

THE ORIGIN OF Y IN KANURI

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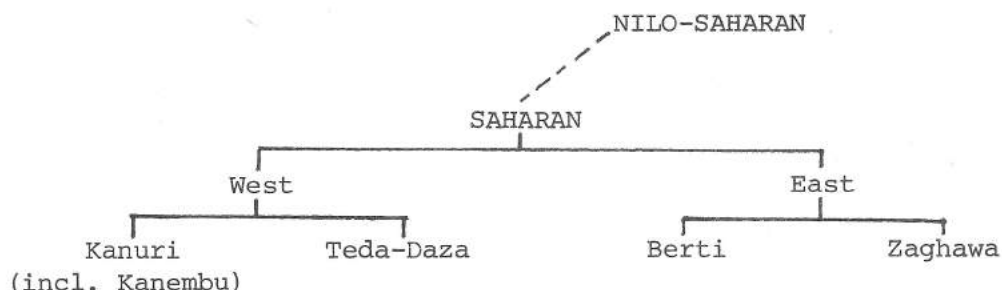
The consonant phoneme y¹ occurs in Kanuri only in word-initial position, otherwise y is a variant of k/g or '.^{1a} The restricted use of y raises the question of its origin. The internal reconstruction has shed some light on this problem. Where y cannot be explained by phonological rules, it can be reconstructed as the dental-alveolar consonants t, d, or s. The underlying proto-phoneme is assumed to be I or S. Leaving aside all cases where y is either reconstructed as I/S or is a variant of k/g, only some very few genuine Kanuri words with y phoneme cannot (yet?) be internally reconstructed as I or S. Nevertheless one may suspect that y was never an original phoneme in Kanuri or at least in Saharan. Through the reconstruction of y in Kanuri, a further step towards the creation of Proto-Saharan within Nilo-Saharan has been taken.

En kanuri le phonème consonantique y apparaît uniquement au début du mot. Dans les autres cas, y est une variante de k/g ou de ' (' étant le coup de glotte). L'emploi restreint de y soulève la question de son origine. La reconstruction interne permet d'y répondre en partie. Dans les cas où le y ne s'explique pas au moyen de règles phonologiques, il peut être reconstruit comme l'une des consonnes alvéo-palatales t, d ou s. Nous pensons que le proto-phonème sous-jacent est I ou S. Si l'on laisse de côté les cas où y a été reconstruit comme I/S, ou comme étant une variante de k/g, il subsiste de très rares mots authentiquement kanuri avec y qu'on ne puisse pas encore reconstruire comme étant I ou S. Nous estimons néanmoins que y n'a jamais été un phonème proprement kanuri ou saharien. En fait, la reconstruction du Y en kanuri est un pas de plus vers la création du protosaharien au sein de la famille du nilo-saharien.

0. INTRODUCTION

It is the intention of this paper² to contribute to the better knowledge of genetic relations between Kanuri and the other languages of the Saharan family, and at a further stage between Saharan and the other groups within the Nilo-Saharan phylum. The relationship among the - as they are called today - Saharan languages was first proposed by G. Nachtigal (1879-89), after H. Barth (1862) had supplied valuable data and linguistic state-

ments of Kanuri and Teda-Daza. Later the Saharan family was confirmed by J. Lukas (1951/2). Some more recent works by M. Bryan, K.A. Jarrett, J. Lukas, K. Petráček and myself have strengthened the relationship of Saharan languages, which can be subclassified as follows (Cyffer 1981a):



As commonly recognized, one of the most reliable methods to determine the degree of relationships among languages and language groups is the reconstruction of proto-languages, from which we may be able to deduct phonological, morphological or syntactic rules for each of the languages concerned. In two previous studies I have made such an attempt for the person elements (Cyffer 1981a) and plural morphemes (Cyffer 1981/2) in Saharan languages.

In this paper I will concentrate on the internal reconstruction of Kanuri and restrict myself to the consonant y. My attention was attracted by the high frequency of class 1 verbs beginning with y³, i.e. 30% as compared to 3.6% in the case of the historically more recent class 2 verbs. It should also be noted that in the lexicon about 3% of entries start with y. One may therefore suspect that - provided the frequent y is not a prefix with an initial y - another consonant may be assumed in the underlying structure. I will make the attempt to analyze the various y's in their various phonological and morphological environments and finally come to some valuable conclusions regarding their internal reconstruction.

1. ALLOPHONIC VARIATION: k, g > y

The consonant phonemes k and g are, in certain phonological environments, subject to changes which can be explained by a sonorization process as a result of consonant weakening (Cyffer 1981b). The change k, g > y will be observed in the position between vowels and the environment of the front vowels i or e⁴.

$$k, g > y \left\{ \begin{array}{l} /i \text{ ____ } a, e \\ /e \text{ ____ } a, i \\ /a, o, u \text{ ____ } e, i \end{array} \right\}$$

e.g.	ríkàdà	>	[ríyàdà]	'they feared'
	dégà (dékà?)	>	[déyà]	'outside'
	sámóGìn	>	[sámóyìn]	'they receive'
	cìkàrô	>	[cìyàrô]	'he/she carved'

As this is a productive phonological (not necessarily morphophonemic) rule, y is considered here to be an allophone of k or g.

2. y AS AN INITIAL GLIDE

A number of nouns beginning with i may optionally start with an initial glide y, e.g.

ìndí	=	yìndí	'two'
ísèkìn	=	yísèkìn	'I come'
ínkè	=	yínkè	'ink'
ìkkó	=	Yìkkó	'Lagos'
ìlòrí	=	Yìlòrí	'Ilorin'

The glide replaces a glottal stop which may be assumed in forms which start with a vowel.⁵ It should also be mentioned that words starting with a vowel are very rare in Kanuri. Evidence for the existence of a glottal stop is given when those forms obtain a prefix, e.g.

kén + 'ìndí + mì > kén'ìndímì 'the second'

In these environments, however, the glottal stop can never be replaced by the glide y.

3. THE 1ST PERSON MORPHEMES

Verbs of the two verb classes have the 1st person plural subject morpheme ye, e.g.

class 1:	kórì+yè+n ⁶	'we ask'
	làdí+yé+nà	'we have sold'
class 2:	nápkàí+yè	'we sat down'
	lèn+yê	'let us go!'

In an earlier study I have analyzed ye as a person element y and a plural marker a, which became neutralized to e under the influence of y (Cyffer 1981a). In fact y (or i, depending on its position in a syllable) can be found in other environments to denote the 1st person:

Personal pronoun, 1st plural: àndí 'we' derived from yàndí, where y denotes the 1st person, ànd plural, and í the formative for personal pronouns.

Possessive, 1st singular and plural:

1st sg. nyí (< n + í)
 1st pl. ndé (< n + dá + í)

The analysis of these forms reveals as person element í (here not y, as conditioned by its position). Plurality is marked by dá (Cyffer 1981/2).

In the independent possessive pronouns we obtain for the 1st singular s+k and in plural ì:

ps
 kà + s+k ê > (kàskê >) kàkkê > kàkê
 kàg + n + dà + ì > kàándè

The 1st person object morphemes within the verb complex apply a different surface form:

oj
 sá + támìn 'you seize me'
 sá + támìn 'you seize us'

The analysis reveals here that the object morpheme is composed of a 1st person marker s, a formative s (both merged to s, cf. Cyffer 1981a), and in plural a morpheme á, while é in singular is epenthetic. The following table shows the 1st person elements in morpheme/word classes, which contain person.

	1st sg.	1st pl.
subject morpheme	s (+ k)	y
object morpheme	s	s
personal pronoun	(k)	y
possessive suffix	í	í
possessive pronoun	s (+ k)	ì

S as 1st person element occurs furthermore - however in conjunction with k (the second Saharan element for the 1st person) - in the 1st singular of the subject morpheme (e.g. làdé+sk+ìn > làdékkìn > làdékìn⁷ 'I sell') while í/y appears in most other 1st person forms.

The comparison of the person elements with those in Teda-Daza, the northern neighbour of Kanuri, helps to reach a solution. All forms which contain person use for the 1st person t or in word-final position its variant r.

ppr		<u>t</u>	ɔbre	'I'		<u>t</u>	ɔbra	'we'
sj	wanə	<u>r</u>		'I disliked'	wantə	<u>r</u>		'we disliked'
oj		<u>t</u>	idəm	'you killed me'		<u>t</u>	ittəm	'you killed us'
poss	nə	<u>r</u>		'my'	ntə	<u>r</u>		'our'

From these examples, and from the fact that consonant weakening is a very common feature in Kanuri - and most likely in the other Saharan languages, too - we may conclude that y (or i) in the 1st person has developed from t, probably via s (Cyffer 1981a).

4. CLASS 1 VERBS WITH INITIAL y

As I have mentioned earlier an unusually high proportion of verb bases (30%) of class 1 verbs begin with y, e.g.

yá	'drink'	yùrt	'pay balance'
yát	'carry away'	yàmb	'give birth'
yí	'give'		

Verb bases not beginning with y are:

búr	'migrate'	gá	'follow'
làd	'sell'	móg	'receive'

As already mentioned this verb class is characterized by the ordering of its subject morphemes (Cyffer 1978):

	subject morpheme	
	prefixed	suffixed
1st ps.		x
2nd ps.		x
3rd ps.	x	

	sj	vb	sj			
1st sg.		làd	sk	ìn	>	làdékìn 'I sell'
2nd sg.		làd	m	ìn	>	làdémin 'you sell'
3rd sg.	s	làd		ìn	>	sàlàdìn 'he/she sells'

1st pl.	lād yè ìn	>	lādíyèn	'we sell'
2nd pl.	lād w ìn	>	lādúwìn	'you (pl) sell'
3rd pl.	sa lād ìn	>	sàlādìn	'they sell'

In analogy with the above shown example verb paradigms with initial y can be formed as shown below.

	lād 'sell'	yát 'carry away'	yí 'give'
1st sg.	lādékìn	yádèkìn	yíkìn
2nd sg.	lādémìn	yádèmìn	yímìn
3rd sg.	səlādìn	sádìn	cìn
1st pl.	lādíyèn	yádìyèn	yíyèn
2nd pl.	lādúwìn	yádùwìn	yíwìn
3rd pl.	səlādìn	sásádìn	sádìn

As these verbs all belong to the same verb class one will observe similarities between the three verb paradigms. However, looking at the forms of the 3rd person, some anomalies will be discovered. Those in the 3rd singular can be explained by merging of the subject marker s with y, or better its underlying phoneme:

- a) $s + y / __ \neq i, e \quad > \quad s$
 b) $s + y __ i, e \quad > \quad c$

While in a) merging to s has taken place, in b) the following front vowel causes an affrication of the merged form.⁸ In the 3rd plural a merging process did not take place, most likely because of the fact that the pluralized person element has the underlying structure CV (and not as in singular just C). Therefore the expected constructions would be

*sáyádìn 'they carry away' and *sáyìn 'they give'.

However, we obtain constructions with differently shaped verb bases sát and dí in the 3rd plural. The analysis of the constituents of the verb complex is as follows:

		sj	vb	sj		
yát	1st sg.	yát	sk	ìn	>	yádèkìn 'I carry away'
'carry away'	3rd sg.	s yát		ìn	>	sádìn 'he/she carries away'
	3rd pl.	sá sát		ìn	>	sásádìn 'they carry away'
yí	1st sg.	yí	sk	ìn	>	yíkìn 'I give'
'give'	3rd sg.	s yí		ìn	>	cìn 'he/she gives'
	3rd pl.	sá dí		ìn	>	sádìn 'they give'

The same phenomenon is observed in all class 1 verb bases with an initial y, e.g.

vb	1st sg.	3rd sg.	3rd pl.	
yàmb	yàmbúkìn	sàmbîn	sàsàmbîn	'give birth'
yá	yákìn	sâin	sàsâin	'drink'
yìmbàr	yìmbàrékìn	sèmbàrîn	sàsèmbàrîn	'get tired'
yùrt	yùrtékìn	sùrtîn	sòsùrtîn	'pay balance'
yìnd	yìndékìn	sèndîn	sàsèndîn	'swallow'

The verb bases yìmbàr and yìnd are not realized as *cìmbàr or *cìnd in the 3rd singular as the rule s + y/____ i, e > c may suggest. Here i is the result of an assimilation process e > i/y____, i.e. the underlying phoneme is e rather than i.

A number of verbs show some variations. They do not break the rule as it may seem at a first glance, but can be explained by morphophonemic variation. However, because of some complexities, these forms cannot be discussed here in detail.

vb	1st sg.	3rd sg.	3rd pl	
yès, yèn	yèzékìn	cèjîn	cèshènîn	'kill'
yàsá	yàsákìn	sàsâin	sààsâin	'repair'
yíb	yíwùkìn	cíwîn	céshéwîn, cé súwîn	'buy'

Verbal nouns are constructed by a low tone pattern and a suffix ò which will be deleted after vowels with the exception of i. Verbs beginning with y may additionally obtain a prefix n:

vb	vn: - prefix	+ prefix	
yát	yàdò	nzàdò	'carry away'
yí	yò	njò (<n+dì+ò)	'give'
yàmb	yàmbò	nzàmbò	'give birth'
yá	yà	nzà	'drink'
yìmbàr	yìmbàrò	nzèmbàrò	'get tired'
yùrt	yùrtò	nzùrtò	'pay balance'
yìnd	yìndò	nzèndò	'swallow'
yès	yèzò	njèzò	'kill'
yàsá	yàsà	nzàsà	'repair'
yíb	yìwò	njìwò	'buy'.

I conclude that the examples give sufficient evidence that y may not be the original initial phoneme of these verb bases, it may rather be d (< t?) or s. If we establish proto-Kanuri verb bases, we may obtain the following forms:

surface forms	proto-forms	
yát, sát	sát	'carry away'
yí, dì	dí (tí?)	'give'
yàmb, sàmb	sàmb	'give birth'
yá, sá	sá	'drink'
yìmbàr, sèmbàr	sèmbàr	'get tired'
yùrt, sùrt	sùrt	'pay balance'
yès, shèn	sès, sèn ⁹	'kill'
yìnd, sènd	sènd	'swallow'
yàsá, sàsá, àsá,	sàsá	'repair'
yíb, shéb	síb (séb?)	'buy'

5. THE APPLICATIVE DERIVATION

Class 1 verbs¹⁰ are extended by the prefix yìt(k) in order to obtain an applicative meaning. The surface forms of the prefix are yìr, yìkkè or yìryè, e.g.

	+ applied	
díkìn	yìrdákìn	'I do'
búkìn	yìkkèwúkìn	'I eat'
bákìn	yìrwákìn, yìryèwákìn	'I pound'

Verbal nouns of extended class 1 verbs are formed in analogy with regular class 1 verbs beginning with y, i.e. by suffixation of ò and optional prefixation of n.¹¹

vb	vn	applied:	- prefix	+ prefix	
bá	bà		yìkkèwà	nzèkkèwà	'climb'
dí	dìò		yìrdò	nzèrdò	'do'
kár	kàrò		yìkkèyàrò	nzèkkèyàrò	'carve'
móg	mòwò		yìkkèmòwò	nzèkkèmòwò	'receive'
lúg	lùwò		yìkkèlùwò	nzèkkèlùwò	'go out'
gèr	gèrò		yìkkèyèrò	nzèkkèyèrò	'eat'

The parallels between verb bases with initial y and the derivative prefix yìt(k) are evident, and one may suspect that the reconstructed form is sèt(k) or tèt(k).¹²

6. DIALECT COMPARISON

The analysis of Kanuri dialects confirms all statements so far made about the possible origin of y in Kanuri. Of special interest are the Manga, Mobber and Sugurti dialects, which may be classified as the northern dialects. In Sugurti and Mobber we come across quite often a y where we find elsewhere s ([z, sh, j) or t.

	Maiduguri:	vb	Manga ¹³ :	vb	
A 1st sg.	yákìn	[yá]	yákkì	[yá]	'drink'
3rd pl.	sásàì	[sá]	càǎàì	[ǎà]	
B 1st sg.	yíràkìn	[yír]	yíràkkì	[yír]	'cry'
3rd pl.	céshírìn	[shír]	cáǎírì	[ǎír]	
C 1st sg.	yìndékìn	[yìnd]	yùndúkkì	[yùnd]	'swallow'
3rd pl.	sàsèndîn	[sènd]	càǎùndî	[ǎùnd]	
D 1st sg.	yìmbúkìn	[yìmb]	yìmbékkì	[yìmb]	'suckle'
3rd pl.	sàsèmbîn	[sèmb]	càǎèmbî	[ǎèmb]	
E 1st sg.	yámbúkìn	[yámb]	yámbúkkì	[yámb]	'burn'
3rd pl.	sásámbìn	[sámb]	cáǎámbì	[ǎámb]	
F 1st sg.	yíwúkìn	[yíw]	yíbàkkì	[yíb]	'buy'
3rd pl.	céshéwìn	[shéw]	cáǎíbì	[ǎíb]	
G 1st sg.	yèzékìn	[yèz]	yèzékkì	[yèz]	'kill'
3rd pl.	cèshènîn	[shèn]	càǎèǎî	[ǎèǎ]	
H 1st sg.	yíkìn	[yí]	yíkkì	[yí]	'give'
3rd pl.	sádìn	[dì]	cádî	[dí]	
I 1st sg.	yádèkìn	[yád]	yáǎèkkì	[yáǎ]	'carry away'
3rd pl.	sásádìn	[sád]	cáǎáǎì	[ǎáǎ]	

After consideration of a number of phonological rules in both dialects, the morphemes of the verb bases can be assumed as follows:

	1st sg.	3rd pl.	MG	MA	
A	yá		sá	ǎá	'drink'
B	yír		sír	ǎír	'cry'
C	MG: yìnd	(< yènd)	sènd		'swallow'
	MA: yùnd			ǎùnd	

1st sg.	3rd. pl.	MG	MA	
D yìmb	(<yèmb)	sèmb	ǒèmb	'suckle'
E yámb		sám̐b	ǒám̐b	'burn'
F yífb	(<yéfb?)	sífb (séfb?)	ǒífb	'buy'
G yès		sèn	ǒèǒ	'kill'
H yí		dí (tí?)	dí	'give'
I yát		sát	ǒáǒ	'carry away'

Though it may lie beyond the scope of this article to discuss all the phonological rules of Kanuri, or of some of its dialects, one rule in Manga may be worthwhile mentioning here. The preceding examples made it evident that s becomes ǒ in the environment of vowels (or ə in word initial positions). The same rule is also observed in other word categories, e.g.

MG	MA	
kàskàshí	kàskàǒí	'bark (of tree)'
kùsótò	kùǒótò	'guest'
sémò	ǒémò	'ear'
shî	ǒî	'foot'

However, ǒ can also be the variant of t, e.g.

MG	MA	
fátò	fáǒò	'house'
féfétò	féféǒò	'wings'
tádà (<tátâ)	táǒà	'boy'
njítì	njéǒì	'beard'

Example I of the verb bases follows the same rule in Manga where ǒáǒ corresponds with sád in the Maiduguri dialect. One may therefore be tempted to speculate that s itself has originated from t. In fact, by comparing various Kanuri dialects we find t : s correspondences in person morphemes, e.g.

MA	MG	
tí	shí (<sí)	'he/she'
tàndí	sàndí	'they'

The same correspondence can be observed by comparing Saharan languages with each other, e.g.

Kanuri	Teda-Daza	
s (< ss)	t	object morpheme 1st person (Cyffer 1981a)
yès	yìt	'kill'

At the present stage of our knowledge about the phonology of Saharan languages, I do not dare to make any proposals to reconstruct generally all s phonemes to proto-Saharan T. Such proof or disproof would require a deeper knowledge of the phonology of the other Saharan languages. However, the examples given may stimulate the further research in this field.¹⁴

7. KANURI AND THE OTHER SAHARAN LANGUAGES

Lexical comparison with other Saharan languages is less promising than one may expect. In many cases the change from s or t/d to y had already been performed before the respective languages were separated, e.g.

Kanuri	Teda-Daza	Berti/Zaghawa	
yá	ya	ya	'drink'
yès	yìt		'kill'
yíl+n	yíl+n		'shout'

There are only very few examples where the change to y was possibly performed after the separation of the Saharan languages, e.g.

Kanuri: yát	Teda-Daza: tèt, det	'carry away'
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In another case s was preserved in Kanuri, while it changed to y in Teda-Daza:

Kanuri: súk	Teda-Daza: yub	'pierce'
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The correspondence k : b is quite common between the two languages. One phenomenon in Teda-Daza, however, seems to be contradictory to the Kanuri rule t, s > y. This is the fact that when some verbs with initial y in Kanuri neither have y nor s nor t in Teda-Daza, instead they have a k, e.g.

Kanuri	Teda-Daza	
yàwùt (<sàwùt)	kafut	'fan'
yìmbèl (<sèmbèl)	kum, cumb	'fill'

The critical observer may argue that y may not be reconstructed to s, but - at least in a number of cases - to k, as the Teda-Daza examples may reveal. In that case another explanation had to

be found for class 1 verbs with an initial y in the 3rd plural, where y in Kanuri was reconstructed to s or t/d. However, I believe that the seemingly contradictory examples of Teda-Daza do not interfere with the reconstruction of Kanuri y, because we find a t : k correspondence within Saharan languages in quite a number of cases:

Zaghawa:	t	are 'belongings'	Zaghawa:	ku	t	i	'chicken'
Kanuri:	k	árè	Teda-Daza:	ko	k	i	

The same correspondence is also documented in the next example:

Berti:	t	u	k	uñ	'fly'
Teda-Daza:	s	u	d	un	
Kanuri MG:	c	í	y	è	
SG:	ky	í	g	ì	

The correspondences for the first consonant are:

Berti:	t	}	:	Kanuri : k
Teda-Daza:	s			

and for the second consonant:

Kanuri:	g	}	:	Teda-Daza: d (< t?) ¹⁵
Berti:	k			

In order to document these correspondences, we need not even cross language boundaries. A comparison between the Maiduguri dialect and Mobber gives sufficient evidence for similar correspondences:

MO	MA	
bát+n	bák+n	'beat'
sút+n	súk+n	'pierce'
kót+n	kók+n	'plant'

8. CONCLUSION

In the beginning I have mentioned the very high proportion of verb bases with an initial y in verb class 1. This phenomenon has led to this study, which had the aim to search for the origin of y in Kanuri. The following distribution chart of initial consonants, which may be historically connected, may illustrate the problem:

	y	s	t	d
verb class 1	30.0	3.4	5.7	3.9
verb class 2	3.6	12.6	10.5	4.5
lexicon	3.0	6.3	8.5	4.8

The number of class 1 verbs with an initial y is proportionally almost nine times higher than those of class 2, whereas the percentage of class 2 verbs is more or less equal to the distribution of the other lexemes. On the other hand the occurrence of initial s and t in class 1 verbs is proportionally lower than in class 2 verbs or the general lexicon. A morphological analysis of the class 1 verbs reveals that y can always be reconstructed to s (e.g. yurt+ékìn, sò+surt+ín) and d (< t?, e.g. yí+kìn, sá+dì+n). In a deeper analysis s may originate from t.

A number of other forms with y can be interpreted by consonant weakening in terms of phonological rules (e.g. cìKàrô > cìyàrô), or as an initial glide (e.g. 'ìndí > y'ìndí).

If we leave aside all forms, where y can be derived through one of the rules given above, or through historical reconstruction, we are left with some few y containing forms, which we cannot (yet?) explain by phonological rules, historical change or foreign borrowing, e.g.

yé+n	'sing'	yé	emphatic marker
yè	agent marker	yàngê	'trousers'
yàkké	'three'	kòyô	'tuft of hair'

The present knowledge does not allow the reconstruction of those few forms in the same way as the other ones. The main reason may lie in the limited knowledge about the phonology of Teda-Daza and especially the scarce data and analyses of the eastern branch (Berti and Zaghawa). Furthermore we have to consider that the historical change to y has often been performed at a very early stage of the evolution of the Saharan languages. Therefore we may not be surprised about a number of unresolved problems.

I have mentioned earlier that the best way to document the relationship among languages, the establishment of language groups, families or phyla, is best done by the internal reconstruction of individual languages. In the field of Saharan languages, comprising just four languages, the reconstruction would seem to be fairly easy. Their close relationship has been documented through their similarity in the verb structure (e.g. Barth 1862, Lukas 1951/2, Bryan 1971). However, we will face more difficulties when we try

to reconstruct the phonological or morphological systems of this language family. Apart from the limited data available, we may nevertheless confirm that variation on the phonological level is very common in all Saharan languages (Cyffer 1981b). This fact complicates the creation of proto-Saharan. The only fruitful approach to this goal is in my view a thorough phonological study of each language, the internal reconstruction of each language, and finally the reconstruction of proto-Saharan from proto-Kanuri, proto-Berti, etc. With the reconstruction of y in Kanuri an attempt has been made in the direction of obtaining proto-Kanuri and at a later stage proto-Saharan.

FOOTNOTES

- ¹The symbol y stands here for j of the International Phonetic Alphabet (IPA) denoting the palatal frictionless continuant. As in most alphabets and linguistic studies of African languages the symbol y is commonly used instead of j, I will continue using this symbol. ^{1a} The symbol ' stands for glottal stop.
- ²This paper was presented at the 15th Congress of the West African Linguistic Society in April, 1982.
- ³This verb class corresponds with the Saharan class II, which is characterized by suffixation of the 1st and 2nd person subject morphemes and prefixation of the 3rd person subject morphemes. Those verbs which carry an assumed derivational prefix with an initial y are not considered.
- ⁴In the process of further weakening some speakers of the Maiduguri dialect tend to omit the underlying consonant completely.
- ⁵Only forms with an initial ʔa are more frequent (about 5% of the lexicon). Those with an initial i are 0.4%, while the number of the others is negligible. Most ?V forms are borrowings.
- ⁶The tone on the subject morpheme is part of a tone pattern of the verb complex.
- ⁷The change sk > k is explained by assimilation (> kk) and degemination (> k).
- ⁸The 3rd person morpheme is reconstructed as T in Saharan. This may be the reason for the affrication.
- ⁹The verb base sèn cannot be explained in terms of phonological rules.
- ¹⁰Class 2 verbs only use k as an applicative morpheme.
- ¹¹An eventual semantic difference between the two forms cannot be confirmed in present-day Kanuri.
- ¹²The change t > s is observed in other dialects or languages, too.
- ¹³The Manga dialect of Machina is here referred to.
- ¹⁴Eventually one may have to assume two underlying phonemes for s: a) S > s and b) T > s.
- ¹⁵The change t > d is common in Teda-Daza.

ABBREVIATIONS AND SYMBOLS

C	consonant	sg	singular
MA	Manga dialect	SG	Sugurti dialect
MG	Maiduguri dialect	V	vowel
MO	Mobber dialect	vb	verb base
oj	object	vn	verbal noun
pl	plural	>	becomes
poss	possessive	<	comes from
ppr	personal pronoun	[]	phonetic transcription
ps	person		

REFERENCES

- Barth, H. 1862. *'Sammlung und Bearbeitung Central-Afrikanischer Vokabularien.'*
3 vols. Gotha.
- Bryan, M.A. 1971. *'The Verb Classes in East-Saharan Languages in V. Six et al. (ed.), Afrikanische Sprachen und Kulturen - ein Querschnitt. Hamburg. pp 224-234.*
- Cyffer, N. 1978. *'Die Verbalstruktur im Kanuri'* in *Afrika und Übersee*, 61:294-311.
- Cyffer, N. 1981a. *'The Person Elements in Saharan Languages: A Step Towards the Creation of Proto-Saharan'* in Th. C. Schadeberg and M.L. Bender (eds.), *Nilo-Saharan. Proceedings of the First Nilo-Saharan Linguistics Colloquium, Leiden, Sept. 8 - 10, 1980. Dordrecht. pp 185-200.*
- Cyffer, N. 1981b. *'Consonant Variation in Kanuri (Maiduguri Dialect)'* in I. Hofmann (ed.), *Festschrift zum 60. Geburtstag von P. Anton Vorbichler. (Veröffentlichungen der Institute für Afrikanistik and Ägyptologie der Universität Wien, 14; Beiträge zur Afrikanistik, 11). Vienna. pp 1-29.*
- Cyffer, N. 1981/2. *'Pluralization in Saharan Languages'* in *Afrika und Übersee*, 64, in press.
- Lukas, J. 1951/2. *'Umriss einer Ostsaharanischen Sprachgruppe'* in *Afrika und Übersee*, 36: 3-7.
- Nachtigal, G. 1879-80. *'Sahara und Sudan', Vol.2. Leipzig. pp 194-210.*