

# **Third Section**

**Friday 10-10:50 in 50-52H**

# Zulu

South Africa: Niger-Congo. ~9,000,000 speakers.

1. ɓɔna	'see'	13. iɓoni	'grasshopper'
2. ɓɔpha	'bind'	14. umondli	'guardian'
3. mɔsa	'despoil'	15. umosi	'one who roasts'
4. umɔna	'jealousy'	16. inoni	'fat'
5. imɔɔ	'car'	17. udoli	'doll'
6. iqɔɔ	'small of back'	18. umxoxi	'story-teller'
7. ixɔɔ	'frog'	19. imomfu	'jersey cow'
8. isicɔɔ	'head ring'	20. lolu	'this'
9. isithɔmbe	'picture'	21. isitofu	'stove'
10. indɔdana	'son'	22. nomuthi	'and the tree'
11. umfɔkazi	'strange man'	23. udodile	'you acted like a man'
12. ibokisi	'box'		

What is the distribution of [o] and [ɔ]?

[ɓ] is a voiced bilabial implosive stop. [c q x] are dental, alveolar and palatal clicks respectively.

# Gascon

Southwestern France: Indo-European. ~200,000 speakers

balo	'ball'	dunda	'to train'
laβa	'to wash'	agraða	'to please'
haβo	'fava bean'	gusta	'to taste'
kambia	'to change'	aγγλο	'needle'
bilo	'town'	paγo	'pay'
paβat	'cobblestone'		
neβa	'to snow'		

Do you think [b] and [β] are separate phonemes?

Can you attempt a bigger generalization?

# Chatino

Mexico: Oto-Manguean ~12,000 speakers (all varieties)

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. [k̄aʔa³] 'you will bathe'    | 10. [laʔa³] 'side'             |
| 2. [k̄isu³] 'avocado'           | 11. [nguta²] 'seed'            |
| 3. [k̄us̄uʔwa³] 'you will send' | 12. [ndikĩ³] 'you are burning' |
| 4. [s̄eʔe²] 'place'             | 13. [nguta²] 'seed'            |
| 5. [t̄aʔa³] 'sibling'           | 14. [t̄uʔwa²] 'mouth'          |
| 6. [k̄uʔa³] 'you will give'     | 15. [t̄uʔwa³] 'forty'          |
| 7. [t̄aʔa²] 'fiesta'            |                                |
| 8. [nguʃi²] 'tomato'            |                                |
| 9. [siyu³] 'juice'              |                                |

Is vocalic voicing phonemic in Chatino?

How about pitch?

# Osage

North America: Siouan. 5 speakers

1. [dabrĩ]	'three'	6. [aḏikhã ʒã]	'he lay down'
2. [datspe]	'to eat'	7. [tsʔeḏe]	'he killed it'
3. [dakʔe]	'to dig'	8. [ḏeze]	'tongue'
4. [dalĩ]	'good'	9. [ḏie]	'you'
5. [daʃtu]	'to bite'	10. [ḏuʒa]	'to wash'

Do you think [d] and [ḏ] are separate phonemes?

# Writing Rules

Capturing and formalizing the patterns

Capturing process



## English nasalization

pæt	pæ̃n	æ	→	æ̃	/ __ Nasal Consonant
pət	pã̃n	ɑ	→	ã̃	/ __ Nasal Consonant
dʌp	dũ̃m	u	→	ũ̃	/ __ Nasal Consonant
dɒp	dõ̃m	o	→	õ̃	/ __ Nasal Consonant
sɪt	sĩ̃n	ɪ	→	ĩ̃	/ __ Nasal Consonant
...					

Do we need to do each vowel separately?

Do we need to specify 'consonant'?

Writing a more general rule  $V \rightarrow \tilde{V} / \underline{\quad} N$

# phonetic and phonemic transcription

- Once we have the rule down, we don't really need to specify exactly how the vowel is pronounced every time we write it. Because our nasalization rule tells us that every time we see a vowel before a nasal coda, it's going to become its nasalized counterpart.
- So we can transcribe [e] and [ẽ], [æ] and [æ̃], and [o] and [õ] ... as /e/, /æ/ and /o/ respectively. And our nasalization rule will tell us that these vowels are nasalized before a nasal consonant.