Phonological Rules of English

Chapter 9

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What is a “phonological rule”? 

- Speech processes naturally understood by speakers and listeners

FORM:

Structural description $\rightarrow$ Structural change / __ (in some environment)
Example

C [+stop, –voice] → [+aspiration]/ #___ [+ syllable, + stress],
(where # = boundary)

Read:

“Voiceless stop consonants are aspirated in stressed, syllable-initial position”

(pg. 133)
No, it’s really easy! -->
Phonological Rule 1

Voiceless stops become aspirated when stressed and syllable initial.

• Diacritic: [ʰ]
• Examples: [pʰɪt], [ənˈkʰuθ]

• Text, Pg. 132
Phonological Rule 2

Voiceless stops become unaspirated after /s/ at beginning of syllable.

• Diacritic: none
• Examples: [strʊ]
Phonological Rule 3

Approximants become (partially) devoiced after aspirated stops.

• Diacritic: [ ]
• Examples: [tʰəː], [ɛpʰənuv],

Text, Pg. 134-5 “Approximant partial devoicing”
Phonological Rule 4

Stops are unreleased before stops.

• Diacritic: [ŋ]
• Examples: [ᵻskŋ t], [hʌmpŋ]

• Text, Pg. 136
Phonological Rule 5

Vowels are proceeded by glottal stops at the start of an utterance

• Diacritic: [ʔ]
• Examples: [ʔaɪ], [ʔots]

• Text, Pg. 137 “Glottal stopping at word beginning”
Phonological Rule 6

Voiceless stops (and affricates) are preceded by glottal stop after a vowel and at the end of a word.

• Diacritic: [ʔ]
• Examples: [stiʔp], [pʰɪʔtʃ]

• Text, Pg. 137 “Glottal stopping at word end”
Phonological Rule 7

Voiceless alveolar stops become glottal stops before a nasal in the same word.

• Diacritic: [ʔ]
• Examples: [ˈbiʔŋ], [ˈkʰɪʔŋ]

• Text, Pg. 138 “Glottal stopping before nasals”
• (note – trochaic meter)
Phonological Rule 8

Alveolar stops (*note*: /t/ or /d/) become a voiced flap between a stressed vowel and an unstressed vowel.

- Diacritic: [ɾ]
- Examples: [ˈɡlɑɾtʃ], [ˈbɛri], [ˈdæeri]

- Text, Pg. 139 “Tapping your alveolars”
  (*note* – trochaic meter)
Phonological Rule 9

Nasals become syllabic at the end of a word and after an obstruent (fricatives, stops, affricates).

- Diacritic: [ ]
- Examples: [ˈbekŋ], [ˈlɛdŋ], [ˈspæzŋ]

- Text, Pg. 139. “Nasals become syllabic” (note – trochaic meter)
Phonological Rule 10

Liquids become syllabic at the end of a word and after a consonant.

• Diacritic: [ ]
• Examples: [ʼlʊɾ], [ʼhɑɾɾᵊ]
Phonological Rule 11

Alveolar become dentalized before dentals.

• Diacritic: [ ]
• Examples: [tʰẽθ], [ŋuθ], [ɕɪˈðo]

• Text, Pg. 141
Phonological Rule 12

Laterals become velarized after a vowel and before a consonant or at the end of a word.

• Diacritic: [~]
• Examples: [ˈwəft], [sɪʃk]

• Text, Pg. 141 (NOTE – includes final consonant clusters!)
Phonological Rule 13

Vowels become nasalized before nasals.

• Diacritic: [~]
• Examples: [θ̃m], [sũn]

• Text, Pg. 142
More detail on aspiration/ final release burst

<table>
<thead>
<tr>
<th>Table 6-3</th>
<th>Different Ways to Pronounce “Tap”</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pronunciation</em></td>
<td><em>IPA</em></td>
</tr>
<tr>
<td>With no glottal stop and no final release</td>
<td><em>[tʰæp]</em></td>
</tr>
<tr>
<td>With no glottal stop and final release</td>
<td><em>[tʰæpʰ]</em></td>
</tr>
<tr>
<td>With glottal stop and final release</td>
<td><em>[tʰæʔpʰ]</em></td>
</tr>
<tr>
<td>With glottal stop only</td>
<td><em>tʰæʔ</em></td>
</tr>
</tbody>
</table>

[www.utdallas.edu/~wkatz/PFD/tap_examples.html](www.utdallas.edu/~wkatz/PFD/tap_examples.html)