

*Announcements*

Homework 2 due next Thursday 11 Sept 03  
Reading for next week is Spencer pp45-62, W&J pp88-93  
Start looking for a speaker for your final paper.

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*Definitions*

**Environment:** the neighboring phones and/or word boundaries

Example: in 'cat' [k<sup>h</sup>æt] the phone [k<sup>h</sup>] is in the environment #\_\_æ (between a word boundary and [æ])

**Distribution:** all the environments a phone can occur in

Example: [h] can occur at the beginning of a word and before stressed vowels

**Contrast:** same environments, different meaning

Example: [p] and [b] can occur in the same environments, but the difference between the phones signals a difference in meaning – 'cup' and 'cub'. Sounds that contrast are **phonemes**.

**Complementary distribution:** distinct environments

Example: [p<sup>h</sup>] and [p] never occur in the same environment; [p<sup>h</sup>] occurs at the beginning of words, [p] occurs after [s] and at the end of words – they are in complementary distribution. Phones that are in complementary distribution are **allophones** of the same phoneme.

**Free variation:** same environments, does not signal different meaning

Example: [p] and [p̚] at the end of a word. The difference never signals a difference in meaning. Phones that are in free variation are **allophones** of the same phoneme.

**Minimal pair:** a pair of words with different meanings that differ in only one phone; evidence for making two phones different phonemes.

**Conditioning environment:** the environment an allophone occurs in

Example:

When looking for allophones (phones in complementary distribution), the conditioning environment should be:

- 1) **local** (usually the neighboring phones and word boundaries)
  - 2) **natural** (the variation should make sense – you will get a sense for this)
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### Turkish nasals

en	<i>width</i>	tym	<i>all</i>	baŋk	<i>sand bank</i>
em	<i>suck</i>	tyn	<i>afternoon</i>	zamk	<i>glue</i>
in	<i>cave</i>	son	<i>end</i>	kent	<i>city</i>
im	<i>sign</i>	som	<i>solid</i>	sem̩t	<i>neighborhood</i>
dʒam	<i>glass</i>	un	<i>flour</i>	kamp	<i>camp</i>
dʒan	<i>life</i>	um	<i>hope</i>	renk	<i>color</i>

What is the distribution of the nasal phones [m], [n], [ŋ]? Which ones contrast? Which ones are in complementary distribution?

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### Vowel shortening in English

save	[sɛv]	safe	[sɛf]
Abe	[ɛb]	ape	[ɛɪp]
made	[meɪd]	mate	[meɪt]
maze	[meɪz]	mace	[meɪs]
age	[eɪdʒ]	H	[ɛɪtʃ]

What is the distribution of long and short eɪ? What about other English vowels?

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### Alveolar and dental nasals in English

know	[noʊ]	tenth	[tɛnθ]
annoy	[ənɔɪ]	month	[mʌnθ]
onion	[ʌŋjən]	panther	[pʰænθə]