

THE NON-CORRELATION OF TONE AND VOWEL HEIGHT IN HAUSA

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1. Introduction

In Pilszczikowa-Chodak [1972] (henceforth abbreviated as P-C) it is argued that there is a positive correlation between tone and vowel height in Hausa: "We can . . . definitely posit that the tone and the degree of vowel height in the termination of the verb and noun plurals are correlated" (p. 420). Specifically the claim being made is that Hausa verbs and noun plurals ending in /i/, /u/, /e/, or /o/ (the [+h] vowels) normally have final High tone, whereas those ending in /a/ (the one [-h] vowel) have final Low tone.¹

Given the current interest in the interrelationship of tone and segmental features (e.g., Hyman [1973]), the impressive article by P-C is bound to attract the attention of general phonologists, most of whom will not know Hausa and thus will have no alternative but to accept P-C's presentation at face value. It thus becomes a matter of considerable importance to set the record straight; for the facts show in unmistakable terms that the tone/vowel height correlation ascribed to Hausa does not exist. One is often prepared to accept an attractive hypothesis in spite of quite numerous exceptions and unexplained counter-examples; but in this case the evidence against the putative tone/vowel height (T/VH) correlation is so widespread and general as to completely refute it. In what follows I shall present some of the more significant counter-evidence, first with reference to the putative T/VH correlation with verbs and **then** with noun plurals. In both cases I shall limit myself to a straight-forward presentation of the facts, with discussion

¹The feature of vowel height will be indicated by lower case [h] while tone will be indicated by upper case [H]. A vowel indicated with slant lines, e.g. /a/, represents that vowel whether long or short. Since P-C ignores vowel length as far as tone/vowel height correlation is concerned, I shall do the same in my discussion. In examples, however, long vowels will be distinguished from short by doubling the letter.

kept to an absolute minimum in the interest of brevity.

2. The Verb

In Parsons' [1960] classification of Hausa verbs, adopted by P-C, verbs fall into seven morphologically distinct classes known as "grades". Taking disyllabic verbs as they occur when not followed by an object, one finds the following forms:

(1)	<u>Example</u>	<u>Final Vowel</u>	<u>Final Tone</u>	<u>T/VH correlation</u>
Grade 1	káamàa 'catch'	-aa [-h]	Lo [-H]	Yes
Grade 2	sàyáa 'buy'	-aa [-h]	Hi [+H]	No
Grade 3	fìtá 'go out'	-a [-h]	Hi [+H]	No
Grade 4	rúfèe 'close'	-ee [-h]	Lo [-H]	No
Grade 5	cíyáǎ 'feed'	---- C-final	Hi [+H]	----
Grade 6	dáawóo 'return'	-oo [+h]	Hi [+H]	Yes
Grade 7	sàadú 'meet'	-u [+h]	Hi [+H]	Yes

Out of the six grades in which the verb ends in a vowel, in three, tone and vowel height are correlated and in an equal number the two variables are not. P-C's explanation for the non-correlation in grade 4 is that this grade "does not exhibit its own pattern [but rather] utilizes the pattern of grade 1" (p. 412). This may be true, but if so it simply supports the traditional view that verb tone in Hausa is determined by morphological factors, independent of any correlation that might or might not be found between the tone and height of the final vowel. The explanation offered for the "wrong tones" of the a-final grades 2 and 3 is that they "reveal the reverse order of the

high-low pattern of Grade 1" (p. 412). Even if this suggestion were true, it is hard to see in what way it could be relevant to the question at hand since the V/TH correlation is supposedly based on a study of surface forms in the present-day language. But in fact, the hypothesized tone reversal is without empirical support whatsoever and is completely at variance with what we know about the history of (including tonal stability of) Hausa verb classes [Newman 1973, 1975].

According to P-C (p. 410) "the object pronoun in Hausa has to be considered as a verb pronominal suffix in spite of its separate appearance in writing. A major reason for assuming this is that "from the tonal analysis perspective there is no difference between the tone patterns of bisyllabic verbs with their object pronoun . . . and trisyllabic verbs of Basic Grades" (p. 410). Thus, e.g., we find *hánàa-tá* 'prevent her' tonally corresponding to *káǎntáa* 'read' and *hárbée-sù* 'shoot them' corresponding to *támáyàa* 'ask', etc. Note, however, that in offering this analysis,² P-C is thereby presenting further evidence of the non-dependence of tone on vowel height, for all object pronouns in Hausa behave as a set and exhibit identical tonal behavior whereas the height of their vowels differ, e.g.,

(2)	<u>Example</u>	<u>Final Vowel</u>	<u>Final Tone</u>	<u>T/VH correlation</u>
Grade 1	...káamàa-ní '..catch me'	-i [+h]	Hi [+H]	Yes
Grade 1	...káamàa-ká '..catch you'	-a [-h]	Hi [+H]	No
Grade 2	...sàyée-shì '..buy it (m)	-i [+h]	Lo [-H]	No
Grade 2	...sàyée-tà '..buy it (f)'	-a [-h]	Lo [-H]	Yes

²My own opinion is that this analysis is correct only in the case of grade 2 and does not hold in the case of grade 1 nor any of the non-basic grades.

In addition to the verbs normally included within the framework of Parsons' grade system, Hausa has a number of very common disyllabic verbs ending in the high vowels /i/ and /u/. While a few of these verbs have Lo-Hi tone, thereby matching final tone and vowel height, most have Hi-Lo tone in violation of the supposed correlation, e.g.,

			T/VH Correlation
Lo-Hi:	tàff	'go'	Yes
	gàjɪ	'tire'	Yes
	kòoshɪ	'be replete'	Yes
Hi-Lo:	táashɪ	'get up'	No
	fáadɪ	'fall'	No
	mútù	'die'	No
	gúdù	'run'	No

3. Noun Plurals

Hausa is well-known for having a large number of ways of forming noun plurals. According to P-C, the various plural patterns all obey the same T/VH correlation rule, i.e., they all end either in /a/ and Lo tone or else in one of the high vowels and Hi tone. As far as final Lo tone plurals are concerned, this is actually true: all plurals with final Lo tone end in /a/ and only /a/, e.g., *dáakɪ* 'room' pl. *dáakúnàa*; *gàrɪ* 'town', pl. *gárúurúwàa*; *cóokàlɪ* 'spoon', pl. *cóokúlàa*. However, it is not true that tone and vowel height match in the case of plurals with final Hi tone. In addition to the plurals ending in Hi tone /i/, /e/, /u/, and /ai/, there are also equally important classes of plurals ending in Hi tone /a/. I shall present six such plural classes that violate P-C's T/VH correlation rule, the first three being plurals of simple nouns, the latter three being plurals of derivative forms. With the exception of plural class (c), these are all productive or semi-productive plural patterns for which only a few representative examples have been cited.

3.1 Plural patterns ending in Hi tone /a/. (a) "Falling tone plurals": zóobèè 'ring', pl. zôbbáá; géefèè 'edge', pl. gyâffáá; shúudfi 'blue thing', pl. shúúddáá; yáaròò 'boy', pl. yáaráá (slightly irregular member of this class).

This is a large and lexically varied plural class which by its size conspicuously contradicts the assertion of T/VH correlation in Hausa plurals. P-C (p. 419) suggest that "such plurals were originally constituted of three syllables"; but this is totally irrelevant since hypothetical forms such as *zóobàabáá and shúudâadáá would obviously violate the T/VH correlation rule just as much as the actually occurring forms.

(b) "Internal-a plurals": sířdìi 'saddle', pl. sířàadáá; gúnkìi 'idol', pl. gúmàakáá; zúucìyáa 'heart' (<*zúuktìi plus feminine suffix), pl. zúkàatáá.

A point worth making here is that all internal-a plurals in Hausa have Hi-Lo-Hi tone no matter what the final vowel is, e.g., gúrgùu 'cripple', pl. gúràagúu; kúncìi 'cheek', pl. kúmàatúu; jírǵfi 'boat', pl. jíràagée; káskóo 'bowl', pl. kásàakée. In other words, the Hi-Lo-Hi tone pattern is an intrinsic property of this class of plurals and has nothing to do with final vowel height.

(c) "Hi-Hi final-a plurals": kújèè 'house-fly', pl. kúdáá (now usually treated as sg.); gíjìi 'home', pl. gíddáá (now usually treated as sg.); mfjìi 'male/husband', pl. mázáá; ářnèè 'pagan', pl. ářnáá; màatáá 'wife', pl. máatáá; díyáá 'daughter' (W. Hausa), pl. díyáá.

This is an archaic plural class made up of a small number of basic words. It is paralleled by another small class of Hi-Hi plurals formed by replacing the final vowel of the singular by /u/, e.g., máashìi 'spear', pl. máasúu; náamàa 'animal', pl. náamúu; yáatsàa 'finger', pl. yáatsúu. As in the case of plural class (b), the tone pattern of these plurals seems to be a property of the plural class as such rather than being a function of the final vowel that occurs with particular

sub-members of the class.

Since P-C does not discuss derived noun forms, I shall simply illustrate the following three plural classes without additional comment.

(d) "Agential nouns": *máńdómí* 'farmer', pl. *máńdómáa*; *máròókíí* 'beggar', pl. *máròókáa*; *má'àikàcfi* 'worker', pl. *má'àikàtaa*.

(e) "Occupational/ethnic nouns": *bàfáadèe* 'courtier', pl. *fàadàa-wáa*; *dáttííjò* 'elder', pl. *dáttàawáa*; *bàháushèe* 'Hausa', pl. *hàusàa-wáa*; *bàkánèe* 'Kano man', pl. *kánáawáa*.

(f) "Adjectival nouns" (see Parsons [1955]): *kàkkárfáa* 'strong one', pl. *kárfàafáa*; *wàwwáaráa* 'smelly thing', pl. *wáaràaráa*; *zàzzáafáa* 'hot thing', pl. *záafàafáa*.

3. Conclusion

From the time of the discovery of tone in Hausa by Taylor [1923] scholars have been struck by the fact that there is something qualitatively different about the Hausa tonal system when compared with that of a language such as Yoruba. One area in which this difference manifests itself is the high degree to which tone in Hausa seems to be predictable, either in terms of morphological/grammatical categories or in relation to other phonological variables (see Leben [1971]). The suggestion that tone and vowel height might be related to one another was therefore fully consistent with the kind of discovery about Hausa tone that one was predisposed to accept. In this sense P-C's hypothesis that final tone and vowel height of verbs and noun plurals were positively correlated was a good hypothesis. It was imaginative, it was reasonable, and it was testable--but, as the evidence presented above shows, it was wrong.

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