

ON THE CORRELATION OF TONE AND VOWEL HEIGHT IN HAUSA:

A REPLY TO NEWMAN

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1. Introduction

The existence of tone/vowel height correlation can be proved or rejected only on the basis of satisfactory data and correct analysis. The correlation exists if it is prevalent, regardless of exceptions. I agree with Postal's statement that "there is no contradiction whatever between utilizing the search for regularity as a method and accepting that this regularity has its limitations" [Postal 1968:276]. In my study on the tone/vowel height correlation I was searching for regularities, and I have reported them [Pilszczikowa-Chodak 1972].

Newman's paper "The non-correlation of tone and vowel height in Hausa" [1975] is an attempt to reject the correlation on the basis of exceptions and "unexplained counter-examples". However, as it will be shown below, a) exceptions are not so numerous as claimed by Newman, and those found do not contradict the existence of tone/vowel height correlation. As a matter of fact, I was aware of and mentioned most of the exceptions listed by Newman in my paper [1972:418-9]; b) "counter-examples" are either possible to explain or cannot be regarded as pertaining to the discussion. In order to keep the record straight, I will examine Newman's argument point by point.

2. The Verb¹

Newman begins his debate by introducing the table which shows that, out of six grades in which the verb ends in a vowel, tone and vowel height are correlated in three grades. However, this table is misleading since it does not include two very important forms: so-called Forms B and C of Grade 2 (compare with the table in Parsons [1960:36]. To consider verbs

¹The feature of vowel height will be indicated by lower case [high] while tone will be indicated by upper case [Hi]. Long vowels will be distinguished from short ones by doubling the letter. Throughout this reply the symbols ' and ` are used to designate high and low tones respectively. Brg. stands for Bargery [1934], Ar. for Arabic, f. for feminine, m. for masculine, Kts. for Katsina Hausa, Sk. for Sokoto Hausa.

only in Form A, that is, as they occur when not followed by an object, creates an incomplete picture. While all other grades listed by Newman have the same final vowel in all environments, the most widely used grade 2, shown in the table with the final -aa, a transitive grade, does not appear with this final vowel when followed by an object. Instead, it ends in Hi tone -ee before a pronominal object, and in Hi tone -i before a nominal object. If included in the table these two forms would be presented as follows:

(1)	Example	Final vowel	Final Tone	T/VH Correlation
Grade 2 Form B	sàyéé 'buy'	-ee	Hi	Yes
Grade 2 Form C	sàýí 'buy'	-i	Hi	Yes

In disputing Newman's computation, I will begin by pointing out that in two forms of grade 2 described above, tone and vowel height are correlated. These two forms should be included in the table. Furthermore, if we were to consider grades 2 and 3 as sub-members of a single grade ("the grade 3 as the intransitive counterpart of grade 2") as Newman proposed in his earlier paper [1973:303], we would have one less "no". Although in his table Newman marks grade 4 with "no", he agrees with my explanation that grade 4 utilizes the tone pattern of grade 1.

Thus one can conclude that the tone/vowel height correlation takes place in verbs ending in Lo tone -aa (grade 1), Hi tone -ee (grade 2, Form B), Hi tone -i (grade 2, Form C), Hi tone -oo (grade 6), and Hi tone -u (grade 7).

Newman tells us that verb tone in Hausa is determined by morphological factors [1975:208], and that tone in Hausa is predictable (p. 212). I quite agree with that. Tone on the final vowel marking above-mentioned verbal forms (grades) and on the final (and often penultimate) vowel marking regular noun plurals in Hausa is determined by the height of this vowel. Tone and vowel height are correlated. Hence tone is predictable in terms of morphological/grammatical categories and in relation to vowel height.

The whole attempt to consider object pronouns "as further evidence of

the non-dependence of tone on vowel height" (p. 209) is misleading. It overlooks the object pronoun rule which states: "the tone of the object pronoun is contrasted not only with the quality of the verb final vowel, but, at the same time, with the tone" [Pilszczikowa 1972:413]. It is assumed that object pronouns behave as a set. The tone on the object pronoun is conditioned by the height of the final syllable of the verb.²

On page 208 Newman lists very common disyllabic verbs ending in the high vowels /i/ and /u/ and low tone. He notes that these verbs are not included within the framework of Parsons' grade system. And I should say with good reason. They are irregular with regard to their final vowel and their tone pattern. These are exceptions and they exist side by side with the regular transitive and intransitive forms. Compare the following verbs: *táashì* 'get up' exists side by side with the transitive form *tàashí* 'lift, raise'; *fáadì* 'fall down, into' has the same tone pattern as the regular intransitive form *fáadà* 'fall into'; *mútù* 'die' has the same tone pattern as *mácè* 'die'; *gúdù* 'run from' has the same tone pattern as the regular transitive form *gúdà* 'fasten to the place', 'run to'.

I consider the Hi-Lo i- verbs (and also Lo-Hi intransitive *tàfí* 'to go') to be of grade 2 origin. These verbs ceased to function as transitive verbs. However, their final vowel remained unchanged. The form *tàfí* also preserved its tone pattern. The meaning of some irregular forms is close to those of grade 2 verbs discussed in Pilszczikowa [1969]. Compare, for example, *tàfí* intransitive 'to go', and *táashì* intransitive 'to get up, to go away' with the transitive grade 2 Form C verbs such as *dòoshí* 'to set out for', *dìngí* (Kts.) 'to go straight to'.

²In footnote number 2, Newman [1975:209] maintains that my statement that there is no difference between the tone pattern of bisyllabic verbs with their object pronouns and trisyllabic verbs without an object is correct only in the case of grade 2 verbs. This is not correct. I would like to point out that one of the examples given by Newman is a grade 1 verb, compare: *hánàa-tá* 'prevent her' Hi-Lo-Hi (bisyllabic grade 1 verb plus object pronoun) tonally corresponds to *káràntáa* 'read' Hi-Lo-Hi (trisyllabic grade 1 verb). It is also true in the case of grade 4 verbs. It holds in cases of all transitive forms with the tonal contrast in the pattern.

All these are "movement" verbs. What happened to *táashì* probably can happen or is even happening to some other "movement" verbs operating grade 2 at present. It is noteworthy that in Pilszczikowa [1969] there are examples of the usage of grade 2 Form C verbs with the extensions characteristic of intransitive forms. Such examples are reported to be found in the Western dialect of Hausa. Compare: *yáa kùsàncí gà bírní* 'he came near the town' [Pilszczikowa 1969:32] with *súkà tàfí gà bírní* 'they went to the town' [Schön 1906:20]. The form *kùsàncí* is a transitive verb, *tàfí* on the other hand, is an irregular intransitive verb. Both are used before prepositions. *Táashì* 'to get up' and *fáadì* 'to fall down' are two out of few *i* verbs with Hi-Lo tone pattern as opposed to over 800 regular *i* verbs with (Lo-)Hi tone pattern (see Pilszczikowa 1969:12]). Thus, *i*- and *u*- verbs with Hi-Lo tone pattern are certainly exceptions.

3. Noun Plurals

3.1. "Falling tone plurals" and "Internal-a plurals". "Falling tone plurals" and "Internal-a plurals" in my opinion are subgroups of a larger class of nouns with bicontrastive Hi-Lo-Hi tone pattern in the plural. Welmers [1973:238] also classifies them together. He considers this class of noun plurals to be unproductive at present (p. 234).

This large class of nouns with the exception of "falling" and "internal-a" plurals does obey the tone/vowel height correlation rule in the plural, e.g. *kásáa* 'country', pl. *kásàashée*. It looks to me that there is enough evidence showing that nouns with [-low, ± round] vowel in the first and/or final syllable and with the Hi-Lo tone pattern in the singular have a tendency to acquire the vowels -aa or -uu in the plural instead of the regular final vowel -ee, e.g., *zóbèè* 'ring', pl. *zóbbáa*; *gúnkìi* 'idol', pl. *gúmàakáa*; *kúncìi* 'cheek', pl. *kúmàatúu*.

It is noteworthy that in some cases plurals with a final high tone -aa co-exist with plurals ending in high tone regular -ee, e.g.,

- (2)
- | | | | | |
|---------------|---------------------|-----------------|------------------|----------------|
| <i>súurìi</i> | 'lrg. termite hill' | <i>súrráa</i> | <i>súuràayée</i> | pl. (Brg. 963) |
| <i>gárkèè</i> | 'herd of cattle' | <i>gáraakáa</i> | <i>gáraakée</i> | pl. (Brg. 368) |
| <i>kúrmìi</i> | 'forest' | <i>kúraamée</i> | <i>kúraamáa</i> | pl. (Brg. 653) |
- kúraamúu*

The list of such nouns is quite long. Thus, I consider "falling tone" and "internal-a" plurals to be segmentally conditioned subgroups of a plural class which does obey the tone/vowel height correlation rule.

3.2. Hi-Hi final-a plurals.³ Consider the following nouns and their plurals:

(3) mǎjǐi	'male, husband'	pl. mázáa, mázàizái, mázàajée
'árnèe	'pagan'	pl. 'árnáa
màatáa/màcèe	'woman, wife'	pl. màatáa, màatàayée
dáa	'son'	pl. 'yáa'yáa, 'yáa'yàa'yée
'yáa	'daughter'	pl. " "
díiyáa Sk. Kts.	"	pl. díiyáa

All nouns listed above have a Hi-Hi tone pattern either as the only plural pattern or as one of a few possible plural patterns. Newman is right here. It seems to be a small archaic class that violates not only the tone/vowel height correlation, but also gender and plural formation regularities. For example, feminine nouns have the same final vowel -aa both in the singular and in the plural. The final -aa marks both feminine and masculine nouns in the plural. Usually feminine nouns take the [+high] vowel -ii or -uu in the plural, while masculine nouns take [+low] -aa or the diphthong -ai. These all are kinship terms or personal nouns. Kinship terms form a special class in some languages (see Welmers [1973: 226]). This kind of noun plural was mentioned by me in Sec. 3.2.2 as exceptional [Pilszczikowa-Chodak 1972:48].

3.3. Derived noun forms. In my 1972 paper I do not discuss "derived noun forms" which Newman [1975:212] presents in (d), (e), (f). The reason is that derived nouns of various types in which singular and plural forms are systematic and "simple nouns" fall into different categories on formal grounds and obey different rules. Derived nouns all have a set structural

³Newman's examples such as kúdáa (= Sokoto dialect kújèe), masculine and collective noun 'fly, flies', pl. kúdàajée; gídáa, m. 'home, compound', pl. gídàajée, do not pertain here. They both have a meaning with collective connotation in the singular and take a bicontrastive tone pattern in the plural.

pattern and their "group-meaning" is also predictable. Consequently, they should be analysed separately. For example, "adjectival nouns" are derived from simple nouns by reduplication and gemination and have the same final vowel for feminine, masculine and plural forms. Their final -aa has nothing to do with a gender-number differentiation, e.g. *kàkkàrfáa* m./f. 'strong one', pl. *kárfàafáa*.

"Agential nouns" are formed by prefixes and suffixes contrasted tonally with the base from which they are derived. They have Hi-Lo-Hi or Hi-Lo-Lo-Hi tone pattern. If the base is bisyllabic, their tone pattern is Hi-Lo-Hi, as in *máròókíí* 'beggar', pl. *máròókáa*; however, if it is trisyllabic, their tone pattern is Hi-Lo-Lo-Hi as in *má'àikàcílí* 'worker', pl. *má'àikàtáa*. Their tone pattern has nothing to do with number differentiation. The Hi-Lo-Lo-Hi tone pattern of agential plurals is not a possible tone pattern of any simple noun plural.

Derived nouns listed by Newman [1975:212] in (d), (e) and (f) do not follow rules for simple nouns; they are not the data upon which one can base rules for simple nouns. Derived nouns are irrelevant for the discussion of tone/vowel height correlation in Hausa.

4. Conclusion

As said above, "numerous exceptions" are not so numerous (verbs: *táashì*, *gúdù*, *fáadí*, *mútù* and Hi-Hi final -aa plurals). "Unexplained counter-examples" either could be explained ("falling tone" and "internal-a" plurals are segmentally conditioned subgroups of the regular group which obey tone/vowel height correlation) or cannot be regarded as pertaining to the discussion. "Derived nouns" obey different rules as compared with "simple nouns" and are irrelevant for this discussion. Therefore Newman's argument does not present evidence against the tone/vowel height correlation in Hausa.

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