LECTURE: STRESS FEET

Goals: this lecture gives an introduction to the prosodic structure of stress systems, stress feet. Stress feet are natural groupings of syllables, so they dominate syllables in the prosodic hierarchy. The use of prosodic structure for the analysis of stress makes it possible to distinguish stress from other phonological phenomena for its unique properties, which are examined here.

Keywords: rhythm, culminativity, headedness, foot binarity, directionality, extrametricality

Reading: SOL: 354-368

BACKGROUND

Question: how is the word Manitoba stressed?

Properties of stress

- Culminative: each stress domain (word or phrase) has a single syllable that receives the main stress
- Rhythmically distributed: syllables of equal stress levels tend to be spaced at equal distances—strong stress alternates
- Hierarchical: there may be multiple degrees of stress, primary, secondary, etc.
- Non-assimilatory: stress never ‘spreads’

Task: analyze Manitoba with these points in mind.

Assumption: stress is not a property of a segment, like a phonological feature, that has a specific phonetic implementation. Rather, stress is interpreted as a property of syllables, in particular, the strong syllable that is the head of a prosodic foot.

Task: illustrate the foot structure in Manitoba.
PINTUPI STRESS

Illustration: basic data

| a. ó o | pá.ŋa | ‘earth’ |
| b. ó o o | t'ú.ta.ya | ‘many’ |
| c. ó o ó o | má.|a.wà.na | ‘through from behind’ |
| d. ó o ó o o | pú.|iŋ.kà.la.t'u | ‘we (sat) on the hill’ |
| e. ó o ó o ó o | t'à.mu.lim.pa.tùŋ.ku | ‘our relation’ |

Question: give a basic description of Pintupi stress, incorporating the basic properties identified above.

Properties of stress feet and stress systems

- **Headedness**: left-headed (trochaic) or right-headed (iambic)
- **Binarity**: feet are binary at some level of analysis, usually moraic or syllabic level
- **Directionality**: feet are preferably aligned at the right or left edge of a word; may need to be stated for all feet and separately for the ‘main stress foot’
- **Exhaustivity**: one foot per word or word is exhaustively parsed
- **Extrametricality**: whether or not a final unit (segment, mora, syllable, etc.) is consistently outside of metrical structure (cf. Classical Latin)

Analysis of Pintupi stress

- **Headedness**: left-headed
- **Binarity**: binary at syllabic level
- **Directionality**: left to right (parse from beginning of the word); main stress foot is always the first foot
- **Exhaustivity**: words are exhaustively parsed
- **Extrametricality**: none

Task: lay down prosodic structure for the following words

pá.ŋa má.|a.wà.na pú.|iŋ.kà.la.t'u
DISCUSSION

Question: how does the prosodic analysis account for the basic properties of stress?

Culminativity:

Rhythmically distributed:

Hierarchical:

No assimilation:

Illustration: return to Classical Latin (UP 13)

Classical Latin stress: stress the penult if heavy, otherwise, stress the antepenultimate (if there is one), otherwise stress final syllable.

Task: analyze the attributes this stress system using prosodic feet.

Analysis of Classical Latin stress
• Headedness:
• Binarity:
• Directionality:
• Exhaustivity:
• Extrametricality:

Task: illustrate your analysis by drawing foot structure for the following words.

cá.me.ran ‘bedroom’  pe.des.ter ‘on foot’  mél ‘honey’
Task: try to analyze stress without prosodic feet. In particular, create a stress rule that refers exclusively to Cs and Vs and the feature [+stress]. How does your analysis compare with the prosodic analysis? Does it account for the general properties of stress?

Problems: Passamaquoddy, Icelandic