

Prosodic structure in Japanese: Summary

I. Background

(1) Prosodic structure

- (a) Phonologists in the 1960s tried to explain phonological patterns in human language based on **segments** (consonants and vowels) and word/morpheme **boundaries** only
- (b) This doesn't work — to state phonological generalizations, we need to recognize that segments are organized into larger phonological units, such as the **mora** or **syllable**
- (c) These units are known collectively as **prosodic constituents**; the phonological organization of a language above the segmental level is called **prosodic structure**

(2) Controversy: **Does Japanese have syllables?** (Are syllables universal?)

II. The mora

(3) The mora (μ) is a prosodic unit that plays a large role in Japanese

- (a) The mora is a phonological structure that contains, and thus groups together, one or more segments
- (b) See the data set “Prosodic structure in Japanese” for evidence

(4) If speaker behavior shows that segments are systematically organized into moras in Japanese, then the phonological grammar of Japanese must have a means for *producing* and *enforcing* the necessary mora structures

(5) **Mora (μ) structure** in the grammar of Japanese:

- (i) Moras dominate (i.e., contain) segments in phonological structure. For a word shape to be legal, all segments must be associated with some mora.
- (ii) Mora requirements (Tsujimura 2014: 67, modified)
The mora has one of three realizations ...
 - a. (C)([j])V [vowel, possibly with preceding consonant and/or [j] glide]
 - b. the first part of a long consonant
 - c. /N/, also called the “moraic” nasal

III. The syllable

(6) What evidence shows that syllables (σ) are necessary in Japanese?

- See the data set “Prosodic structure in Japanese” and the outline slides

(7) **Syllable (σ) structure** in the grammar of Japanese:

- (i) Syllables dominate (i.e., contain) moras in phonological structure. For a word shape to be legal, all moras must be included in some syllable.
- (ii) Syllable requirements
 - may contain either 1 or 2 moras
 - must begin with a mora of type (a)
 - may have a type (a) mora as the second mora only if V

(8) Additional points about syllable structure in Japanese

(a) When there are two vowels in a row, our model allows either two light syllables ($\mu+\mu$) or one heavy syllable ($\mu\mu$) to be formed — what actually happens?

- A number of factors appear to be relevant, including which vowels are involved and where the pitch accent is located
- See examples in the “Prosodic structure in Japanese” data set

(b) It appears that Japanese occasionally tolerates a syllable with *three* moras

- Loanwords: [toon] ‘tone’, [tʰeen] ‘chain’
- Complex words: [nihom-ppoi] ‘Japan-like’, [toot-ta] ‘pass-PAST’