LI 424

Phonological Processes

(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/ → [ça] / __ [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  güit  got  götın
   '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)
Devoicing  e.g. English /l/ devoicing after voiceless consonants, e.g. play [pʰəl]
Japanese high vowel devoicing
voiced stops → voiceless/ ___ # (word finally)

Vowel reduction  e.g. expose [ə] exposition [ɔ]

Insertion/Epenthesis  e.g. Japanese [hotelɯ] from English hotel

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 [waiəl gus]

lengthening and gemination
   e.g. vowel lengthening: /a/ → [aː] /___# (word finally)
   consonant gemination: Taiwanese: /kam/ + /a/ → [kamma] ‘orange’

Shortening and degemination
   e.g. closed syllable shortening: /tan/ → [tan]
   consonant degemination: /pp/ → [p]/ #___

Diphthongization  /eː/ → [ej] or [ei]

Monophthongization  /ow/ → [oː]

Vowel Tensing and laxing
   e.g. Mandarin mid vowel tensing: /ka/ → [kɤ] ‘song’
   English trisyllabic laxing: serene serenity
                 [i]             [ɛ]
Coalescence: e.g. English *relate* [t] *relation* [ti] → [ʃ]

Latin Spanish
*kau*sa *kosa* au → o

Metathesis e.g. Lithuanian
Past tense Infinitive
'toss' [bløːʃkeː] [bløːkʃti]

English *ask* [æsk] → [æks]

Neutralization

Phonologically contrastive units lose the contrast in certain contexts.

e.g. (i) German devoicing

<table>
<thead>
<tr>
<th>German</th>
<th>Tier [tɪːɾ] 'animal'</th>
<th>Dir [dɪːɾ] 'to you'</th>
</tr>
</thead>
<tbody>
<tr>
<td>/t/ /d/</td>
<td>Rat [raːt] 'advice'</td>
<td>Rad [raːd] 'bike'</td>
</tr>
</tbody>
</table>

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

(ii) English vowel reduction

<table>
<thead>
<tr>
<th>English</th>
<th>Ironic [aɪrəʊnɪk]</th>
<th>Grammatical [ɡræməˈtɪkəl]</th>
</tr>
</thead>
<tbody>
<tr>
<td>/aɪ/ /æ/</td>
<td>Irony [aɪrəʊnɪ]</td>
<td>Grammar [ɡræmər]</td>
</tr>
</tbody>
</table>

Phonemic vowels are neutralized in unstressed syllables.

(iii) English

/p/ /b/; /t/ /d/; /k/ /ɡ/;

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