

Portuguese Vowel Alternations

Portuguese exhibits an alternation in the quality of stem internal vowels throughout the inflectional paradigm.

Some facts which will bear on the problem at hand.

- Portuguese has seven vowels which may appear in stressed position [i e ε a ɔ o u].
 - Unstressed vowels may only surface as [i e a o u]
 - Stress is assigned to the penultimate vowel of a word.
 - The internal morphology of the verb may be assumed to be made up of a root morpheme, to which a theme vowel (TV) is added to form a stem, this is followed by a tense/mood/aspect morpheme, which is followed by a person/number morpheme. This is schematised in (1).
- 1) $[[[mor]_{\text{root}} + [a]_{\text{TV}}]_{\text{stem}} + [e]_{\text{tense/mood/aspect}} + [mos]_{\text{person/number}}]_{\text{verb}} \Rightarrow \text{moremos}$ 'that we reside'
- The Tense/Mood/Aspect morpheme for subjunctive is /a/ for the conjugations with /i/ and /e/ TVs, the Tense/Mood/Aspect morpheme is /e/ for the conjugation with the /a/ TV.

Formulate URs for the root vowels in the following data along with a rule of Harmony and a rule of Truncation, such that proper outputs are generated¹.

¹ Data is from Harris, James (1974) Evidence from Portuguese for the 'Elsewhere Condition' in Phonology *Linguistic Inquiry* 5 61- 80.

	1 st conjugation (<i>a</i> -themes) <i>morar</i> 'reside'		2 nd conjugation (<i>e</i> -themes) <i>mover</i> 'move'		3 rd conjugation (<i>i</i> -themes) <i>servir</i> 'serve'	
	Present Indicative					
	Sing.	Plural	Sing.	Plural	Sing.	Plural
1 st per.	m[ó]ro	m[o]rámos	m[ó]vo	m[o]vémos	s[í]rvo	s[e]rvímos
2 nd per.	m[ó]ras	m[o]ráis	m[ó]ves	m[o]véis	s[é]rves	s[e]rvís
3 rd per.	m[ó]ra	m[ó]ram	m[ó]ve	m[ó]vem	s[é]rve	s[é]rvem
	Present Subjunctive					
1 st per.	m[ó]re	m[o]rémos	m[ó]va	m[o]vámos	s[í]rva	s[i]rvámos
2 nd per.	m[ó]res	m[o]réis	m[ó]vas	m[o]váis	s[í]rvas	s[i]rváis
3 rd per.	m[ó]re	m[ó]rem	m[ó]va	m[o]vam	s[í]rva	s[í]rvam
	Imperative					
	m[ó]ra	m[o]rái	m[ó]ve	m[o]véis	s[é]rve	s[e]rví

fugir 'to flee'					
Present Indicative		Present Subjunctive		Imperative	
f[ú]jo	f[u]gímos	f[ú]ja	f[u]jámos		
f[ó]ges	f[u]gís	f[ú]jas	f[u]jáis	f[ó]ge	f[u]gís
f[ó]ge	f[ó]gem	f[ú]ja	f[ú]jam		