

Assignment #2: Rules in Malagasy. Data from Richardson (1885)¹

Due Friday, Oct. 18 (put a hard copy in my mailbox, Campbell 3125—closes at 5 PM)

Directions

- Account for the alternations in the verb paradigms below. This involves proposing...
 - underlying forms for the roots and affixes—the unaffixed form is not necessarily identical to the underlying form! (Beware the “fallacy of the left column”)
 - rules and their order
 ...and writing it all up briefly in prose form.

- Acute accent marks main stress. (Secondary stress not marked.) For stress, use only this rule:

$$V \rightarrow [+stress] / _C_0(VC_0)\# \text{ stress second-to-last } V \text{ if there is one; else (i.e., if monosyllabic) stress last } V$$

other, non-stress rules and their ordering will account for cases in which stress ends up being somewhere else on the surface.

- When a rule ordering is feeding, counterfeeding, bleeding, or counterbleeding, point it out.
- **At the end, discuss any potential constraints** that you observe in your rules.
 - You don't have to actually work out a full rules+constraints analysis, but do discuss issues such as whether your rules can be simplified given the constraints, whether the same constraint can trigger multiple rules, whether there are any conflicts between constraints (e.g., a trigger wants the rule to apply, but a blocker wants the same rule not to apply).

Tips

- The order in which the data are presented is meant to be helpful. Try coming up with a solution for the first row, then modifying it once you run into a row that behaves differently, etc. Your write-up doesn't have to follow that order.
- You don't have to account for why there are gaps in some of the paradigms.
- You can ignore the footnotes—I just felt the need to record the real data somewhere.
- There are some rules here that call on rather unusual combinations of features. Therefore, you can use IPA symbols (instead of features) in your rules that affect consonants. Your rules that affect vowels should use features.
- Treat superscript consonant letters as belonging to the adjacent consonant. Thus, ^hdʰ is a single segment. Don't worry about the feature values of such consonants—you will probably want to use IPA symbols rather than features in any rules that involve them anyway.
- Remember the basics: each morpheme (whether root or affix) has a single, unchanging underlying representation, and the same rules apply in the same order in all derivations.

¹ Richardson, J. (1885). *A New Malagasy-English Dictionary*. Antananarivo: London Missionary Society.

Data notes

- I simplified the data by giving only roots and suffixes, omitting all prefixes.
- Also, in many dialects of Malagasy many of the vowels (and all of the *hs*) are deleted in normal speech, so when you hear Malagasy it might not sound much like the transcriptions.
- It's not the case that most words in Malagasy start with *b*—I just relied heavily on that part of the dictionary.

<i>unaffixed noun or adj.</i>	<i>passive imperative</i>	<i>active imperative</i>	<i>passive1</i>	<i>passive2</i>	<i>gloss of root</i>
1. bábu	babúi	babúa	babúana	babúina	plunder
2. bá ^ɖ gu	ba ^ɖ gúi	ba ^ɖ gúa	ba ^ɖ gúana	ba ^ɖ gúina	plait
3. bé ^ɖ gu	be ^ɖ gúi	be ^ɖ gúa	be ^ɖ gúana		curvature
4. bú ^ɖ gu	bu ^ɖ gúi	bu ^ɖ gúa	bu ^ɖ gúana	bu ^ɖ gúina	nest
5. béku	bekúi	bekúa	bekúana	bekúina	foreign words
6. búdu	budúi	budúa	budúana		childish
7. búhu	buhúi			buhúina	carry on back
8. bári	baríu	baría	baríana	barína	brilliant
9. búri	buríu	buría	buríana		shorn
10. burúsi	burusíu	burusía	burusíana	burusína	brush
11. buláli	bulalíu	bulalía	bulalíana		slip
12. bulídi	bulidíu	bulidía	bulidíana		concealment
13. bá ^ɖ ga	ba ^ɖ gáu	ba ^ɖ gá	ba ^ɖ gána	ba ^ɖ gáina	gappy
14. báta	batáu	batá	batána	batáina	lift
15. buréra	bureráu	burerá	burerána	bureráina	weak
16. baréra	bareráu	barerá	barerána		freely flowing
17. báda	badáu	badá	badána		barren
18. béda	bedáu	bedá	bedána		seize
19. búda	budáu ²	budá	budána	budáina	soft
20. báhana	bahánu	bahána	bahánana		straddle
21. bá ⁿ zina	ba ⁿ zínu	ba ⁿ zína	ba ⁿ zínana	ba ⁿ zínina	stare

² Also [budái], but ignore that

22. búbana	bubánu	bubána	bubánana	bubánina	calumny
23. bú ^{nt} sína	bu ^{nt} sínu	bu ^{nt} sína	bu ^{nt} sínana	bu ^{nt} sínina	swollen
24. burídana	buridánu	buridána	buridánana		going off in haste
25. búruna	burúni	burúna	burúnana	burúnina	tapped out
<i>There are many exceptions to the generalizations illustrated in the next few dozen words, but treat these data as representative.</i>					
26. bábuka	babúhi	babúha	babúhana		prostration
27. badiáka	badiáhu	badiáha	badiáhana	badiáhina	badly done
28. balíaka	baliáhu	baliáha	baliáhana		big-eyed
29. bébaka	bebáhu	bebáha	bebáhana		repentance
30. bélaka	beláhu	beláha	beláhana		full-faced
31. búhaka		buháfa	buháfana	buháfina	fastened
32. áluka	alúfi	alúfa	alúfana		shelter
33. véluna	velúmi	velúma	velúmana	velúmina	alive
34. á nd rana	a nd rámu	a nd ráma	a nd rámana		attempt
35. búhit ^r a	buhíru	buhíra	buhírana	buhírina	convex
36. bulásit ^r a	bulasíru	bulasíra	bulasírana	bulasírina	slip
37. súrat ^r a		suráta	surátana		writing
38. púrit ^r a	purítu	puríta	purítana	purítina	cramped
39. élat ^r a	elátu			elátina	remove
40. fú ^ɔ gat ^r a	³	fu ^ɔ gáta	fu ^ɔ gátana	fu ^ɔ gátina	pop up
41. lumánu	lumanúsi	lumanúsa	lumanúsana	lumanúsina	swimming
42. vúlu	vulúsi	vulúsa	vulúsana	vulúsina	hair, feathers
43. búhi	buhízu	buhíza	buhízana		inflated
44. fúi	fuízu	fuíza	fuízana	fuízina	hatched
45. lálu	lalúvi	lalúva	lalúvana		gone
46. nía	niávu	niáva	niávana		resolve

³ Actually [fu^ɔgáti]

47.rúna	rúni		rúnana		leaning
48.fúna	fúni		fúnana		beg pardon
49.vúna	vúni	vúna	vúnana		knot
50.tána	tánu		tánana		grasp
51.gúka	gúhi	gúha	gúhana	gúhina	guzzling
52.píka	píhu				click
53.t ^s áka	t ^s áhu	t ^s áha	t ^s áhana		cross water
54.léna	lému	léma	lémana		moist
55.nút ^r a	núri	núra	núrana	núrina	go backwards
56.dít ^r a	díru	díra	dírana	dírina	dispute
57.dút ^r a	dúri	dúra	dúrana		burn
58.fát ^r a	fáru	fára	fárana		measure
59.dí	dízu	díza	dízana		wild
60.pí	pízu	píza	pízana	pízina	twinkle
61.fí	fízu	fíza	fízana		delicious
62.lú	lúvi	lúva	lúvana	lúvina	rotten
63.tú	túvi			túvina	fulfill
64.lá	lávú	láva	lávana	lávina	refuse
65.béna	benáú	bená	benána	benáina	seize
66.vína	vináú			vináina	conjecture
67.dáka	dakáú	daká	dakána		kick
68.dána	danáú	daná	danána	danáina	open wide
69.díka	dikáú	diká	dikána	dikáina	overstep
70.héna	henáú		henána		lessen
71.fána	fanáú	faná	fanána		heat
72.báka	bakáú	baká	bakána	bakáina	branching
73.t ^s áka	t ^s akáú	t ^s aká	t ^s akána	t ^s akáina	fetch
74.vúha	vuháú ⁴	vuhá	vuhána	vuháina	open

⁴ Or [vuhái]

75.éfa	efáu	efá	efána	efáina	done
<i>Shifting gears a bit, some e~i alternations to account for</i> <i>It's not a coincidence that most of the words below have [e] in the first syllable instead of some other vowel, but I didn't give you enough data for you to account for that fact.</i>					
76.bédi	bedéu	bedé	bedéna		tattle
77.é ^ɲ gi	e ^ɲ géu	e ^ɲ gé	e ^ɲ géna		praise
78.éti	etéu	eté	eténa		narrow
79.du ^ɲ gai ^ɲ gi	du ^ɲ gai ^ɲ géu		du ^ɲ gai ^ɲ géna		burden
80.bédi	bedésu	bedésa	bedésana	bedésina	tattle
81.réni	renésu	renésa		renésina	perceived
82.véli	velézu	veléza	velézana	velézina	blow
83.téti	tetézu	tetéza	tetézana	tetézina	bridge
84.é ^m bit ^r a	e ^m béru	e ^m béra	e ^m bérana	e ^m bérina	prevented
85.éfika	eféhu	eféha	eféhana	eféhina	shaking
86.é ⁿ d ^r ika	e ⁿ d ^r éhu	e ⁿ d ^r éha	e ⁿ d ^r éhana	e ⁿ d ^r éhina	feature
87.tá ⁿ d ^r ina	ta ⁿ d ^r ému	ta ⁿ d ^r éma	ta ⁿ d ^r émana		remembered
88.télina	telému	teléma	telémana	telémina	pleasant
89.é ⁿ d ^r ina	e ⁿ d ^r énu	e ⁿ d ^r éna	e ⁿ d ^r énana		lemur/clown