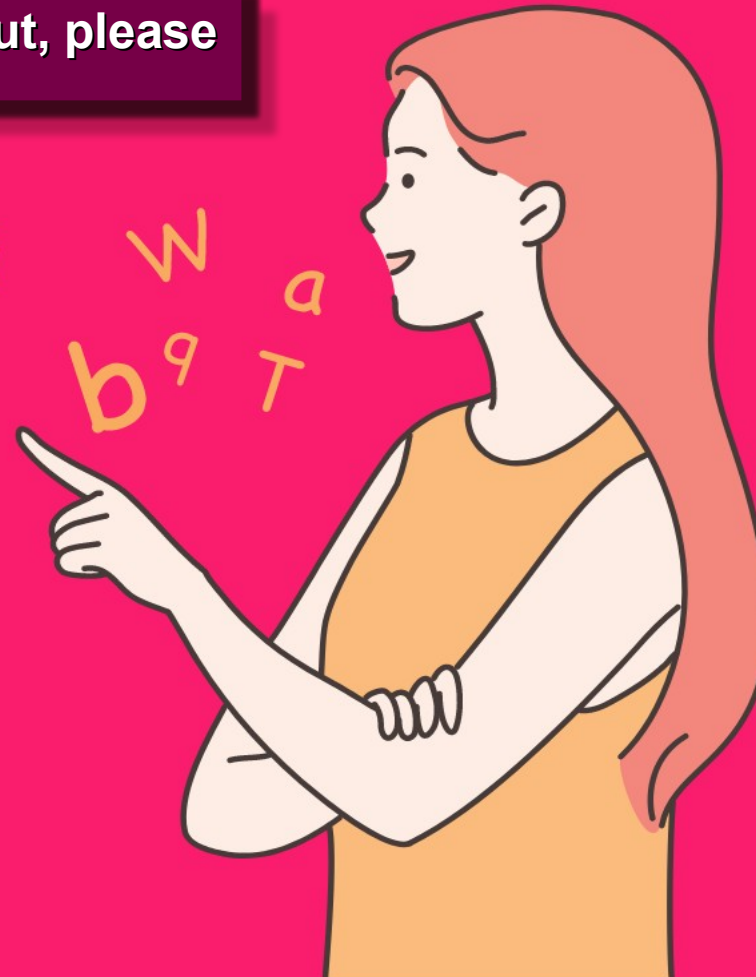


English Phonetics 03: The International Phonetic Alphabet

Take one of each handout, please

F
G
Q
N
V
D
B
U
A
I
Y
C
E
Y
R
d
f
W
b
r
T
a



English Phonetics 03: The International Phonetic Alphabet



This week

Pronunciation Lax and tense vowels

Lecture The International Phonetic Alphabet

Activity Reading and writing in IPA

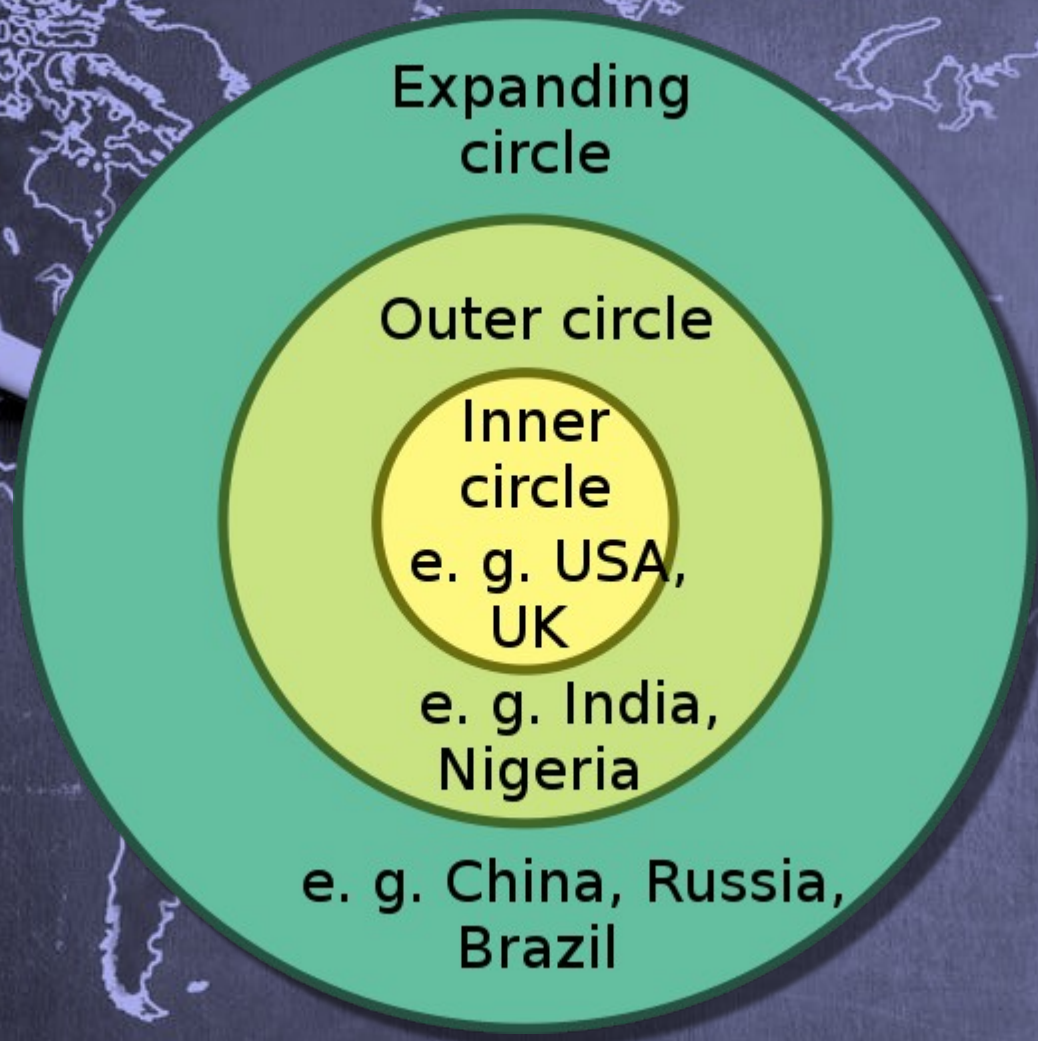


Here!

World Englishes

Kachru's Model

- Inner Circle
- Outer Circle
- Expanding Circle



Kachru, B. B., Quirk, R., & Widdowson, H. G. (1985). Standards, codification and sociolinguistic realism. *World Englishes. Critical Concepts in Linguistics*, 241-270.

World Englishes

Lingua Franca Core

- Jennifer Jenkins (2000, 2005)
- Grammar, vocabulary and sounds that are needed for L2/L2 contact

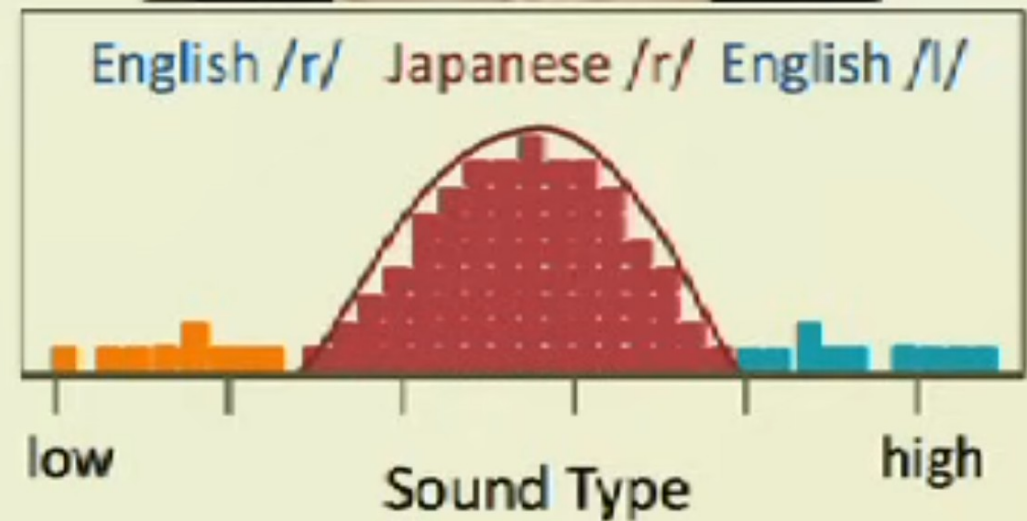
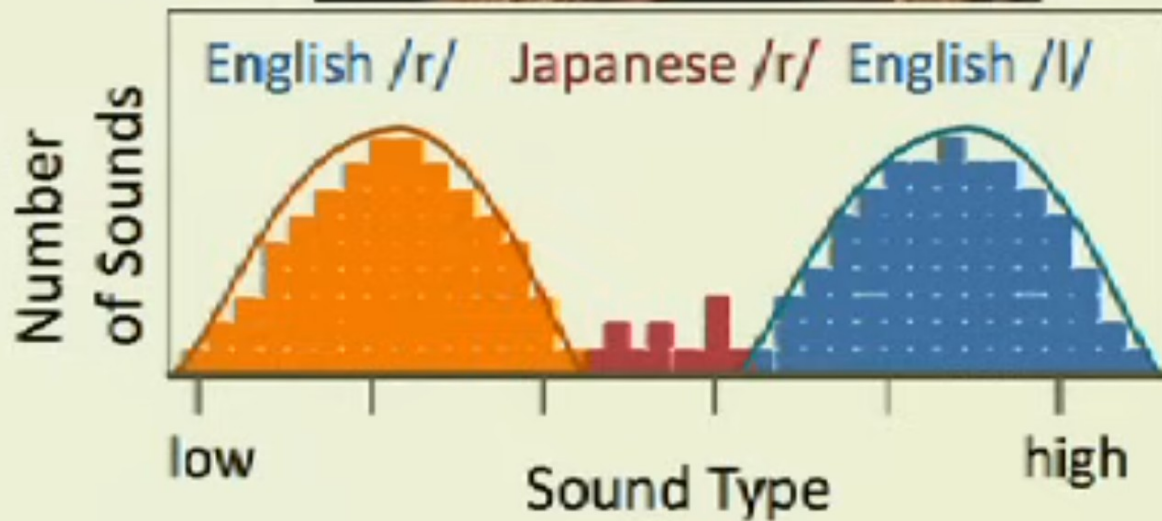
Important for L2/L2 communication		Not so important	
p, t, k	<i>Plosive</i> sounds must have correct <i>aspiration</i> (small puff of air)	/t/ flapping	Makes “writer” sound like “rider”.
//-/r/	Causes a lot of miscommunication	/θ/, /ð/ <th>	Hard to teach, hard to learn, usually doesn't cause confusion
kl, pr, sp...	<i>Consonants</i> in <i>clusters</i> should not be deleted, but insertion is usually okay (speak > supeak)	Native deletions	Postcard > poscard, next week > neksweek
Phrase Stress	Changes meaning a lot	Weak forms	Give him > givim, cup of water > cuppawater
Pauses	Makes listening easier	Intonation	Hard to teach, hard to learn, every person is different
Vowel length	“heat” vs. “hit” Note that American English does <i>not</i> have this feature!	Vowel quality	Varies a lot between dialects, usually doesn't cause problems

Video: Patricia Kuhl, "The Linguistic Genius of Babies"

English
Speaker



Japanese
Speaker

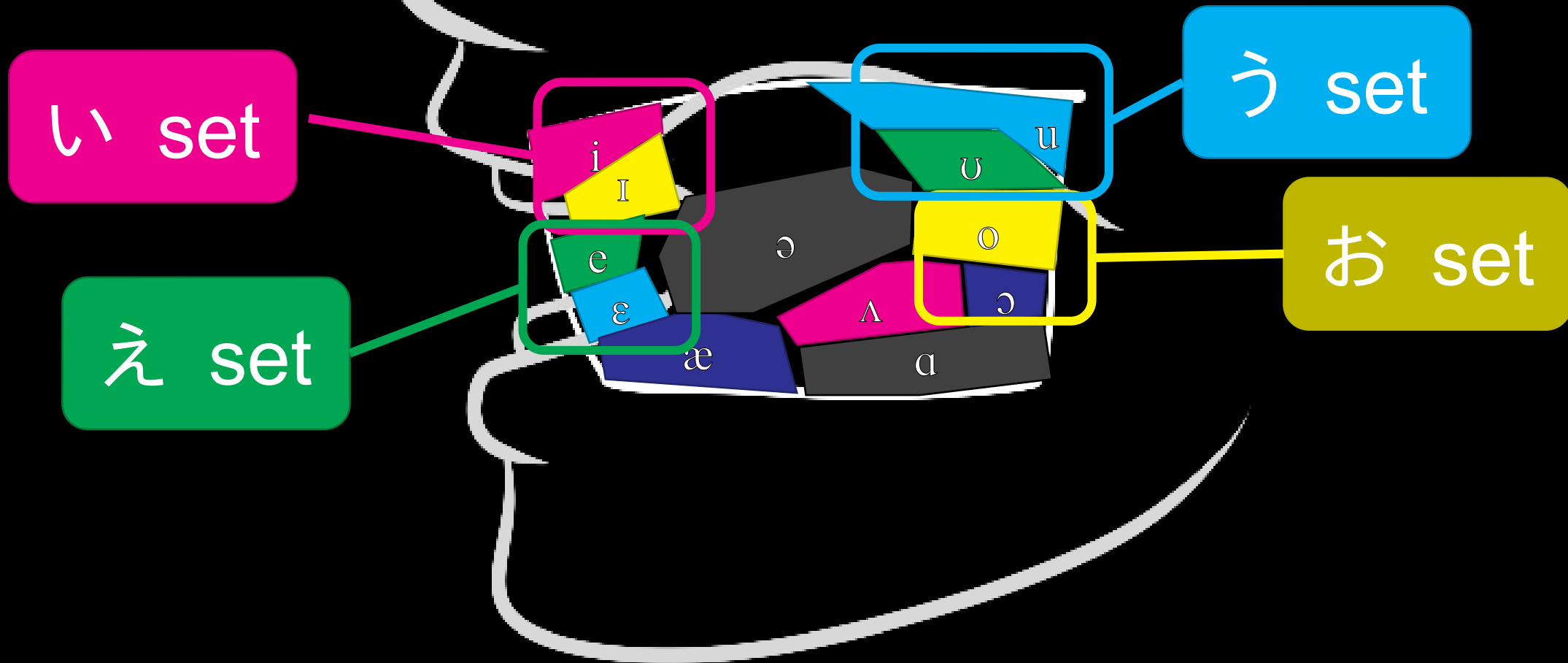


Sounds: Tense and Lax Vowels



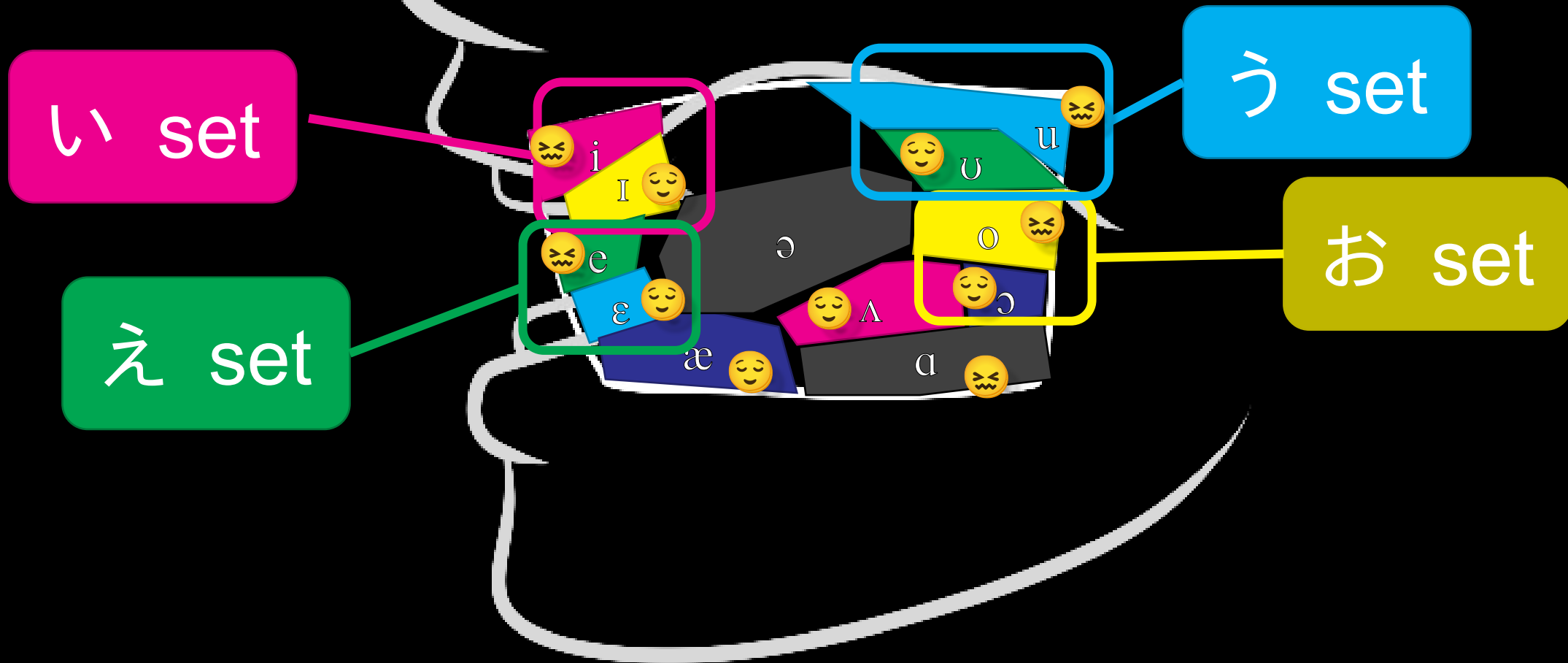
Sounds: Tense and Lax Vowels

English has a lot of vowel sounds (母音). Many more than Japanese!
It helps to think of them in sets. Each set has a tense vowel 😡 (緊張母音) and a lax vowel 😊 (弛緩母音).



Sounds: Tense and Lax Vowels

English has a lot of vowel sounds (母音). Many more than Japanese!
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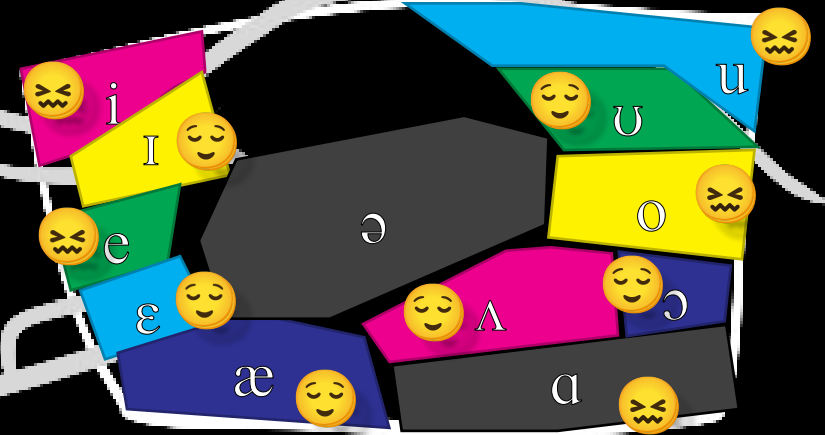


Sounds: Tense and Lax Vowels

Most Japanese speakers think of them as “short” and “long.” This is not *wrong*, but it’s only a small part of the difference.

Vowel quality is just as important as *vowel length*.

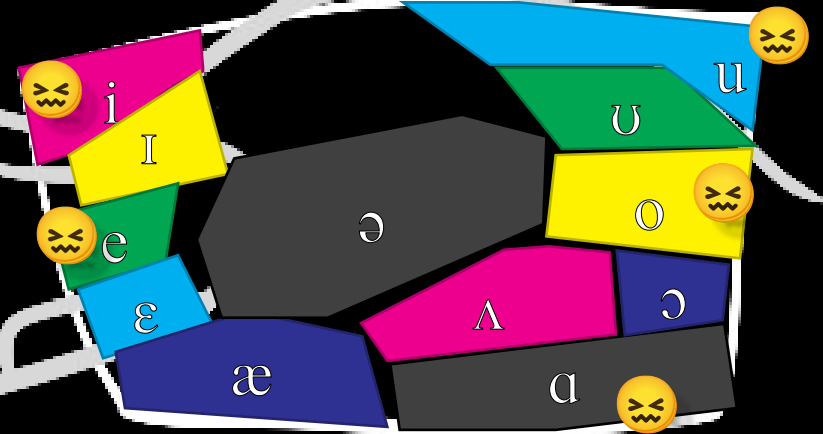
Spelling	Common katakana	IPA
cheap	チープ	tʃiɪp
chip	チップ	tʃɪp
wait	ウェート	weɪt
wet	ウェット	wɛt
shoed	シュード	ʃuɪd
should	シュッド	ʃud
code	コード	kɔɪd
cod	コド	kɒd



Sounds: Tense and Lax Vowels

Tense vowels 🤨 (緊張母音) are usually easy for Japanese speakers, but they don't usually pronounce the diphthongs (二重母音) correctly.

English	IPA (GA)
sheep	ʃi:p
sale	seɪl
shoe	ʃu:



Sounds: Tense and Lax Vowels

Lax vowels 😊 (弛緩母音) are usually harder for Japanese speakers.
Try to relax the back of your tongue.



English	IPA (GA)
ship	ʃɪp
sell	sɛl
should	ʃʊd

Sounds: Tense and Lax Vowels

Let's try using these sounds in Japanese words.


First, we'll use tense sounds, then lax sounds. Lax sounds are kind of ヤンキーっぽい

moozookashee  muwzeka'sij




moozookashih  muwzeka'si



sheep  sijp



ship  sip

難しい muzukaçi↓:

Sounds: Tense and Lax Vowels

Let's try using these sounds in Japanese words.

First, we'll use tense sounds, then lax sounds. Lax sounds are kind of ヤンキーっぽい



sheemokeetazawa 😞 | ʃijməˌkijtəˈzawə

shimokitazawa 😊 | ʃiməˌkitəˈzawə

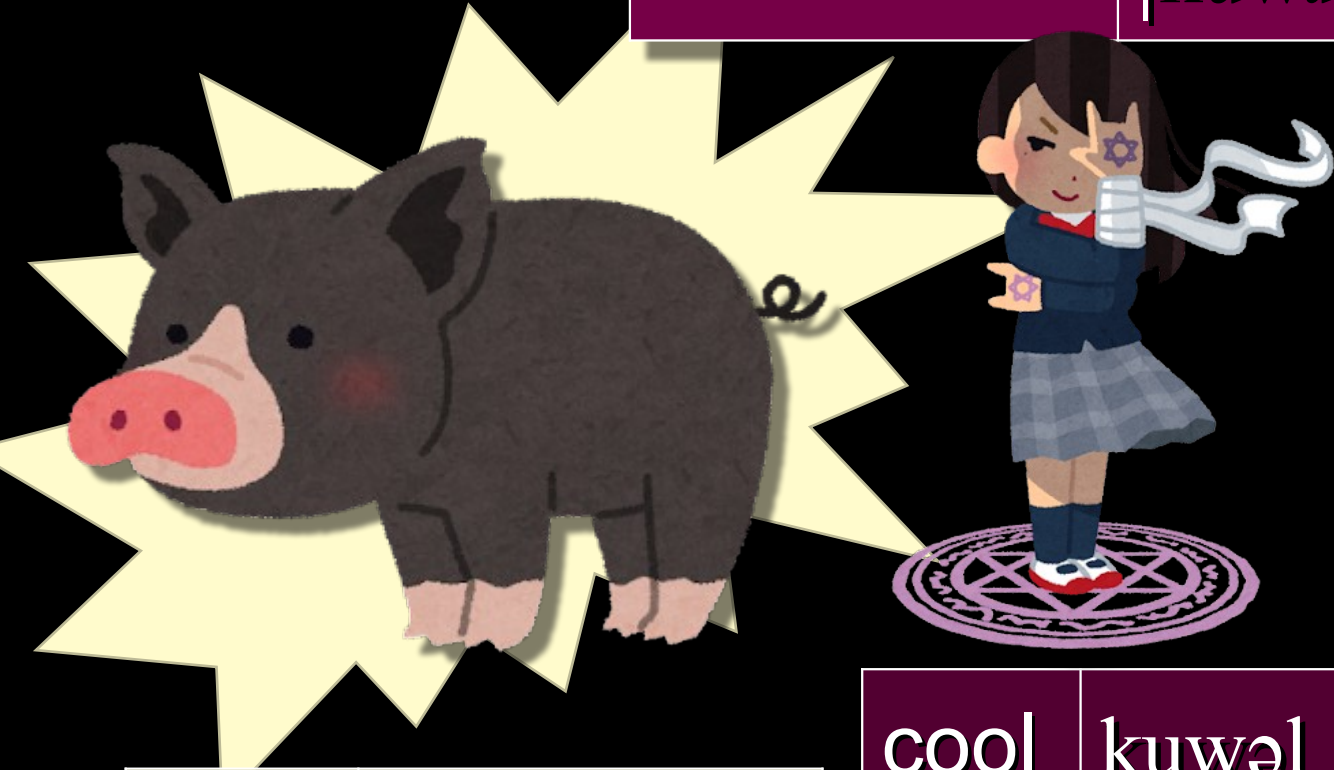
下北沢 | ɕimokitaza↓wa

Sounds: Tense and Lax Vowels

Let's try using these sounds in Japanese words.

First, we'll use tense sounds, then lax sounds. Lax sounds are kind of ヤンキーっぽい

kooroboota | kuwɔ̃'buwɾɔ̃



kurobuta | kuɔ̃'buɾɔ̃



黒豚 | kurobuta

cool | kuwɔ̃



cook | kuk



Sounds: Tense and Lax Vowels

Let's try using these sounds in Japanese words.

First, we'll use tense sounds, then lax sounds. Lax sounds are kind of ヤンキーっぽい

fookusheemaken



fukə'sijmə,ken



福島県

ɸʊkʊɕimaˈkɛ̃

food

fuwd



fukushimmaken



fukə'simə,ken



full

fu1



Practice: /ɪ/ and /ij/ minimal pairs



fit

[fitʰ]

合う



feet

[fijtʰ]

足



his

[hiz]

彼の



he's

[hijz]

彼は…である

Practice: /ɪ/ and /ij/ minimal pairs



it

[ɪt]



eat

[iɛt]

食べる



sit

[sɪt]

座る



seat

[siɛt]

席

Sounds: Tense and Lax Vowels



kooky

cookie

Luke

look

[¹'kuwkij]

[¹'kukij]

[luwk]

[luk]

いかれた

クッキー

ルーク(名前)

見る

Sounds: Tense and Lax Vowels



shooed

[ʃuwd]

追い払った

should

[ʃʊd]

～するべき

suit

[suwt̚]

スーツ

soot

[sut̚]

すす、煤煙

Practice: /ɪ/ and /ij/ minimal pairs

★ We will, we will rock you!

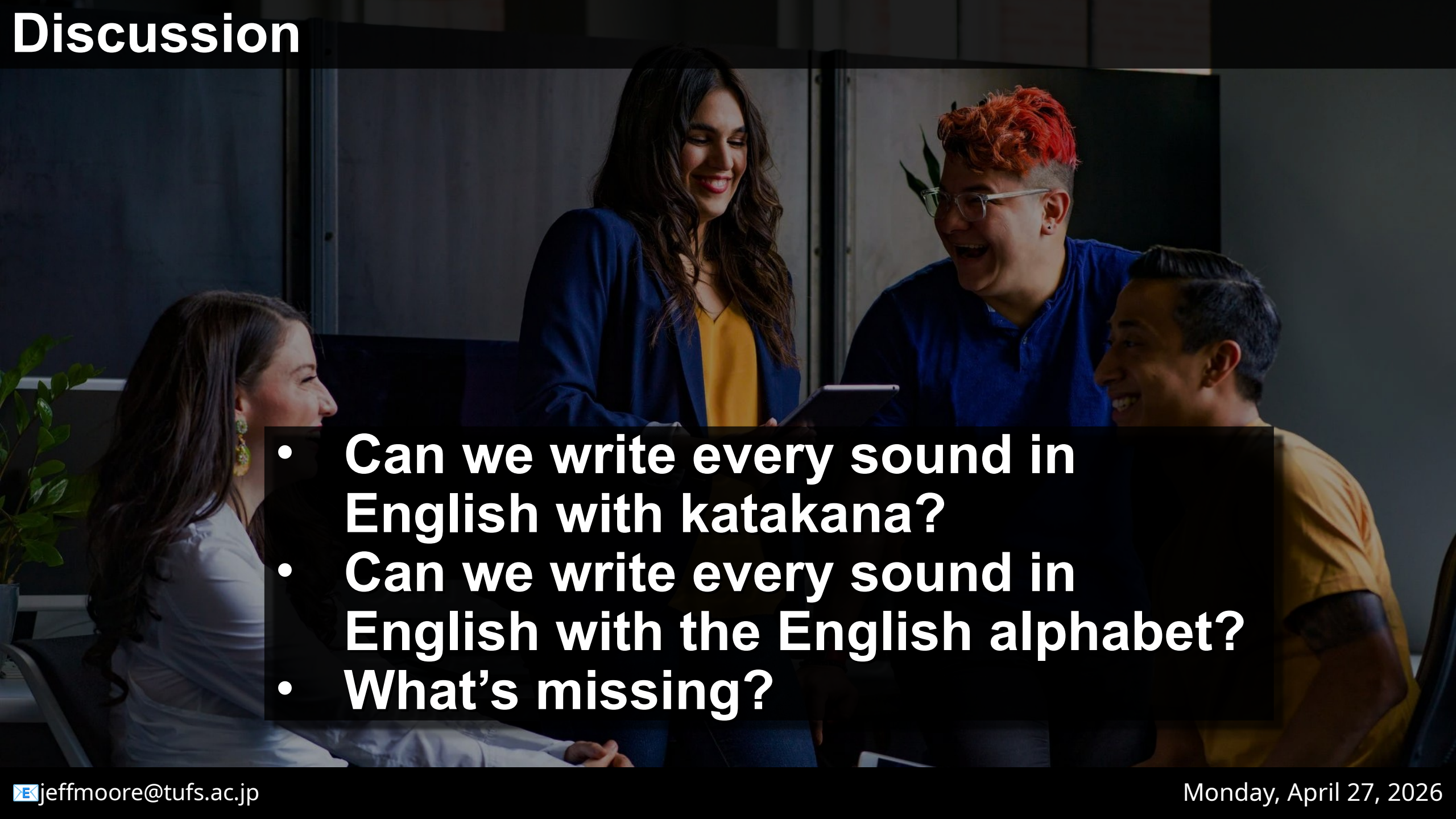
/wij wil wij wil rak juw/



Discussion



Discussion

- 
- A group of four people (three women and one man) are gathered around a table in a meeting. They are looking at a tablet together. The woman on the left is wearing a white shirt and has long dark hair. The woman in the center is wearing a blue blazer over a yellow top and has long dark hair. The man on the right is wearing a blue shirt and has red hair and glasses. The woman on the far right is wearing a yellow shirt and has short dark hair. They are all smiling and appear to be engaged in a discussion.
- **Can we write every sound in English with katakana?**
 - **Can we write every sound in English with the English alphabet?**
 - **What's missing?**

Lecture: The International Phonetic Alphabet



Lecture: The International Phonetic Alphabet

Can you read this text written in the International Phonetic Alphabet?

aj əm ə kæt

bət æz jət aj hæv now nejm

wɛr aj wəz bɔrn ɪz ɪn'tajərliːj ən'nəʊn tə miːj

aj wəz 'mjuːwɪŋ ɪn ə 'gluːwmiːj dæmp pleɪs

wɛr aj gət ðə fɜrst saɪt əv ə 'kriːtʃər kʌld mæn



Lecture: The International Phonetic Alphabet

Can you read this text written in the International Phonetic Alphabet?

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aj wəz 'mjuwɪŋ ɪn ə 'gluɪv dæmp plejs

wɛr aj gət ðə fɜrst sajt fɜr

Answers



Lecture: The International Phonetic Alphabet

I am a cat;

aj əm ə kæt

but as yet I have no name.

bət æz jət aj hæv now nejm

Where I was born is entirely unknown to me.

wer aj wəz bɔrn ɪz ɪn'tajərliɪ ən'nəʊn tə miː

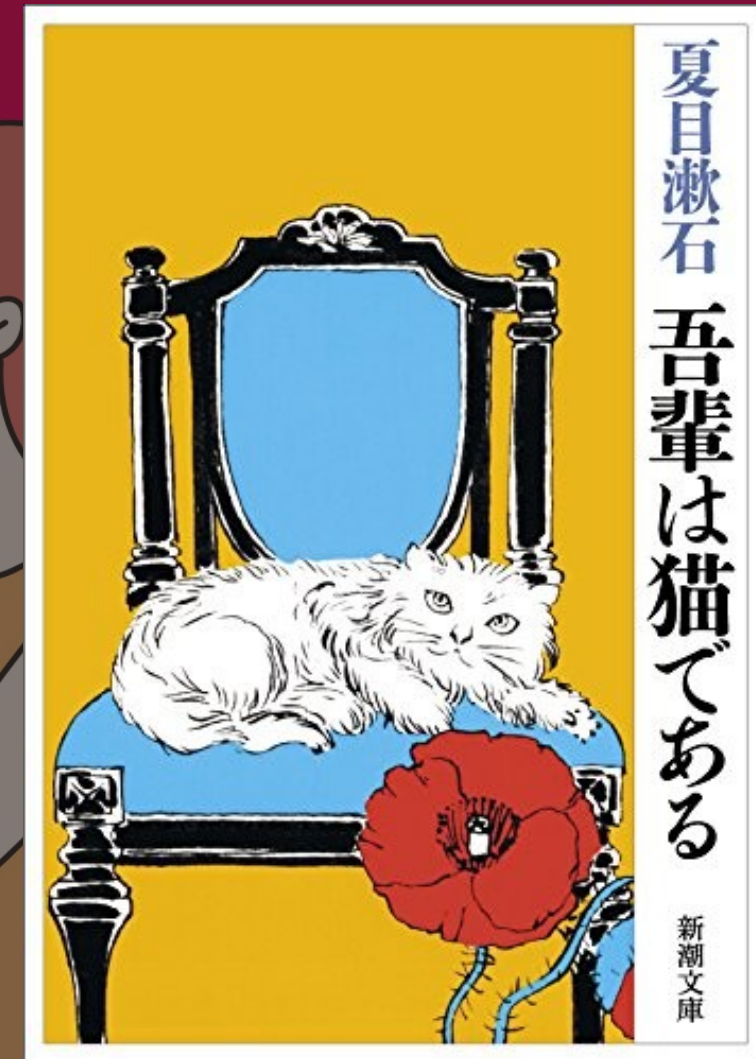
I was mewling in a gloomy damp place,

aj wəz 'mjuːwɪŋ ɪn ə 'gluːmɪj dæmp pleɪs

where I got the first sight of a creature called man.

wer aj gɒt ðə fɜrst saɪt əv ə 'kriːtʃər kɔld mæn

a
T

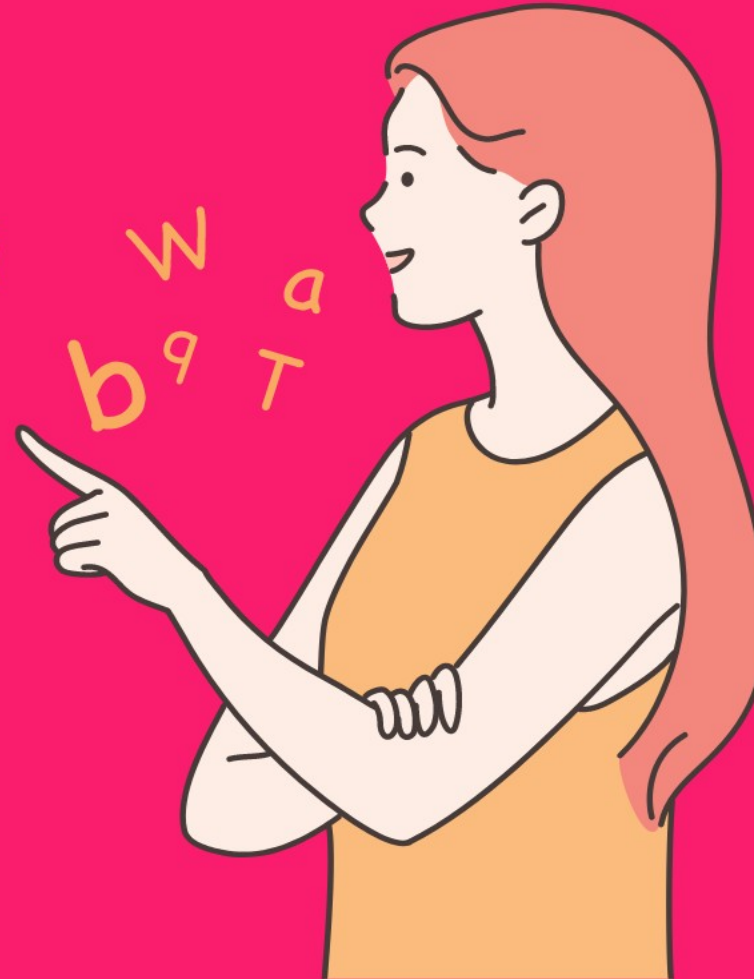


Lecture: The International Phonetic Alphabet

Writing sounds, not words

- ★ Main ideas
- ★ English sounds
- ★ Japanese sounds
- ★ Sounds from other languages

A G D I Y R f W
Q B U Y C E d b 9 T a



Lecture: The International Phonetic Alphabet

Main ideas

- ★ Segments, phonemes, phones
- ★ Overview of the chart
- ★ Differences from Genius



Lecture: The International Phonetic Alphabet

Segments, phonemes, phones

- ★ Each letter in IPA is a segment (分節音)
- ★ The smallest sound we can pronounce
- ★ Consonants (子音) and vowels (母音)

Spelling	IPA
ʊ	/t <u>ʊ</u> /
ʃ	/ç <u>i</u> /
think	/θɪŋ <u>k</u> /
tax	/tæ <u>k</u> s/

Lecture: The International Phonetic Alphabet

Segments, phonemes, phones

- ★ A phoneme (音素) is not really a sound, but a category in your mind
- ★ Changing one phoneme to another changes a word's meaning
- ★ In IPA, we use slashes // to show phonemes

Spelling	Phoneme
< 魚 >	/sakana/
< 高菜 >	/takana/

/are wa esa↓ kana/



Lecture: The International Phonetic Alphabet

Phones: real sounds

- ★ Phonemes (音素) are not real, but phones (音) are real
- ★ We use square brackets to show phones
- ★ Broad transcriptions (簡略表記) include only what's necessary
- ★ Narrow transcriptions (精密表記) include as much details as possible

Word	Phonemes	Phones (somewhat narrow)	Phones (quite narrow)
しかし	/sikasi/	[ç̚ika↓ç̚i]	[ç̚ikä↓ç̚i̠]
real	/ril/	[^l r̥ijət̚]	[^l r̥i ^w ijɻ]

Lecture: The International Phonetic Alphabet

The IPA chart

- ✦ Pulmonic consonants (肺臓を使用する子音) at the top
- ✦ Left to right = front to back
- ✦ Top to bottom = closed to open
- ✦ Pairs: left is voiceless, right is voiced
- ✦ White = possible sound, but no phoneme found
- ✦ Gray = probably not possible

CONSONANTS (PULMONIC)

© 2015 IPA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill				r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

Lecture: The International Phonetic Alphabet

The IPA chart

- Other Symbols under the non-pulmonics
- w in English, ɰ, ʑ, ɕ in Japanese
- curve means two sounds together: tʃ dʒ
- Pairs: left is voiceless, right is voiced
- White = possible sound, but no phoneme found
- Gray = probably not possible

CONSONANTS (PULMONIC)

© 2015 IPA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill				r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

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Lecture: The International Phonetic Alphabet

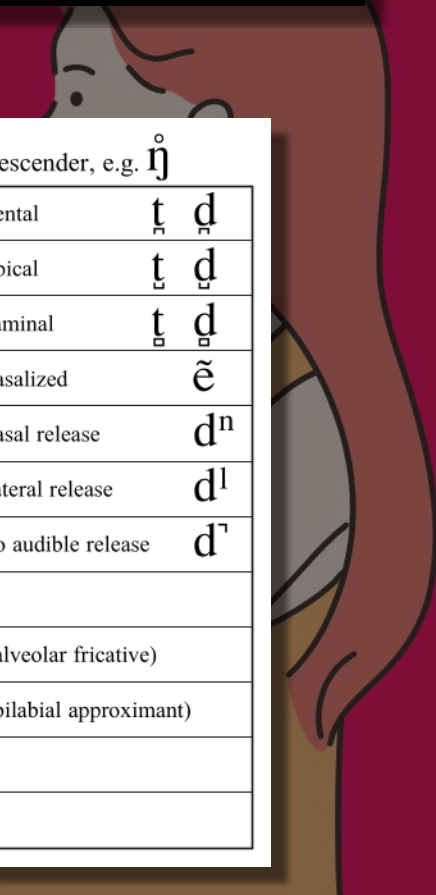
The IPA chart

- ✦ Diacritics on bottom left
- ✦ Mostly used for narrow transcriptions (精密表記)
- ✦ Voiceless and nasal vowels in Japanese: ɸi $\tilde{\text{a}}$ $\tilde{\text{i}}$ $\tilde{\text{u}}$ $\tilde{\text{o}}$

DIACRITICS Some diacritics may be placed above a symbol with a descender, e.g. ŋ̥

◌ [◌] Voiceless	ŋ̥ d̥	◌ [◌] Breathy voiced	b̤ a̤	◌ _̪ Dental	t̪ d̪
◌ _̤ Voiced	s̤ t̤	◌ _̰ Creaky voiced	b̰ a̰	◌ _̺ Apical	t̺ d̺
◌ ^h Aspirated	t^h d^h	◌ _̝ Linguolabial	t̟ d̟	◌ _̻ Laminal	t̻ d̻
◌ _̞ More rounded	ɔ̞	◌ ^w Labialized	t^w d^w	◌ [̃] Nasalized	ẽ
◌ _̠ Less rounded	ɔ̠	◌ ^j Palatalized	t^j d^j	◌ ⁿ Nasal release	d^n
◌ _̡ Advanced	u̡	◌ ^Y Velarized	t^Y d^Y	◌ ^l Lateral release	d^l
◌ _̢ Retracted	e̢	◌ ^ɣ Pharyngealized	$\text{t}^ɣ}$ $\text{d}^ɣ}$	◌ [̟] No audible release	$\text{d}^̟$
◌ ^{̠̠} Centralized	ë	◌ [̠] Velarized or pharyngealized	ɫ		
◌ ^x Mid-centralized	ẽ	◌ _̥ Raised	e̥ (ɹ̥ = voiced alveolar fricative)		
◌ _̩ Syllabic	n̩	◌ _̜ Lowered	e̜ (β̜ = voiced bilabial approximant)		
◌ _̯ Non-syllabic	e̯	◌ _̠ Advanced Tongue Root	e̠		
◌ [̣] Rhoticity	ə̣ ạ	◌ _̡ Retracted Tongue Root	e̡		

F
G
Q
N

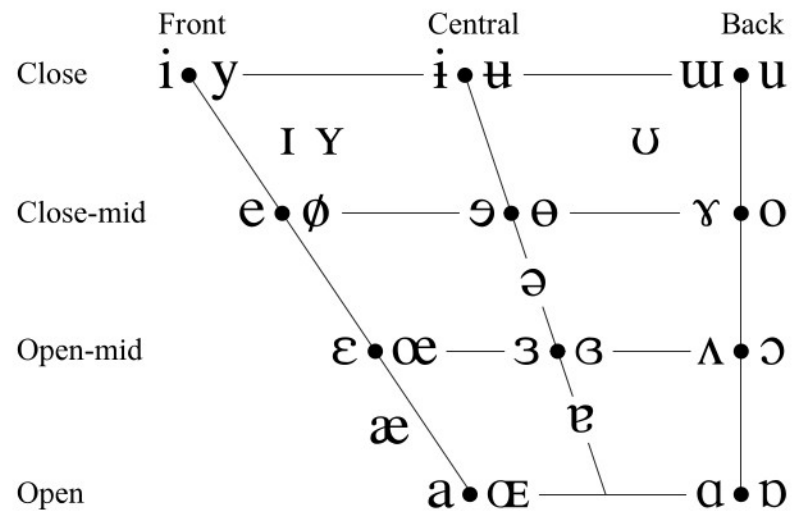


Lecture: The International Phonetic Alphabet

The IPA chart

- ⊛ Vowels (母音) are middle right
- ⊛ Left to right = front to back
- ⊛ Top to bottom = closed to open
- ⊛ Pairs: left is unrounded, right is rounded

VOWELS



Lecture: The International Phonetic Alphabet

The IPA chart

- Suprasegmentals, tones, accents on the right
- Japanese 伸ばし棒 : pitch accent drop is ↓
- Tones are kind of crazy and a bad fit for Mandarin Chinese

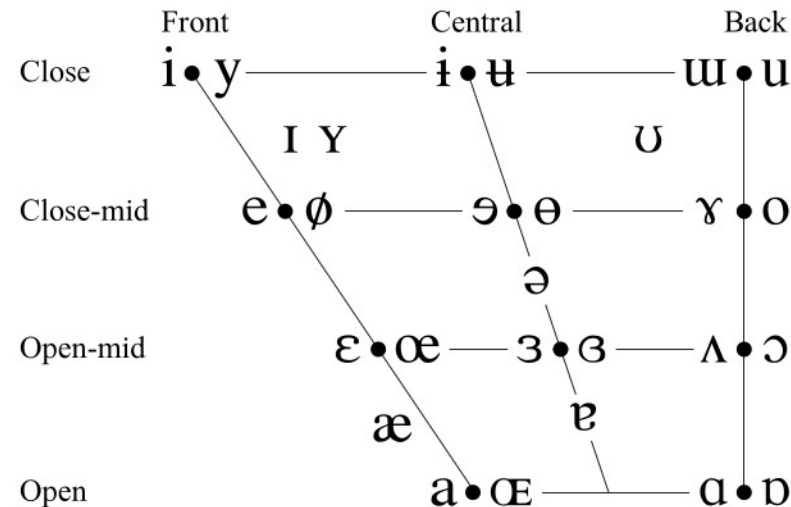
SUPRASEGMENTALS

- Primary stress ˈ ˈfounəˈtʃən
- Secondary stress ˌ
- Long ː eː
- Half-long ˑ eˑ
- Extra-short ˚ e˚
- Minor (foot) group |
- Major (intonation) group ||
- Syllable break . .i.ækt
- Linking (absence of a break) ˘

TONES AND WORD ACCENTS

LEVEL		CONTOUR	
é̃ or ˆ	Extra high	ě or ˆ	Rising
é	High	ê	Falling
ē	Mid	ē	High rising
è	Low	è	Low rising
è̃	Extra low	ě̃	Rising-falling
↓	Downstep	↗	Global rise
↑	Upstep	↘	Global fall

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

Lecture: The International Phonetic Alphabet

Differences from Genius

- ★ Most dictionaries have their own system
- ★ Most linguists think this is stupid

Word	IPA	Genius
kiss	ɪ	ɪ
dress	ɛ	e
cat	æ	æ
foot	ʊ	U
cup	ə	ʌ
hot	ɑ	ɑː

Word	IPA	Genius
sleep	ij	iː
face	ej	eɪ
school	uw	uː
boat	ow	ou
price	aj	aɪ
choice	oj	ɔɪ
mouth	aw	au

Word	IPA	Genius
bird	ə	əːr
start	ɑr	ɑːr
north	or	ɔːr
near	ir	ɪər
cure	ur	uər
square	er	eər

Lecture: The International Phonetic Alphabet



Sounds of English

- ★ English Consonants (子音)
- ★ English Vowels (母音)
- ★ English Stress (強勢)

Lecture: The International Phonetic Alphabet

Consonants that are the same as English spelling

★ p, b, t, d, k, g, m, n, r, f, v, s, z, h, l, w



スペル

pig, best, dim, knock, rose, hiss, live, wife

IPA

/pɪg/, /best/, /dɪm/, /nɔk/, /roʊz/, /hɪs/, /lɪv/, /waɪf/

Lecture: The International Phonetic Alphabet

Consonants that use new symbols

★ ŋ, θ, ð, ʃ, ʒ, tʃ, dʒ



スペル

bing, thick, this, ship, measure, chip, Jeff

IPA

/bɪŋ/, /θɪk/, /ðɪs/, /ʃɪp/, /ˈmɛʒə/, /tʃɪp/, /dʒɛf/

Lecture: The International Phonetic Alphabet

Consonants from English that aren't used in IPA

★ c, q, sh, ch



スペル

rice, quick, ship, chip

IPA

/raɪs/, /kwɪk/, /ʃɪp/, /tʃɪp/

Lecture: The International Phonetic Alphabet

Consonant that is used differently than in English spelling

★ j



スペル

rice, yes

IPA

/rajs/, /jes/

Lecture: The International Phonetic Alphabet

Vowels that use English letters

★ ij, ej, aj, aw, uw, ow



スペル

me, they, I, how, who, glow

IPA

/mij/, /ðej/, /aj/, /haw/, /huw/, /glow/

Lecture: The International Phonetic Alphabet

Vowels that use new symbols

★ ɪ, ɛ, æ, ʊ, ə, ɑ, ɔ



スペル

him, head, hat, look, cup, stop, bird

IPA

/hɪm/, /hɛd/, /hæt/, /lʊk/, /kʌp/, /stɒp/, /bɜːd/

Lecture: The International Phonetic Alphabet

Stress (強勢)



スペル

measure, Japanese, understand

IPA

/ˈmɛʒə/, /ˌdʒæpəˈniːz/, /ˌʌndəˈstænd/

Lecture: The International Phonetic Alphabet

Breaks



スペル

I have an apple, I have a pen

IPA

/aj hæv | ən 'æpəl || aj hæv | ə pen/

Lecture: The International Phonetic Alphabet

Let's practice!

haɪ ðɛr || aɪm ə 'stuwdənt | æt ðə
'tɔwki,jɔw ˌjuwne'vɜ:sətɪj | əv 'fɔrm
'stədiːz || əɪ lɒv | 'spi:kɪŋ 'ɪŋɡlɪʃ || ænd
aɪm 'lʊkɪŋ 'fɔrwɜ:d | tə 'præktəsɪŋ
'ɪŋɡlɪʃ | wɪθ məɪ 'klæs,mɛɪts



Lecture: The International Phonetic Alphabet

Let's practice!



スペル

Hi there! I'm a student at the Tokyo University of Foreign Studies. I love speaking English, and I'm looking forward to practicing English with my classmates.

IPA

həj ðeər || əjm ə 'stuwdənt | æt ðə 'tɔʊki,jəʊ ʤuwnə'vɜ:sətij | əv 'fɔ:m 'stədi:z || əj
ləv | 'spi:kɪŋ 'ɪŋɡlɪʃ || ænd əjm 'lʊkɪŋ 'fɔrwəd | tə 'præktəsɪŋ 'ɪŋɡlɪʃ | wɪθ məj 'klæs
,meɪtʃs

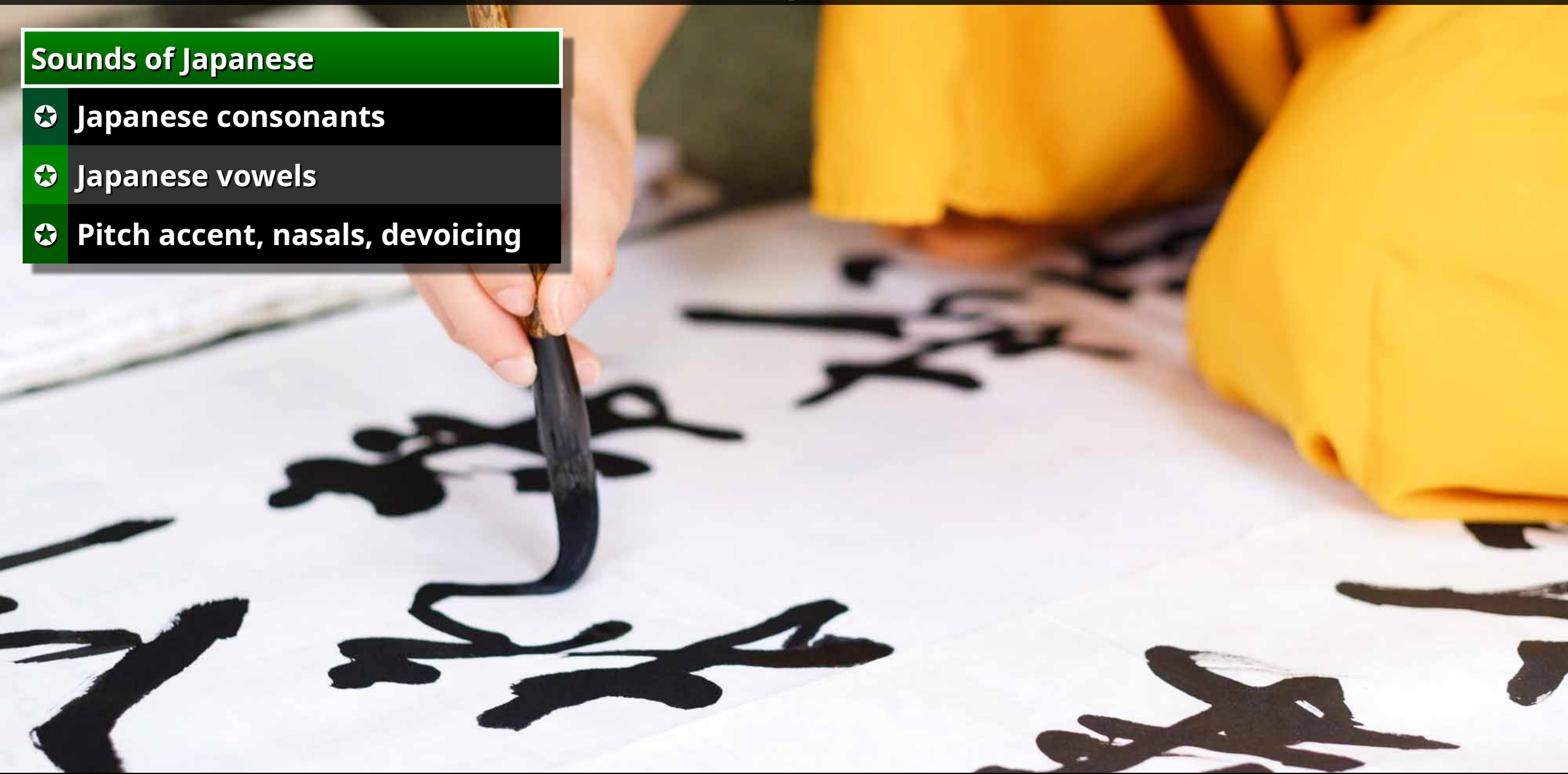
Lecture: The International Phonetic Alphabet

Sounds of Japanese

★ Japanese consonants

★ Japanese vowels

★ Pitch accent, nasals, devoicing



Lecture: The International Phonetic Alphabet

Japanese Consonants

★ Mostly the same as rōmaji

★ New letters: ʔ, ŋ, ɸ, ɸ̚, t͡ɕ, d͡ʒ

pa ba	ta da		ka ga	ʔ
ぱば	ただ		かが	あっ
ma	na		anga	
ま	な		あんが	
	ra			
	ら			
ɸɸ	sa za	/sja/ [ɕa]		ha
っ	さざ	しゃ		は
	t͡su d͡zu	/tja/ /zja/ [t͡ɕa] [d͡ʒa]		
	っづ	ちゃじゃ		
wa*		ja	wa*	
わ		や	わ	

Lecture: The International Phonetic Alphabet

Japanese Vowels

★ Almost the same as rōmaji

★ /a/ has a hat! NOT /ɑ/

★ [e̞] and [ɯ]

Hiragana	Phoneme	Phone
あ	/a/	[a]
い	/i/	[i]
う	/u/	[ɯ]
え	/e/	[e̞]
お	/o/	[o]

Lecture: The International Phonetic Alphabet

Other features

- ★ Pitch accent: ↓
- ★ ㇿ = /N/ = [n], [m], [ŋ], [ãĩũẽõ]
- ★ /u/ and /i/ devoice between voiceless consonants
- ★ Long vowel = ː
- ★ Small っ = /Q/

Writing	Phonemes	Phones (narrow)
赤	/a↓ka/	[a↓ka]
ワンタン麵缶	/waNtaNmeNkaN/	[wantammɛŋkã]
飛鳥時代	/asukazi↓dai/	[asɯkadzi↓dai]
丈夫	/zjo:bu/	[dzo:bɯ]
結局	/keQkjoku/	[kekkjokɯ]

Lecture: The International Phonetic Alphabet

Practice!

Reading Japanese IPA

Read these Japanese words in IPA, and try to write them out in Japanese.

	IPA	Spelling
1	ka↓mera	
2	jajakoði↓:	
3	tsɯnami	
4	so↓:mẽ	
5	to:ɸɯ↓	

Writing Japanese IPA

Read these Japanese words in kanji and hiragana, and try to write them out in IPA.

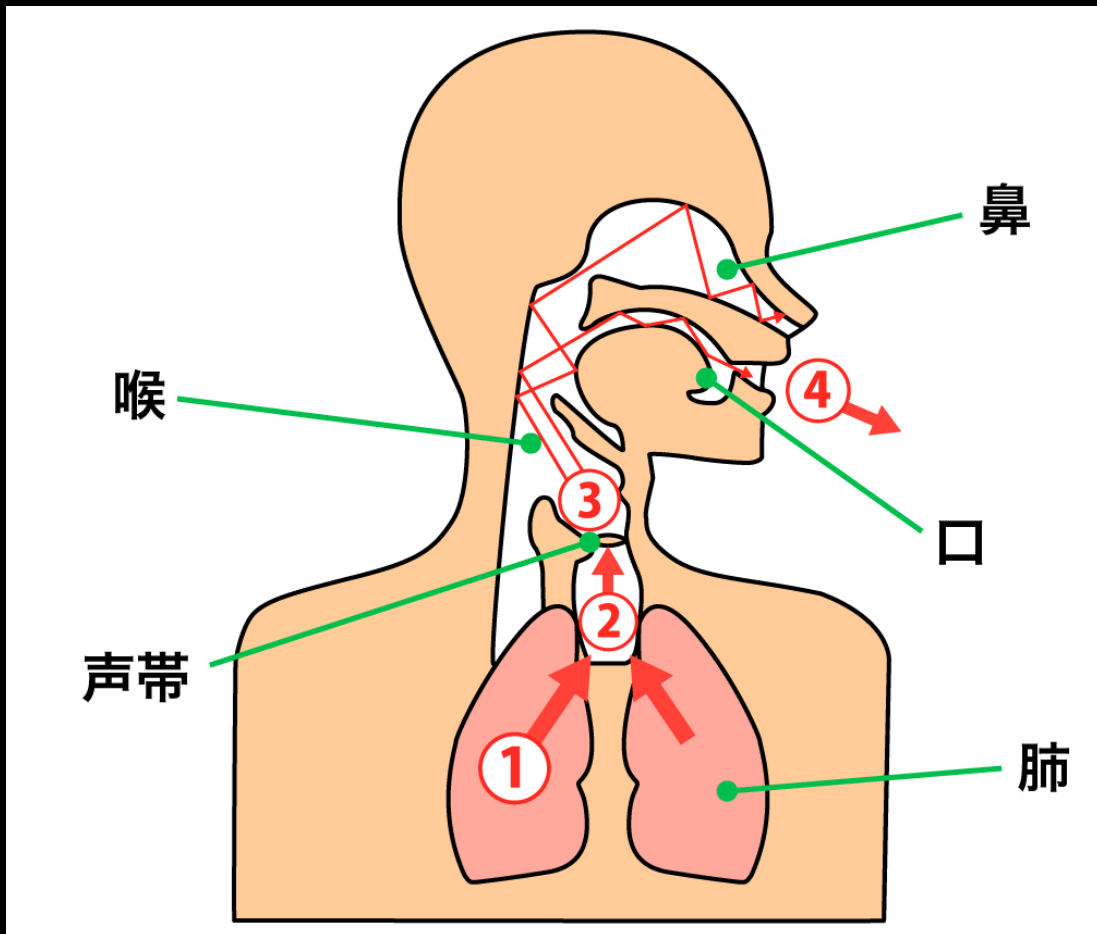
	Spelling	IPA
1	寺	
2	お茶漬け	
3	日本	
4	おんぶ	
5	夕焼け小焼け	

Lecture: IPA for Other Languages



Lecture: IPA for Other Languages

Most language sounds are **pulmonic (肺気流)** **egressives (呼気音)**.



Lecture: IPA for Other Languages

But we also have IPA symbols for sounds that don't use the lungs. Many people call them "clicks."

Consonants (Non-Pulmonic)		
Clicks	Voiced implosives	Ejectives
⦿ Bilabial	ɓ Bilabial	' Examples:
Dental	ɗ Dental/alveolar	p' Bilabial
! (Post)alveolar	f Palatal	t' Dental/alveolar
≠ Palatoalveolar	ɠ Velar	k' Velar
Alveolar lateral	ɠ Uvular	s' Alveolar fricative

Lecture: IPA for Other Languages

Glottalic ejective consonants (放出子音) are common in North American languages.

	IPA
	'
Labial (両唇音)	p'
Alveolar (齒莖音)	t'
Velar (軟口蓋音)	k'

/tanup'ip'i/



“Lizard” in Umatilla

Lecture: IPA for Other Languages

English speakers use them too, although they aren't phonemic (言葉を区別しない)

Esoteric energy

[ˈɛsətɛɹɪk ˈɛnədʒɪ]

Chronic asthma

[ˈkɹɒnɪk ˈɑsmə]

New York and Detroit

[nʊˈjɔ:k æn dəˈtɔɪt]

Weak

[wɪk]

Anarchic

[ɑnɑ:kɪk]

And take over that patent

[ænd teɪk ˈoʊvɪ ðæt ˈpɑtənt]

Lecture: IPA for Other Languages

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[ænd teɪk ˈoʊvɪ ðæt ˈpætənt]



Geoff Lindsey, "EJECTIVE CONSONANTS in ENGLISH: Why do English speakers pronounce /k/ like that?"
YouTube, 2020-6-26. <https://www.youtube.com/watch?v=rP0-MfE4zbA>

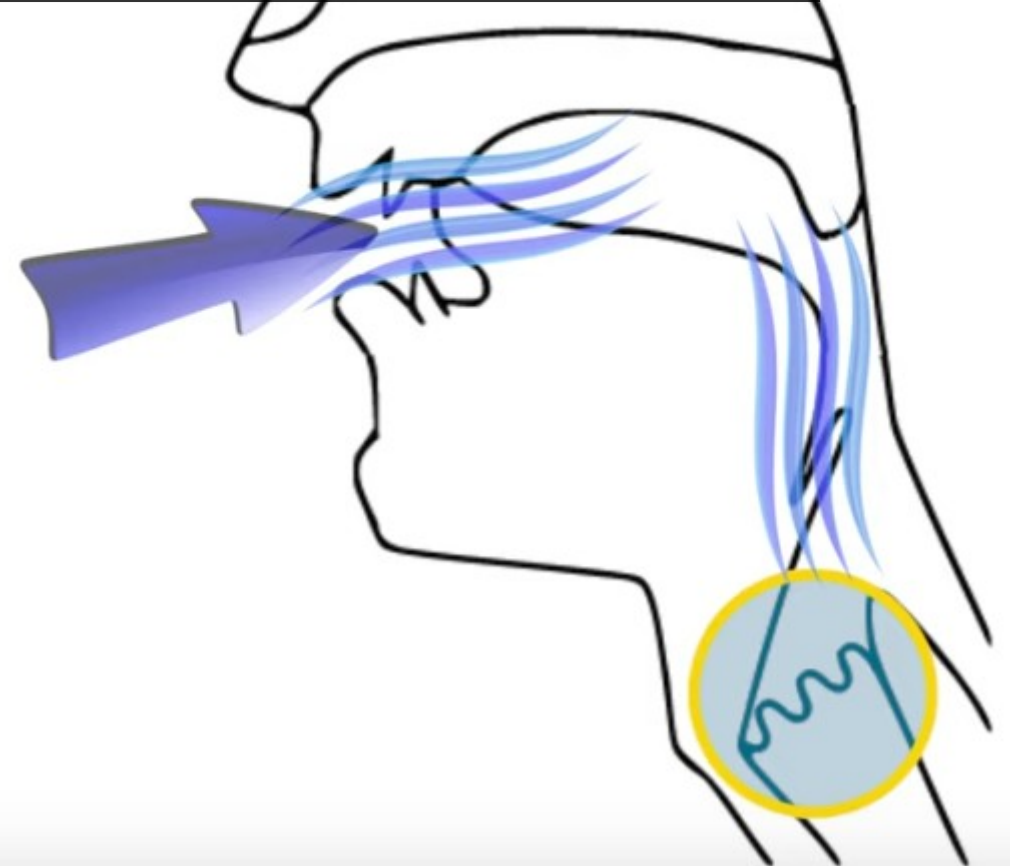
Lecture: IPA for Other Languages

入破音 (implosive) の子音:

	IPA
A little hook on the letter	
Labial 両唇音	ɓ
Dental/Alveolar 歯 / 歯茎音	ɗ
Palatal 硬口蓋音	ɟ
Velar 軟口蓋音	ɠ
Uvular 口蓋垂音	ʀ

ごくん!

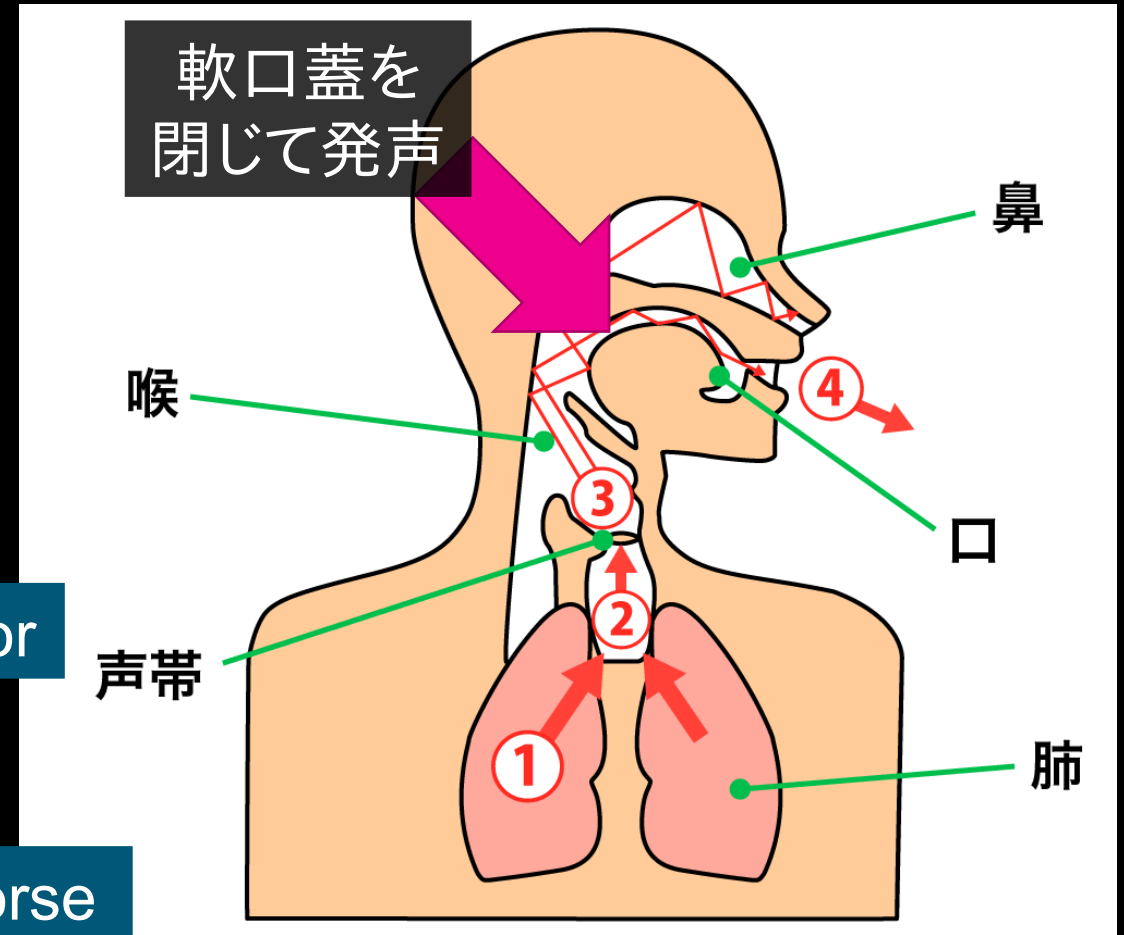
We suck in air and use it to move the vocal folds directly, no lungs or diaphragm involved.



Lecture: IPA for Other Languages

Many languages in the southern part of Africa use velar ingressives (軟口蓋気流音)
Japanese people and English speakers use them too, just not for words.

	IPA	
Labial 両唇音	⓪	Kiss!
Dental 齒音	┆	舌打ち
Alveolar 後部齒茎音	!	Knocking on a door
Palatal 硬口蓋齒茎音	≠	
Alveolar lateral 齒茎側面音		Commanding a horse



Lecture: IPA for Other Languages

Sakhile from South Africa will explain a few click sounds.

	IPA
Labial 兩唇音	⦿
Dental 齒音	ǀ
Alveolar 後部齒莖音	ǃ
Palatal 硬口蓋齒莖音	ǁ
Alveolar lateral 齒莖側面音	ǁ

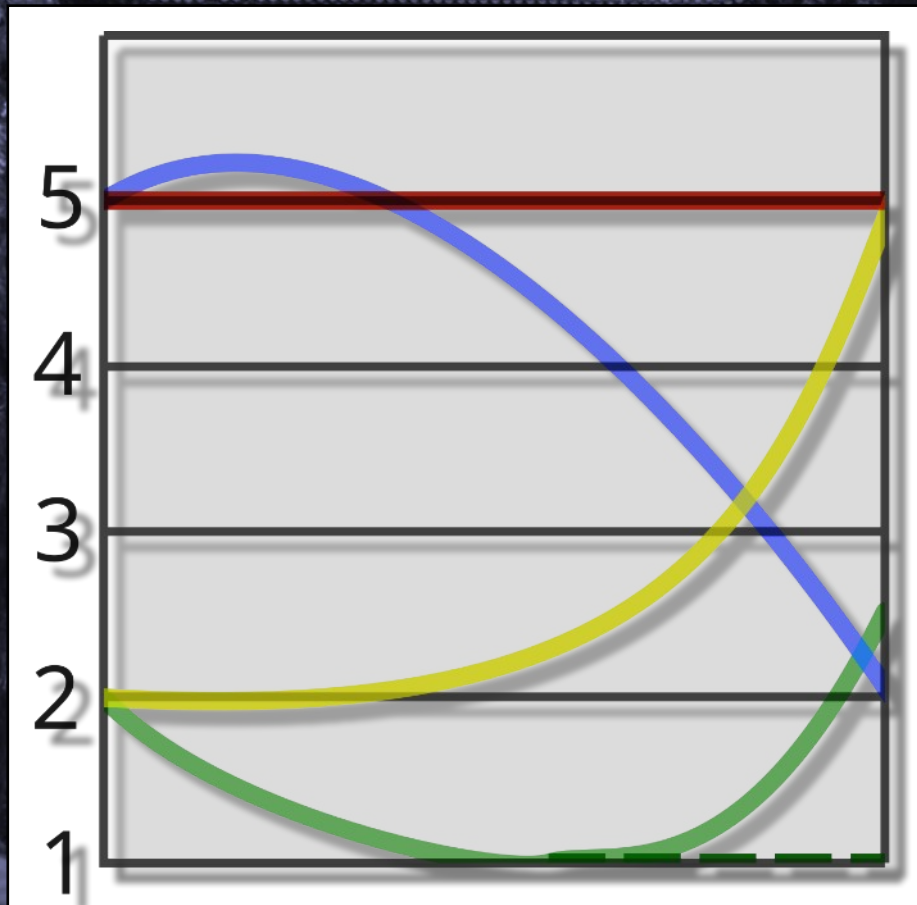


Lecture: IPA for Other Languages

Sounds of Standard Chinese (普通话)

Lecture: IPA for Other Languages

Tones (声调) of Standard Chinese (普通话)



Tone contours in Beijing

	汉字 +Pinyin	IPA	gloss
1	妈 mā	ma ¹	mom
2	麻 má	ma ¹	hemp
3	马 mǎ	ma [↓]	horse
4	骂 mà	ma [↓]	curse, abuse
*	吗 ma	ma	question particle

Lecture: IPA for Other Languages

There's also a diacritic system, but I find it super confusing.

English	汉字	Pinyin	IPA (diacritic)	IPA (tone bar)
Mother	妈	Mā	má	ma˥
Numb	麻	Má	mǎ	ma˨˥
Horse	马	Mǎ	mǎ	ma˨˥
Scold	骂	Mà	mâ	ma˨˩

Tones and Word Accents

Level

◌̊ or ˥ Extra high

◌̊ ˥ High

◌̎ ˥ Mid

◌̋ ˥ Low

◌̋ ˩ Extra low

↓ Downstep

↑ Upstep

Contour

◌̊ or ˥ or ˥ Rising

◌̊ ˥ Falling

◌̊ ˥ High rising

◌̋ ˥ Low rising

◌̊ ˥ Rising-falling

↗ Global rise

↘ Global fall

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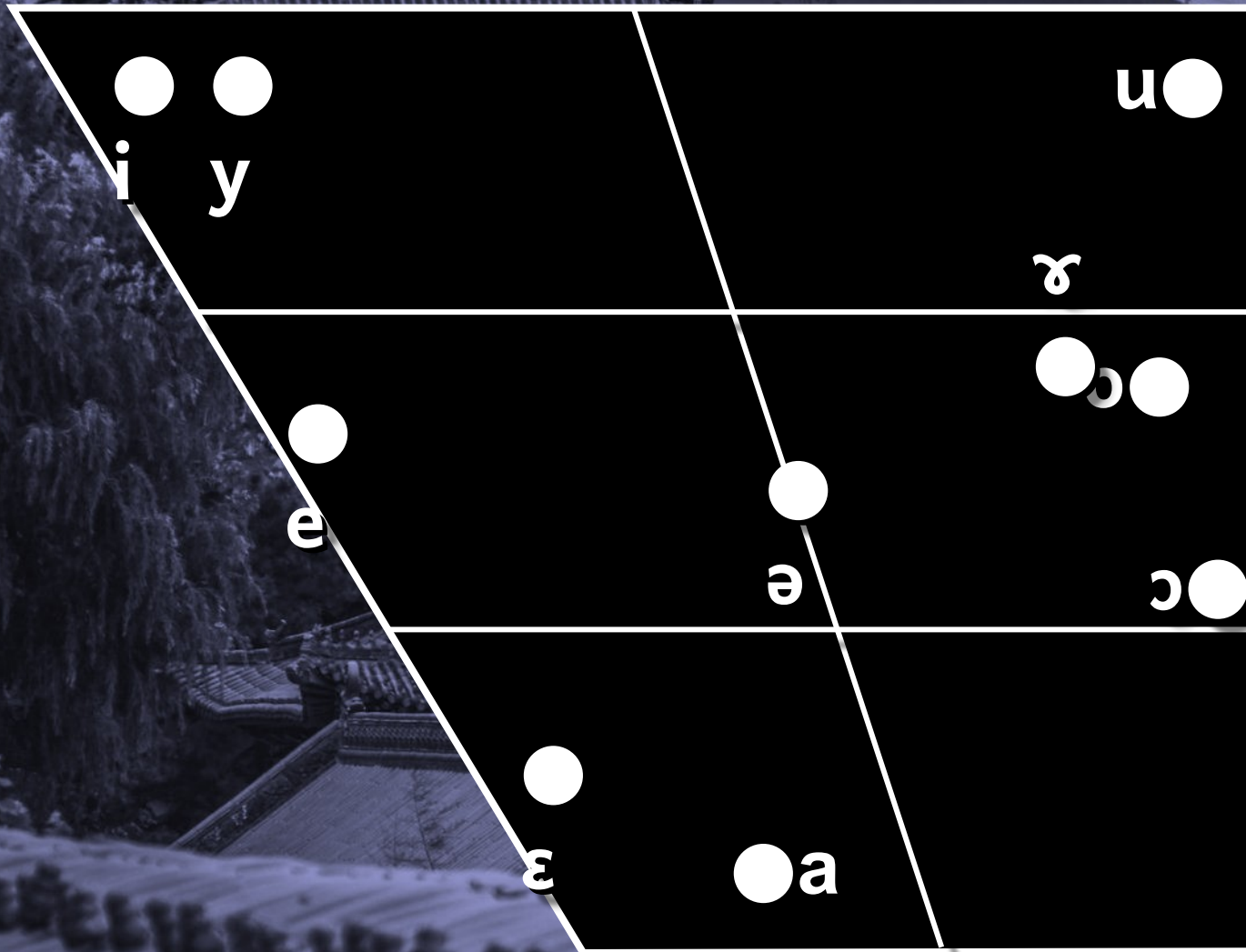
Consonants of Standard Chinese (普通话)

		Labial	Alveolar	Retroflex	Alveolo-palatal	Velar
Nasal		m	n			ŋ
Plosive	aspirated	p ^h	t ^h			k ^h
	unaspirated	p	t			k
Affricate	aspirated		ts ^h	tʂ ^h	tɕ ^h	
	unaspirated		ts	tʂ	tɕ	
Fricative		f	s	ʂ	ɕ	x~h
Liquid			l	ʐ~ɻ		

汉字 +Pinyin	IPA	gloss
马坡豆腐 mǎ pō dòufu	maɿp ^h oɿdouɿfu	Mapo Tofu
玻璃 bōlí	poɿli˥	glass
请 qǐng	tʂ ^h ɿŋɿ	please
吃 chī	tʂ ^h əɿ	eat
静 jìng	tʂɿŋɿ	quiet
只 zhǐ	tʂəɿ	only

Lecture: IPA for Other Languages

Monophthongs of Standard Chinese (普通话)



汉字 +Pinyin	IPA	gloss
比 bǐ	bi˥	compared, より
女 nǚ	ny˥	woman
别 bié	bje˥	don't
边 biān	bjen˧	side
马 mǎ	ma˥	horse
很 hě	hɛn˥	very
不 bù	bu˥	not
和 hé	hɤ˥	and
空 kōng	koŋ˧	empty, air
火 huǒ	hwɔ˥	fire

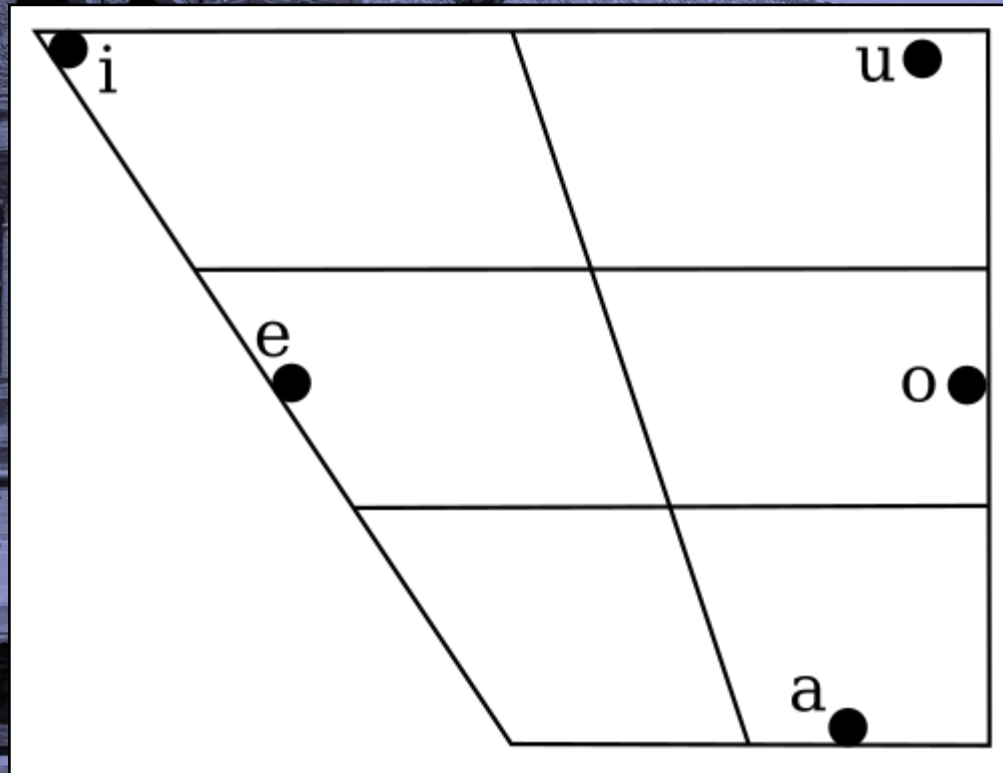
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Sounds of Spanish



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Spanish Vowels



Ladefoged, Peter; Johnson, Keith (2010), *A Course in Phonetics* (6th ed.), Boston, Massachusetts: Wadsworth Publishing, ISBN 978-1-4282-3126-9



Lecture: IPA for Other Languages

Spanish Consonants

	唇音		舌頂音			舌背音	
	両唇音	唇齒音	齒音	齒莖音	後部齒莖音	硬口蓋音	軟口蓋音
破裂音	p b			t d			k g
鼻音	m			n		ɲ	
はじき音				r			
摩擦音		f	θ*	s		ʝ	x
破擦音					tʃ		
ふるえ音				r			
側面接近音				l			

No approximants (接近音), true voiced stops

Lecture: IPA for Other Languages

Spanish Sound Changes

Spanish	Phonemic Transcription	Phonetic Transcription	Japanese
beber	/beber/	[beβer]	飲む
poder	/poder/	[poðer]	できる
agua	/agua/	[aywa]	水

/b/, /d/, /g/ are pronounced as plosives (破裂音) only after a pause, nasal, or /l/ sound. Otherwise, they become approximants (接近音): [β], [ð], [ɣ]

Lecture: IPA for Other Languages

Sounds of Standard Korean (표준어)



Lecture: IPA for Other Languages

Consonants of Standard Korean

Consonants of Standard Korean		Bilabial	Alveolar	Alveolo-palatal/ Palatal	Velar	Glottal
Nasal		m □	n ㄴ		ŋ ㅇ	
Stop and affricate	plain/lenis	p ㅍ	t ㄷ	tɕ, ts ㅈ	k ㄱ	
	tense/fortis	p̚ ㅍ̚	t̚ ㄷ̚	tɕ̚, ts̚ ㅈ̚	k̚ ㄱ̚	
	aspirated	p ^h ㅍ ^h	t ^h ㄷ ^h	tɕ ^h , ts ^h ㅈ ^h	k ^h ㄱ ^h	
Fricative	plain/aspirated		s ㅅ			h ㅎ
	tense		s̚ ㅅ̚			
Liquid		뽕 bul [pul] 'fire' or 'light'				
Approximant		뽕 ppul [p̚ul] 'horn'			ㅟ	
		뽕 pul [p ^h ul] 'grass' or 'glue'				

Lecture: IPA for Other Languages

Changing into tones?

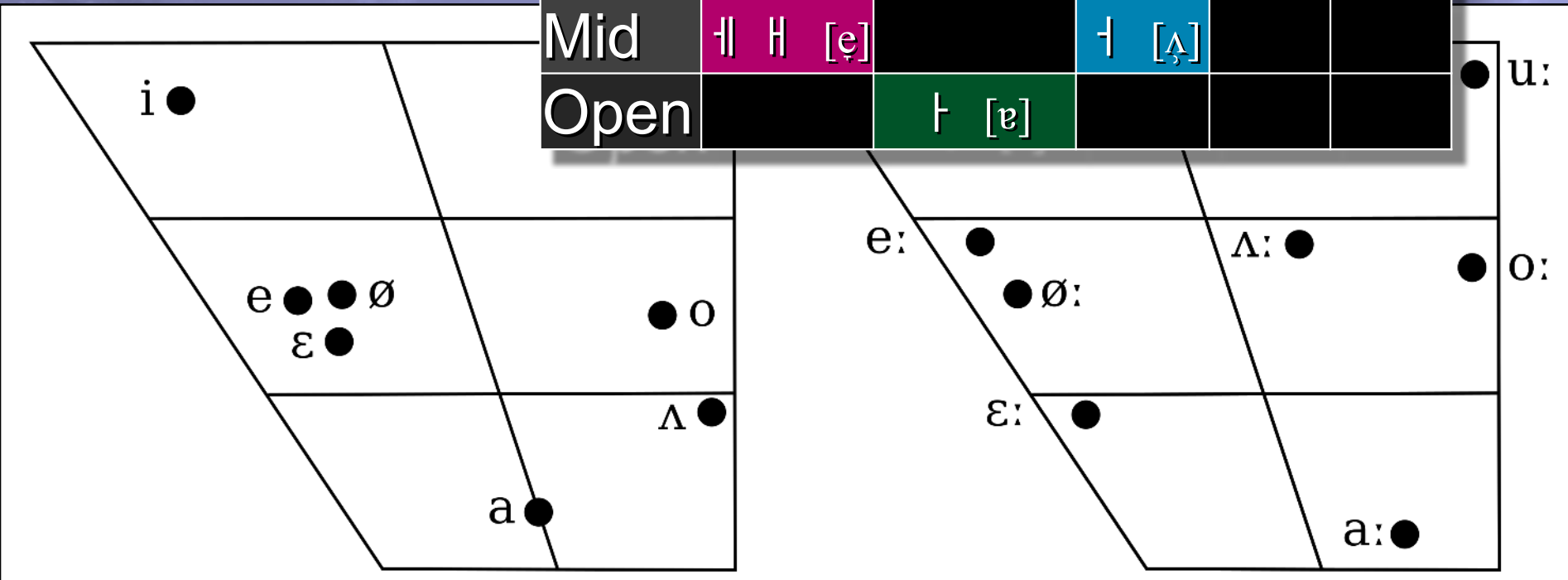
불	bul	[pul]	'fire' or 'light'
뿔	ppul	[p _ɪ ul]	'horn'
풀	pul	[p ^h ul]	'grass' or 'glue'

- Yoonjung Kang, Sungwoo Han (2013) “Tonogenesis in early Contemporary Seoul Korean: A longitudinal case study,” *Lingua*, (134),62-74
<https://doi.org/10.1016/j.lingua.2013.06.002>
- Cho, Sunghye (2017). *Development of pitch contrast and Seoul Korean intonation* (PhD thesis). University of Pennsylvania

Lecture: IPA for Other Languages

Vowels of Standard Korean

	Front	Central	Back		
	unrounded			rounded	
Clos	[i]		[ɯ]	[u]	[o]
e					
Mid	[ɛ]		[ʌ]		
Open		[ɐ]			



By Korean_long_vowel_chart.png: Jeffrey Connell (IceKarma)IPA_vowel_trapezium.svg: *Ga_open_allophones.svg: Angrderivative work: Moxfyre (talk)derivative work: Moxfyre (talk) - Korean_long_vowel_chart.pngIPA_vowel_trapezium.svg, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=6565435>



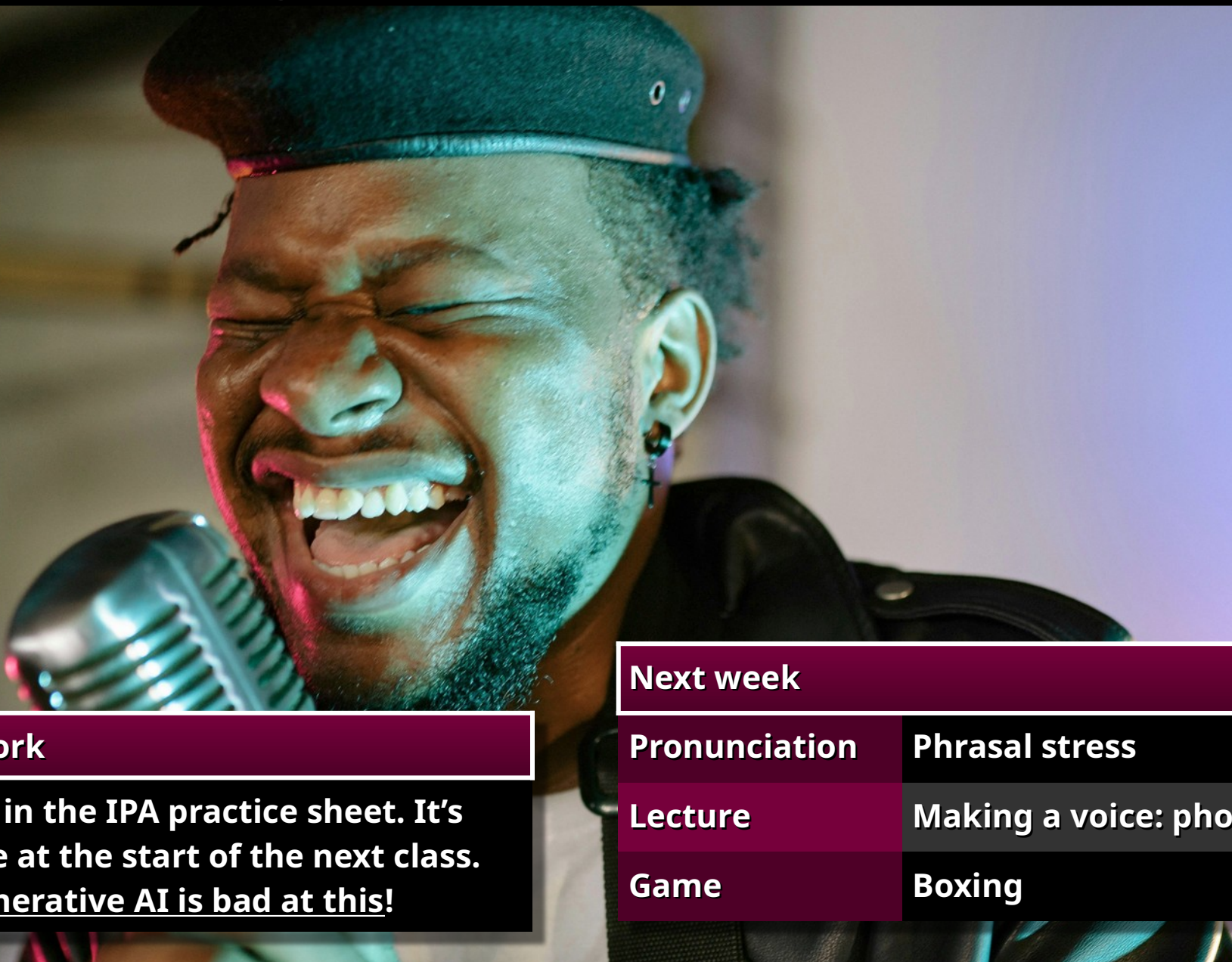


Blooket

How to play Blooket

- ★ Scan the QR code
- ★ Or go to play.blooket.com and enter the code
- ★ Fake names are okay

Thanks for coming!



Homework

- ★ Fill in the IPA practice sheet. It's due at the start of the next class. Generative AI is bad at this!

Next week

Pronunciation

Phrasal stress

Lecture

Making a voice: phonation and pitch

Game

Boxing