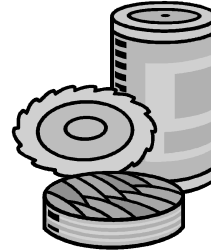


Applied Phonetics and Phonology

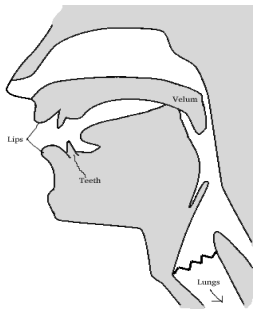
Introduction

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Phonetics: The articulation and perception of speech sounds. The inventory and structure of the sounds of speech in a language



Articulatory Phonetics: The study of the physiological mechanisms of speech production



Phone: Any actual speech sound:



[k^h]

Phoneme: A distinctive speech sound in the sound system of a language. A sound as it exists in the mind:

/k/

Phonetic Transcription: A universal system for transcribing the sounds of speech in any language. Phonetic Symbols are enclosed in square brackets [].

Phonetic Feature: One isolated property of a speech sound that can be used to differentiate one sound from another. For example, voicing is a phonetic feature.

Segments: Clusters of phonetic features that occur in sequence in the speech stream.

[a] [t] [l] [m]

[æ] [ɔ] [ð] [ŋ]

Consonant: A kind of segment that involves significant obstruction in the vocal tract.

[t] [l] [m] [ð] [ŋ] . . .

Vowel: A kind of segment that involves little or no obstruction in the vocal tract.

[a] [æ] [ɔ] . . .

Suprasegmental (or “autosegmental”)

features: Phonetic features that may span several segments, and which rely on segments for their expression, e.g., stress, pitch and intonation.

Glide: A glide is a segment that is sort of a vowel and sort of a consonant. The glides of English are [y] as in *yes* and [w] as in *went*. Some varieties also have a voiceless glide [hw], as in *when*.

Etic vs. Emic Categories

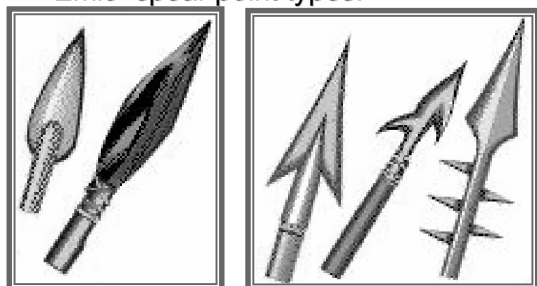
Etic vs. Emic Categories

“Etic” spear point shapes:



Etic vs. Emic Categories

“Emic” spear point types:



Etic vs. Emic Categories

- Phonetics and phonology both deal with speech sounds.
- Phonetics deals with the physical properties of speech sounds – sounds as they exist “in the mouth.”

Etic vs. Emic Categories

- Phonology (“phonemics”) deals with the organization of speech sounds in a particular language -- sounds as they exist “in the mind.”
 - Which sounds affect the meanings of words?
 - Which environments condition variations in pronunciation?

Etic vs. Emic Categories

- English has the sounds [s] and [ʃ].
 - ‘sue’ [su] ‘shoe’ [ʃu]
 - ‘see’ [si] ‘she’ [ʃi]
 - [s] and [ʃ] can occur before any vowel.
 - changing [s] to [ʃ] affects the meaning of the word

Etic vs. Emic Categories

- Korean also has the sounds [s] and [ʃ].
 - ‘시 청사’ [ʃitʰɕʰŋsa]
 - ‘식’ [ʃik]
 - ‘소’ [so]
 - ‘사’ [sa]
 - ‘수서’ [susɔ]

Etic vs. Emic Categories

- But [ʃ] only occurs in certain contexts
 - It can only occur before [i]. There are no Korean words with the sequence [si].
 - When speaking English, native speakers of Korean may have difficulty producing and perceiving [s] before [i].

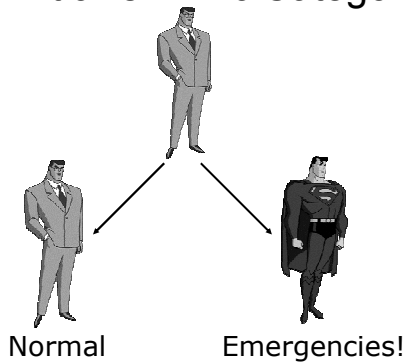
Etic vs. Emic Categories

- So, in Korean [s] and [ʃ] are considered to be the same sound, even though they are phonetically distinct.
- They do not *contrast* in Korean.
- They are the same sound in the mind, though they are actually different “in the mouth.”

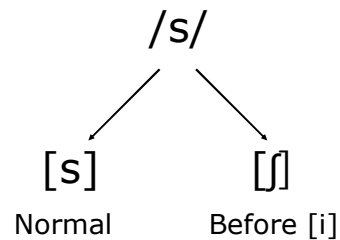
Etic vs. Emic Categories

- How do you know whether two sounds are “underlyingly” the same or not?
 - If they contrast – i.e., can occur in the same environment and have different functions, they are distinct *phonemes*.
 - If they are in *complementary distribution*, i.e., one always occurs in one set of environments, and the other always occurs in another different set of environments, then they are probably *allophones* of one phoneme.

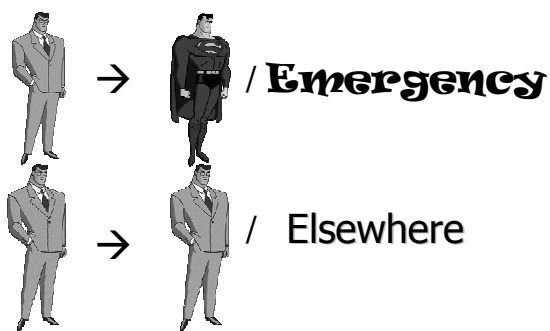
Etic vs. Emic Categories



Etic vs. Emic Categories



Etic vs. Emic Categories



Etic vs. Emic Categories

Korean [s] and [ʃ]

/s/ → [ʃ] / ____i

/s/ → [s] / Elsewhere

Etic vs. Emic Categories

English [p] and [p^h]

/p/ → [p^h] / #____

/p/ → [p] / Elsewhere

Etic vs. Emic Categories

A Phoneme is a **cognitive category** of speech sounds that contrasts with other phonemes:
/t/, /b/, /f/, /v/

A Phone is an **instance** of a speech sound as it is actually pronounced:

[t], [t^h], [t^v], [b], [s], [o]

An Allophone is a **variant**, or alternate phonetic form of a phoneme, e.g. [t] and [t^h] are allophones of the phoneme /t/ in English.