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## Japanese pitch accent A short introduction

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• I'll read three words out loud:





- I'll read three words out loud:
- 学生





- I'll read three words out loud:
  - がくせい [0]
- 学生
- •世界





- I'll read three words out loud:
  - がくせい [0]
- 学生
  - せかい [1]
- •世界
- ●歩く



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- I'll read three words out loud:
  - がくせい [0]
- 学生
  - せかい [1]
- •世界
- 歩く

### Pitch accent

Words differ in pitch!

## Pitch accent in Japanese

- Distinct from intonation
  - Word pitch is preserved through changes in intonation
- Words rarely deviate from a set pitch pattern (in a dialect)

### Pitch accent contrasts stress accent

- Pitch accent language: syllables are emphasized through variation in pitch
  - Japanese
  - Swedish
  - Sanskrit
- Stress accent language: syllables are emphasized through variation in stress
  - English
  - Latin (and romance languages)
  - Arabic
- incorrect emphasis location makes words sound wrong!

Correct	Incorrect	
orange	or <b>an</b> ge	
party	par <b>ty</b>	
com <b>pu</b> ter	<b>com</b> puter	
ex <b>treme</b>	<b>ex</b> treme	
	•	

## Emphasis method

### Japanese pitch accent

Syllables in Japanese are emphasized through drops in pitch

- In both English and Japanese, at most one syllable is emphasized
  - In English, everything after a stressed syllable is unstressed
  - In Japanese, once the pitch falls it won't rise again

Japanese pitch accent

### Dictionary notation

### extreme

#### adjective

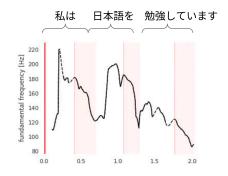
UK 🌒 /Ik'stri:m/ US 🌒 /Ik'stri:m/

#### 歩く

ある・く[2][歩く] (最か五) の人や動物が普通の足どりで、体を音方に移動させる。歩行する。あゆむ。「駅までー・く」 必要が歩き、海的ですく、「世界の各巻をー・く」 な装板すで、打名での気候で一覧に行く。 電炉をで、打名の気候で一覧に行く。 電(多く、他の動詞の下に付けて)…してまわる。「製品を売りー・く」「孫の自慢をしてー・く」(上代、歩行の意では「あゆむ」が使われ。「あるく」は主に移動する意に用いられた) 可能あるける

# Pitch pattern 1: 平板

- "Flat" pattern (typically, pitch rises slightly)
- Next particle attaches high
- Notated [0]
- Examples: 私, 日本語, それ, これ, 君, 勉強



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# Pitch pattern 2: 頭高

- Pitch falls on the first syllable
- Notated [1]

きれい

• Examples: 今日, 彼, 綺麗

### <sup>wかだか</sup> Pitch pattern 3: 中高

- Low-high-low pattern
- Syllable right behind the pitch drop is called the *accent nucleus*
- Denoted by [1-index of accent nucleus]
- Examples: 歩く [2], 長い [2], 十人十色[5], ありがとうござ います [2]

# Pitch pattern 4: 尾高

- Very similar to the flat pattern, except the pitch drops *before* the next particle.
- 気 [0] になる vs 木 [1] になる

おだか

● Examples: 弟, 足, 好き

Japanese pitch accent

Now what? ●000

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## Pitch is semantically important

### Some words differ only by pitch!

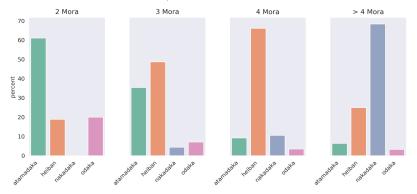
箸 (はし [1]): chopsticks	
雨 (あめ [1]): rain	飴 (あめ [0]): candy
酒 (さけ [0]): alcohol	鮭 (さけ [1]): salmon
今 (いま [1]): now	居間 (いま [2]): living room

People will still understand you with context but...

Japanese pitch accent

Now what? ○●○○

# Analysis of NHK 日本語発音アクセント新辞典 (nouns)



### Noun pitch accent distribution

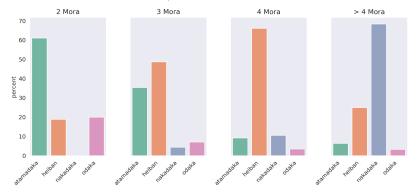
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Japanese pitch accent

Now what? ○●○○

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# Analysis of NHK 日本語発音アクセント新辞典 (nouns)



### Noun pitch accent distribution

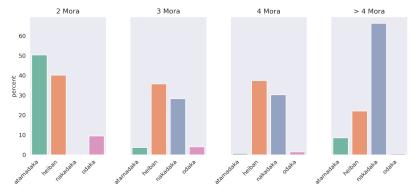
• 2-mora noun is usually [1]

• 4-mora noun is usually [0]

Japanese pitch accent

Now what? 00●0

# Analysis of NHK 日本語発音アクセント新辞典 (verbs)

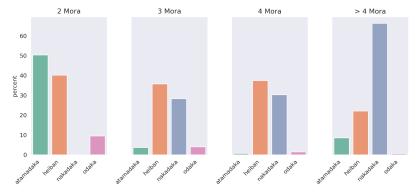


Verb pitch accent distribution

Japanese pitch accent

Now what? ○○●○

# Analysis of NHK 日本語発音アクセント新辞典 (verbs)



Verb pitch accent distribution

• yeah... we're screwed

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## Miscellaneous thoughts on learning pitch

- Native stress-accent speakers have a hard time noticing pitch
- Learning pitch is similar to learning readings
  - Intuitive patterns emerge after seeing a lot
  - There are always more exceptions to memorize