

The modifications of English sounds in speech

The Phonological Analysis of English Speech Sounds

- In connected speech a sound is generally modified
- 1) by the neighbouring sounds;
- 2) by its position in a word or a phrase;
- 3) by prosodic features: stress, melody, the tempo of speech

Methods of phonological analysis

The rules to determine the phonemic status of a sound of a complex nature :

- 1) **A phoneme is indivisible as no syllable division can occur within it.**
- 2) **A phoneme is produced by one articulatory effort.**
- 3) **The duration of a phoneme should not exceed that of other phonemes in the language.**

Modifications of phonemes in speech



Modifications of phonemes in speech

- **Idiolectal variation** embraces the individual peculiarities of articulating sounds. For instance, the speaker may mumble, or lisp (say '*thish ish*' for '*this is*'), or stutter (say *a f-f-f-fine d-d-d-day*)/
- **Idiolectal variation** may cause a lot of difficulties in the communication.

Modifications of phonemes in speech

- **Diaphonic variation** is caused by concrete historical tendencies active in certain localities.
- E.g., the diaphonic variation of the sound /æ/ ranges from a front open /æ/ in the southern part of England to /ɑ:/ in Northern England.

Modifications of phonemes in speech

- **Allophonic variation** is conditioned by phonetic position and phonetic environment (the influence of the neighbouring sounds).
- The main types of allophonic variations are reduction, elision, assimilation and accommodation (or adaptation).

Modifications of phonemes in speech

Reduction – the weakening of articulation and shortening of the duration of unstressed vowels

Reduction

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graph TD; A[Reduction] --> B[qualitative]; A --> C[quantitative]; A --> D[zero]; B --> B1["can /kəʌn/"]; C --> C1["she /ʃi/"]; D --> D1["can /kɪn/"];
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qualitative

can /kəʌn/

quantitative

she /ʃi/

zero

can /kɪn/

Modifications of phonemes in speech

- In *qualitative reduction* the unstressed vowel is usually reduced to /ə/.
- In *quantitative reduction* the unstressed vowel is shortened.
- In *zero reduction* the unstressed vowel is dropped.

Modifications of phonemes in speech

Elision – the disappearance of a sound

Elision



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graph TD; A[Elision] --> B[historical]; A --> C["juxtapositional (contemporary)"]
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historical

know /nəʊ/

palm /pɑ:m/

juxtapositional
(contemporary)

a blind man /ə blain mæn/

sit down /si daun/

Modifications of phonemes in speech

- *Historical elision* reflects the process in which a sound that existed in an earlier form of a word was omitted in its later form (e.g. *cupboard*).
- In *juxtapositional elision* a sound that exists in a word pronounced by itself is dropped in connected speech (especially in rapid speech).

Modifications of phonemes in speech

Assimilation – the process by which a sound is altered through the influence of a neighbouring sound.

Modifications of phonemes in speech

Assimilation may influence:

- the work of the vocal cords (*voice assimilation*);
- the active organ of speech;
- the manner of noise production (*loss of plosion or incomplete plosion*);
- the place of articulation (in **trip** alveolar **/t/** becomes *post-alveolar*).

Modifications of phonemes in speech

- *Voice assimilation* is observed when one of the two adjacent [ə'dʒeɪs(ə)nt] (смежный, соседний) consonants becomes *voiced* under the influence of the neighbouring voiced consonant, or *voiceless* - under the influence of the voiced consonant. E.g.:
translate [trən^z 'leɪt], I should pay [aɪ ^tʃʊd ,peɪ].

Modifications of phonemes in speech

The active organ of speech may be affected in a careless rapid speech, e.g.:

Give me /,gɪ**m** mɪ/;

bad pain /bæ**b** ,peɪn/;

queen mother /kwɪ:**m** ,mʌðə/.

Modifications of phonemes in speech

Assimilation

(according to direction)

progressive

desks /desk^s/ 

bags /bæg^z/

happen /hæp^m/

regressive

at the desk /ət^t ðə/ 

(/t/-dental)

good bye /gub^b bai/

give me /gim^m mi/

double

(bidirectional)

twice /twais/ 

/dj/ > /d^ʒ/ education

/tj/ > /t^ʃ/ situation

/sj/ > /ʃ/ issue

Modifications of phonemes in speech

Accommodation (adaptation) – the process of adapting the articulation of a vowel to a consonant, or a consonant to a vowel.

Vowels:

- nasalization: [tẽn]
- shortening: *cease* [si·s]

Consonants:

- palatalization: / ʃ, ʒ, tʃ ʃ, dʒ/ *shirt, cheese, June*
- labialization: Compare /t/ in *tea* and *two*

Modifications of phonemes in speech

The causes of allophonic variation:

1. “Economy of effort”
2. “The law of the stronger”

E.g. *of course* / əfˈkɔ:s/

3. Frequency of occurrence

Frequent consonants: /t, n, s, ʔ, l, d/