

# Phonology

- bəfor juw kɹɪtəsajz sʌmwʌn, juw ʃəd wək ə majl ɪn ðejr ʃuz. ðæt wej, wɛn juw kɹɪtəsajz ðəm, jər ə majl əweɪ ənd juw hæv ðer ʃuz.
- prəbəbliɪ ðɪj ərliɪəst flajswatərz wər nʌθɪŋ mɔr ðæn sʌm sɔrt əv strajkiŋ sɜrfəs ətætʃt tə ðɪj ɛnd əv ə lɔŋ stɪk.
- ðə feɪs əv ə tʃajld kən seɪ ɪt əl, əspɛʃəliɪ ðə mawθ part əv ðə feɪs.
- dæd əlweɪz θɔt læftər wəz ðə bɛst mɛdəsən, wɪtʃ əɪ ɡɛs ɪz wəɪ sɛvrəl əv əs daɪd əv təbɜrkjələʊsɪs.
- ɪf trɪz kəd skɹɪm, wʊd wɪj bɪɪ sɔw kævəlɪr əbawt kʌtɪŋ ðəm daʊn? wɪj maɪt, ɪf ðej skɹɪmd əl ðə tajm, fər nɔw ɡʊd rɪzən.
- æz ðə laɪt tʃeɪndzɪd frəm rɛd tə ɡrɪn tə jɛləʊ ənd bæɪk tə rɛd əɡjɛn, əɪ sət ðer θɪŋkiŋ əbawt laɪf. wəz ɪt nʌθɪŋ mɔr ðən ə bʌntʃ əv hɔŋkiŋ ənd jɛliŋ? sʌmtajmz ɪt sɪmd ðæt weɪ.  
- "dɪp θɔts", dʒæk hændɪj

## English plurals

dɒgz

tʰʌbz

filmz

hedz

bɛlz

pʰɪnz

fliɪz

kʰejvz

kʰɑɪz

kʰæts

dʒəɪəfs

bɪdʒəz

tʰɑps

tʰɪæks

bɪʌfəz

mɛsəz

lætsəz

mejzəz

Concentrate on **s** and **z** first.

two imaginable stories:

1. plural is underlying **s**,  
and it voices after voiced sound.
2. plural is underlying **z**,  
and it devoices after voiceless C.

**əz** after stridents

**s** after voiceless non-stridents

**z** after voiced non-stridents

1. Plural is underlying **s**, and it voices after voiced sound.

2. Plural is underlying **z**, and it devoices after voiceless C.

...are either of these general facts about English? any counterexamples?

1. Plural is underlying **s**, and it voices after voiced sound.

**p<sup>h</sup>lejs, læns, p<sup>h</sup>ərs...**

2. Plural is underlying **z**, and it devoices after voiceless C.

**...\*ʃɪpz...**

...are either of these general facts about English? any counterexamples?

1. Plural is underlying **s**, and it voices after voiced sound.

**p<sup>h</sup>lejs, læns, p<sup>h</sup>ərs...**

2. Plural is underlying **z**, and it devoices after voiceless C.

**...\*ʃɪpz...**

...are either of these general facts about English? any counterexamples?

**→ hypothesis 2 can be part of a general English fact:  
\*[voiceless] [voiced] #**

similarly:

bɪʌfəz

mɛsəz

lætʃəz

meɪzəz

əz after stridents...

similarly:

bɪʌfəz

mɛsəz

lætʃəz

meɪzəz

əz after stridents...

more generally, \*[strident] [strident] #

so:

[obstruent] → [voiceless] / [voiceless] \_\_ # (k<sup>h</sup>æt-z → k<sup>h</sup>æt<sup>s</sup>)

∅ → ə / [strident] \_\_ [strident] # (bɪʌʃ-z → bɪʌʃəz)



so:

[obstruent] → [voiceless] / [voiceless] \_\_ # (k<sup>h</sup>æt-z → k<sup>h</sup>æt<sup>s</sup>)

∅ → ə / [strident] \_\_ [strident] # (bɪʌʃ-z → bɪʌʃəz)

wait, why not:

bɪʌʃ-z → bɪʌʃ<sup>s</sup> → bɪʌʃə<sup>s</sup> ?

so:

[obstruent] → [voiceless] / [voiceless] \_\_ # (k<sup>h</sup>æt-z → k<sup>h</sup>æt<sup>s</sup>)

∅ → ə / [strident] \_\_ [strident] # (bɪʌʃ-z → bɪʌʃəz)

wait, why not:

bɪʌʃ-z → bɪʌʃ<sup>s</sup> → bɪʌʃə<sup>s</sup> ?

some general principle of *minimal repair*: inserting schwa fixes both of the problems with [bɪʌʃ-z], so that's what you do?

What's the plural of [bax]? [ɹuɰʒ]?

# Yawelmani

\* C C C

## Yawelmani

### Future

xat-en

mut-en

gij'-en

ʔilk-en

logw-en

paʔt-en

'eat'

'swear'

'touch'

'sing'

'pulverize'

'fight'

## Yawelmani

### Future

xat-en

mut-en

gij'-en

ʔilk-en

logw-en

paʔt-en

### Gerund

xat-taw

mut-taw

gij'-taw

'eat'

'swear'

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'pulverize'

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## Yawelmani

### Future

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'swear'

'touch'

'sing'

'pulverize'

'fight'

∅--> [i] / C \_\_ C C



## Yawelmani

### Desiderative

hud-**hatin**

'want to know'

li?-**hatin**

'want to sink'

Ø--> [i] / C \_\_ C C

## Yawelmani

### Desiderative

hud-**hatin**

'want to know'

liʔ-**hatin**

'want to sink'

linc'-**atin**

'want to speak'

hall-**atin**

'want to lift'

∅--> [i] / C \_\_ C C

## Yawelmani

### Desiderative

hud-**hatin**

'want to know'

li?-**hatin**

'want to sink'

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'want to lift'

$\emptyset \rightarrow [i] / C \_ C C$

$[h] \rightarrow \emptyset / C C \_$

## Yawelmani

"Passive"

t'ik'e-hnel

tok'o-hnel

'be tied'

'be hit'

$\emptyset \rightarrow [i] / C \_ C C$

$[h] \rightarrow \emptyset / C C \_$

## Yawelmani

### "Passive"

t'ik'e-hnel

'be tied'

tok'o-hnel

'be hit'

ʔamal-nel

'be helped'

git'en-nel

'be held under the arm'

Ø--> [i] / C \_\_ C C

[h] --> Ø / C C \_\_

## Yawelmani

### "Passive"

t'ik'e-hnel

'be tied'

tok'o-hnel

'be hit'

ʔamal-nel

'be helped'

git'en-nel

'be held under the arm'

$\emptyset \rightarrow [i] / C \_ C C$

$[h] \rightarrow \emptyset / C C \_$

$[h] \rightarrow \emptyset / C \_ C$

# Yawelmani

\* C C C !!

using:

$\emptyset \rightarrow [i]$

$[h] \rightarrow \emptyset$

## Japanese accent: another conspiracy

makura-wa  
pillow-TOP

kokoro-wa  
heart-TOP

atama-wa  
head-TOP

sakana-wa  
fish-TOP



## Japanese accent: another conspiracy

H L L L  
makura-wa  
pillow-TOP

L H L L  
kokoro-wa  
heart-TOP

L H H L  
atama-wa  
head-TOP

L H H H  
sakana-wa  
fish-TOP

**Japanese accent: another conspiracy**

H L L L  
mákura-wa  
pillow-TOP

L H L L  
kokóro-wa  
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atamá-wa  
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sakana-wa  
fish-TOP

**laws of accent realization:**

## Japanese accent: another conspiracy

H L L L  
mákura-wa  
pillow-TOP

L H L L  
kokóro-wa  
heart-TOP

L H H L  
atamá-wa  
head-TOP

L H H H  
sakana-wa  
fish-TOP

### laws of accent realization:

- If there is no accent, the first syllable is L, and the others are H

## Japanese accent: another conspiracy

**H** L L L  
mákura-wa  
pillow-TOP

L **H** L L  
kokóro-wa  
heart-TOP

LH **H** L  
atamá-wa  
head-TOP

**L H H H**  
sakana-wa  
fish-TOP

### laws of accent realization:

- If there is no accent, the first syllable is **L**, and the others are **H**
- **An H appears** on accented syllables...

## Japanese accent: another conspiracy

H L L L  
mákura-wa  
pillow-TOP

L H L L  
kokóro-wa  
heart-TOP

LH H L  
atamá-wa  
head-TOP

L H H H  
sakana-wa  
fish-TOP

### laws of accent realization:

- If there is no accent, the first syllable is L, and the others are H
- An H appears on accented syllables...
- ...and every syllable after an accented syllable is L

## Japanese accent: another conspiracy

H L L L  
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pillow-TOP

L H L L  
kokóro-wa  
heart-TOP

L H H L  
atamá-wa  
head-TOP

L H H H  
sakana-wa  
fish-TOP

### laws of accent realization:

- If there is no accent, the first syllable is L, and the others are H
- An H appears on accented syllables...
- ...and every syllable after an accented syllable is L
- Everything else in an accented word obeys the regular rules

## Japanese accent: another conspiracy

H L L L  
mákura-wa  
pillow-TOP

L H L L  
kokóro-wa  
heart-TOP

L H H L  
atamá-wa  
head-TOP

L H H H  
sakana-wa  
fish-TOP

### laws of accent realization:

- The syllable with the accent is H
- The first syllable is L, unless that conflicts with law #1
- Any syllables after the accented one are L.
- Any other syllables are H.

minimal pairs/triples:

áme 'rain', ame 'candy'

## Japanese accent: another conspiracy

H L L L  
mákura-wa  
pillow-TOP

L H L L  
kokóro-wa  
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L H H L  
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L H H H  
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minimal pairs/triples:

áme 'rain', ame 'candy'

hási 'chopsticks', hasí 'bridge', hasi 'edge'



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L H H H  
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minimal pairs/triples:

áme 'rain', ame 'candy'

hási 'chopsticks', hasí 'bridge', hasi 'edge'

***note:** all of these words have at most one accent.*

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made
'the heart'	kokóro-kara	kokóro-made

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made
'the heart'	kokóro-kara	kokóro-made
'the head'	atamá-kara	atamá-made

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made
'the heart'	kokóro-kara	kokóro-made
'the head'	atamá-kara	atamá-made
'the fish'	sakana-kara	sakana-máde

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made
'the heart'	kokóro-kara	kokóro-made
'the head'	atamá-kara	atamá-made
'the fish'	sakana-kara	sakana-máde

## Japanese accent

	'from'	'to'
'the pillow'	mákura-kara	mákura-made
'the heart'	kokóro-kara	kokóro-made
'the head'	atamá-kara	atamá-made
'the fish'	sakana-kara	sakana-máde

there are no words with more than one accent...

...and *máde* loses its accent after an accented word.

## Japanese accent

sakana

'fish'

mákura

'pillow'



## Japanese accent

sakana 'fish'

mákura 'pillow'

sakana-gúrai 'even a fish'

makura-gúrai 'even a pillow'

## Japanese accent

sakana            'fish'  
mákura           'pillow'

sakana-gúrai    'even a fish'  
makura-gúrai   'even a pillow'

there are no words with more than one accent...

...and *máde* loses its accent after an accented word.

...and accented words lose their accent before *gúrai*.

## Japanese accent

sakana            'fish'  
mákura           'pillow'

sakana-gúrai    'even a fish'  
makura-gúrai   'even a pillow'

there are no words with more than one accent...

...and *máde* loses its accent after an accented word.

...and accented words lose their accent before *gúrai*.

→ another conspiracy: Japanese avoids having more than one accent in the unit consisting of a word plus its suffixes...

## Japanese accent

sakana            'fish'  
mákura           'pillow'

sakana-gúrai    'even a fish'  
makura-gúrai   'even a pillow'

there are no words with more than one accent...

...and *máde* loses its accent after an accented word.

...and accented words lose their accent before *gúrai*.

→ another conspiracy: Japanese avoids having more than one accent in the unit consisting of a word plus its suffixes...

...through *various means* (deleting the first accent, deleting the second accent...)

## More on Japanese accent: compounds

tinomi + ko → tinomíko  
milk-drinking child    nursing baby

kágawa + kén → kagawáken  
          prefecture    Kagawa prefecture

okáyama + kén → okayamáken  
                          Okayama prefecture

tíba + kén → tibáken  
                          Chiba prefecture

What's the generalization about where accent goes in compounds?

## More on Japanese accent: compounds

tinomi + ko → tinomíko  
milk-drinking child    nursing baby

kágawa + kén → kagawáken  
prefecture    Kagawa prefecture

náma + tamágo → namatámago  
raw                      egg                      raw egg

nó + nezumi → nonézumi  
field    mouse                      field mouse

furáido + póteto → furaidopóteto  
fried                      potato                      fried potato (french fry)

## More on Japanese accent: compounds

kágawa + kén → kagawáken  
prefecture      Kagawa prefecture

furáido + póteto → furaidopóteto  
fried              potato              fried potato (french fry)

*instructions for accenting compounds:*

- the compound must only have one accent (cf. all words)

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fried              potato              fried potato (french fry)

*instructions for accenting compounds:*

- the compound must only have one accent (cf. all words)
- the accent should be next to the boundary between the words



## More on Japanese accent: compounds

kágawa + kén → kagawáken  
prefecture      Kagawa prefecture

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fried              potato              fried potato (french fry)

*instructions for accenting compounds:*

- the compound must only have one accent (cf. all words)
- the accent should be next to the boundary between the words
- the accent should not be final

## More on Japanese accent: compounds

kágawa + kén → kagawáken  
prefecture      Kagawa prefecture

furáido + póteto → furaidopóteto  
fried              potato              fried potato (french fry)

*instructions for accenting compounds:*

- the compound must only have one accent (cf. all words)
- the accent should be next to the boundary between the words
- the accent should not be final
- if possible, the accent should be on the second word

## More on Japanese accent: compounds

kágawa + kén → kagawáken

prefecture Kagawa prefecture

furáido + póteto → furaidopóteto

fried potato fried potato (french fry)

*instructions for accenting compounds:*

- the compound must only have one accent (cf. all words)
- the accent should be next to the boundary between the words
- the accent should not be final
- if possible, the accent should be on the second word

kágawa + kén	ONE ACCENT	ACCENT NEAR BOUNDARY	<u>NO</u> FINAL ACCENT	ACCENT LAST WORD
kágawakén	*		*	
kágawaken		*		*
kagáwaken		*		*
kagawáken				*
kagawakén			*	

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