

Lexicon and phonology

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Phonemes

- Sounds within the phonological system of a particular language to distinguish different words
- Distinction between sheer sounds of speech (phonetics) and phonemes of a particular language: shown in phonetic transcription
 - sheer sound → [t]
 - phoneme → /t/
- The sounds /b/ and /p/ are phonemes of English because they are used to distinguish words such as *beak* and *peak*

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Allophones

- Term for the different ways in which a phoneme can be pronounced → different realisations
- e.g.: [p] of *spit*
aspirated [p^h] of *pit*
- /p/ and /p^h/ are allophones in English because the difference does not matter to the English sound system since it never marks sole difference between words
- but /p/ and /p^h/ are phonemes in Hindi (/p^hik/ and /pi:k/)

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Phonemes

- Number of phonemes varies greatly from one language to another
- Smallest number: 11 - Rotakas
- Largest number: 141 - !Xu
- English: 44
- Minimal pairs: words that differ only in one sound e.g. *pin* and *pig*
- Used to establish phonemes of a language e.g. /n/ and /g/

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Air and speech

- Moment at which voicing starts during the production of consonants → crucial for recognition of phonemes
- e.g. /g/ in *gate* and /k/ in *Kate*
- 'Voice Onset Time' (VOT): precise moment when voicing starts
- Categorical perception of speech sounds
- Lungs not only source for speech sounds → 'click' sounds of African languages e.g. Nama, Zulu

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Xhosa

- Miriam Makeba - Pata pata 

1. Strophe:
Sat wuguga sat ju benga sat si pata pat ...
Sat wuguga sat ju benga sat si pata pat ...
Sat wuguga sat ju benga sat si pata pat ...
Sat wuguga sat ju benga sat si pata ...

1. Refrain
Hihi ha mama, hi-a-ma sat si pata ...
Hihi ha mama, hi-a-ma sat si pa ...
A-hihi ha mama, hi-a-ma sat si pata pat ...
A-hihi ha mama, hi-a-ma sat si pat ...

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Intonation

➤ Way in which pitch of the voice rises or falls

yes 'high-fall' tone: pitch starts at high level – falls to low level

yes 'high-rise' tone: pitch rises from bottom or middle to top

yes 'low-fall' tone: starts from middle – falls to low level

yes 'low-rise' tone: starts low – rises to middle of range

y^es Fall-rise → sceptical sounding

y^es Rise-fall → enthusiastic sounding

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Intonation across languages

- Adds an emotional overtone to utterances in Indo-European languages
- Differs across languages → creation of national stereotypes
- 'tone' languages (e.g. Chinese, Yoruba, Thai) use intonation to show differences between words rather than emotions and attitudes
e.g. Chinese: *li zi* (rising tone) → pears
li zi (fall-rise) → plums
li zi (falling) → chestnuts

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Sounds and meaning

- Logical link between sounds and meaning or arbitrary relationship between sounds and meaning?
- Do sounds convey meaning?
- Theoretical approach of phonosemantics investigates relationship between meaning and specific sounds
- Phonesthesia: student's report

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'small' vs. 'large'

- Vowel /u/ seems to convey a sense of 'large and dark' → low vowel
- Vowel /i/ seems to convey a sense of 'small and light' → high vowel
- See also:
 - *huge, large, vast, enormous* vs. *little, tiny, mini, thin*
 - *grand* vs. *petit* (French)
 - *mikro* vs. *megalo* (Greek)
 - *chico* vs. *gordo* (Spanish)

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Frequency code hypothesis

- Low sounds or low frequencies indicate
 - Aggressiveness
 - Assertion of power
 - Cf. animals
 - BUT: big vs. small
- Valid only for a limited number of words in each language

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Onomatopoeia

- Actual noises are likely to be referred to by speech sounds which are close to the meaning
- Examples:
 - *bang, beep, splash, ping pong, snap, crackle, pop, clunck, click, Cuckoo*
 - German? Turkish?

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Animal noises

	Cats	dogs	sheep	Cows	Rooster
English	meow	woof woof	baa	moo	cockadoodloo
Japanese	nyanya nyn-nyn	oue-oue	mee	moo	kokokokou
Persian	meyu	wag-wag	baba	mâmâ	gogoligogo
Hokkien	meow	wo-wo	meeehh	moo	kok-kok
Thai	meow	bog-bog hong-hong	bae	mor	ek-i-ek-ek
Greek	yiau	jav jav	bee	muu	cucuricuu
Spanish	miau	guau-guau	mee	muu	quiquiriqui
Turkish	meau	hæv hæv	mee	moo	-
French	miaou	ouah ouah	bêêêh	meuh	cocorico
Italian	miao	bau bau	bêêêh	muu	chicchirichi
Korean	yow-ong	mong mong	meh-eh-eh	um-meh	cork-eeyo
German	miau	wau-wau	baa-baa	muh-muh	kikeriki
Dholuo	ywak	guu guu	meee	mboo	kokorioko

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Cook (1997:53)

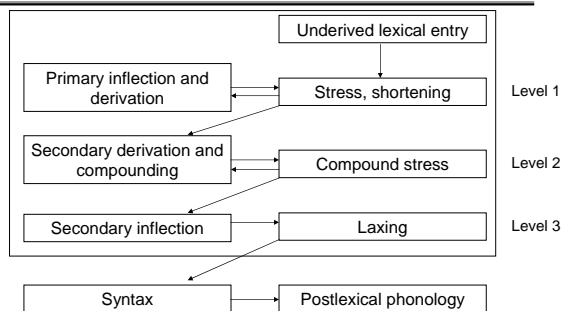
Lexical phonology

- Generative approach into relationship between phonology and morphology
- Explains that phonological rules are applied at distinct levels
- Distinguishes between primary and secondary affixes
- Cf. session on morphology and the lexicon

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Lexical phonology in English



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Kenstowicz (1994:215)

Alternatives to speech sounds

- Drum languages (Zaire)
- Whistle languages (shepherds, hunters across the globe e.g. Mexico, Burma)
 - Convert spoken language into a different medium rather than being independent forms in their own right (similar: Morse Code, shorthand)
- Sign language = true alternative

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