

Brazilian Portuguese — Syllable structure

(originally from Gussenhoven & Jacobs 1998; improvements by Elaine Abousalh)

Part I

The structure of the syllable rime of Brazilian Portuguese (BP) is V(X), where X can be C or V. BP has the nasals [m, n, ɲ]. The [ɲ] distinguishes itself from the other nasals in a number of respects. First, while [m, n] can appear word-initially, [ɲ] cannot, as shown in (1) (V stands for ‘any vowel’).

- (1) a. [mɔ́vel] ‘mobile’
b. [nɔ́rti] ‘north’
c. *[ɲV...]

Second, although diphthongs are freely formed out of consecutive vowels before other nasals, they do not occur before [ɲ]. Instead, the two vowels are divided over two syllables, as shown by the stress patterns (stress would fall on the *first* part of a diphthong).

- (2) a. [réinu] ‘kingdom’ c. [fuíɲa] / *[fúɲa] ‘weasel’
b. [andáimi] ‘scaffolding’ d. [raíɲa] / *[ráɲa] ‘queen’

Third, while [m, n] tolerate a consonant immediately before them, [ɲ] does not.

- (3) a. [adórnu] ‘ornament’
b. [árma] ‘weapon’
c. [álma] ‘soul’
d. [vulnerável] ‘vulnerable’
e. *[VrɲV], [VlɲV]

- **Develop an analysis of syllabification in BP that captures these three differences between [ɲ] on the one hand and [m, n] on the other.**

Part II

BP has a rule of vowel nasalization, which causes a stressed vowel to be nasalized before a nasal, as shown in (4ab). Unstressed vowels remain oral before nasal consonants, as shown in (4cd). However, before [ɲ], vowels are always nasalized, as shown in (4ef).

- (4) a. [sínu] ‘bell’
b. [káma] ‘bed’
c. [bonéka] ‘doll’
d. [kumarí] ‘chili’
e. [aráɲa] ‘spider’
f. [dīɲéiru] ‘money’

- **Are the nasalization facts captured by the account you have developed so far? If not, how could your account be modified to extend to this pattern as well?**