

## 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:
- Is there a distinction between accented and unaccented words?
  - What *positions* in a word can a pitch accent occupy, in principle?
  - Where does the pitch accent (if any) occur in a *particular* word?
  - 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 Canvas, in *Modules > Sound files - pitch accent*)
- [muráski] ‘purple’
    - abrupt pitch fall
    - L H L L tone shape
  - [momoiro] ‘peach (color)’
    - no abrupt pitch fall
    - L H H H shape
  - [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)
- There is a distinction between accented and unaccented words — unpredictable
  - (more about this question in a later discussion)
  - Speakers need to learn for each word which position has the accent — unpredictable
    - Full disclosure: Accent location in *nouns* is fairly free in the Tokyo dialect, but *verbs* and *adjectives* are more restricted
  - Other tones in the word:
    - All positions *after* the accented position are L
    - All positions *before* the accented position 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 positions in the word 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)
- If there is an accent, assign H to the accented position and L to the following position, if any (see later discussion for more on “position”)
  - If the phrase is unaccented, assign H to the final position (note that *no* L follows)
  - Spread H leftward to any toneless positions
  - Spread L rightward to any toneless positions
  - Optional: Change the first tone in a phrase to L, unless that position 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.