

Phonological Rules of English



Chapter 9
SPAU 3343, UT Dallas
William F. Katz

What is a “phonological rule”?

- Speech processes naturally understood by speakers and listeners

FORM:

Structural description → 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)

?

WAY
TOO HARD

?



No, it's really easy! -->

Phonological Rule 1

Voiceless stops become aspirated when stressed and syllable initial.

- Diacritic: [^h]
- Examples: [p^hɪt], [ən^hˈk^huθ]

Phonological Rule 2

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

- Diacritic: none
- Examples: [stɹe]

- Text, Pg. 134 “Aspiration blocked by /s/”

Phonological Rule 3

Approximants become (partially) devoiced after aspirated stops.

- Diacritic: []
- Examples: [t^hɹ̥e], [ə'p^hɹ̥uɪv],

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

Phonological Rule 4

Stops are unreleased before stops.

- Diacritic: [̚]
- Examples: [μɪsk̚t], [hʌm̚p]

•Text, Pg. 136

Phonological Rule 5

Vowels are preceded 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], [p^hIʔtʃ]
- 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: [ˈbiʔn̩], [ˈkʰɪʔn̩]
- 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: ['glɑɾt̬], ['bɛɾi], ['dæɾi]
- 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: [ˈbɛk̩ʔ̩], [ˈlɛd̩ʔ̩], [ˈspæz̩m̩]

- 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: [ˈlɔɹɫ̩], [ˈhɑɹdɹ̩]

- Text, Pg. 140 “Liquids become syllabic” (note – trochaic meter)

Phonological Rule 11

**Alveolar become dentalized
before dentals.**

- Diacritic: []
- Examples: [^ht[̃]ɲ_̣θ], [nɔ_̣θ], [ɔ_̣t^hɔ_̣]
- 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: [ˈwɔfɫ̠], [sɪɫk]
- Text, Pg. 141 (NOTE – includes final consonant clusters!)

Phonological Rule 13

Vowels become nasalized before nasals.

- Diacritic: [̃]
- Examples: [t^hĩ m], [sũn]

•Text, Pg. 142



More detail on aspiration/ final release burst

<i>Pronunciation</i>	<i>IPA</i>
With no glottal stop and no final release	[t ^h æp]
With no glottal stop and final release	[t ^h æp ^h]
With glottal stop and final release	[t ^h æʔp ^h]
With glottal stop only	[t ^h æʔ]

www.utdallas.edu/~wkatz/PFD/tap_examples.html