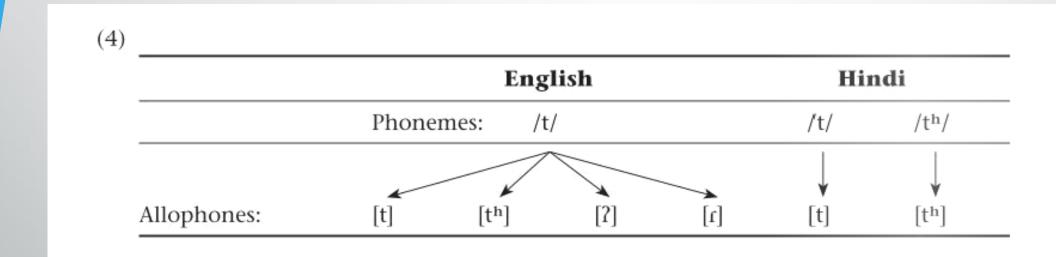# SPAU 133

Lecture 12

Allophones and Phonemes

Nasalized /i/

(5) dean [dĩn]   lean [lĩn]   mean [mĩn]   team [tĩm]   scream [skɹĩm]

deed [did]   leap [lip]   mere [miɹ]   seat [sit]   see [si]

/p/+ Aspiration

(6) spat   [spæt]   pat   [pʰæt]
     spool   [spul]   pool   [pʰul]
     speak   [spik]   peek   [pʰik]

Complementary Distribution VS Contrastive Distribution

(7)

	Contrastive	**Allophonic**
Relation to phonemes	Allophones of separate phonemes	Allophones of the same phoneme
Predictability of distribution	Unpredictably distributed	Predictably distributed
How you can tell	Contrastive distribution; minimal pairs	Complementary distribution

Arabic

ħuru:b	'wars'	mahdu:d	'destroyed'
tarhi:b	'intimidation'	faħm	'coal'
abah	'similarity'	maħdu:d	'limited'
habba	'gust'	huru:b	'flight'
abaħ	'ghost'	ħa:l	'condition'
fahm	'understanding'	tarħi:b	'greeting'
ha:l	'cardamom'	ħabba	'grain, seed'

a.	[pi̥senmoŋ]	'hair'		**h.**	[masak]	'hard'
b.	[tu̥pu̥kda]	'bought'		**i.**	[liŋ]	'beautiful'
c.	[pu̥ko]	'basket'		**j.**	[pilda]	'to choose'
d.	[pi̥tʃumene]	'this pig'		**k.**	[poki]	'to strike something'
e.	[su̥pwo]	'firewood'		**l.**	[ludʒ]	'to jump'
f.	[si̥ko]	'to talk about'		**m.**	[kurdʒ]	'to grind'
g.	[uduk]	'flesh'		**n.**	[rik]	'to gather'

24. Standard Italian

Consider the following data from Standard Italian, an Indo-European language of the Romance family, spoken in Italy. Answer the questions that follow.

a.	[tinta]	'dye'	**g.**	[tiŋgo]	'I dye'
b.	[tɛnda]	'tent'	**h.**	[tɛŋgo]	'I keep'
c.	[dantsa]	'dance'	**i.**	[fuŋgo]	'mushroom'
d.	[neɾo]	'black'	**j.**	[bjaŋka]	'white'
e.	[dʒɛnte]	'people'	**k.**	[aŋke]	'also'
f.	[sapone]	'soap'	**l.**	[faŋgo]	'mud'

  i. Are there any minimal pairs? If so, what are they, and what can you conclude to be true of Italian from those minimal pairs?

  ii. State the phonetic environments in which the sounds [n] and [ŋ] appear. Identify any natural classes of sounds that appear in the environments you've provided.

  iii. Given what you know about the distribution of sounds and the environments you listed in (ii), are [n] and [ŋ] in complementary or contrastive distribution? Please explain your answer.

23. Sindhi

The following data are from Sindhi, an Indo-European language of the Indo-Aryan family, spoken in Pakistan and India. Examine the distribution of the phones [p], [pʰ], and [b]. Determine if the three are allophones of separate phonemes or allophones of the same phoneme. What is your evidence? Is the relationship among the sounds the same as in English? Why or why not? [ɳ] and [ɖ] are the voiced retroflex nasal and oral stop.

a.	[pənʊ]	'leaf'	**g.**	[barʊ]	'weight'
b.	[ɖakʰə]	'grape'	**h.**	[kʰirʊ]	'milk'
c.	[ɖəpʊ]	'fear'	**i.**	[putʰi]	'back'
d.	[pʰəɳu]	'hood of snake'	**j.**	[bənʊ]	'forest'
e.	[kənʊ]	'ear'	**k.**	[pʰərʊ]	'arrow head'
f.	[perʊ]	'foot'	**l.**	[abʊ]	'water'