

SIMPLE AND EXTENDED VERB STEMS IN HAUSA:

TOWARDS AN INTERNAL RECONSTRUCTION OF THE OLD HAUSA VERBAL SYSTEM

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The paper introduces the common Chadic distinction between simple and extended verb stems to Hausa, and relates it to the issue of verbal noun formation. A new analysis is presented to account for the so-called A and B forms of the transitive verb. Also, remnants of archaic internal **a**-plurals of verbs are identified which are likely to explain other irregularities in the synchronic behaviour of some verbs.

Cette communication utilise une distinction entre les verbaux simples et étendus appliquée avec succès dans l'analyse des langues tchadiques à l'étude du haoussa. Cette distinction rapporte bien à celle des verbonominaux primaires et secondaires. On y trouve aussi une analyse nouvelle en ce qui concerne les formes dits A et B des verbaux transitifs. Des traces archaïques des formations dits internal **a**-plurals sont indentifiées qui peuvent expliquer quelques irrégularités de certains verbaux dans la langue haoussa d'aujourd'hui.

0. INTRODUCTION

The paper¹ introduces the established notions of simple and extended verb stems of Chadic linguistics² into the analysis of the Hausa verbal system, including verbal noun formation. It thereby takes issue with the traditional grade-system analysis³ and rejects current conceptions about the formation of the so-called primary and secondary verbal nouns as inadequate and misleading. The reanalysis follows basically the lines of research suggested by Newman (1973, 1977). Newman reconstructs a vowel/tone class/extension system (VTE system) for Old Hausa from which the present-day grade system is said to have developed. The present paper suggests a number of substantial modifications within the framework of Newman's VTE system and, for the first time, relates it to the formation of the verbal noun. The paper postulates, contrary to analyses of the Hausa verb system thus far, (1) the existence of an inflectionally derived anaphoric stem for both Hausa verbs and verbal nouns, and (2) discovers remnants of archaic internal **a**-plural verb base formation, thereby establishing the contrast between **Ø**-vocalization and **a**-vocalization of verb bases for the early stages of Hausa's linguistic

history. The paper also points out the existence of, and relationship between, lexical tone patterns and derived tone patterns within one and the same tone class for verbs.

The analysis is based entirely on internal Hausa reconstruction, working from the assumption that the so-called irregular verbs (in terms of the verbal grade system) of present-day Hausa reflect regular patterns of the Old Hausa verbal system. For reasons of methodological purity, no comparative evidence from other Chadic languages is being made use of; it remains for future research to establish which of the internally reconstructed phenomena can be corroborated by comparative evidence. It is claimed here that the Old Hausa verbal system can best be described in terms of a modified VTE system. The irregularity of verbs of a particular group (transitive **a**-verbs) is explained in terms of phonological reduction through apocopation or contraction of final syllables which contained a weak radical consonant ***y** or, less certain, ***w**.

1. SIMPLE VERB STEMS

1.1 THE MODIFIED VOWEL/TONE SYSTEM

Vowel classes. Under the old vowel/tone class/extension system, all verbs belong to one of two vowel classes depending on the quality of the final vowel of their basic form: **a**-verbs and **ə**-verbs.⁴ This diachronic distinction may no longer be phonetically apparent in the synchronic system, for instance, when final syllables are lost in the course of time--and with them the original final vowel. We have to be aware of the fact that synchronic final vowels may represent diachronic non-final vowels.

Tone classes. Under the VTE system, verbs also belong to one of a number of tone classes, reflected in diagnostic tone patterns. Slightly at variance with Newman (1973), the following three tone classes are set up for Old Hausa:

class 1	Hi-Lo(-Lo)	HL(L)
class 2	Lo-Hi(-Lo)	LH(L)
class 3	Hi-Hi(-Lo)	HH(L)

Note that, from a synchronic point of view, membership in the HH(L) tone class is highly restricted. Whether or not this were also true for Old Hausa cannot be established.

Weak final radical consonants. Under conditions which are not yet fully understood, di- and trisyllabic verbs with a final syllable beginning with ***y** (and possibly with ***w** too) lost this syllable through contraction and/or apocopation. The lost consonant ***y** reappears, in some cases, in the extended stems of a particular verb and, possibly also reappears in the case of some intransitive verbs of the **a**-class with final ***w**, in the verbal noun. Thus, the following development is likely to have occurred in the history of the Hausa language:

$$*(...)(CV_1(V_1)y)V_2 \rightarrow *(...)(CV_1(V_1)y) \rightarrow (...)(CV_1(V_1))$$

$$*(...)(CV_1(V_1)w)V_2 \rightarrow *(...)(CV_1(V_1)w) \rightarrow (...)(CV_1(V_1))$$

Verb nominalization. Fundamental to the present reanalysis of the Hausa verbal system is the assumption that in Old Hausa all verb stems could be nominalized and that, in the case of simple verb stems, the only formal difference in the morphology of verb stem and corresponding verbonominal stem was the length of the final vowel. All simple verb stems ended in a short final vowel (cf. Newman 1973), and the corresponding verbonominal stems had a lengthened final vowel, which is best analyzed as the result of suffixation of a yet unidentified nominalizer. This nominalizer may have been nothing other than the same old determiner which accounts for the long final vowels in present-day Hausa's noun stems as well (cf. Greenberg 1978):

$$\frac{\text{simple verb stem} + \text{nominalizer}}{(CV_1)CV_2 \quad *-(C)V_3} \rightarrow \frac{\text{verbonominal stem}}{*-(CV_1)CV_2-V_3 \rightarrow (CV_1)CV_2V_2}$$

If we assume this verbal nominalizer to have had two conditioned tonal variant forms (allomorphs), we are able to explain the falling tones on the intrinsic high tone monoconsonantal verbs in Hausa:

- (1) monoverbs: allomorph $*(C)V$ + low tone

$$c\acute{i} + \tilde{v}_{nom} \rightarrow c\acute{i}\tilde{i}_{nom} \quad \text{'eating'}$$

$$sh\acute{a}a + \tilde{v}_{nom} \rightarrow sh\acute{a}\tilde{a}_{nom} \quad \text{'drinking'}$$

- (2) polyverbs: allomorph $*(C)V$ + copy tone

$$s\acute{a}n\acute{i} + \tilde{v}_{nom} \rightarrow s\acute{a}n\acute{i}\tilde{i}_{nom} \quad \text{'knowing'}$$

$$\acute{b}\acute{a}t\acute{a} + \tilde{v}_{nom} \rightarrow \acute{b}\acute{a}t\acute{a}\tilde{a}_{nom} \quad \text{'getting lost'}$$

$$n\grave{u}un\acute{a} + \tilde{v}_{nom} \rightarrow n\grave{u}un\acute{a}\tilde{a}_{nom} \quad \text{'ripening'}$$

$$g\acute{a}n\acute{i} + \tilde{v}_{nom} \rightarrow g\acute{a}n\acute{i}\tilde{i}_{nom} \quad \text{'seeing'}$$

With apocopated final *y*-verbs, the nominalizer copies the tone of the underlying final syllable before apocopation, which is subsequently shifted one position leftward and grounded on the synchronic final syllable:

$$*b\acute{i}y\acute{a} + \tilde{v}_{nom} \rightarrow *b\acute{i}y\acute{a}\tilde{a}_{nom} > *b\acute{i}y\tilde{ } > b\acute{i}\tilde{i} \quad \text{'following'}$$

$$*k\acute{i}r\acute{a}ay\acute{a} + \tilde{v}_{nom} \rightarrow *k\acute{i}r\acute{a}ay\acute{a}\tilde{a}_{nom} > *k\acute{i}r\acute{a}ay\tilde{ } > *k\acute{i}r\acute{a}\tilde{a} > k\acute{i}r\acute{a}\tilde{a} \quad \text{'calling'}$$

In the case of verbs of the $*b\acute{i}y\acute{a}$ type, this development facilitated their being synchronically treated together with the

true monoverbs. With verbs of the **kírāa** type, the synchronic tone shift between verb stem and verbonominal stem such as **kírāa/kírāa**, reflects the diachronic presence of a low tone reinforcing suffix:

verb stem ***kírāayā** > ***kírāaỹ** > ***kírāây** > **kírāa**

verbonominal stem ***kírāayā-ā** > ***kírāaỹ̃** > ***kírāā̃** > **kírāa**

As shall become clear in the course of this paper, the traditional distinction in Hausa linguistics between primary and secondary verbal nouns can be replaced by the more adequate distinction between:

(1) simple verbal nouns, that is, nominalizations of simple verb stems which synchronically end in a long final vowel, for example: **cīī**, **shāā**, **fītāa**, **sānīī**; and

(2) extended verbal nouns, that is, nominalizations of extended verb stems which synchronically end in **-wāa**, for example: **kāamāwāa**, **kōonēwāa**, **kōomōwāa**, **sāyārwāa**.

1.1.1 The irregular verbs and their verbal nouns

Internal reconstruction of the Old Hausa verbal system from the so-called irregular verbs produces the modified (as compared with Newman's 1973 VTE system) vowel/tone (VT) class system of simple verb stems and their verbal nouns illustrated in Chart 1.

		ə-verbs		a-verbs	
		verb stem	verbal noun	verb stem	verbal noun
HL(L)	monosyllabic transitive (tr.)	cí	cīī	jāa	jāā
	disyllabic intransitive (itr.)	ḃāacī tāashī gūdū	ḃāacīī tāashīī gūdūu	ḃātā	ḃātāa
	tr.	*bārī *fādī *sānī *sāamū	bārīī fādīī sānīī sāamūu	bīy (*bīyā) jīy (*jīyā) etc.	bīī jīī
	trisyllabic itr.			fāadī (*fāadūwā)⁶ hāifū (*hāyfūwā)⁶	fāadūwā⁷ hāifūwā⁷
LH(L)	disyllabic itr.	kōoshī	kōoshīī	nūunā	nūunāa
				sāukā	sāukāa

	trisyllabic itr.		gājī (*gājīyà) gājīyāa tāfī (*tāfīyà) tāfīyāa
HH(L)	disyllabic itr.		kūsā kūsāa būuyā būuyāa
	tr.	*gānī gānīi	hāu (*hāwā) hāwāa
	trisyllabic itr.		mūtū (<*mūtūw) (*mūtūwà) mūtūwāa
	tr.		bīyāa bīyāa (*bīyāayà) etc.

Chart 1

Comments on Chart 1:

(1) Surface-level monoverbs such as **bī/bīi** and **jī/jīi** are actually apocopated **Cŷyā** verbs which only by analogical realignment come to be synchronically treated together with the true monoverbs. True monoverbs such as **cī/cīi** and **shāa** are recognized through the allomorph of the totality extension (grade IV) which contains a nasal, for instance, **bīyēe** vs. **cīnyēe**.

(2) Similarly, the Hi-Hi surface-level biradical verbs such as **bīyāa** and **kīrāa** are actually apocopated **CVCāayā** verbs. Note that the low tone of the final syllable of the underlying base survives through reinforcement effected by the copying of that tone onto the nominalizing suffix in the verbal noun plus subsequent leftward shifting (cf. sec. 1.1).

(3) If we assume that all verbs followed the same principles in forming their simple verbal nouns, the verbs **fāadī**, **hāifū**, **gājī**, **tāfī**, and **mūtū** must also be considered to be apocopated: their verbonominal stems contain a final consonant **y/w** which is not present in the non-nominalized form. For this reason I have chosen to tentatively regard the verbonominal form as being closer to the actual shape of the underlying base.

(4) The starred verbs ***bārī**, ***fādī**, ***sānī**, ***sāamū** and ***gānī** are the only ones in this chart which synchronically do not use their simple stems, that is, the form with short final lexical vowel. An explanation for their deviant behaviour is attempted further below.

The principles underlying the modified VT system are quite obvious: verbs of both vowel classes end in a short lexical vowel, **-a** or in the **ə**-class, **-i/-u**, depending on phonological environment. The verbal nouns of simple verb stems in both classes

end in a long vowel of the same quality as the corresponding vowel in the verb stem. The tone classes are equally represented in both the verbal as well as the verbonominal stems. With the exception of **ḡātā** 'get lost', irregular **a**-verbs have acquired their irregular features through loss₈ of their final syllable which began with a weak radical consonant.

1.1.2 The regular verbs (grades I, II, and III) and their verbal nouns

When it comes to assigning the regular verbs of Hausa to their appropriate places in the modified VT system, two important insights from modern Hausa linguistics are helpful. Most, if not all, grade I verbs are extended stems (applicatives),⁹ and grades II and III share certain characteristics which set them apart from all other grades (cf. Newman 1973).

Since Old Hausa's applicative stems and transitive verbs of the HL(L) class of **a**-verbs have become indistinguishable in Modern Hausa, internal reconstruction cannot produce examples of simple verb stems or verbonominal stems of the latter. They are contained in, and synchronically treated as, applicative extended stems by the language (cf. sec. 2.1). In diachronic terms, simple stems of HL(L) **a**-verbs followed the pattern illustrated by the verb **ḡātā** in Chart 1. For transitive verbs to be reinterpreted by the language itself as applicative extended stems is not at all surprising, the less so when we remember that a number of forms looked alike for both simple transitives and extended applicatives. (Applicatives, as well as the anaphoric stems (cf. below) and the verbonominal stems of simple transitives, all ended in **-aa** and shared the same tone pattern.) Analogical realignment later affected intransitive verbs such as ***zāunā** 'sit' as well (but not **ḡātā** 'get lost', for whatever reason): thus Modern Hausa's grade I emerged through coalescence of transitive HL(L) **a**-verbs and applicatives, plus subsequent analogical realignment. In terms of verbal noun formation this new class of verbs was treated as extended stems, following the model of the applicatives contained therein, as shall be shown further below.

The underlying forms of Modern Hausa's grade II and grade III verbs, however, clearly show the principles of the modified VT system today, albeit slightly disguised by interference phenomena relating to lexical (or basic) and derived tone patterns, as well as to the category of the anaphoric stem.

Chart 2 shows that: (1) the grade II verbs (always transitive) and the grade III verbs (always intransitive) fit into the appropriate boxes in Chart 1:

		ə-verbs		a-verbs	
		verb stem	verbal noun	verb stem	verbal noun
LH(L)	disyllabic itr. tr.	sâyí	*sâyíi	fítá	fítáa
	trisyllabic itr. tr.	*būkāacī	*būkāacīi	dòogārā	dòogārāa

Chart 2

As Chart 2 shows, the grade III verbs (right-hand column) fit neatly into the existing system shown in Chart 1. The starred forms in the left-hand column show the expected shapes of the simple stems of Modern Hausa's grade II verbs, yet they don't appear as such in the language: instead of ***sâyíi** the language uses a verbal noun stem with different final vowels, **sâyāa**, **sâyēe**; instead of ***būkāacī** the language prefers another tone pattern, **būkāacī**; instead of the VN ***būkāacīi** the language uses a form with a different final vowel but, this time, the expected tone pattern **būkāatāa**. Since the question of the final vowel **-aa** in the verbonominal form is taken up in detail in section 1.2, suffice it to explain the tonal phenomenon involved here.

At this point I wish to introduce the notion of derived tone patterns. Within the tone classes, two actual patterns coexist: the lexical (or basic) pattern and a derived tone pattern. The latter is used, for instance, when plural verb stems (intensive verbs in traditional Hausa terminology) are formed by reduplication from both simple and extended stems:

lexical pattern	derived pattern
Hi-Lo gūdū	Hi + Hi-Lo gūrgūdū (*gūdgūdū)
Lo-Hi fítá	Lo + Lo-Hi fīrfítá (*fītfitá)
Hi-Hi hāu (*hāwā)	Hi + Hi-Hi hāhhāu (*hāwhāwā)

The derived pattern copies the tone of the first syllable onto the added syllable to the left of the simple stem (tone anticipation).¹⁰ This is true of verbs of all tone classes and any number of syllables. The lexical pattern, however, is available only for mono-, di-, and trisyllabic formations: verbs with more than three syllables automatically take the derived pattern, that is, their tonal structure is derived from the corresponding lexical trisyllabic pattern. Whether accidental or not, the lexical patterns turn out to require a low tone on the final syllable of trisyllabic verbs of all tone classes, HLL, LHL, HHL.

For no immediately obvious reasons, however, both patterns, lexical and derived, are no longer distinguished on functional grounds in the LH(L) class of verbs in Modern Hausa. Derived plural verb stems such as **firfitā** may shift freely into the lexical pattern **firfitā**. Thus with such variability spreading through the whole tone class, this particular verb tone class has two tone patterns at its disposal, the former lexical pattern and the former derived pattern, which are now free to be reassigned to different grammatical functions. Since only verbs with at least three syllables are at all affected by the tone pattern variability, the trisyllabic verb forms of the LH(L) tone class have come to be regrouped:

<u>former lexical pattern</u>	<u>former derived pattern</u>
simple verbal noun:	simple verb stem:
būkāatāa	būkāacī
(= anaphoric stem)	

Thus, in terms of simple stems only, present-day Hausa's grade II results from the merger of LH(L) transitive **a**- and **ə**-verbs (cf. the corresponding gaps in Chart 1 which only indicate intransitives for this tone class). As we shall have reason to point out later, a third source of Modern Hausa's grade II is an Old Hausa extended stem of similar morphological structure (partitive/separative/intrusive).

1.2 THE ANAPHORIC STEM

The anaphoric stem corresponds to the A form of transitive verbs under the traditional grade-system analysis: Old Hausa regularly added a suffix to the stem of its transitive verbs when they were not followed by any kind of object. With transitive **a**-verbs, the contrast between the simple verb stem and the anaphoric verb stem originally was one of vowel length: **-a** vs. **-aa**; but between the simple verbal noun stem and the anaphoric noun stem, the formal difference was **Ø**; both were phonologically identical in surface realization:

<u>simple verb stem</u>	<u>nominalizer</u>	<u>anaphora marker</u>	
CVCa	-(C)V	---	> CVCaa_{nom}
CVCa	----	-aa	> CVCaa
CVCa	-(C)V	-aa	> CVCaa_{nom}

As for the **ə**-verbs, they still display two different formations in this respect: the lexical stem of the verb ends in a high (short) vowel and thus contrasts with the corresponding anaphoric stem which ends in a (long) low vowel. In the LH(L) tone class, the anaphoric stem is associated with the lexical tone pattern (LH, LHL, LLHL, ...) while the lexical stem itself is associated

with the derived pattern (LH, LLH, LLHL, ...). As a matter of fact, it is only the verbs of this tone class which could be said to still use anaphoric stem formation as a synchronically productive process.

Of the few (irregular) transitive *ə*-verbs of the other tone classes (hitherto represented as **bārī*, **fādī*, **sānī*, **sāamū*, and **gānī*) which are still recognizable as such in Modern Hausa, only for the verbs 'know' and 'leave' have anaphoric stem endings in *-aa* survived. This has to do with the particular type of verb base these irregular verbs make use of (cf. below). The underlying basic form of the verb 'know' is **sōnī* or **sōnē* (cf. note 4), phonetically reconstructable as **shīnī*. The corresponding anaphoric stem is reconstructable, therefore, as **sōn-āa* > **shīnāa*. Indeed, there is a highly aberrant alternative form of the verb 'know' in present-day Hausa which is said to be "only used in this form and no object must be expressed after it" (Abraham 1962:812)--and this form is *shīnāa*! Completely regular within our reconstructed Old Hausa VT system, *shīnāa* not only serves as the anaphoric stem of *sānīi*, but also appears as anaphoric verbal noun stem: *shīnāa* 'knowledge' (Abraham op. cit.). The same explanation applies to the form *bīrāa* (**bār-āa*) which is also found in Abraham's dictionary. Thus for transitive *ə*-verbs the following systematics are reconstructed:

simple verb stem	nominalizer	anaphora marker	
CVCə	-(C)V	---	> CVCii/CVCuu _{nom}
CVCə	----	-aa	> CVCaa
CVCə	-(C)V	-aa	> CVCaa _{nom}

1.2.1 The anaphoric stem of pluralized verb bases with formative *a*-vocalization

The transitive *ə*-verbs with initial Hi tone (tone classes 1 and 3) constitute a particular group within the so-called irregular verbs of present-day Hausa. It is argued here that they are remnants of a category of verb forms in Old Hausa which I have elsewhere referred to as extended bases (Wolff 1977) with pluralic function. Little doubt remains in Afroasiatic and Chadic linguistics as to the great age of this category and the formative value of what I refer to as *a*-vocalization (compare the widely accepted notion of internal *a*-plurals for Afroasiatic).

At a very early stage in its development as a separate language, Hausa knew two processes of verb base pluralization: formative *a*-vocalization, and segment iteration (reduplication). Present-day Hausa, however, has given up *a*-vocalization as a formative process, now making exclusive use of reduplication for what traditional Hausa linguistics call intensive verb formation (cf. Frajzyngier 1965, Wolff 1977). Obviously, there must have been some kind of conditioning as to which verbs were using which formative device for pluralization. One plausible reason could

have been that both formative processes were associated with semantic differences (intensive vs. distributive or something like it). I shall argue here that the two formative processes were phonologically conditioned: ə-verbs made use of a-vocalization, whereas a-verbs used segment iteration. Perhaps this was done to avoid structural homophony.

	simple base	extended base	
		formative a-vocalization	segment iteration
ə-verbs:	CəCə	CaCə	---
	CaCə	CaaCə	---
a-verbs:	CəCa	---	C ₁ əC ₂ C ₁ əC ₂ a
	CaCa	---	C ₁ aC ₂ C ₁ aC ₂ a

Chart 3

For the earliest reconstructable stages of Hausa, therefore, ə-verb pluralization plus stem formation can be given as in Chart 4.

simple base	extended base	nominalizer	anaphora marker	
*sənə	*sānə	-(C)V	---	> sānīi _{nom}
	*sānə	---	-əə	> sānīi _{nom}
	*sānə	-(C)V	-əə	> sānīi _{nom}
*bərə	*bārə	-(C)V	---	> bārīi _{nom}
	*bārə	---	-əə	> bārīi _{nom}
	*bārə	-(C)V	-əə	> bārīi _{nom}
*fədə	*fādə	-(C)V	---	> fādīi _{nom}
	*fādə	---	-əə	> fādīi _{nom}
	*fādə	-(C)V	-əə	> fādīi _{nom}
*sāmə	*sāamə	-(C)V	---	> sāamūu _{nom}
	*sāamə	---	-əə	> sāamūu _{nom}
	*sāamə	-(C)V	-əə	> sāamūu _{nom}
*gənə	*gānə	-(C)V	---	> gānīi _{nom}
	*gānə	---	-əə	> gānīi _{nom}
	*gānə	-(C)V	-əə	> gānīi _{nom}

Chart 4

The analysis illustrated by Chart 4 is based on two hypotheses:
(1) that some of the medial long vowels in Hausa verb bases might

be accounted for by verb base pluralization (this hypothesis has little or no bearing on the main topic of this paper); (2) that the anaphora marker ought to be reconstructed with two allomorphs in complementary distribution: **-aa** with simple (non-pluralic) verb bases, and **-əə** with extended (pluralic) **a**-vocalized bases of **ə**-verbs. (In Modern Hausa, the allomorph **-əə** is phonetically realized as **-ii** and **-uu** depending on the phonological environment.)

There is further reason to treat the verbs in Chart 4 as different from others. Whether the following observation was true for all extended bases, or only for those extended **a**-vocalized bases with final sonorant, cannot be established on the basis of the little data available; however, the four verbs of the set which display a sonorant in final consonant position are unique in that they shorten their stems before a direct object. The verbs **sānīi**, **bārīi**, and **gānīi** are notorious for this shortening in Modern Hausa, but it is often overlooked that **sāamūu** as well shows this feature, at least in some dialects of Hausa.

No shortening of this kind, however, has been observed for **fādīi**. Yet, **fādīi** and **sāamūu** share another idiosyncrasy before a direct object: they are not used at all, as far as the simple stem is concerned, in such syntactic environments; but rather shift to one of their extended stems (i.e. the separative/partitive/intrusive which, in present-day Hausa and traditional analysis, is known as grade II). Until a better solution is offered, we may tentatively relate all this strange behaviour to the one feature which these verbs share: they are transitive verbs of the **ə**-class in their extended bases (pluralized by formative **a**-vocalization), of which simple bases are still being found in present-day dialects (cf. the anaphoric stem **shīnāa** < ***sən-āa** 'know', **bīrāa** < ***bār-āa** 'leave', and dialectal **hīdī** < ***fədē** 'tell').

It is, as we have seen, important also in Hausa to recognize the difference between (at least) two vocalization patterns of verb bases. The verb 'know' can serve to illustrate the systematics affecting lexically **Ø**-vocalized (or **ə**-vocalized) bases as seen in Chart 5.

	<u>simple base</u>	<u>extended base</u>
simple lexical stem	*sənī (< *sənə)	sān(ī)
simple verbonominal stem	*sənīi	sānīi (*sənə-ə)
simple anaphoric stem	shīnāa (*sənə-āa)	sānīi (*sənə-əə)
simple verbonominal stem	shīnāa (*sənə-ə-āa)	sānīi (*sənə-ə-əə)

Chart 5

For illustration's sake, the verb 'buy' is used to exemplify the subsystem of lexically **a**-vocalized bases as seen in Chart 6.

	<u>simple base</u>	<u>extended base</u>
simple lexical stem	sāyī (<*sāyē)	sāssāyī
simple verbonominal stem	*sāyīi	*sāssāyīi
simple anaphoric stem	sāyāa (*sāyē-āa)	sāssāyāa (*-āa)
simple verbonominal stem	sāyēe (*sāyē-ē-aa)	sāssāyēe (*-ē-āa)

Chart 6

Note that, as discussed further above, homophonous surface realizations (**shīnāa**, **sānīi**) reflect structurally different underlying formations (di- vs. trimorphemic structures). Note, further, the shifting from derived to lexical tone pattern with extended bases of trisyllabic structure within tone class LH(L). Also in this tone class, the simple verbonominal stem has gone out of use and is commonly replaced by the corresponding anaphoric stem.

1.2.2 The anaphoric stem of monoconsonantal verbs

In addition to the two allomorphs of the anaphora marker already reconstructed, there is need to set up a third allomorph for monoconsonantal verbs. Since monoverbs synchronically lengthen their final vowel (if it is short, as in the **ə**-class), or keep it long (as it already is in the **a**-class), the simplest way to account for this is by internally reconstructing a suffix with copy vowel, and which receives its tone by tone spread from the preceding one:

<u>allomorphs of the anaphora marker</u>		
-aa	} plus copy tone	simple verb bases of polyverbs
-əə		extended bases of polyverbs (with formative a -vocalization)
-VV _{copy}		simple and extended bases of monoverbs

(Note that, given the identification of extended pluralic verb bases with formative **a**-vocalization in Hausa, the long vowel in the **a**-class monoverbs (e.g. **shāa**, **jāa**) may be given an explanation: possibly, these verbs represent extended bases, too.)

1.3 SYNCHRONIC LENGTHENING OF VERB-FINAL VOWELS

Assuming an underlying basic form of the Old Hausa simple verb stem with a short final lexical vowel (as first suggested by Newman in 1973) leaves one with the task of explaining the occurrence of long final vowels (1) of transitive verbs when no objects immediately follow, (2) of transitive verbs when followed by direct object pronoun, (3) of some verbs when they are used as verbal nouns, and (4) of some verbs when followed by indirect object expressions. I have attempted to explain (1) as anaphoric stem of the verb, corresponding to the A form of transitive verbs in the traditional grade-system analysis. The formation of (3) simple verbal nouns, was also explained in terms of a (nominalizing) suffix which leads to synchronic lengthening. (Note that this accounts for so-called primary verbal nouns of grades II and III, plus so-called secondary verbal nouns which end in the same vowel quality as the corresponding lexical verb stem.) As for (4), the form of the verb before indirect object expressions, it has been argued (Newman 1977) that the verb has to appear in an extended stem formation (applicative, destinative, ...)--a line of argument which shall be followed here. It remains to explain (2), the synchronic lengthening which occurs with transitive verbs when they are immediately followed by a direct object pronoun, that is the 'B form' of traditional Hausa grade-system analysis.

The synchronic lengthening, in some instances, is accompanied by a change in vowel quality (cf. Newman 1973:311):

*yāa sōokí shì	==>	yāa sōokée shì	'he stabbed him'
*zāi tàimàkí mù	==>	zāi tàimàkée mù	'he will help us'
		yāa zúbshée shì	'he poured it out'
(Western Hausa:		yāa gānée shí	'he saw him')

Any hypothesis to account for the synchronic lengthening should therefore, ideally, also contain an explanation for the obvious cases of vowel lowering in most, if not all, of these instances of vowel quality change to **ee**.

The historical explanation I wish to propose here is that, parallel to the situation before indirect object expressions, Old Hausa disallowed simple verb stems being followed by direct object pronouns, that is, the language had a rule according to which a certain suffix had to be added to the simple verb stem automatically in such an environment. For obvious reasons of subsequent vowel assimilations, this suffix must have contained a low vowel itself, that is, had the reconstructable shape ***-Ca** (with later loss of the consonant) or ***-a**. I shall henceforth tentatively give the shape of this suffix as ***(C)a**. It cannot be excluded, and may even be assumed, that this suffix was somehow related to the already established applicative suffix, which Newman (1973:342) sets up as ***Cā** with subsequent loss of the initial consonant. (If the B form of transitive verbs and applicatives were indeed related, but not identical, one still would have to account for the different tonal structures resulting from the

suffixation of ***(C)a**. Until this is achieved, I shall treat the two suffixes as being different.) For easy reference, I shall call the pre-direct object pronoun (B form) suffix the pronominal linker ***(C)a**. For the time being, the tone of the pronominal linker is assumed to come about by tone copying, that is, the underlying representation of the suffix takes the tone of the preceding syllable, the vowel of which changes in surface representation:

***sòokí-(C)ā shī** ==> **sòokée shī** 'stabbed him'
***tāimākí-(C)ā mū** ==> **tāimākée mū** 'helped us'
***gānī-(C)ā shī** ==> **gānée shī** 'saw him' (Western Hausa)

The same situation may have also applied to extended stems in Old Hausa, such as the causative (grade V) forms of the following type:

***zúb-āsī-(C)ā shī** ==> **zúbshée shī** 'poured it out'
***fīt-āsī-(C)ā shī** ==> **fīshshée shī** 'took it out'

1.4 OLD HAUSA VOWEL/TONE CLASS SYSTEM AND THE CLASSIFICATION OF SIMPLE VERB STEMS

Chart 7 is an attempt to display systematically the results of the internal reconstruction of categories and classes of simple verb stems in Old Hausa. The forms given without an asterisk are those found in present-day Hausa. The categories and classes of forms, other than vowel class and vocalization pattern of the base, are indicated as follows:

- I = monoconsonantal verbs (true monoverbs of underlying structure)
 - II = polyconsonantal verbs of underlying structure (including reduced verbs at surface level)
 - 1 = HL(L) tone class of polyverbs
 - 2 = LH(L) tone class of polyverbs
 - 3 = HH(L) tone class of polyverbs
 - a = simple lexical verb stem
 - b = simple verbonominal stem
 - c = simple anaphoric verb stem
 - d = simple anaphoric verbonominal stem
- } transitive verbs
only

The forms containing the pronominal linker (cf. sec. 1.3) are not contained in the chart for the simple reason that for the time being, I don't consider them to be simple stems but rather specialized uses of an extended stem (applicative?). For the same reason, pre-indirect object forms (D-forms in traditional grade-system analysis) are also not contained in the chart.

		ə-verbs		a-verbs	
		Ø-base	a-base	Ø-base	a-base
I.	a	cí (*tə́)			šāa (*šā́)
	b	cīi (*tə́-ə)			šāā (*šā́-ā)
	c	cīi (*tə́-əə)			šāa (*šā́-āa)
	d	cīi (*tə́-ə-əə)			šāā (*šā́-ā-āa)
II.1.	a	*sə́nī (*sə́nə)	sā́n(ī) (*sā́nə)	bí (*bə́yā) *	bātā
	b	*sə́nīi	sā́nīi (*sā́nə-ə)	bīy (*bə́yā-ā)	bātāa (*bātā-ā)
	c	šī́nāa (*sə́nə-āa)	sā́nīi (*sā́nə-əə)	bīy (*bə́yā-āa)	--- **
	d	šī́nāa (*sə́nə-ə-āa)	sā́nīi (*sā́nə-ə-əə)	bīy (*bə́yā-ā-āa)	---
2.	a	bī́dī (*bə́dē)	sā́yī (*sā́yē)	fī́tā (*fḗtā)	tā́fī (*tā́fēyā)
	b	*bī́dīi	*sā́yīi	fī́tāa (*fḗtā-ā)	tā́fīyāa (*tā́fēyā-ā)
	c	bī́dāa (*bə́dē-āa)	sā́yāa (*sā́yē-āa)	--- ***	--- ***
	d	bī́dāa (*bə́dē-ə-āa)	sā́yēe (*sā́yē-ə-āa)	---	---
3.	a	*gə́nī (*gə́nə)	gā́n(ī) (*gā́nə)	mū́tū (*mḗtəwā)	hā́w(ā)
	b	*gə́nīi	gā́nīi (*gā́nə-ə)	mū́tūwāa (*mḗtəwā-ā)	hā́wāa (*hā́wā-ā)
	c	*gə́nāa	gā́nīi (*gā́nə-əə)	--- ****	hā́wāa (*hā́wā-āa)
	d	*gə́nāa	gā́nīi (*gā́nə-ə-əə)	---	hā́wāa (hā́wā-ā-āa)

Chart 7

* Note the strong analogical pressure from true monoverbs of the ə-class: Cīy is, of course, realized Cīi.

** The transitive verbs of this box have all merged with the applicative extended verb stems (=> grade I).

*** The transitive verbs of these boxes have all merged with the ə-verbs of the same tone class and, in addition, with the partitive/separative/intrusive extended verb stem (=> grade II).

**** Transitive verbs to fill this box are, possibly, the apocopated verbs of the type kī́rāa (*kḗrāayā), kī́rāa (*kḗrāayā-ā), kī́rāa (*kḗrāayā-āa), kī́rāa (*kḗrāayā-ā-āa).

The 'irregular' verbs fā́adī, (*fā́adēwā) and hā́ifū (*hā́yfēwā) are to be classified with bātā above, gā́jī (*gā́zēyā) with tā́fī (*tā́fēyā).

2. EXTENDED STEMS

2.1 OLD HAUSA EXTENSIONS

The simple lexical stem of a Hausa verb may--or may not for intrinsic semantic reasons--take one or more derivative extension suffixes which add to, or restrict, the basic meaning of the verb. These suffixes might be termed thematic extensions to distinguish them from what we might call grammatical extensions such as nominalizer, anaphora marker, and pronominal linker which were discussed earlier. Under the traditional grade-system analysis, four derived grades (IV-VII) were thus established. Newman (1973, 1977), however, has shown that even the primary or basic grade I contains a fair number of (if not exclusively) reflexes of an Old Hausa extended stem, the so-called applicative,¹² which had merged with the HL(L) transitive a-verbs. Further, Newman (1977) suggested that the so-called borrowed D-form of grade V (the pre-indirect object form of the verb in -ām of grade II/III/VIII verbs) is, in fact, the reflex of an old extension *-in destinative.

Very recently, Newman (1983) has argued in favour of recognizing yet another Old Hausa extension, analyzing the morpheme dā as used in grade V as reflecting an old efferential extension which he gives as *-dā. Very recently, too, Furniss (1983) has provided evidence for an old intransitive/reflexive extension with HL(L) tone pattern which has¹³ merged with the better-known totality extension of grade IV. Much earlier, Lukas (1963) attempted a semantic analysis of grade II verbs and discovered, contrary to the concept of primary or basic grade, that certain semantic notions clustered with verbs of this class. He distinguished 'action away', 'action on the part of', and 'intrusion into somebody's personal sphere'.¹⁴ In the light of recent research, we are justified to reinterpret Lukas's findings as not pointing towards one unique extension which encompasses three distinct semantic areas, but rather to regard them as evidence of two or more separate Old Hausa extensions (separative/partitive/intrusive) which have merged with each other and the LH(L) transitive a- and ə-verbs.

As we shall see from the analysis of verbal noun formation of extended verb stems below, in the case of the creation of grade II out of the LH(L) transitive a- and ə-verbs and the separative/partitive/intrusive extended stems, the reanalysis within the language led to regrouping all of them as simple stems of the transitive LH(L) subclass of ə-verbs. On the other hand, the creation of grade I out of the HL(L) transitive a-verbs and the applicative extended stems led to regrouping all of them as extended stems.

To avoid the unfamiliar, the following discussion of extended verb stems and their verbal nouns will make use of the traditional labels of the grade-system approach. We can summarize the Old

Hausa extensions, as far as they have been discovered, in terms of suffix shape and tone pattern as shown in Chart 8. Note the derived character of the tone patterns. The tone patterns are enlarged by tone anticipation when the number of syllables increases. The internal reconstruction of the actual suffix shapes must be regarded as highly tentative at this stage of our knowledge.

Old Hausa extensions

tone pattern	^[+tr] *-VC(V)	*-CV	^[+tr] *-(C)V	^[-tr] *-V(CV?)
*H ₀ L	*-āy [-ēē] totality (gr. IV)	*-dā [-dā] effereential (gr. V)	*-(C)ā [-āa] applicative (gr. I)	[-ē] intransitive/ reflexive (gr. IV)
*L ₀ H			*-(C)V ¹⁶ separative/ partitive/ intrusive (gr. II)	*-ū(Cū?) [-ū(ˊ)] sustentative (gr. VII)
*H ₀ H	*-āw [-ōo] ventive (gr. VI) *-ās(ī) [-ār] causative (gr. V) *-īn [-ām] destinative (gr. V, 'D')			

Chart 8

2.2 A NOTE ON SHORT AND LONG GRADE IV FORMS

Two pairs of normal and intensive grade IVC forms are shown below (from Parsons 1971-72).

'ān bīncikē māgānār	'the matter has been investigated'
'ān bīncikēē māgānār	'the matter has been thoroughly investigated'

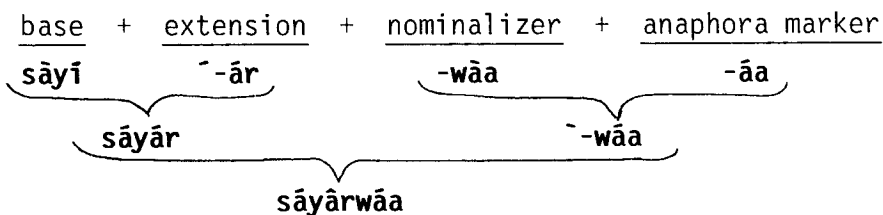
nāa kāarē 'āikīn	'I have finished the work'
nāa kāarēē 'āikīn	'I have finished the work completely'

The unique distinction between normal grade IV C forms and intensive grade IV C forms came about, I would argue, through two factors at least: (1) the merger of the two originally distinct extensions totality and intransitive/reflexive which shared the

same tone pattern *H₀L and final vowel quality, in surface realization, but differed in final vowel length; and (2) analogical realignment after the model of what looks like synchronic shortening of final vowel length before noun direct objects of Modern Hausa's grade I of identical tone pattern. With the merger of the two extensions, a short and a long final vowel stem formation became available within what finally was conceptualized as a new class of forms (grade IV). The long vowel ending -ēē retained its original intensive/ totality connotation wherever it contrasted with the short vowel ending -ē, which in turn was reinterpreted as being a synchronically shortened pre-noun direct object form (C form). The merger of the two extensions was facilitated by the fact that, while one was inherently intransitive, the other (the totality extension) was originally, and still is, indifferent towards the feature transitive/intransitive.

2.3 ANAPHORIC STEM AND VERBAL NOUN

Whereas simple transitive verb stems used a special stem formation when they were not followed by any type of object in Old Hausa (anaphoric stem), transitive extended stems showed no sign of the anaphora marker *-aa/-əə. Under nominalization, however, the anaphoric stem suffix, here carrying a distinctive Hi tone (*-āa), was added to the Lo tone nominalizer -wāa.¹⁸ The combination of the Lo tone nominalizer, that is, its extended stem allomorph -wāa, and the Hi tone anaphora marker *-āa led to coalescence of the two. This subsequently shifted the Lo tone one position to the left, thereby turning it into a floating tone which changed preceding Hi tone syllables to falling. The structural make-up of an extended nominalized anaphoric stem would thus be:



In the course of Hausa's linguistic history, however, the extended stem nominalizer -wāa became reanalyzed as part of the anaphoric marking, thus creating what in Modern Hausa can be analyzed as a synchronic allomorph of the anaphora marker:

<u>allomorphs of the anaphora marker</u>	<u>distribution</u>
-āa	simple [αnom] stems; tone overridden by lexical pattern
∅	<u>extended</u> verb stems
-wāa	extended <u>verbonominal</u> stems

This reanalysis in terms of allomorphs of the anaphoric suffix accounts for the observation that the pre-object forms of the extended verbal noun no longer appear to exhibit the original extended stem nominalizer **-wāa**:

*kāam-āa-wāa shī	==>	kāamāa shī	'caught him'
*kāam-āa-wāa māsā	==>	kāamāa māsā	'caught for him'
*kāam-ōo-wāa dōokīi	==>	kāamōo dōokīi	'caught the horse and came with it'

The new suffix **-wāa** is restricted to the anaphoric stem of the extended verbal noun and accounts for falling tone realizations on preceding Hi tone syllables:

*kāam-āa-wāa	>	kāamāawāa , but:
*kāam-ōo-wāa	>	kāamōowāa
*sāy-āsī-wāa	>	sāyārāwāa

The fundamental difference between simple and extended stems in Hausa which has hitherto been overlooked in the literature, correlates with the **-VV** and **-wāa** endings of the so-called primary and secondary verbal nouns, and it finally explains why, in traditional Hausa linguistics, the primary verbal nouns are formed differently in grades II and III (**-aa** = simple stems) than in the other grades (**-wāa/-wāa** = extended stems).

2.3.1 The verbal noun of the sustentative extended stem

According to the traditional analysis, the inherently intransitive extension of grade VII (sustentative) has always been assumed to form its verbal noun with the same suffix **-wāa**, yet we find no falling tone on the preceding, inherently Hi tone, syllable: **kāamūwāa**, not ***kāamūwāa**. The absence of the floating Lo tone before the final syllable of the primary verbal noun in this grade has been explained by an *ad hoc* phonological rule according to which the floating tone is grounded on the preceding syllable only if that syllable is heavy, that is, it has the structure **CVC** or **CVV**. Under the analysis presented in this paper, the sustentative extended stem must be assumed not to make use of the suffix **-wāa** at all. Given the observation that this is a purely intransitive extension, there could be no reason why this extended stem should take the anaphora marker, since the function of it is to mark the absence of objects following transitive verbs! The origin of the verbal noun ending **...wāa** in grade VII, therefore, must lie somewhere else. Further evidence for not analyzing **...wāa** as **-wāa** comes from an observation by Abraham (1959:211): the true verbal nouns in **-wāa** can take possessive pronouns to indicate reference back to the subject, as long as the verb is intransitive:

gr. I	zūrārāwāa tāasā	'his falling into the well'
gr. IV	wūcēwārsā	'his passing by'
gr. VI	kākkāntārōwārsā	'his keeping swerving in this direction'

Abraham explicitly states that this is not possible for grade VII verbs, despite their being intransitive!

If the extended stem nominalizer was indeed ***-wāa** in Old Hausa as postulated further above, the verbal noun of the sustentative extended stem should have looked something like ***kāmūwāa**. However, knowing why the tone of the suffix should change to Hi in Modern Hausa remains a problem to be solved. It might have been in partial analogy to all other extended stems (i.e. their verbonominal ending in **...wāa**); it might have been to avoid ambiguities with regard to feminine nouns ending in **...ūwāa** or noun plurals of that ending; it might just be that the sustentative extension suffix carries a second (floating) Hi tone, a remnant of an earlier disyllabic form of the suffix ***-ūCū**, which displaces the Lo tone of the extended stem nominalizer ***₁₉wāa**. Comparative research may throw some light on this question.

NOTES

¹A preliminary version of this paper was discussed at a staff/research seminar at the Department of Languages and Linguistics of the University of Maiduguri, Nigeria, in January 1982. I should like to express my gratitude to the University of Maiduguri which contributed to my expenses in connection with my participation in the 15th West African Languages Congress, held at the University of Port Harcourt, Nigeria, in April 1982, where I presented a slightly modified version of the paper. Further modifications have led to the present version, which still has to be viewed as a preliminary research report rather than a watertight new theory on the origins of the Hausa verbal system.

I gratefully acknowledge valuable comments and criticisms by Paul Newman and Russell G. Schuh on an earlier version of this paper. Needless to say the responsibility for all shortcomings in analysis and presentation rests solely with me.

The notion of Old Hausa as used in this paper, has no chronological reality; it simply refers to earlier stages of Hausa linguistic history in which the verbal system is assumed to have looked like what this paper suggests after the method of internal reconstruction has been applied; but see also note 4.

The transcription of Hausa examples follows the established conventions of Hausa linguistics: long vowels are indicated by doubling the vowel symbol, tones are marked by diacritics (ˊ for Hi tone, ˋ for Lo tone, ˊˋ and ˊˋˋ for falling tone). Initial glottal stop is indicated.

²The relevance of the distinction between simple and extended verb stems for a Chadic language was convincingly outlined for the first time, to the best of my knowledge, by C. Hoffmann in his description of Margi (1963). It has since become a much applied analytical device in Chadic linguistics--with the exception of Hausa!

³Originally presented as such by Parsons 1960-61, further developed by the same author in 1962 and 1971-72. Parsons' analysis has been seriously challenged by Newman (1973). I have greatly profited from Schuh's (n.d.) detailed and well-organized teaching materials on this topic which the author kindly made available to me.

⁴Newman (1973) distinguished between a-verbs and i-verbs in Hausa. The Hausa i-verbs represent the Proto-Chadic ə-class of verbs (Newman 1973:328 n.; 1975). This means that Proto-Chadic final schwa underwent a split and is now represented by both i and u (the occurrence of the latter, however, being predictable from the environment of velar and labial consonants). Given the results of recent works by Wolff (1983a, 1983b, 1983c), the protolanguage distinguished verb bases with Ø-vocalization and a-vocalization, the Ø-vocalized bases being phonetically realized with the aid of epenthetic vowels (symbolized by ə):

<u>Ø-vocalized base</u>	<u>a-vocalized base</u>
*Cə	*Ca
*CəCə	*CaCa

Thus, the phonologization of epenthetic schwa as high short vowels both in medial and final position might be seen as a criterion by which to divide the historical stages Proto-Hausa and Old Hausa. (The question of vocalization pattern will be dealt with in more detail in section 1.2.1 of this paper.)

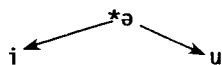
⁵Parsons (1971-72:86ff.) lists the irregular verbs as follows:

- (1) *ḡatā*, *ḡāacī*, *tāashī*, *kōoshī*, *zāmā*, *tūubā*, *sāurā* as back formations with mere shortening of the terminal vowel;
ḡānīi/gān/gā, *fāadī*, *mūtū* as unique irregular verbs;
sānī/sān and *bārī/bār* are given with a short (!) final vowel, but see also Newman et al. (1977) who give *sānīi* and *bārīi*;
- (2) monosyllabic CV(V) verbs:
sāā and *cēē* as contracted forms of *sāayāa* and *cānēē*;
kāi and *hāu* as apocopated *kaay-* and *haw-*;
jāa, *shāa*, *sōo* as apocopated *jaay-*, *sooy-*;
yī(i), *bī(i)*, *cī(i)*, *fī(i)*, *jī(i)*, *kī(i)* as apocopated *biy-* etc. and also as quite unique.

Newman (1973:304ff.) suggested that at least the Hi-Hi verbs with short final -a and heavy first syllable (*túubā*, *sāurā*, etc.) were "regular grade III formations." The verbs *kúsā* and *zāmā* remained irregular also under his reanalysis, the same as a set of Lo-Hi counter examples (*sāukā*, *nūnā*, *būllā*, *yārdā*) which did not change to Hi-Hi despite their heavy first syllable.

In this paper, setting up both a LH(L) and a HH(L) tone class for independent reasons allows us to accommodate all of the verbs which remained unaccounted for in Newman's reanalysis. As for such verbs as *bāaci*, *tāashī*, *hāifū*, *fāadi*, *mūtū*, *gūdū*, *tāfi*, and *gājī*, together with *sāni* and *bārii*, Newman groups them conveniently as Hi-Lo and Lo-Hi i-verbs. Out of these ten verbs, *fāadi*, *hāifū*, *mūtū*, *tāfi*, and *gājī* will be treated differently in this paper. In addition to the classes of irregular verbs dealt with in Newman (1973), the present paper also discusses Hi-Hi verbs of the type *CiCāa* which do not shorten their final vowel before noun direct object, for example, verbs like *bīyāa* or *kīrāa*. The verbs *sāa*, *cēē*, and *kāi* (but not *hāu*) are treated as underlying extended stems, as suggested by the analysis of their verbal noun formation (cf. sec. 2.3). Neither Parsons nor Newman has attempted to relate the classification of verbs in Hausa to the formation principles of verbal nouns.

⁶If we are correct in postulating underlying **fāadūwā* and **hāyfūwā*, the surface difference in final vowel realization *fāadi* and *hāifū* could be used as an argument in favour of setting up schwa for the vowel of the second syllable for a more recent stage in the linguistic history of Hausa than suggested in note 4. The whole issue of when the assumed phoneme split



occurred is far from being clear. This uncertainty is also reflected in later sections of this paper when, for instance, two underlying representations will be indicated for certain verbs (see **sāni* (**sānā*) in section 1.2.1).

⁷The Hi tone on the final syllable in surface realization is accounted for by the rule of Low Tone Raising (Leben 1971). If a final syllable with a long vowel follows a Lo tone syllable, its tone is raised to Hi.

⁸Apocopation had already been assumed by Parsons (1971-72) who also postulated **y/w* as final radical consonants of the regular forms. Newman, in a recent article (1979), comes up with the same suggestion for *gājī* and *tāfi*, albeit on different grounds. This lost final consonant survived in a few extended stems such as *jīrāyāa* (grade II formation from *jīrāa*), *kīrāawōo* (grade VI formation from *kīrāa*, not **kīrōo*), as well as in some dialect forms such as *jīyāa* for *jīi*, *kīyāa* for *kīi*, *rīgāy* for *rīgāa*.

⁹Newman (1977:289 n.): "The existence of this applicative extension hidden within Grade I verbs was first proposed (with some doubt and hesitation) in Newman (1973). The question only a few years later is not whether some Grade I's contain an applicative extension--which now seems certain--but whether there are any Grade I verbs that etymologically are not derived."

¹⁰This is independent of which syllable is selected for reduplication (cf. also Wolff 1977:225f.). For example, note the verb *māakūrēe* 'strangle'. Both possible plural verb stems share the tone pattern Hi + Hi-Lo-Hi (by tone copying from Hi-Lo-Hi): *māmmāakūrēe*, *māakūrēe*.

¹¹One of the reasons is certainly the fact that a fair number of transitive verbs of the LH(L) tone class are originally extended stems (separative/partitive/intrusive) which had the derived tone pattern (L)LH (cf. further below). Another reason for the grammaticalization of tone patterns will become clear after we have introduced the anaphoric stem (cf. below). The fact that the anaphoric stem *būkāatāa* became associated with the lexical tone pattern is quite likely due to analogical realignment in that this pattern became identified with intransitive constructions:

subject	verb	direct object
yāa	hākūrā _[-tr]	(not possible) 'he has patience'
yāa	būkāatāa _[+tr]	(not expressed) 'he has need (of it)'

¹²Cf. note 9.

¹³Given the situation in Modern Hausa's exclusively intransitive grades III and VII, one could think of another instance of analogical realignment which took place during the development from Old Hausa to Modern Hausa, that is, the reinterpretation of verb stems with short final vowel as automatically signalling intransitive, whereas long final vowel would indicate transitive (cf. the long vowel in the anaphoric stems and the stems with pronominal linker which, of course, only occurred with transitive verbs). It is, therefore, quite likely that all extended intransitive verbs ended in a short vowel at one stage, thereby contrasting with extended transitive verbs which took long vowels in a number of their formations. If this were so, then the intransitive/reflexive extension hidden behind Modern Hausa's grade IV, like the sustentative extension of grade VII, probably ended in a short final vowel (as opposed to the totality extension which, in surface realization, ends in a long vowel).

¹⁴Contrary to the assumption implied by Lukas, these are conveyed by different extension suffixes in Chadic; for instance, Central Chadic languages tend to have highly developed extension systems.

¹⁵Continuous tone anticipation is indicated as H_i (= any number of Hi tones), L_o (= any number of Lo tones). This indexing is adopted from Dresel (1977).

¹⁶At present I am in no position to finally identify the shape of the separative/partitive/intrusive suffix(es?). Since this extension (or extensions) has merged with transitive a- as well as ə-verbs in Modern Hausa, the vowel(s) to be reconstructed could be either *a or *ə[i/u].

¹⁷Cf. note 13.

¹⁸This nominalizer is still retained unchanged in the irregular verbal noun of the monoconsonantal motion verb 'come' zūwāa. The [w], however, could be considered to be an epenthetic glide on the basis of internal reconstruction alone. In setting up a consonant-initial suffix shape I have been led by, admittedly, comparative considerations.

¹⁹The only possibly etymologically related suffix I can think of at the moment is Lamang -ūkū (Wolff, in press).

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