandrines. In these cases, if I am allowed to speak figuratively, the fact that each verse is a unit -here because Even Distribution gives rise to a property which is characteristic of phonological phrases- is held to be relevant against the opposing tendency to bipartition, which is due to the Flattening Rule and is therefore extraneous to meter.

Let me conclude this section with a few observations on line complexity. They belong here because the above attests to the importance of an ideal model in which patterns and lines correspond completely. A line is treated like a phrase because it is intended to share a typical property of phrases; a line has a regular break where a perfect incarnation of the pattern would have it and only if such an incarnation were to have it. Kiparsky (1975 and, especially, 1977) has insisted that the tension or complexity of a line should be measured as the sum total of its "mismatches" with the pattern. As I have already mentioned, he counts as mismatches both the failure of weak and strong positions in the line to correspond to weak and strongs, respectively, in the pattern, and the failure of lexical units in the line to fall within foot boundaries of the pattern: the first are
"labelling mismatches", the second "bracketing mismatches". "Given a specification of the metrical form (e.g., iambic pentameter), the theory automatically counts any mismatch as adding to the complexity of the line. What differentiates metrical usage (e.g. Shakespeare vs. Milton vs. Pope) is never what constitutes a mismatch, but only where the boundary between permissible and impermissible mismatches is drawn (...) by rules (...) and perhaps also by some limitations in overall complexity" (1977: 224). (The reader will not have been misled by my use of + and - for s and w at the line level, which simplifies the exposition considerably: both | and \( S \) \( W \) can be translated into Kiparsky's "labelling mismatches").

If Kiparsky is right, then all but a negligible number of lines in probably every tradition will be fairly complex. I will not consider here bracketing mismatches, the study of their possible relevance being difficult in languages with many polysyllables. It is more central to our concerns to examine the following aspect of labelling: in the tentative table for line tension given in (42) of 2.6, "mismatches" in some positions -colon d.t.e. positions- are considered more complex than the same configurations would be elsewhere. This is obviously alien to Kiparsky's proposal, according to which all mismatches appear to make the same contribution to line complexity. This difference in the evaluation of tension correlates with a difference between
the metrical rules given by Kiparsky for the English iambic pentameter—or, for that matter, those given by Halle and Keyser (1971) or Magnuson and Ryder (1970)—and my rules for the Spanish hendecasyllable: so far as metricality is concerned, there is no privileged strong position in English, whereas in Spanish the last strong position of the first colon has special properties of its own.

In his 1975 article (583-584), Kiparsky had proposed an index of tension based on the numerical (stress level) indices of each line position; these ranged, as usual, over the values 1, 2, 3 and 4 (= 0). He later objected to this "that it was brought in ad hoc, and bore no relationship to the procedure for establishing metricality" (1977: 223), which is true. However, his new tension index necessarily denies relevance to any scalar differences in relative prominence among metrical positions. Such differences played indeed only a marginal role in Kiparsky (1975), for there it was assumed that the metrical pattern consisted of a linear sequence of strong and weak positions, represented as 1 and 4, respectively, without any intermediate degree of strength. But from the moment that some structure above the terminal level is postulated for the pattern, it is assumed that strong terminal positions differ in strength. I have argued that these differences do play a role in certain crucial positions. This makes it reasonable to conjecture that all strength differences play some role, if not in determin-
ing metricality, then in the evaluation of line tension (cf. Beaver, 1971). Poetry, I believe, neglects few things although there may be many that metrics has to neglect.

I would thus tentatively propose a return to Kiparsky's earlier tension index for "labelling mismatch" counts. Pending of course much spade work which cannot be carried out here, we may try to measure the complexity of a line by this version of Kiparsky's index:

(64) The metrical tension between a line whose terminal nodes have the values $a_1, \ldots, a_n$ and a pattern whose terminal nodes have the values $b_1, \ldots, b_n$ is the sum of differences between each $a_i$ and $b_i$.

The differences in complexity suggested in (42) of 2.6 follow from this tension index.
NOTES

Notes to 1

1.- The English lines are from Shakespeare; respectively:
1 King Henry IV, 3.1.228; Sonnet 17, 1; Measure for Measure,
5.1.176 and 5.1.163.

2.- A major contribution to it is made in Lehrdahl and
Jackendoff (to appear). See also Otero (1980).

3.- Neither of the rules to be discussed applied in a sys­
tematic fashion to pre-Renaissance Spanish poetry.

4.- His transcription. His translations: "There are solid
rhymes that suggest themselves readily, and centipedes,
whose legs buckle under them"; "There are exact rhymes, and
there are other ones. All cannot be listed".

5.- Text after Garcilaso de la Vega, Obras completas con
comentario, edición crítica de Elias L. Rivers, Madrid,
Castalia, 1974.

6.- Garcilaso's monophthongs in imperfect endings in -ia are
a different, nonmetrical phenomenon (one example among many
is (14)c of 2.3f; the same is true of veo in Son. IX, 12, and
other examples.

7.- Alternatively, en quanto me detengo aquí un poco.

8.- This section gives a deliberately simplified version of
the facts. For one thing, certain constructions made up of
different words are treated as a single word for the purposes
of (12):

(i) casi los passo y cuentoo uno a uno (Egl. I, 362)

It seems to me that the second hiatus in uno a uno (one by
one) would be just as costly to eliminate as the internal one
in (10). Furthermore, adjacent stressed vowels belonging to
different words do not occur in Garcilaso, so far as I can
tell, in cases where the words in question would clearly
carry the main stress of their respective phrases: it would
be worthwhile to look elsewhere for evidence bearing on this potentially significant case. Finally, it would appear from later poetry that a hiatus involving one of the vowels which carry a metrically important stress—in a sense to be made precise later in the text: 'colon d.t.e. vowels' as in section 2.4— is less costly, if at all, than it would be elsewhere; for instance, if read with elision of the h as in contemporary Spanish, line (ii) below sounds less artificial than example (14) to the modern ear:

(ii) Tu dulce habla, en cuya oreja suena? (Egl. I, 127)

(Compare with the older system in (55) of 4.7 below.)

However this may be, nothing further will be said about these matters of Spanish prosody in this study. In general, I will have little to say about (3)c and about the first type of rule in (2)c—but see section 5.7. For the linguistic basis of synaloepha in Spanish, the reader is referred to Navarro (1926, pars. 135-143), Contreras (1968) and Hutchinson (1974); cf. also Foster (1969). For exceptions to synaloepha in groups of three vowels, see Navarro (1926, par. 136); these exceptions raise a number of problems for Spanish phonology which I will study elsewhere.

Notes to 2


A similar but not identical meter is studied in Roubaud (1971). The Italian hendecasyllable is briefly discussed in Halle and Keyser (to appear). For Catalan, see now Oliva (1980). I am not aware of any other generative analysis of the meter discussed here.

A study of the Italian hendecasyllable in a different framework—that of Jakobson and Valesio (1966)—will be profitably compared with the one I propose. The hendecasyllable is treated in both as, essentially, an iambic pentameter; this view has some older precedents: see below, 3.2.

2.— Only two eleven-syllable lines have been used after Garcilaso that he had not cultivated: the so-called Old Galician ("galaico antiguo") hendecasyllable created by Rubén Darío for his Balada laudatoria a Valle-Inclán, and the "endecasílabo a la francesa", with stress on the fourth and tenth positions of which the first obligatorily falls on an oxytone. Darío's meter, stressed on the fifth, seventh and tenth positions, is very marginal and in any case cannot be combined with the other hendecasyllables; I will not consider it here. The "a la francesa" variety does not repres-
sent an addition to the Renaissance repertoire, but the result of imposing a restriction on one of the existing forms. Garcilaso's system is richer in some respects than that of most poets of the 17th and 18th centuries. My proposals in this chapter will be based exclusively on his poetry, and are intended to apply also to later 16th century poets, notably Fernando de Herrera (1534-1597) and fray Luis de León (1527-1591).

3. The essential sources are perhaps Vicuña Cifuentes (1946), Navarro Tomás (1956, 1973) and Henríquez Ureña (1961; originally published 1919). An English glossary of Spanish metrical terms appears in Clarke (1952); Nelson (1972) is a summary of Spanish metrics à la Navarro.

Examples corresponding to (1) are given below in (15) -Type A- and (17) -Type B.

4. I will indicate the location of stresses in my examples by numbers corresponding to the metrical position in the line. Except in (14) below, which is self-explanatory, all the stressed positions will be indicated. Words are counted as stressed or unstressed according to Navarro (1925).

5. Precedents for this kind of analysis are discussed in Canellada (1975).

6. An exception is (10)j, for which one example is given: Voz de niño, más que el silencio clara. This line by the modern poet Juan Ramón Jiménez may be unmetrical as an Italianate hendecasyllable; for our purposes, it will be enough to register its absence from Garcilaso's enormously rich system and, so far as I can tell, from that of his contemporaries.

7. Also, randomly, Son. XXXV, 12; Son. XXVI, 3; Son. XII, 1; Son. XXVIII, 1; El. II, 35, 136, 147; Egl. I, 213, etc.

8. For the exclusion of stress on 5 and 7 during the 17th century see Díez Echarri (1949: 229).

9. There seem to exist only a few other possibilities for bracketing and labelling in the languages of the world, according to Halle and Vergnaud (1978); see below, 3.2. Good summaries of the relevant aspects of "nonlinear" phonology are included in Stowell (1979) and Hayes (1980). As a theory, it is still undergoing refinement and modification in crucial points.

10. I will discuss this issue in terms borrowed from Liberman and Prince (1977). The more detailed treatment in Halle and Vergnaud (1978) yields the one I use as a particular
case (cf. 3.3 below).

11.- I hesitate to use the term 'beat' for this construct, as Carlson (1978) and Stowell (1979) do, because that term might be useful elsewhere in metrics, judging from unpublished work by Alan Prince.

12.- Exceptions are attested, but they are rare, unsystematic and outside the mainstream of Spanish poetry (Espinosa, 1928, 1929; Canellada, 1949); none has been reported in hendecasyllabic compositions.

13.- There were no extrametrical syllables in medial position in Spanish Classical hendecasyllables. They did occur, however, in Renaissance Italian poetry: interestingly enough, only after a stressed 4 or a stressed 6 (Serretta, 1938: 223 and elsewhere). "This type of verse was considered by Petrach to be a mere variant of the hendecasyllable, not an exception" (Serretta, 1938: 217-218). Assuming for Italian an analysis parallel to the one in the text, this would be a confirmation of the reality of the cola.

Medial extrametrical syllables occur sporadically, again in the positions mentioned above, in 20th century Spanish hendecasyllables:

\[
\text{Ayer fue miércoles toda la mañana} \quad \text{(Angel González)}
\]

\[
\begin{array}{cccc}
2 & 4 & 6 & 10 \\
\end{array}
\]

For extrametrical syllables see Hendrick (1979).

14.- Variants of Filter I are valid for all longer Spanish meters, so far as I can see, given an adequate redefinition of the constructs involved. A certain number of exceptions to Filter II are attested in Classical literature (Morley, 1927), although never in hendecasyllables - a meter suitable to a more elevated style than the octosyllable of most of Morley's undisputable examples. In modern poetry, Filter II does not apply in the form given in the text: a typical "modernista" effect is achieved by sporadically using unstressed monosyllables as the d.t.e of the line, although unstressed syllables of polysyllabic words are still strictly prohibited there.

On the other hand, there are few clear violations of Filter I in modern (metrical) poetry; an example is given in note 15, another is:

\[
\text{nada son como a la luz de la luna} \quad \text{(Rubén Darío, quoted in Balaguer (1974: 224))}
\]

(This example, it may be noted, is from a composition made
of only Type B lines, which may affect the metricality re-
quirements.)

Any weakening of the metricality requirements could of
course be accounted for -if it were desirable to do so- by
dropping Filter I and/or II as part of "modernista" metrics
and incorporating their violations as instances of maximal
complexity in scale (42) below. This would not argue
against the reality of the constructs introduced in the
text: they would merely determine different phenomena in
different periods. More on this in section 4.8 below.

15. Notice also that stresses on 1 are bound to be more
common than stresses on 3, since they can occur both in Type
A and Type B lines. The traditional classification (1)
-which determines, in particular, the scansion criterion
(19)b- obscures this fact.

16. Bruce Hayes has made in correspondence some very inter-
esting suggestions on this issue, which unfortunately I can-
not discuss here for material reasons.

17. Strict instances of the sapphic stanza require stress
on 1 in the heptasyllable and often also in the hendecasyl-
lable. This requirement is progressively relaxed as the
stanza becomes more common:

\[
\begin{array}{cccc}
2 & 4 & 6 & 10 \\
\hline
\text{del ronco acento sigan asustadas}
\end{array}
\]

\[
\begin{array}{cccc}
2 & 4 \\
\hline
\text{las tristes voces (J.Mª. Vaca de Guzmán (1744?-1801),}
\end{array}
\]

"Oda a la muerte de Cadalso", 19-20)

Other combinations of pentasyllables and hendecasyllables
-as in, e.g., G.A. Bécquer's Rima XVI (Si al mecer las
azules campanillas/de tu balcón)- were introduced later.

For combinations of all three meters see Navarro (1956:
paragraph 371).

18. The account of polymetry given in this paragraph is
intended to make a minimum of assumptions. Stronger hypoth-
eses are not excluded.

Notes to 3

1. I am of course excluding from consideration those tradi-
tions in which the term 'foot' or its translation is applied
to dipodic constructions -as in Sanskrit- or larger units
-the line itself in Renaissance Spanish.

2. That one of them will be null is to be guaranteed by the
Even Distribution Provision as reformulated below. It is
assumed that the null symbol available is the identity element.

3.- Notice that we cannot generalize this provision to any number of nodes in a parallel row: for instance, the root of the hendecasyllable pattern belongs to row 5, which is $k+4$ for $k = 1$ of terminal nodes.

4.- The variables in A.b., which are a consequence of the relational nature of $s$ and $w$, range of course over $s$, $w$ and null. A rewriting of $F$ as only $s$ and null is disallowed by that same relational nature of $s$.

Notes to 4

1.- Let me indicate in passing that Zhirmunskij's mention of J. Minor among those who recognize only anapests is a mistake (1966: 129 n. 7). See Minor (1902: 281ff.).

2.- Unless otherwise specified, texts will be cited after R. Foulché-Delbosc, ed., Cancionero castellano del siglo XV, Madrid, Bailly-Baillière, Nueva Biblioteca de Autores Españoles, 2 vols., 1912 and 1915. Accent marks have been added. The assertions made concerning Mena's Laberinto de Fortuna have been checked against the editions by Blecua (1943) and Cummins (1968), the latter being particularly interesting because it is based on one of the Paris manuscripts and not on the tradition represented by the 1499 editor Hernán Núñez.

3.- There are only two thirteen syllable lines: see below, section 4.7.

4.- The line

Aznatoraf e Martos con él

which appears in Foulché-Delbosc's study (1902: 100) would represent yet another type, and as such has misled some scholars. It is a misreading: it occurs in stanza 282, line 5 of the poem as e a Martos in all three editions used here, including Foulché-Delbosc's own.

5.- Percentages are mine. I only use Foulché-Delbosc's figures in the remarks that follow because elsewhere his scan- sion, which are inseparable from his system, do not agree with mine.
6.- Qualifications to this in order to accommodate the observations made in 4.8 below would not affect the analysis I give.

7.- That proparoxytones are avoided before fully realized second cola can perhaps be confirmed by a distributional argument. Mena uses both círculo and its synonym cerco fairly frequently. These are the cases when they occur at the caesura:

\[
\begin{align*}
\text{(i)a. } & \text{en el primer cerco yprime su acto} & (68,2) \\
\text{b. } & \text{e' visto el vn cerco de passadas gentes} & (70,5) \\
\text{c. } & \text{fondón destos cercos, vi grand general} & (100,5) \\
\text{d. } & \text{Venimos al cerco de nuestros presentes} & (125,1) \\
\text{e. } & \text{Fondón destos cercos vi ser derribados} & (129,1) \\
\text{(ii)a. } & \text{cada qual círculo de aquéstos siéte} & (62,6) \\
\text{b. } & \text{llámale círculo, tú, de la Luna} & (69,2)
\end{align*}
\]

There is internal procatalexis in both (ii) instances. In (i) círculo could be substituted for cerco only in a., but then midline synaloepha would be required and it is avoided in general (see below, 4.8). If proparoxytones could appear freely at the caesura the clear preference for cerco in (i) would be accidental. This must be kept in mind during the discussion in section 4.10.

8.- Nebrija's theory is espoused in essentially its original form by Balaguer (1974).

9.- This is of course a typically "modern" effect in many languages:

\[
\begin{align*}
\text{Quel sépulcral naufrage (tu} \\
\text{Le sais, écume, mais y baves)} & (Mallarmé, "A la nue accablante tu...") \\
\text{Und das was war, das wäre irre und} & (Rilke, "Der Gefangene", Neue Gedichte) \\
\text{raste in dir herum, den lieben Mund} & \\
\end{align*}
\]

10.- The fourth line in (59) becomes thus a curious example of a totally stressless line.

11.- There is one unmetrical line in Blecua:

\[
\begin{align*}
\text{(i) mostróse Philírides el buen tañedor} & (120,5)
\end{align*}
\]
and one in Cummins:

(ii) Dispuso ab inicio la mi mente superna (67,1),

both by hypermetricality. Both are metrical in the other two editions:

(iii) mostrósenos Fíliris el tañedor (Foulché-Delbosc, Cummins)

(iv) Dispuso ab initio la mente superna (Foulché-Delbosc, Blecua)

Carlos Otero has pointed out to me that the word mi does not appear in 67,1 in the 1979 edition of Cummins' text, which makes this text entirely metrical by my system.

12.- A note on "one-stress hemistichs". They are part of Foulché-Delbosc's analysis: his examples are equivalent to the ones in (16), (18) and (22) above. Saavedra Molina (1946), Burger (1957), Lázaro (1976) and, to some extent, Le Gentil (1952) deny that they exist. It will be clear now that both sides were right: there are one-stress half-lines, but no one-stress colons in the pattern.

Notes to 5

1.- I have been asked whether a stressing of Latin after the French mode could account for this phenomenon. I do not think it can. It is too old and too widespread a practice, on the one hand (Norberg, 1958: '38-42), and, on the other, it is not limited to Latin: see a Medieval Greek example in Krumbacher (1897: 700).

2.- Let me remind the reader that the provision by which a node "belongs to the row in which it has the highest row cardinality" is crucial.

3.- He does not use the terms 'iambic' and 'trochaic', however. The relevant passage occurs on pp. 116 ff. of the edition used.

4.- Literally, this is too strong, in view of polymetric stanzas and similar phenomena. But the import of this practical rule will be clear without further detail.

5.- This is one of the points on which the theory equating scalar strength and stress level makes predictions different
from those of the standard theory. In both, discrimination between the two poles of stress intensity in a constituent is made easier by the splitting of the tree. But in the former the main stress of the new lefthand tree is still different from the main stress to the right whenever both trees differ in the depth of embedding of their elements. In the standard theory, two main stresses are created which, by definition, are identical.

The notion 'main stress', as used in the text, is redundant in the standard theory, where it can be identified as a level 1 stress. In the scalar strength theory, it can be defined as the highest stress in a constituent, i.e. the stress whose index is identical to the constituent weight index. Notice that in spite of this the notion of main stress is a relative one in both cases.

6.- Statements like the following are common: "the un­stressed Italian vowel has much greater clarity or shape than its English counterpart. Hence, in Italian, the difference in stress between the tonic and atonic vowels is comparatively slight" (Giamatti, 1972: 149). But nowhere is it argued that such a difference must be a synchronic difference in stress; strong stress is postulated for languages with reduced vowels, and reduced vowels are taken to be the symptom of a strong stress: this is a vicious circle.

Comparably, it is often assumed that four degrees of stress are necessary for the description of a language like English only because of the presence there of reduced vowels. In Spanish, on the other hand, only primary stress, secondary stress -for such compounds as hipotético­deductivo- and null stress would be required. But all care­ful descriptions of Spanish (Menéndez Pidal, 1940: par. 5,4; Navarro, 1926: pars. 47, 53, 57, 60 and 63) point out that vowels are particularly lax ("vocales relajadas") in certain positions, especially, according to Menéndez Pidal, the pre­and the post-tonic. If the corresponding rule is to be formu­lated at all in terms of its stress context, it will clearly force us to recognize four stress levels in Spanish, in spite of the fact that Spanish has no schwa. For levels of stress in Spanish, see Allen (1977) and references cited there. (The qualifications proposed by Recasens (1979) to Mascaró's analysis of Catalan stress (1978) argue in favor of using also four stress levels in the description of another Romance language; for Portuguese cf. Lopez, 1979).

7.- I regret having been unable to consult some recent work by Benoît de Cornulier on the topic of line bipartition, and am indebted to Nicolas Ruwet for pointing out to me de Cornulier's contributions.

8.- The h in he is merely graphical, as opposed to the one in (ii)of note 8 to 1.2.
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APPENDIX TO 2

Patterns predicted by (7), (8), and (9) above:

1. 4-8-10  
2. 4-6-10  
3. 4-6-8-10  
4. 4-7-10  
5. *3-7-10  
6. *3-5-7-10  
7. *3-5-8-10  
8. 3-6-8-10  
9. 3-6-10  
10. 2-6-10  
11. 2-6-8-10  
12. 2-4-6-8-10  
13. 2-4-8-10  
14. 2-4-7-10  
15. 2-4-6-10  
16. *2-5-7-10  
17. *2-5-8-10  
18. *1-5-8-10  
19. *1-5-7-10  
20. 1-4-8-10  
21. 1-4-6-10  
22. 1-4-6-8-10  
23. 1-4-7-10  
24. *1-3-7-10  
25. 1-3-6-10  
26. 1-3-6-8-10  
27. *1-3-5-8-10  
28. *1-3-5-7-10
ADDENDUM TO THE REFERENCES