

(1) Assimilation -- Segments become more similar in certain feature(s)

(i) Voicing assimilation e.g. English plural /s/ → [z] / [+voice] ____

Place assimilation e.g. /n/ → [m] / ____ [p, b]

palatalization e.g. /s/ → [ç] / ____ [i]
/t/ → [ʃ] / ____ [i]

labialization e.g. /k/ → [kʷ] / ____ [+round]

Nasalization e.g. vowels → [+nasal] / ____ [+nasal]

(ii) Progressive assimilation (perseverative assimilation)

e.g. Dutch /lup zœyvər/ → [lup sœyvər] 'very pure'

Regressive assimilation (anticipatory assimilation)

e.g. English *in + possible* → *impossible*

(iii) Vowel harmony -- Vowels agree in certain feature(s)

e.g. German *yar* *yælic* *gut* *gütik* *got* *götin*
'year' 'annual' 'good' 'kind' 'god' 'goddess'

(2) Dissimilation -- Similar elements become less similar in certain feature(s)

e.g. Greek: [fθinos] > [ftinos] 'cheap'

(3) Lenition/weakening and fortition/strengthening

strong Weak
 < ----->

(i) plosives > fricatives > approximants > vowels > ø

(ii) aspirated > plain voiceless > voiced

Lenition: e.g. spirantization: stops → fricatives / vowels ____

Fortition: e.g. consonant hardening: glides → obstruents/ # ____ (word initially)

- (4) Devoicing e.g. English /l/ devoicing after voiceless consonants, e.g. *play* [p^hleɪ]
Japanese high vowel devoicing
voiced stops → voiceless/ __ # (word finally)
- (5) Vowel reduction e.g. *expose* [o] *exposition* [ə]
- (6) Insertion/Epenthesis e.g. Japanese [hotelɯ] from English *hotel*
- (7) Deletion/Elision e.g. French *petit ami* *peti_garson*
- (i) Syncope -- deletion of a vowel, usually near a stressed vowel.
e.g. English *chocolate* → *choc'late* *library* → *libr'y*
- (ii) Apocope -- the loss of a final unstressed vowel, usually schwa [ə]
e.g. Middle English *helpe* > *help*
- (iii) Cluster simplification/cluster reduction e.g. *wild goose* [waɪl gʊs]
- (8) lengthening and gemination
e.g. vowel lengthening: /a/ → [a:] / __ # (word finally)
consonant gemination: Taiwanese: /kam/ + /a/ → [kamma] 'orange'
- (9) Shortening and degemination
e.g. closed syllable shortening: /ta:n/ → [tan]
consonant degemination: /pp/ → [p] / # __
- (10) Diphthongization /e:/ → [ej] or [ei]
Monophthongization /ow/ → [o:]
- (11) Vowel Tensing and laxing
e.g. Mandarin mid vowel tensing: /kə/ → [kʰ] 'song'
English trisyllabic laxing: *serene* *serenity*
[i] [ɛ]

(12) Coalescence: e.g. English *relate* [t] *relation* [ti] → [ʃ]

Latin *kausa* Spanish *kosa* au → o

(13) Metathesis e.g. Lithuanian Past tense Infinitive
'toss' [blø:ʃke:] [blø:kʃti]

English *ask* [æsk] → [æks]

(14) Neutralization

Phonologically contrastive units lose the contrast in certain contexts.

e.g. (i) German devoicing *tier* [ti:r] 'animal' *dir* [di:r] 'to you'
/t/ /d/ *rat* [ra:t] 'advice' *rad* [ra:t] 'bike'

The phonemic contrast of voiced vs. voiceless stops is neutralized in syllable final position.

(ii) English vowel reduction *ironic* [a] *grammatical* [æ]
/a/ /æ/ *irony* [ə] *grammar* [ə]

Phonemic vowels are neutralized in unstressed syllables.

(iii) English /p/ /b/; /t/ /d/; /k/ /g/

The phonemic contrast of voiced vs. voiceless stops is neutralized after /s/:
spot, stop, skin.