

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. [kə́ta³] 'you will bathe' | 10. [laʔa³] 'side' |
| 2. [kᵊ́su³] 'avocado' | 11. [nguta²] 'seed' |
| 3. [kᵊ́suʔwa³] 'you will send' | 12. [ndikĩ³] 'you are burning' |
| 4. [seʔe²] 'place' | 13. [nguta²] 'seed' |
| 5. [taʔa³] 'sibling' | 14. [tuʔwa²] 'mouth' |
| 6. [kᵊ́ta³] 'you will give' | 15. [tuʔwa³] 'forty' |
| 7. [taʔa²] '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 zã]	'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. [ḏuza]	'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 occurs before t	æ̃ occurs before n
pat	pān		
dup	dūm	a occurs before t	ā occurs before n
dop	dōm		
sɪt	sĩn	ɪ occurs before t	ĩ occurs before n
		o occurs before t	õ occurs before m
		ɪ occurs before t	ĩ occurs before n

Generalizations?

Is there a process going on?

Does it make sense to talk about something happening in a particular environment?

English nasalization

pæt	pæ̃n	æ → æ̃ / __ Nasal Consonant
pət	pɔ̃n	ɑ → ɔ̃ / __ Nasal Consonant
dʌp	dʊ̃m	u → ũ / __ Nasal Consonant
dɒp	dɔ̃m	o → ɔ̃ / __ Nasal Consonant
sɪt	sɪ̃n	ɪ → ɪ̃ / __ Nasal Consonant
...		

Do we need to do each vowel separately?

Do we need to specify 'consonant'?

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

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.