

# Phonology, day 2

- ajm ən ajs skʌlptər. læst najt aj mejd ə k<sup>h</sup>juwb.
- aj wud imædʒən if juw kud ʌndərstænd mors k<sup>h</sup>owd,  
ə t<sup>h</sup>æp dænsər wud drajv juw k<sup>h</sup>rejzij.
- ajm əgenst pɪkərɪŋ, bər aj don<sup>?</sup> now haw rə sow it.
- maj fejk plænts dajd bækəz aj dɪd nat prət<sup>h</sup>ənd tə wɔrər ðəm.
- wʌn tajm ə gaj hændəd mij ə piktʃər, hij sed “hirz ə piktʃər əv mij wen  
aj wəz jʌŋgər.” əvrij piktʃər əv juw iz wen juw wər jʌŋgər.
- aj lajk rajs. rajs ɪz grejt if juw wanə ijt<sup>?</sup> t<sup>h</sup>uw θawzənd əv sʌmθɪŋ.
- aj gar ə k<sup>h</sup>ɪŋ sajz bəd. aj don<sup>?</sup> now ənij k<sup>h</sup>ɪŋz,  
bʌf if wʌn k<sup>h</sup>ejm owvər, aj ges hij wud bij k<sup>h</sup>ʌmftərbəl.

--mits hedberg

Here's a warmup: what's going on in these words?

ineffable

impossible

incredible

# Navajo<sup>1</sup>

ʃa:ʒ	‘knot’	?azit	‘liver’
sik'az	‘cold (object)’	k <sup>h</sup> élā:t	‘tips of toes’
tápā:x	‘shore’	pá:x	‘bread’
t <sup>h</sup> áláyos	‘soap’	pé:ʃ	‘flint, metal’
?i:kex	‘wedding’	tsátí	‘antelope’
níγiz	‘round and slender’	?azi?	‘torso’
kax	‘rabbit’	xato	‘heat’
k'at	‘now’	γótax	‘up above’
tse:lit	‘soot’	tse:fó:	‘turkey buzzard’
?ats'o:s	‘blood vessel’	lók'a:?	‘reed’
t'átł'it	‘water moss’	łá:ł	‘to raise hell’
t'÷i:ł	‘to act, do’	tł'iʃ	‘to soak, dampen’

---

<sup>1</sup> list courtesy of Adam Albright

Where do we find ejectives?

We find something similar in ASL...

Here's an observation about finger wiggling in ASL signs...

Here's an observation about finger wiggling in ASL signs...

- you can get it on signs where the hands stay still  
(like GERMANY)

Here's an observation about finger wiggling in ASL signs...

- you can get it on signs where the hands stay still  
(like GERMANY)
- or during movement, in signs where the hands move  
(like GO UP IN FLAMES)

Here's an observation about finger wiggling in ASL signs...

- you can get it on signs where the hands stay still (like GERMANY)
- or during movement, in signs where the hands move (like GO UP IN FLAMES)
- ...but there are imaginable signs that you don't get, where your hands first move, then stop, and then your fingers wiggle.

Here's an observation about finger wiggling in ASL signs...

- you can get it on signs where the hands stay still (like GERMANY)
- or during movement, in signs where the hands move (like GO UP IN FLAMES)
- ...but there are imaginable signs that you don't get, where your hands first move, then stop, and then your fingers wiggle.

similar observation about handshape change:

similar observation about handshape change:

- you can get it on signs where the hands stay still  
(like UNDERSTAND)
- or during movement, in signs where the hands move  
(like OLD)
- ...but again, no signs where you move and then  
change shape, or change shape and then move.

So finger-wiggling and handshape change are sort of like Navajo ejectives, or Polish/German/Turkish voiced stops; they have them, but there are restrictions on where they can be in the word.

## Yawelmani

The Yawelmani motto:  
“don't tolerate three consonants in a row”

## Yawelmani

### Future

xat-en	'eat'
mut-en	'swear'
gij'-en	'touch'
?	
pilk-en	'sing'
logw-en	'pulverize'
pa?t-en	'fight'

## Yawelmani

<u>Future</u>	<u>Gerund</u>	
xat-en	xat-taw	'eat'
mut-en	mut-taw	'swear'
gij'-en	gij'-taw	'touch'
?		
pilk-en		'sing'
logw-en		'pulverize'
pa?t-en		'fight'

## Yawelmani

<u>Future</u>	<u>Gerund</u>	
xat-en	xat-taw	'eat'
mut-en	mut-taw	'swear'
gij'-en	gij'-taw	'touch'
?		
?ilk-en	?ilik-taw	'sing'
logw-en	logiw-taw	'pulverize'
pa?t-en	pa?it-taw	'fight'

## Yawelmani

<u>Future</u>	<u>Gerund</u>	
xat-en	xat-taw	'eat'
mut-en	mut-taw	'swear'
gij'-en	gij'-taw	'touch'
?	?	
pilk-en	?	
logw-en	?	
pa?	?	
t-en	it-taw	

“insert **i** between the first two consonants of a three-consonant cluster”

# Yawelmani

## Desiderative

**hud-hatin**

'want to know'

**liʔ-hatin**

'want to sink'

## Yawelmani

### Desiderative

**hud-hatin**

'want to know'

**liʔ-hatin**

'want to sink'

**linc'-atin**

'want to speak'

**hall-atin**

'want to lift'

## Yawelmani

### Desiderative

**hud-hatin**

'want to know'

**liʔ-hatin**

'want to sink'

**linc'-atin**

'want to speak'

**hall-atin**

'want to lift'

“drop **h** if it’s the third of three consonants”

## Yawelmani

"Passive"

t'ik'e-**hn**el  
tok'o-**hn**el

'be tied'  
'be hit'

## Yawelmani

"Passive"

t'ik'e-**hn**el

'be tied'

tok'o-**hn**el

'be hit'

?amal-**nel**

'be helped'

git'en-**nel**

'be held under the arm'

“drop **h** if it's the second of three consonants”

## Yawelmani

"Passive"

t'ik'e-**hn**el

'be tied'

tok'o-**hn**el

'be hit'

?amal-**nel**

'be helped'

git'en-**nel**

'be held under the arm'

## Yawelmani

“drop **h** if it’s the third of three consonants”

“drop **h** if it’s the second of three consonants”

“insert **i** between the first two consonants of a three-consonant cluster”

## Yawelmani

“drop **h** if it’s the third of three consonants”

“drop **h** if it’s the second of three consonants”

“insert **i** between the first two consonants of a three consonant cluster”

→ don’t tolerate three-consonant clusters!

## Yawelmani

“drop **h** if it’s the third of three consonants”

“drop **h** if it’s the second of three consonants”

“insert **i** between the first two consonants of a three consonant cluster”

→ don’t tolerate three-consonant clusters!

and avoid them by:

- dropping **h** (if possible)
- inserting **i** (if necessary)

## English /t/

sit

sitter

heat

heater

at

attic

## /t/ becomes [ɾ] (in American English)

sit [sɪt]

sitter [sɪɾər]

heat [hit]

heater [hiɾər]

at [æt]

attic [æɾɪk]

t becomes a flap between vowels?

but what about...

atone [ətʰon]

attack [ətʰæk]

detect [dɪtʰɛkt]

sit	[sɪt]
sitter	[sɪtər]
heat	[hit]
heater	[hɪtər]
at	[æt]
attic	[ætɪk]
atone	[ətʰon]
attack	[ətʰæk]
detect	[dɪtʰɛkt]

sit	[sí <sup>t</sup> ]
sitter	[sí <sup>r</sup> ər]
heat	[hí <sup>t</sup> ]
heater	[hí <sup>r</sup> ər]
at	[æ <sup>t</sup> ]
attic	[æ <sup>r</sup> ɪk]
atone	[ə <sup>t</sup> <sup>h</sup> ón]
attack	[ə <sup>t</sup> <sup>h</sup> æk]
detect	[dɪ <sup>t</sup> <sup>h</sup> ékt]

t becomes a flap between vowels, when the first vowel is stressed.

What we're seeing is that the distribution of aspirated, flapped, and unaspirated [t] is *predictable*.

What we're seeing is that the distribution of aspirated, flapped, and unaspirated [t] is *predictable*.

Compare:

"electric" --> [əlɛktrik]  
--> [əlɛktrɪs] + -ity

so sometimes we will have to state special rules for special affixes.

MIT OpenCourseWare  
<https://ocw.mit.edu/>

24.917 ConLangs: How to Construct a Language Fall 2018

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.