Phonetics, day 2

tʌŋ twɪstərz:

rɛd lɛðər, jɛlow lɛðər

blæk bækgrawnd, brawn bækgrawnd

θri ʃort sord ʃiθs

rɛd bjuwɪk, blu bjuwɪk

sɪzərz sɪzəl, θɪsəlz sɪzəl

ajrɪʃ rɪstwatʃ

wɪliz rili wiri

ril wird rir wilz

rajp wajt wit ripərz rip rajp wajt wit rajt

	stop	fricative	nasal	glide	liquid	affr.
bilabial	[p], [b]	[ɸ], [β]	[m], [m̥]	[w]		
labiodental		[f], [v]		[ʋ]		
interdental		[θ], [ð]				
alveolar	[t], [d]	[s], [z]	[n]		[l]	
alveopalatal		[ʃ], [ʒ]				[tʃ],[dʒ]
retroflex	[ʈ], [ɖ]	[ʂ], [ʐ]	[ɳ]		[r]	
palatal	[c], [ɟ]	[ç], [ʝ]	[ɲ] ([ñ])	[j]		
velar	[k], [g]	[x], [ɣ]	[ŋ]	[ɰ]		
uvular	[q], [ɢ]	[χ], [ʁ]	[ɴ]			
pharyngeal		[ħ], [ʕ]				
glottal	[ʔ]	[h]				

	Front		Central	Back	**rounded**
High	[i]	h<u>e</u>'d,		[u] wh<u>o</u>'d,	
	[ɪ]	h<u>i</u>d		[ʊ] h<u>oo</u>d	
Mid	[e]	h<u>a</u>te,	[ə] m<u>a</u>chine	[o] h<u>oe</u>d,	
	[ɛ]	h<u>ea</u>d	[ʌ] d<u>o</u>ve	[ɔ] h<u>aw</u>ed	
Low	[æ]	h<u>a</u>d		[ɑ] h<u>o</u>t	

[y],   German Gef<u>üh</u>l 'feeling'
        (high front rounded vowel)
[ɯ], Korean [k<u>ɯ</u>nɛ] 'swing'
        (high back unrounded vowel)
[ɛ̃], French [mɛ̃], 'hand' (vs. [m<u>ɛ</u>] 'dish')
        (front mid lax **nasalized** vowel)

not all possible phonetic inventories are attested…

(let's look at an MRI)

We've classified consonants in several ways:

for one, we've talked about *voiced* and *voiceless* sounds.

but there are other options…

(let's look at Praat)

other ways to manipulate airflow
- ejectives
- clicks
- implosives

other properties of vowels…
- length
  Dinka
  cól   'mouse'
  cǒol 'charcoal'
  còool 'pieces of charcoal'

other properties of vowels…
- length
- voice quality

      Dinka 'moon, moons'

other properties of vowels…
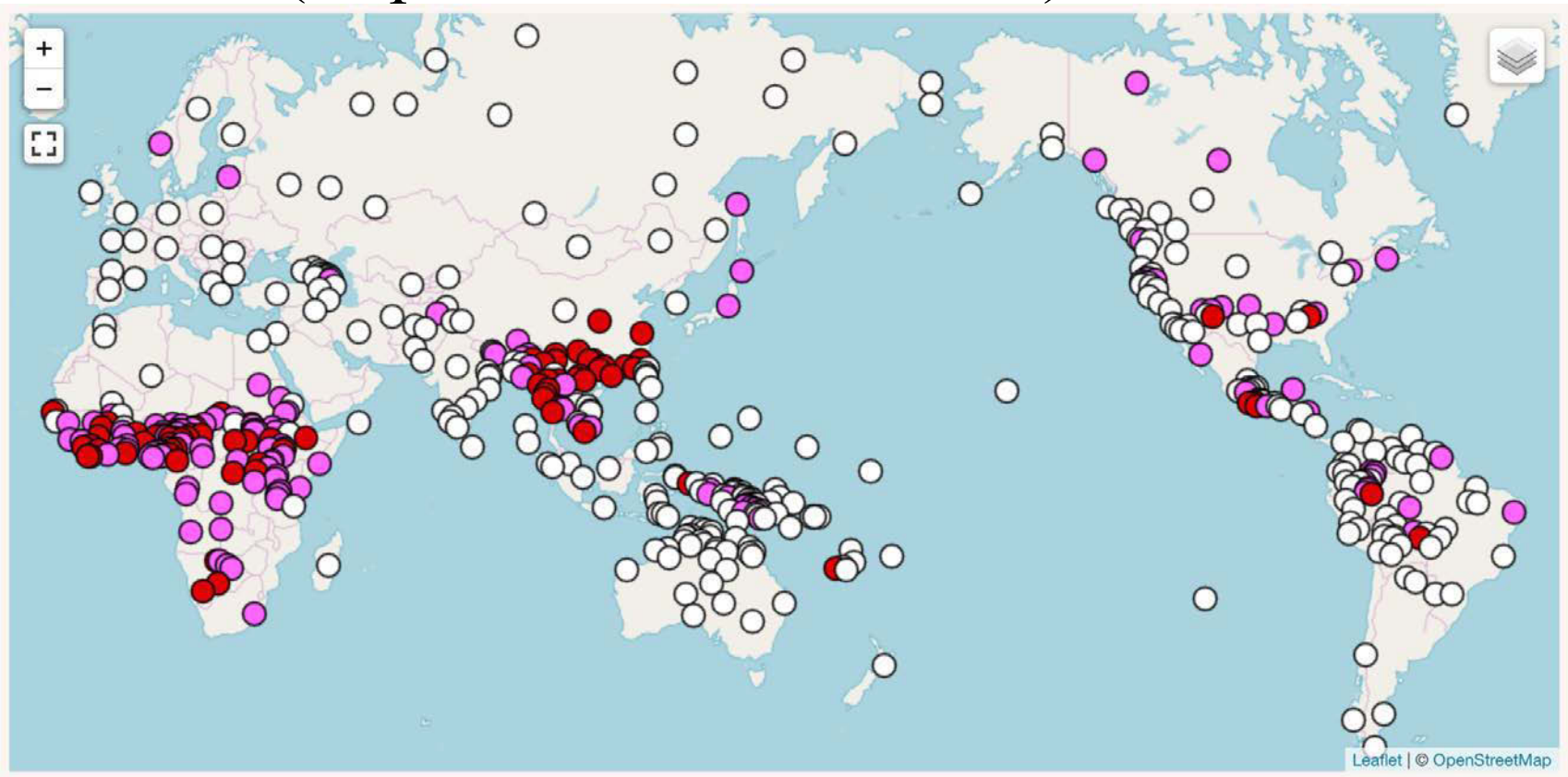- length
- voice quality
- tone (map from WALS database)

other properties of vowels…
- length
- voice quality
- tone

(see Ibibio, Hmong files)

other properties of vowels…
- length
- voice quality
- tone
- stress

(realized in different ways in different languages…)

other properties of vowels…
- length
- voice quality
- tone
- stress

English stress is complicated…

recórd,   récord
permít,   pérmit
insúlt,   ínsult

other properties of vowels…
- length
- voice quality
- tone
- stress

some other languages have stress on particular syllables:

tíralk	'saliva'	***Maranungku***
mérepèt	'beard'	(stress the first syllable,
jángarmàta	'the Pleiades'	and every other after it)
lángkaràtetì	'prawn'	
wélepènemànta	'kind of duck'	

other properties of vowels…
- length
- voice quality
- tone
- stress

some other languages have stress on particular syllables:

léwéstu   's/he talks like that'   ***Passamaquoddy***
wíkewéstu   's/he likes talking'
séhtáyewéstu   's/he talks while walking backwards'
kwíkéwestúpon 'you and I like talking'

other properties of vowels…
- length
- voice quality
- tone
- stress

some other languages have stress on particular syllables:

wárra	'son'	***Epena Pedee***
táama	'snake'	stress the first vowel,
warráa	'flavorful'	unless the second vowel is long;
teesóo	'long'	then stress that.

other properties of vowels…
- length
- voice quality
- tone
- stress

some other languages have stress on particular syllables:

English: stress-attracting suffixes:

eléctric   cápable
electrícity   capabílity

other properties of vowels…
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Russian: stress the first 'lexically accented' syllable; if there are no such syllables, stress the first syllable.

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górod   'town'
górodu   'town (dative sg.)'

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górod   'town'   oréx 'nut'
górodu   'town (dative sg.)' oréxu 'nut (dat. sg.)'
gorodám 'town (dative pl.)' oréxam 'nut (dat. pl.)'

other properties of vowels…
- length
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vodá 'water'
vódu 'water, accusative'

moreover, prosody/intonation…

(Mongolian)
(French)

We've been talking about the sounds a language can have in its *phonetic inventory*.

We've been talking about the sounds a language can have in its *phonetic inventory*.

(note that this is not the same thing as an alphabet!)

Languages also vary in how the sounds in their inventory can combine. Take monosyllabic words in English…

s   stop/fricative   liquid/glide   vowel   liquid   nasal   fricative   stop s

s	stop/fricative	nasal/liquid/glide	vowel	liquid	nasal	fricative	stop	s
s	t	r	ɛ		ŋ	θ		s
	k		ɑ	l	m			
	d		æ			f	t	
		m	ɑ	r		ʃ		

s	stop/fricative	nasal/ liquid/glide	vowel	liquid	nasal	fricative	stop	s
s	t	r	ɛ		ŋ	θ		s
	k		ɑ	l	m			
	d		æ			f	t	
		m	ɑ	r		ʃ		

A lot of languages have stricter restrictions than this on syllables; some (e.g., Hawaiian) require syllables to consist of one consonant and one vowel (CV).

s	stop/fricative	nasal/liquid/glide	vowel	liquid	nasal	fricative	stop	s
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	k		ɑ	l	m			
	d		æ			f	t	
		m	ɑ	r		ʃ		

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cf. Russian **fslux** 'aloud', **mgla** 'fog'

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	k		ɑ	l	m			
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Imdlawn Tashlhiyt Berber **tftkt** 'she sprained it'

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	k		ɑ	l	m			
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Others are less restrictive:
cf. Russian **fslux** 'aloud', **mgla** 'fog',
Imdlawn Tashlhiyt Berber **tftkt** 'she sprained it',
Bella Coola **sχs** 'seal fat'

s	stop/fricative	nasal/ liquid/glide	vowel	liquid	nasal	fricative	stop	s
s	t	r	ɛ		ŋ	θ		s
	k		ɑ	l	m			
	d		æ			f	t	
		m	ɑ	r		ʃ		

Even just sticking to English, this is an oversimplification.

English has a nasal ŋ, and nasals can start syllables…
        …but we don't have any words like [ŋɑrʃ]

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