

## Pitch accent in Japanese

### I. Pitch accent basics

- (1) **Pitch accent** (as realized in most dialects of Japanese):  
 A fall from high pitch (H) to low pitch (L) within a word or phrase
- (2) Pitch accent patterns vary widely across dialects of Japanese, especially with respect to these questions:
- (a) Is there a distinction between accented and unaccented words?
  - (b) What *positions* in a word can a pitch accent occupy, in principle?
  - (c) Where does the pitch accent (if any) occur in a *particular* word?
  - (d) Once we know where the pitch accent (if any) occurs in a word, is it possible to systematically predict whether the rest of the word will have H or L pitch?

### II. Pitch accent in the Tokyo dialect

- (3) Examples (sound files on Sakai, in *Resources > Sound files > 4. Pitch accent*):
- |                               |   |  |
|-------------------------------|---|--|
| (a) [murásaki] ‘purple’       | • abrupt pitch fall                                       |  |
|                               | • L H L L tone shape                                      |  |
| (b) [momoiro] ‘peach (color)’ | • no abrupt pitch fall                                    |  |
|                               | • L H H H shape   |  |
| (c) [iró] ‘color’             | • can’t hear the pitch fall — nothing follows the accent! |  |
| (c’) [iró-wa] ‘color-TOPIC’   | • if we listened to this, we would hear the pitch fall    |  |
|                               | • LH(+L) shape when [-wa] is added                        |  |
- (4) More examples, with topic marker
- |                   |                   |                  |                 |
|-------------------|-------------------|------------------|-----------------|
| L H H H           | H L L L           | L H L L          | L H H L         |
| [sa.kuu.ra (-wa)] | [ka.ra.suu (-wa)] | [ko.ko.ro (-wa)] | [o.to.ko (-wa)] |
| ‘cherry tree’     | ‘crow’            | ‘heart’          | ‘man’           |
- (5) Details of accent patterns in the Tokyo dialect — answering the questions in (2)
- (a) There is a distinction between accented and unaccented words — unpredictable
  - (b) (more about this question in a later discussion)
  - (c) Speakers need to learn for each word which mora has the accent — unpredictable
    - Full disclosure: Accent location in *nouns* is fairly free in the Tokyo dialect, but *verbs* and *adjectives* are more restricted
  - (d) Other tones in the word:
    - All moras *after* the accented mora are L
    - All moras *before* the accented mora are H
    - The very first tone in a *phrase* is often lowered to L

- (6) How does the phonological grammar produce the H/L tone patterns in the Tokyo dialect?
- (a) **Whether** a word is accented, and if so **where** the accent is located, are specified in lexical entries (the “mental dictionary”)
- This is because *unpredictable* information must be *memorized* and *stored*
- (b) H and L tones are **assigned** to moras by the **phonological grammar**
- This is because the pattern of H and L tones is *predictable* once we know where the accent is

- (7) **Algorithm for tone assignment in the Tokyo dialect** (traditional analysis)
- i. If there is an accent, assign H to the accented mora and L to the following mora if any
  - ii. If the phrase is unaccented, assign H to the final mora (note that *no* L follows)
  - iii. Spread H leftward to any toneless moras
  - iv. Spread L rightward to any toneless moras
  - v. Optional: Change the first tone in a phrase to L, unless that mora is *accented*

*For an advanced, more phonetically accurate view of pitch-accent assignment in Tokyo, see:*

Pierrehumbert, Janet, & Mary Beckman. 1988. *Japanese tone structure*. Cambridge, MA: MIT Press.

Venditti, Jennifer. 2005. The J\_ToBI model of Japanese intonation. In Sun-Ah Jun (ed.), *Prosodic typology*, 172–200. Oxford: Oxford University Press.