BBN–ANG–141 Foundations of phonology 3
The consonant phonemes of English

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outline

phonemic analysis
    n and ŋ in English
    technical terms
    n and ŋ in ME
    n and ŋ in LE
    two kinds of transcription

consonant phonemes of Standard Southern British English

a comparison of English and Hungarian

sample exam questions

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LE   thin [θɪn]   vs thing [θɪŋ]
ME   thin [θɪn]   vs thing [θɪŋg]

the [n] vs [ŋ] contrast distinguishes words in LE, but does not distinguish anything in ME: pronouncing [n] instead of [ŋ] would cause no confusion

some technical terms

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overlapping distribution

two distributions are overlapping if some (or all) of their elements are common, ie they are not complementary,
$A = \{a, b, c\}, B_1 = \{c, d, e\}, B_2 = \{b, c\}, B_3 = \{a, b, c\}$

[n] and [ŋ] in ME

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the distribution of [n] and [ŋ] in ME

is complementary, the two distributions do not overlap: [ŋ] occurs only where [n] does not occur (or if they do cooccur (eg in *unkind*) there's free variation)

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the father of the modern theory of phonemes

Jan Ignacy Niecisław Baudouin de Courtenay (1845–1929)
(a.k.a. Ivan Aleksandrovich Boduen de Kurtene)

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is not complementary, the two distributions overlap, **both** [n] and [ŋ] occur
word finally (—#)

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two such sounds

are two separate **phonemes**; /n/ and /ŋ/ are two separate phonemes in LE

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but *think* is /θɪŋk/ (not /θɪnk/) in LE, although it predictably has /ŋ/:
once a phoneme always a phoneme!

recall nasalized vowels (from last week)

both French and English have nasalized vowels

sept [sɛt] vs *sainte* [sɛ̃t]   *set* [sɛt] vs *sent* [sɛ̃nt]
beau [bɔ] vs *bon* [bɔ̃]   *pod* [pɔd] vs *pond* [pɔ̃nd]

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so [ɛ̃], [ɔ̃] in E is not phonemic: missing in broad transcription

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the consonant inventory of (Southern) British English

		LABIAL			CORONAL				BACK	
		BIL	L-D	L-V	DEN	ALV	P-A	PAL	VEL	GLO
OBS	PLO	p b				t d			k g	
	AFF						tʃ dʒ			
	FRI		f v		θ ð	s z	ʃ ʒ			
SON	NAS	m				n			ŋ	
	LIQ					l	r			
	GLI			w				j		h

note 1: "LIQ" = liquid (for the other categories, check topic #1)
note 2: /h/ is often considered a fricative

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the consonant inventory of BE: pruning place

		LABIAL	CORONAL			BACK
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	AFF				tʃ dʒ	
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n		ŋ
	LIQ			l	r	
	GLI	w			j	h

the consonant inventory of BE: pruning place

		LABIAL	DEN	ALV	PAL	BACK
			CORONAL			
OBS	PLO	p b		t d		k g
	~~AFF~~				tʃ dʒ	
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n		ŋ
	~~LIQ~~			l	r	
	~~GLI~~	w			j	h

the consonant inventory of BE: pruning manner

		LABIAL	CORONAL			BACK
			DEN	ALV	PAL	
OBS	PLO	p b		t d	tʃ ʤ	k g
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n		ŋ
	APP	w		l	r j	h

the consonant inventory of BE: pruning manner

		LABIAL	CORONAL			BACK
			DEN	ALV	PAL	
OBS	PLO	p b		t d	tʃ dʒ	k g
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n		ŋ
	APP	w		l	r j	h

▶ outliers: /θ ð/ (note that younger speakers replace them with /f v/)

the consonant inventory of BE: pruning manner

		LABIAL	CORONAL			BACK
			DEN	ALV	PAL	
OBS	PLO	p b		t d	tʃ dʒ	k g
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n	*	ŋ
	APP	w		l	r j	h

▶ outliers: /θ ð/ (note that younger speakers replace them with /f v/)
▶ gaps:
  ▶ no palatal nasal

the consonant inventory of BE: pruning manner

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			DEN	ALV	PAL	
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	FRI	f v	θ ð	s z	ʃ ʒ	*
SON	NAS	m		n		ŋ
	APP	w		l	r j	h

▶ outliers: /θ ð/ (note that younger speakers replace them with /f v/)
▶ gaps:
  ▶ no palatal nasal
  ▶ no "back" fricative (note that some consider /h/ a fricative)

the unique consonants of English and Hungarian

		LABIAL	CORONAL			BACK
			DEN	ALV	PAL	
OBS	PLO	p b		t d	c ɟ	k g
	AFF			ʦ	ʧ ʤ	
	FRI	f v	θ ð	s z	ʃ ʒ	
SON	NAS	m		n	ɲ	ŋ
	APP	w		l r	r j	h

sample exam questions

if [seɸ] and [sef] are a minimal pair, then which of the following statements is true?

1. [ɸ] and [f] are in complementary distribution
2. [ɸ] and [f] are in free variation
3. [ɸ] and [f] are allophones of the same phoneme
4. [ɸ] and [f] are two phonemes

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2. because all vowels are nasalized in English
3. because vowel nasalization is predictable in English
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