

L30A - Prominence & Metrical Theory

The phenomenon of stress

1. **Syllable Prominence** – (R & J, pp. 295 – 296)
Prominence in Nouns and Verbs, Consider the data below:

(1) increase imprint relay torment upset
contest contract escort decrease protest
contrast implant survey convict digest

☞ Pronounce the above words

☞ Each of them can be pronounced in two ways as follows:

	Set I	Set 2
(2)	INcrease	inCREASE
	CONtest	conTEST
	CONtrast	conTRAST

☞ The words in set I has prominence on first syllable, while in set II it is on the second.

☞ It can be made clear in (3) in sentences

☞ Prominence in question is called **STRESS**

2. **Word prominence** (R & J, pp.296 - 298)
Consider the data below

(4) time flies

☞ the first word in (4) has more stress. Understand the pronunciation of items in (7)

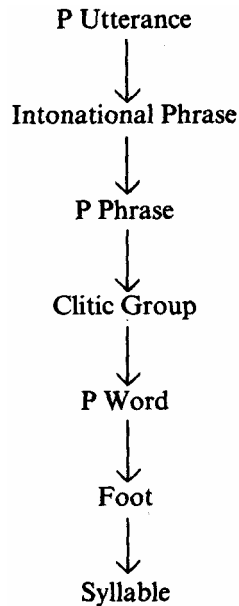
☞ Give further examples of your own

☞ Lack of differences between pronunciation of time flies and time-flies (give other examples)

☞ In (4) and (7), like in (2), only one word is emphasized in the utterance

☞ In a sequence of words, only one word is emphasized.

3. The Foot in a Prosodic Hierarchy



Roca 1994: 195 (see also Katamba, p.281)

- ☞ In order to understand the behavior of prominence/stress in words, phrases and sentences we need to motivate another abstract entity called the **FOOT**
- ☞ The foot organizes adjacent syllables into units for purposes of marking prominence. The foot organizes the syllables into constituents which mark relative prominence: weak & strong. The strong or the dominant element is called the **HEAD**

4. Metrical Grids

One formal structure or notation for marking prominence is the use of grids. Consider the following examples below (R & J, pp.299-300):

- IMplant (N) imPLANT (V) time-flies/time flies
- ☞ A representation of prominence is given below:
- (10) a. * b. * Stress line
 * * * * Baseline
 (to) implant (an) implant
- (11) a. * b. * Stress line
 * * * * Baseline
 time flies time-flies

- ☞ Stressed elements have more stars than unstressed syllables
- ☞ The heavily starred syllables are referred as **HEADS**
- ☞ The head of the syllable bears the stress mark
- ☞ The head projects onto a higher level such as stress

5. **Motivating Stress contrasts**

We have seen the contrast between certain bisyllabic nouns and verbs. The only difference is in the prominence patterns.

- ☞ Is there a necessary connection between stress and meaning?
- ☞ Certain structures are in themselves ambiguous. They can only be understood within a phrasal or sentential context, etc. or in the category of words
- ☞ Understand the discussion here by referring to syntactic structures of the two – **time flies** & **time-flies**

6. **Motivating the foot (Katamba, p. 225 -239)**

Strong and weak positions or prominent and non-prominent syllables are paired together in a prosodic formation called the **foot**. In some languages, foot formation is binary, while in others it may be unbounded.

- ☞ What evidence motivates the foot in phonological analysis?
- a. Contrast in words such nouns, versus verbs.

- b. The phenomenon of segmental aspiration in English (Roca 1994: p.204-206). Consider the data below:

Consider first such data as in (38) (aspiration is informally represented in the data by means of italicisation):

- (38) a. *t*ime
 *t*alisman
 *T*amerlane
 *t*elegraph
- b. *t*elegraphic
 *t*ombola
 *t*uxedo
 *T*anganyika
 *t*ambourine
 *t*errain

All aspirated *ts* in (38) are word-initial. Clearly, however, this is not the only context for aspiration:

- (39) *d*etain
 *d*etention
 *e*ntire
 *r*eputation

Here, non-word-initial *ts* are likewise aspirated. By contrast, those in (40) are not:

- (40) *a*lter
 *s*atyr
 *s*hatter
 *h*ospital

The obvious difference between (39) and (40) is that, in the former, the syllable of which *t* is the onset carries the word stress. In this, the data in (39) agree with those in (38a). The problem now is (38b), where the stress falls elsewhere and yet the *t* aspirates.

Consider now (41):

- (41) *s*atire
 *r*ep*l*ile
 *i*nfan*l*ile
 *l*ong*i*tude

Here, again, the word primary stress falls outside the syllable containing the aspirated *t*. Interestingly, however, this syllable carries a secondary stress, as an examination of the minimal pair *sa*[t^h]*ire* : *satyr* will reveal. In view of this development, it would appear that the strongest criterion on which to base aspiration is stress.

7. Foot Formation:

- ☞ **Iambic Foot:** a grouping of pairs of syllables in twos following the pattern: unstressed –stressed, a right-headed foot
- ☞ **Trochaic Foot (Trochee):** pairing of syllables in twos following the pattern: stressed –unstressed, a left-head foot
- ☞ A foot is bounded by a head which dominates its weak counterpart
- ☞ Illustrate the difference with bisyllabic nouns & verbs in English or Jamaican Creole

Algorithms for stress assignment

END STRESS:

Project the right-most/left-most asterisk

- ☞ The last stress in a metrical line is copied onto the immediate line above

8. Feet Extrametrically (Also Katamba, p.231)

Consider the following examples (Roca 194: 177)

a. América	b. agénda	Arizóna
cinnamon	conúndrum	cicáda
Cánada	appéndix	balaláika
Ágatha	Matilda	Therésa

- ☞ In the (a), stress is on the antepenultimate syllable
- ☞ In the (b) stress is the penultimate

Reasons:

- a. the penultimate syllable is either closed, a long vowel or a diphthong – heavy syllable
- b. none of the conditions above is met – light syllable

- ☞ Another reason may be due to extrametricality
- ☞ Sometimes peripheral syllables in stress languages are not available for syllabification, perhaps due to the nature of their syllable structure

☞ For purposes of stress assignment, such syllables are bypassed or ignored. Such a syllable is said to be extrametrical

☞ A language such as Swahili is a typical example of a language with extra-metrical syllables. Only penultimate syllables are stressed. English Examples above also illustrate the phenomenon (use Katamba, p.231)

☞ A rule of such is as follows:

Extrametricality:
Make the right-most/left-most asterisk extrametrical
(notationally: * → <*>)

☞ A condition must be met for extrametricality to apply. Such condition is known, as follows:

Peripherality Condition:
Only peripheral elements can be extrametrical

We can now revise representation of time flies as below:

* * * <*> Baseline
time-flies → time-flies
Extrametricality

☞ Extrametricality makes the asterisk on flies invisible, and consequently the output now includes only one baseline asterisk. The action of End Stress [(I) on this structure places the main stress of the collocation in the correct position:

* <*> * <*> Stress line 1
* <*> * <*> Baseline
time-flies → time-flies
End Stress [Right]