

KORDOFANIAN and NIGER-CONGO: NEW AND REVISED LEXICAL EVIDENCE

DRAFT ONLY

[N.B. bibliography and sources not fully complete]

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TABLE OF CONTENTS

Acronyms and Terminology	i
1. Introduction	1
2. Is there evidence for the unity of Kordofanian?	3
2.1 Languages falling within Kordofanian.....	3
2.2 Kordofanian Phonology	3
2.3 Kordofanian noun-class morphology	3
3. The lexical evidence for Niger-Congo affiliation	4
3.1 Previous suggestions	4
3.2 New and amended proposed cognate sets	4
4. Conclusion	23
Appendix 1. Evaluation of Greenberg's proposed cognate sets for Niger-Kordofanian	24
Appendix 2. Widespread African roots that are not evidence for the affiliation of Kordofanian	28
Appendix 3. The Kordofanian languages: listing and classification	33
References	34

Acronyms and Terminology

Acronym	Expansion or source	Reference or language
A58	Abraham (1958)	Yoruba
Ab40	Abrahams (1940)	Tiv
Ab51	Abrahams (1951)	Idoma
Ab58	Abrahams (1958)	Yoruba
Ab62	Abrahams (1962)	Hausa
Ag	Agheyisi (1986)	Edo
ALGCI	Mensah & Tchagbale (1983)	Gur
ALKrCI	Marchese (1983)	Kru
ALKwCI	Hérault (1983)	Kwa
ALMSCI	Halaoui, Tera and Trabi (1983)	Mande
Ar63	Armstrong (1963)	Idoma
Ba	Banfield (1914)	Nupe
Bai02	Baileul (2000)	Bambara
BB	Black & Black (1971)	Moro
BC	Benue-Congo	
BF	Boyd & Fardon (ined)	Daka
BLR3		
Bon	Bonhoeffer (n.d.)	Duru [=Yag Dii]
Boyd	Boyd (1994)	Daka
C	Consonant	
C	Christaller (1933)	Twi
CB	Common Bantu	Guthrie (1967-71)
CG	Calame-Griaule (1968)	Dogon
Co	Connell (ined)	Mambiloid
Co91	Connell (1991)	Lower Cross
Cr69	Crabb (1969)	Ekoid
Cr84	Crocker (1984)	Masakin Tuwal
E	Stefan Elders (p.c.)	
E89	Elugbe (1989)	Edoid
EBC	East Benue-Congo	
ELV	Elias, Leroy, Voorhoeve (1984)	Proto-Eastern Grassfields
En	Endresen (1992)	Nizaa
G	Guthrie (1967-71)	Common Bantu
He68	Heine (1968)	Eggon
Hed87	Hedinger (1987)	Manenguba
Ho65	Hoffmann (1965)	Salka Kambari
Ho04	Hochstetler (2004)	Dogon
I	Igwe (1999)	Igbo
J	Jackson (1988)	Tikar
Ka	Kaufmann (1985)	Ibibio
KW	Williamson (ined.)	Ijoid
Le	Lebeuf (1941)	Fali
LQ	Linguistic Questionnaire, ALCAM, Cameroun	Various
M	Mukarovsky (1976/7)	Proto-Western Nigritic
Ma75	Manessy (1975)	Oti-Volta
NC	Niger-Congo	
No00	Norton (2000)	Asheron
NS	Nilo-Saharan	
P	Piron (1996)	Bantoid
PAC	Proto-Atlantic-Congo	

Acronym	Expansion or source	Reference or language
PB	Proto-Bantu	
PCJ	Proto-Central Jukunoid	Shimizu 1980
PD	Mundani	Parker & Durrant (1990)
PE	Proto-Edoid	Elugbe 1989
PI	Proto-Ijo	Williamson in prep
PJ	Proto-Jukunoid	Shimizu 1980
PK	Proto-Kegboid (Ogoni)	Ikoro 1989
PLC	Proto-Lower Cross	Connell 1991 & p.c.
PM	Perrin & Mouh (1992)	Mambila
PN	Proto-Nupoid	Blench ms.
PNC	Proto-Niger-Congo	
PP2	Proto-Plateau 2	Gerhardt 1983
PP4	Proto-Plateau 4	Gerhardt 1983
PUC	Proto-Upper Cross	Dimmendaal 1978
PWN	Proto-Western Nigritic (PWN is approximately equivalent to PAC)	Mukarovsky 1976/77
PWS	Proto-West Sudanic	Westermann 1927
PY	Proto-Yoruboid	Akinkugbe 1978
R	Rongier (1995)	Ewe
Rg	Regnier (ined.)	West Kainji
Ring	Word List of Comparative Ring (1979?)	Ring
RMB	Author's fieldwork	
Sh79	Shimizu (1979)	Mumuye
Sh80	Shimizu (1980)	Jukunoid
Sh83	Shimizu (1983)	Mumuye
Sch81a	Schadeberg (1981a)	Kadu
Sch81b	Schadeberg (1981b)	Heiban Kordofanian
Sch94	Schadeberg (1994)	Kadu
Sn	Snider (1990)	North Guang
SN	Schaub & Nchio-Minke (1982)	Babungo
St	Sterk (ms.)	Upper Cross
TT	Tyhurst and Tyhurst (1983)	Nyang
U	Ubels (n.d.)	Koh, Karang
V	Vowel	
VV	Valentin Vydrine (ms.)	comparative Mande
W	Westermann (1927)	Western Sudanic
Wa	Watters (ined)	Ejagham
WBC	West Benue-Congo	
WO	Williamson & Ohiri-Aniche (ined.)	Igboid
WW	Weber & Weber (n.d.)	Kwanja

1. Introduction

The Kordofanian languages are a group of languages spoken in the Nuba Hills of Kordofan, southwest of Khartoum in the Sudan, whose genetic affiliation remains controversial. The first record of a Kordofanian language is probably Rüppel (1829) who recorded a list of *Schabun* (modern Shirumba). The first analysis of a Kordofanian language is Tutschek (1848 trans. Tutschek 1848-50). Seligman (1910/11) is the first documentation from the colonial era but Meinhof (1915-19, 1943) was the first to provide substantial analytic materials based on his own wordlists and other more variable material. The parallels between the alternating affix systems of Kordofanian and those of other branches of Niger-Congo have long been remarked, but the exact relationship remained unclear. The inclusion of Kordofanian in Niger-Congo (Greenberg 1963:149 ff.) has scarcely been questioned, although Greenberg himself later said that ‘grammatical’ features had played a great role in this classification (Greenberg 1972:190). He says, ‘It is not too much to state that in at least one instance, that of Niger-Kordofanian, grammatical resemblances were treated as more decisive than lexical ones’. In modern terms, Greenberg relied more on a typological feature than on, for example, cognate lexicon. Greenberg himself apparently relied heavily on the studies of Nuba Hills languages by Stevenson (1956-7, 1962-4). Stevenson was heavily influenced by Bantu morphology and semantics and tried to fit the affix systems of the languages he studied into a frame of nominal classes with semantic assignments. This not only produced some odd results, but also led Stevenson to include one group of languages *not* generally considered to be Kordofanian today, the Kadu languages [=Tumtum, Kadugli-Krongo].

An isolated subsequent publication was the grammar and dictionary of Moro, a language of the Heiban group (Black & Black 1971) but the next major advance in data availability was when Thilo Schadeberg made available the results of his surveys of Kordofanian (Schadeberg & Elias 1979; Schadeberg 1981a,b, 1997). This is often thought to set the seal on their classification as part of Niger-Congo although Schadeberg (1981a:7) himself expressed a sceptical view and apparently regarded the issue as far from settled. Schadeberg says, ‘Greenberg’s affiliation of Kordofanian with Niger-Congo has ... never been seriously challenged. Many authors, however, take a more cautious position, leaving Kordofanian unclassified. Such reticence seems wise in view of the paucity of our knowledge about these languages and their relationships’. Schadeberg (1981d:123), later reprised in Schadeberg (1989), also provided a more comprehensive overview of Kordofanian, in particular setting out a table of correspondences between Kordofanian affixes and those occurring in other branches of Niger-Congo¹. The persuasive morphological feature of Kordofanian that has led to its assignment to Niger-Congo are its alternating C(V) prefixes, so characteristic of much of Niger-Congo (Williamson & Blench 2000). However, once Kadu (which also has functioning prefixes) is cut loose then the argument becomes considerably weakened. Either the Kadu prefixes (which resemble Talodi) are borrowings or they are chance resemblances. What seemed to be a genetic argument is now seen to be merely typological. In any case, only two of the four groups of Kordofanian languages have functioning prefixes. The Katla-Tima and one subgroup of the Rashad languages have arguably reduced or lost noun-class affixes.

In the same year as the two documentary volumes were published, Schadeberg (1981c) argued in print that Kadugli-Krongo [now referred to as Kadu] be excised from Niger-Congo and assigned to Nilo-Saharan. Most subsequent authors who have considered the issue have followed Schadeberg, notably Dimmendaal (1987) Stevenson (1991) and later Bender (1996). This view has largely triumphed, with only Ehret (2000) remaining a significant objector.

The consequence of this reassignment of Kadu was to further weaken Greenberg’s case for the classification of Kordofanian, since the support for many of Greenberg’s shared innovations was reduced. Schadeberg (1981c:293 ff.) noted the problem of using lexical data because of the lexical diversity within Kordofanian, arguing that there are often so many forms to choose from that it is relatively easy to uncover look-alikes, but far more difficult to prove these are cognates. Nonetheless, the contribution by Schadeberg (1989) on Kordofanian in Bendor-Samuel (1989) has widely been taken as acceptance for a Niger-Congo affiliation.

¹ Note that Schadeberg (1981d, 1989) still include Kadugli in Kordofanian, although the text expresses scepticism about their membership.

Greenberg's (1963:153) argument was buttressed by a series of sound-meaning correspondences and he puts forward some 52 Niger-Kordofanian cognates (Appendix 1.). However, once the Kadu ('Tumtum') languages are taken out of the comparative list then the actual number of proposed cognates is much reduced. Nineteen sets include Kadu -and so presumably would constitute equally good evidence for a Nilo-Saharan affiliation. Many others are cognate with Niger-Congo -but also with Nilo-Saharan. Some, such as 'tortoise', 'and' and 'white', are also attested in Afroasiatic and are thus best regarded as 'pan-African'. I have argued that Niger-Congo should be included in Nilo-Saharan to make a macrophylum with the proposed name 'Niger-Saharan' (Blench 1995, in press a,b). Whatever the fate of this hypothesis, the comparative series show that Niger-Congo and Nilo-Saharan share a substantial number of lexical items, thus casting doubt on their value in assigning languages to one phylum or the other (

Appendix 2.). Examples of Kordofanian items that are certainly cognate with the rest of Niger-Congo but can no longer be used as evidence for classifying Kordofanian because of external Nilo-Saharan cognates are 'blood', 'to buy', 'mouth', 'shoulder', 'thorn', 'three', 'throat', 'tongue', 'tooth'. Some of Greenberg's proposed resemblances are so weak as to be almost unusable (Schadeberg 1981c). See for example, 'hill', 'to take', 'to think', 'oil', 'spear' etc. Others depend on a single citation, but this is problematic, because of the significant lexical diversity within Kordofanian. Appendix 1. presents an analysis of Greenberg's proposed lexical items.

The sum of these exceptions makes the published case for the inclusion of Kordofanian in Niger-Congo unimpressive. Williamson (2000) has published some datasets illustrating likely correspondences between some Kordofanian affixes and those in other branches of Niger-Congo. Not all of these would convince the sceptical observer, and many examples ('three', 'four', 'five') use lexical items also found in neighbouring Nilo-Saharan languages, and thus not necessarily buttressing the case for genetic affiliation. Nonetheless, this represents an important start in developing a more convincing case, but in view of the significance of Kordofanian for the overall reconstruction of Niger-Congo, more arguments are required. Increased availability of data on several languages has made this a more credible enterprise. The publications of Schadeberg (1981a,b, 1997) have made both comparative wordlists and preliminary information on phonology available. More voluminous, but unpublished, are the comparative wordlists of Roland Stevenson, covering all four branches of Kordofanian as well as Kadu. A summary listing of the Stevenson mss. is given in Blench (1997). Finally, new data on some Kordofanian languages has become available from unpublished studies of SIL, Sudan (Crocker 1984a,b; Guest 1997a,b; Guest 1998a,b,c,d; Watters 1995, Norton 2000). This paper² also makes use of new field data collected by the author in February and March 2004.

Another related question is whether there is good evidence for the unity of Kordofanian; do the four families usually recognised really form a single branch of Niger-Congo? One of intriguing but unproven assumptions in the literature is that Kordofanian, with or without Kadu, actually forms a coherent group. This does not follow from Greenberg's lists which show a set of overlapping isoglosses, including Kadu, rather than a series of distinctive innovations that conjoin all four branches of Kordofanian. Similarly, the arguments of Schadeberg (1989) compare the affix system with other branches of Niger-Congo, which is problematic for Katla-Tima, where this is lacking. Kordofanian is characterised by a very large number of alternating affixes, which vary from one language to another and which apply to classes of highly variable membership. To turn Schadeberg's own argument around, look-alikes can be found if you search hard, but are these true cognates? Neither Greenberg nor Schadeberg cite a convincing shared innovation that links the four groups and indeed, the extensive borrowing in the Nuba Hills area makes it difficult to find lexical items that are not shared by neighbouring languages such as Kadu, Nubian, Nyimang and Temein. At least three possibilities need to be considered;

² Kay Williamson has kindly gone through this paper and made many comments, to which I have tried to respond.

- a) Kordofanian languages do form a group
- b) Kordofanian languages do not form a group, but observed similarities are due to intensive borrowing
- c) Some groups are related, other not. For example, Heiban and Talodi may be related, but Katla-Tima might be essentially independent

These outcomes need to be combined with a variety of possibilities for their Niger-Congo affiliation. Resolving this issue will not be easy because of the difficulty of disentangling the effects of intensive borrowing in a situation of highly imperfect knowledge of neighbouring languages.

2. Is there evidence for the unity of Kordofanian?

2.1 Languages falling within Kordofanian

[See Appendix 3.]

2.2 Kordofanian Phonology

Kordofanian languages have very little in the way of distinctive phonology; most of it is shared with neighbouring Nilo-Saharan languages such as Nyimang and Temein.

[in progress]

2.3 Kordofanian noun-class morphology

The system of paired genders, based on alternating affixes, usually V- or CV-, is one of the most distinctive features of Niger-Congo languages and is held to distinguish it from other African language phyla (Williamson & Blench 2000). Most commonly, these are prefixes, but many Niger-Congo languages have corresponding suffixes and Greenberg (1974) has outlined a route whereby these could recycle and change position. Mande languages have no noun-classes and for groups such as Ijoid they can be deduced from historical reconstruction only. Ironically, Bantu languages, generally considered the 'youngest' branch of Niger-Congo, have conserved a very complete system of prefix-pairings. Alternating affixes do occur in Nilo-Saharan, most notably in Koman and Kadu, but these are not associated with concord. In addition, typical noun-class markers, such as the **m**- class for liquids, also turn up outside Niger-Congo (Blench 1995). Noun classes are a typological feature, found in scattered language phyla across the world (Caucasian, Yeniseian and Papuan) and it is important to be sure that equations of affixes are based on cognacy not mere typological similarity. The feature of concord may be characteristic, but it has a strong tendency to get lost, so Niger-Congo is held together by a nexus of overlapping features rather than one single innovating set of cognate morphemes.

[in progress]

3. The lexical evidence for Niger-Congo affiliation

3.1 Previous suggestions

Williamson (2000) has set out a number of cognate sets for Niger-Congo which includes Kordofanian citations. These include; goat, 'two', 'three', 'four', 'five', 'bee', 'blood', 'breast', 'egg', 'horn', 'leg', 'nose', 'thigh' and 'tooth'. The function of the paper was not to propose these as evidence for Kordofanian membership of Niger-Congo but to illustrate their relevance to a reconstruction with 'longer' proto-forms. Some roots, notably 'two', 'three' and 'tooth' are so widespread in Africa as not to constitute evidence for the present argument (see data tables in Blench 1995). Others are set out below in amended or expanded form.

3.2 New and amended proposed cognate sets

This section sets out a number of cognate sets which are largely new or else substantially revised from those proposed by other authors. I have used standard sources (referenced with acronyms found in the preliminary table) and usually retained the transcription found there. I have set out the branches of Niger-Congo according to a standard order and marked the columns with a '—' where an extensive comparative wordlist makes it reasonably certain that a cognate does not occur in that family. For example, the comparative Ijoid of Williamson (ined.) is fairly comprehensive and it is safe to conclude that there is evidence of absence. Occasionally, common glosses are omitted from standard lexical sources; for example, the comparative Kru of Marchese (1983) omits colour terms, making cognate identification more problematic. Semantic shifts can also occur and possibly an individual researcher more familiar with a particular branch of Niger-Congo can propose a cognate with a meaning shift. Some branches of Niger-Congo, such as Adamawa, have no published or unpublished comparative list and no certain statement can be made about the presence of absence of a particular root.

It should be emphasised that these tables represent preliminary suggestions; they are intended for comment and correction. I have given a quasi-reconstruction above each table for ease of cross-reference; this is merely a suggestion rather than a fully worked out proto-form. The forms given are only examples; where other authors are cited, there are usually many more cognates in their data tables.

The quasi-reconstructions sometimes have a second syllable in square brackets. This is where the data seems to support such a reconstruction for other branches of Niger-Congo but is not attested in Kordofanian and so presumably is not proto-Niger-Congo.

1. black I	#-tuNi				
Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian	Katla	Tima	àtún		RCS
Mande		Ngain	tii ⁺		HTT
		Mende	tèlí		VV
		Bisa Lebir	tíndà		VV
Atlantic		Bjku	tír		Sg
		Kisi	tùṅi-		TC
Ijoid			—		KW
Dogon			—		
Kru		Newole	tri-me	noir	W
Gur			—		
Adamawa			—		
Ubangian	Gbaya	Proto-Gbaya	*tū		Mo88
Kwa		Abron	tūndūm	-m = ‘inside’	H
		Akebu	ti	be black	
Benue-Congo	WBC proto-Bantu	Yoruba	dúdú		Ab58
				tutu	ABC

Commentary: Missing in many language families. Compare this root with a second, quite different form, #bīne (below), which is similarly widespread but apparently not in Bantu. Mukarovsky recognises no reconstruction for ‘black’.

References: Westermann (1927:287)

2. black II	#bīne				
Family	Subgroup	Language	Attestation	Gloss/comment	Source
Kordofanian		Lafofa	pí-îñ pl. yí-		RCS
Mande		Soninke	biine	black, opaque	Sch
		Dan (bl)	bí	shadow, night	VV
Atlantic		Sua	bin		Sg
		Joola Kwatay	-baani		Sg
		Temne	bir	to be blackish	W
Ijoid		Defaka	ḡire	not attested elsewhere in Ijoid	KW
Kru			?		
Gur		Birifor	bir		W
Adamawa		Pangseng	vir		Sh79
		Mono	pù		E
Ubangian		Kpatiri	bīnì		Mo88
Kwa		Agni	bílè		ALKwCI
Benue-Congo	Upper Cross Dakoid	Kukele	bīlì		St
		Nnakenyare	vírki		Boyd
		Dong	vír		RMB
		PB	*pi	adjective/ideophone	Schadeberg (2003)
				CFGS	

Commentary: Found in neighbouring Nilo-Saharan languages (e.g. Songhai-Gao **bi**, Zarma **bī**) but presumably a loan. Not listed by Mukarovsky. See #-tuNi (above). The presence of this old root in Defaka and not in the rest of Ijoid is a good indication of the archaic nature of some Defaka vocabulary. Surfaces in Bantu in scattered attestations only and not in A group. Westermann (1927:206) gives many more cognates forms, most of which are the shorter **bi-** and often reduplicated as **bibi**.

References: Westermann (1927:206)

3. blood Family	# <i>nima</i> Subgroup	Language	Attestation		Comment	Source	
			I	II			
Kordofanian	Tegali	Kajakja	wiyá			RCS	
		Talodi	Masakin Tuwal		ŋ-iru		Cr84
	Heiban	Heiban			ŋin		RCS
		Lafofa		nyì			RCS
		Katla	Katla	iyáá			RCS
Mande		Orig			ŋóyí	S & E	
		Sembla			ŋəma	K	
		Wan	ŋé-mǎ			HTT	
Atlantic		Safut	ɲif, m-			Sg	
		Bijogo	nɛ-ɲɛn			Sg	
		Mankanya	ɲaak			(m-, p-) Sg	
Ijoid			—				
Dogon		Timiniri	ɲi			Ber	
		Duleri			geni		Ber
Kru		Kuwaa	ɲimo			ALKCI	
Gur		Bieri	ɲim			Ma75	
Adamawa	Mumuye	Zing			kpaà	?C Sh	
Ubangian	Gbaya	Mbodomo			ngiá	Mo88	
Kwa		Abron	ɲmójàà			ALKwCI	
		Eotile			ŋgà	ALKwCI	
Benue-Congo		Nupe			egyà	B	
		LC	Ekit	ú-míéné			
Bantu	PB		ɲíngà		EFHJL	BLR3	

Commentary: The alternation between initial ɲ- and ŋ- can be explained by assuming ***ŋ**, with ɲ resulting from assimilation to the following –I, which has probably occurred several times. This can be interpreted as a regular process of initial weakening of the velar or simply the widespread existence of doublets. Many of the forms in Mukarovsky (1976:128) do not seem to be part of the same set or indeed even form a set at all.

References: Westermann (1927:); Mukarovsky (1976:128); Williamson (2000:61)

4. bow	#-ta(m)-				
Family	Subgroup	Language	Gloss	Comment	Source
Kordofanian	Talodi	Tegem	thaa		Sch81b
Mande		Boko	sa		Prost (1953)
		Dan (gw)	sàà		VV
Atlantic		Bassari	a-tũmb		Ferry (1991)
		Gola	ta	‘shoot with bow’	
Ijoid	Izõn	Kolokuma	tēi	‘shoot’	KW
Dogon		Tõrõ	tó		Calame-Griaule (1968)
		Donno Sõ	tò		Kervran (1993)
Kru		Seme	tã		Prost (1964)
Gur		Dagare	tam-o		Ma75
		Buli	tõmõ		Ma75
Unclassified		Pre	ta		Creissels (ms)
Adamawa	Mumuye	Mumuye	ta		Sh83
	Vere-Duru	Momi	taa-u		RMB
Ubangian		Gbaya	kusaa ⁺		Blanchard & Noss (1982)
Kwa		Baule	tó	‘shoot’	ALKwCI
Benue-Congo	Nupoid	Nupe	tanci		Ba
		Proto-Igboid	*ú-`-tã		KW
	Kainji	Piti	o-ta		BCCW
Bantoid	Tivoid	Tiv	ta		BCCW
Bantu	PB		tãã	throughout (14/6)	BLR2

Commentary: The nasal in C₂ position is given in the reconstructed form, but since it does not appear in either Kordofanian or Mande it may be later than PNC. Westermann and Mukarovsky give long tables of forms, occasionally including the semantic shift to ‘arrow’, ‘shoot’ and ‘flint’.

References: Westermann (1927:280); Mukarovsky (1976:349)

5. to come [arrive, reach]

#ndadi

Family	Subgroup	Language	Attestation		Gloss	Source
			I	II		
Kordofanian	Tegali	Rashad	nda			RCS
	Koalib	Koalib	ila			RCS
	Katla	Tima	diaŋ			RCS
Mande		Bambara	nà			Bai
		Dzuun	nà			VV
		Dan (kl)		nù		VV
Atlantic		Gola	na			W
		Wolof	pow			?
		Kobiana	-nΛΛn			Sg
Ijoid		P-Ijõ	*lá`á		arrive, reach	KW
Dogon		Yeni		nu		Ber
Kru		Grebo	dí			M
		Neyo	ŋli ⁺			M
Gur		Lobi	na			
	Senufo	Kuflo	nãdi		arrive	M&T
Adamawa		Mbum	zina		come	B
Ubangian		Bare	dí			Mon
Kwa	Banda	Mbanza	na			Mon
	Central-Togo	Nkonya		dù	reach	Hof
		Krobu		dã		arrive

Family	Subgroup	Language	I	II	Gloss	Source
Benue-Congo	Cross River	Kana	ina		arrive	I
	Mambila PB	Warwar	ndál	du	come	C BLR3

Commentary: Mukarovsky did not include this root, apparently because he considered it had no Bantu cognates. The CVCV proto-form proposed here seems to explain the otherwise puzzling a/i alternations in V₁ position and the l/d that occurs several times in C₂ position. Alternatively, the forms with –di might be compounds.

References: Westermann (1927:260);

6. to cut	#-tiN-				
Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian		Karondi	ati		RCS
Mande		Mende	téé		I
		Yaure	cɛ⁺		HTT
Atlantic		Temne	ɕen		
		Diola	tiŋg		M
		Krim	toɠu-ke		Sg
Ijoid		Kolokuma	séŋí	‘to slice’	KW
Dogon		Duleri	tela		Ber
Kru		Wobe	cɛ⁺		Mar
Gur		Degha	téŋó		M&T
Adamawa		Galke	kəŋ		B
Ubangian		Mono	tyè		E
		Yakoma	dɛ⁺		Mon
Kwa		Chumburung	tɪŋ		S
		Abidji	cè		H
Benue-Congo		Nupe	te		B
Bantu		PB	#téen-		BLR2

Commentary: Mukarovsky separates this root into two distinct reconstructions, #tin- and #tiŋ-, but these are here considered to be the same.

References: Westermann (1927:287); Mukarovsky (1976: 366-367)

7. dog	#gbɛlɛ							
Family	Subgroup	Language	Attestation			Comment	Source	
Kordofanian	Talodi	Tegem	bɛ	-b	u	i	pl. erui	Sch81b
		Eliri	b	w		a	k	pl. abuk
Mande		Tura	gb	ɛ		ɛ		
		Susu	b	a	r	e	na	
		Mende	n	g	i	l	a	
		Boko	gb	ɛ			/-ɔ	
Atlantic		Serer	ɓ	ɔ			x	Sg
		Pepel	ɔ	-b	o	l		Sg
		Manjaku		b	u		s	Doneux (1975)
	Bijogo	e	b	o		o	t	Sg

Family	Subgroup	Language	Attestation				Comment	Source	
Ijoid		Kalabari	o	b	i	r	i	KW	
		Biseni	e	b	i	r	i	KW	
Defaka		Defaka	e	b	e	r	e	KW	
Dogon		Bondum	ŋ	w	ɛ			Ho04	
Kru		Guéré	gb	e				ALKCI	
		Seme	b	u		-o	/-e	ALKCI	
Gur		Moore	b	a	r	a		Ma75	
		Gurma	b	u		a	-ga /-mu	Ma75	
		Dagare	b	a	r	e		Ma75	
		Hanga	b	a	'	a		Ma75	
		Gurunsi	Delo	b	a			Ma69	
		Waama	b	ú		u	-ka		
		Bariba	gb	o					
Adamawa	Senufo	Nyarafofo	p	ú	n			ALGCI	
		Yungur	b	w		e		RMB	
		Mambei		v	w		a	Eguchi	
Ubangian	Sango	Yakoma	m	b	ò			Mo88	
		Ngbaka		b	ó	n	õ	Mo88	
		'Dongo-Ko		b	é	l	à	Mo88	
Kwa		Nzakara		b	a	n	á	Mo88	
		Abbey		ɣ	ó			ALKwCI	
		Ebrié		gb			à	ALKwCI	
	Central Togo	Nyangbo	é-	b	ú			/be-	He68
	Adangme Gen			a	v	u			ALKwCI
Benue-Congo	Yoruboid	Proto-Yoruboid	*a	by			á	KW	
		Edoid	Uhami	à	b	ù		à	E89
	Nupoid	Gbari	o	m	u			RMB	
	Platoid	Yeskwa	e-	b	u			RMB	
	Jukunoid	Kpan	i-	b	u			Sh80	
	Cross River	Efik	e-	b	u		a	Co91	
	Bantoid	Dakoid			v	o	n	a	Boyd
		Mbe	Mbe		b	o			g
Bantu		Duala PB					mbo *-búà	(9/10)	BLR2

Commentary: Both Westermann and Mukarovsky have reconstructed forms with the sequence back + central vowel. Thus Westermann PWS #-búá and Mukarovsky PWN #-bhúa-. Greenberg (1963:16) also draws up a similar set. However, none of these authors adduce the Mande evidence which suggests that the initial consonant was a labial-velar and the vowels were nasalised, as the Gur forms also suggest. The Kordofanian citation is intriguing. The Tegem (=Lafafa) word is not the usual Kordofanian lexeme and may simply be a lookalike. See Schadeberg (1981a,b) for common Kordofanian data.

There is a cultural problem with this reconstruction; there is no archaeological evidence for dogs in sub-Saharan Africa. Although Paris (1992) reports domestic dogs dating to at least the early second millennium BC from Chin Tafidet in Niger, elsewhere in West Africa there are no sites dated earlier than 200 BC. This is far too late to be the source of a Niger-Congo reconstruction. Either, despite appearances to the contrary, earlier sites will be found, or this is a loanword that has travelled far, or else the term originally applied to a species that is part of the indigenous fauna, most probably the jackal.

References: Westermann (1927:211); Mukarovsky (1976:53)

9. ear/to hear	#-n(y)u[ku][lu]	Family	Subgroup	Language	Attestation		Source				
					ear	hear					
Kordofanian			Proto-Heiban			*g-aani/n-	Sch81a				
						Proto-Talodi	Asheron	*g-eenu/w-	Sch81b		
								Talodi	Rashad	ge-nu/we-	No00
										nu/-n	RCS
								Katla-Tima	Kaalak	gu-no/u-	RCS
Mande Atlantic						—					
						Bulom	nu-i	W			
						Fulfulde		nan-	Sg		
						Baga		-ne	Sg		
						Sitemu					
						Gola	ke-nu		Sg		
						Bijogo	kɔnnɔ		Sg		
Ijoid						—	naá	KW			
							Dogon	Naja Dama	sunu	Ber	
Kru								ALKCI			
							Dida		nú	ALKCI	
Gur								ALGCI			
							Lobiri	nũũ		W	
							Baatonun		nua	ALGCI	
Adamawa								W			
							Senufo	Nafaara	nígé	ALGCI	
Kwa								Sh83			
							Mumuye	Zing		tnàà	
Benue-Congo								ALKwCI			
							Alladian	núkù		W	
							Logba		nu	KW72	
							West	Igbo		-nɔ	
Bantu								St			
							Cross River	Kɔrɔp	lu-nuŋ	BLR3	
							—				

Commentary: One of the very few lexical items that links together the fourree branches of Kordofanian. The Kadu form is quite different and unrelated. The Kordofanian forms for ‘to hear’ are also clearly related. ‘Ear’ has a doublet or alternative root throughout Niger-Congo, the root –tVN-, which is the only form to survive into Bantu and is also found throughout Mande and Adamawa-Ubangian. Not listed by Mukarovsky. The root is confusingly like the root for ‘mouth’ (below). Kay Williamson (p.c.) urges me to consider the possibility that these are two separate roots, but this seems unlikely as they are intertwined in many languages. In some cases, ‘ear’ may be a nominalisation of ‘to hear’, but just as you would hardly treat the English verb ‘to mouth’ as a root separate from the noun ‘mouth’, so I regard these as a single set.

References: Westermann (1927:270) as *hören* ‘to hear’ together with *Ohr* ‘ear’ as part of a single cognate set.; He is right about the verb. If you want to regard these forms as cognates they all have to be nominalised from the verb.

10. eat #rig- Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian	Talodi	Lafofa	rik		RCS
	Talodi	Masakin	rigo		RCS
	Katla-Tima	Domurik	áluk		RCS
Mande		Mwi	li		W
		Bozo	dye		W
Atlantic		Temne	di		W
		Bjku	-ri		Sg
		Diola	rie		W
Ijoid			—		KW
Dogon		Yeni	dia		Ber
Kru		Grebo	dí		M
		Bete Daloa	lí		M
Gur		Degha	dì		ALGCI
		Kulango	dǐgé		ALGCI
Adamawa		Koh	re		U
		Mono	riʔi		E
Ubangian		Mira	ri		Mo88
Kwa		Abure	li		ALKwCI
Benue-Congo	Igboid	Proto-Igboid	*dǐ		KW
	Plateau	Eloyi	rí		BCCW
	Cross River	Ikom	dí		St
Bantu	Ekoid	Balep	lí		C65
		Proto-Bantu	dǐ		BLR3

Commentary: The Kordofanian citations in Greenberg are much more obviously cognate but, regrettably, they do not occur in any recently-collected data. The presence of the velar in C₂ position is remarkable in that it occurs only in Kordofanian, Gur and Adamawa. .

References: Westermann (1927: 250-251); Greenberg (1963:155); Mukarovsky (1976:69)

11. egg			Attestation		Source
Family	Subgroup	Language	geli I	[ni]yi II	
Kordofanian	Tegali	Rashad		yi	RCS
	Koalib	Otoro	g-ei pl. y-ei		RCS
	Koalib	Moro	isi		BB
Mande		Guro		ɲɛ̃ɛ̃	HTT
		Koranko	kɪli		VV
		Soninke		yelli/e	VV
Atlantic		Gola	kolo		Sg
		Tkng		ì-niil	Sg
		Wolof		nen, b-	Sg
Ijoid		Ibani		anyi	KW
Dogon			—		Ho44
Kru		Koyo	gɪye		ALKCI
Gur		Mampruli	gyelli		N
Adamawa			?		
Ubangian	Mba	Mba-ne	zià		
Kwa		Eotile		éɲi	H
		Akpafu		oyi	W
Benue-Congo		Nupe	ezi		Ban
		Ekoid	è-dʒĩ		C65
		Bantu	à-tʃĩ		BCCW
		proto-Bantu	géjĩ		BLR3

Commentary: There are two sets that run through Niger-Congo, the first with a velar initial and a possible lateral in C₂ position, the second with an initial palatal, sometimes nasal also with the traces of a lateral. The singular and plural in Otoro (where the diphthong suggests the disappearance of C₂) suggests the intriguing possibility that the two were originally a singular/plural pairing. There is no trace of nasalisation in Kordofanian, hence this may be an innovation at Mande-Congo level, perhaps through the addition of a nominal prefix later assimilated to the stem.

References: Westermann (1927:214); Mukarovsky (1976:122); Williamson (2000:63)

12. elephant

Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian		Lafofa	yu:ŋi		RCS
Mande			—		
Atlantic		Fulfulde	nyiiwa (ba)		Sg
		Serer	ɲig		Sg
Ijoid			—		
Dogon		Mombo	nige		Ho04
Kru			—		
Gur			—		
Ubangian		Ngbaka	ya		Mo88
Kwa	Central Togo	Avatime	ó-nyi pl. bé-nyi		He68
		Ewe	àtíglínyì		R
Benue-Congo	West	Igbo	enyi		KW72
	East	Ibibio	é-nînn		BCCW
		Korij	ényí / í-		BCCW
Bantu	PB		yògù	widespread	BLR3
	CB		nyanga ‘tusk’	K M N P S	BLR3

Commentary: A suspect set, as the Kordofanian attestation is isolated and the Fulfulde/Serer forms also constitute an island in a sea of quite different attestations. The Benue-Kwa forms probably are cognate with one another. A major question is which of the two Bantu reconstructions are cognate with this set. It seems quite likely that there is a strong link with the widespread African root for ‘tooth’, #-ɲi, and that this semantic shift has occurred independently several times. Bantu #nyanga might thus simply be an innovative formation.

References: Westermann (1927:264); Mukarovsky (1976:288)

Family	Subgroup	Language	Attestation		Gloss	Source
			I	II		
Kordofanian	Tegali	Tagoi	ŋɪr		fat	RCS
		Koalib	ŋila		fat	RCS
Mande		Wan	ɲɛ́ɲ		oil	HTT
Atlantic		Wolof	niin		gras	Sg
Ijoid			—			KW
Dogon		Timiniri	nyi		oil	Ber
Kru		Tepo	ɲná		oil	ALKCI
Gur		Lobiri	nĩnn		fat	ALGCI
Adamawa		Koh	núm		fat	U
		Mono	nám		huile	E
Kwa		Ega	ɲ̀ɲ̀		fat	ALKwCI
		Nzema		ɛ̀lɔ̀m̀ɲ̀	fat	ALKwCI
		Abidji		míné	oil	ALKwCI
Benue-Congo	Nupoid	Nupe		èmi	oil	Ba
	Kainji	Agaushi		mà-ní’í	oil	BCCW
	Plateau	Vaghat	no		oil	BCCW
	Upper Cross	Kijon	nɔi		oil	BCCW
Bantu			—			

Commentary: The second set of forms appears to be a rather strained correspondence, but there is evidence the ɲ- and m- do correspond between Kordofanian and the rest of Niger-Congo (Williamson 1989a).

Nonetheless, it is possible there are two roots here. The root appears to be lost in Bantu, replaced by the #**byep** root. Almost certainly borrowed by Hausa as *mai*. Not listed by Mukarovsky.

References: Westermann (1927: 257);

14. fire	#te(k)-				
Family	Subgroup	Language	Attestation	Comment	Source
Kordofanian	Tegali	Lafofa	ɬ-éé		RCS
	Talodi	Talodi	ɬek		RCS
Mande		Wan	té		HTT
		Jeri	tá		Sg
		Bokobaru	té		RJ
Atlantic		Mankanya	tet	(p-/m-)	Sg
Ijoid			—		
Dogon			—		
Kru		Aizi	lede		ALKCI
		Grebo	tɔ		ALKCI
Gur	Senufo	Kulango	dəgə		M&T
	Oti-Volta	Bieri	daam		Ma77
Adamawa		Tuboro	hò'de		B
Ubangian			—		
Kwa		Ebrie	átɛ̀		ALKwCI
		Mbatto	óɔ́		ALKwCI
Benue-Congo	proto-Bantu		ɖɪ̀dò	JLMNRS	BLR2

Commentary: This root occurs in Bantu, not apparently in the proto-language, but in remoter languages of eastern and southern Africa. Nonetheless, the preservation of C₂ corresponding to Aizi is striking. The velar in C₂ position in Kordofanian may be original or a local innovation. Westermann (1927: 283) reconstructs #-**tá**- although his own data suggest either a lateral or a nasal in C₂ position. N.B. A number of Westermann's citations (e.g. for Edoid and Igbo) do not appear in modern sources. Mukarovsky (1976:76) constructs a root #-**díná** which seems to be a conflation of two quite distinct roots, #-**na** and the present root. The dental in C₂ position is first attested in Atlantic and therefore should not be reconstructed at proto-Niger-Congo level.

References: Westermann (1927: 283); Mukarovsky (1976:76)

15. to give				Attestation		Gloss/ Comment	Source
Family	Subgroup	Language	I	II			
Kordofanian	Talodi	Masakan Tuwal	ṭɛ				Cr84
	Heiban	Heiban	ḍɛḍ-i/-a				RCS
	Katla-Tima	Kaalak	le				RCS
Mande		Mwi	—	na			W
Atlantic		Nalu	ndea				Sg
		Bijogo	-d(a)				Sg
Ijoid			—				KW
Dogon		Yanda Dom	ndi				Ho04
Kru		Tepo		ɲè			ALKCI
Gur		Deg	tɛ				ALGCI
		POV	*ti				Ma75
Adamawa	Mumuye	Zing	an				Sh83
Ubangian		Monzombo	tɛ				Mo88
Kwa		Ebrie	zé				ALKwCI
		Mbatto	sɛ				ALKwCI
Benue-Congo	West	Ewe		ná			R
		Igbo		-nye			KW72
		Tiv		na			Ab40
		Proto-Bantu		*(n)yínk			BLR3

Commentary: The history of this reconstruction depends on the antiquity of the prenasalisation. There is so far no case recorded in Kordofanian and the root is absent in Mande. *If* the initial **nd-** reduced to N- then forms such as Tepo **ɲè** are cognate and so are many Benue-Congo forms such as Igbo **-nye**. Westermann (1927: 259, 283) gives two distinct reconstructions, **#ta** and **#ná**, which correspond to the two forms listed here. Mukarovsky (1976:290) reconstructs **#nik-**, but this seems heavily influenced by knowledge of proto-Bantu and many of the forms he lists, **ce**, **ke** etc. seem to be a separate root. The common proto-Bantu form is ***pa** (which is also widespread in Gur), but cognates of this form is widely attested in Zone E and eastwards. BLR3 gives ***yínk-** with ***nínk-** as a variant, but the external cognates suggest that the PB should be ***-nyink**.

References: Westermann (1927: 259, 283); Mukarovsky (1976:290)

16. to go		#ta[ri]				
Family	Subgroup	Language	Attestation	Gloss	Source	
Kordofanian	Tegali	Tagoi	nde		RCS	
	Koalib	Otoro	iḍi		RCS	
	Katla	Tima	iḍi		RCS	
Mande		Dan	tá		VV	
		Bambara	ta		Bai02	
Atlantic		Balante	-t̥-		Sg	
		Bijogo	-d̥-		Sg	
Ijoid			—			
Dogon			—			
Kru			—			
Gur		Delo	ta		W	
	Senufo	Kuflo	t̄ari		M&T	
Adamawa	6	Galke	sele		B	
Ubangian		Wojo	dara		Mo88	
Kwa		Agni	n̄andí		ALKwCI	
		Lefana	tro		W	
		Nzema	t̄ià		ALKwCI	
Benue-Congo	Kainji	Chawai	da		BCCW	
	Ekoid	Ekajuk	t̄ám		BCCW	
		PB		t̄ámb	go for a walk	BLR2

Commentary: The vowel alternations are quite surprising and it is possible there is interference between this root and the root for ‘to run’ #tele. Not listed by Mukarovsky.

References: Westermann (1927: 283);

17. hand #kataN-

				Attestation			
Family	Subgroup	Language	I	II	Gloss	Source	
Kordofanian	Talodi	Asheron	g-attal/n-			No00	
	Koalib	Moro			ḍaŋ	RCS	
Mande		Wan			ɔ-laŋ	ALMSCI	
Atlantic		Temne	kata			W	
		Nalu	n-te			W	
Ijoid		Defaka	káá			KW	
Dogon			—			Ho04	
Kru		Tepo	dabú			ALKrCI	
Gur		Tagbana		kadala		ALGCI	
Adamawa	Fali	Ram	kan			Le	
Ubangian	Sango	Yakoma	ti			Mo88	
Kwa		Baule	sá			ALKwCI	
		?	t̄akè			ALKwCI	
Benue-Congo	Yoruboid	Yoruba	ika		finger	Ab58	
	Igoid	Proto-Igoid	á`-ká			KW	
		Plateau	Izora	t̄àra			BCCW
		proto-Bantu	ka		AR	BLR3	

Commentary: Kordofanian languages independently preserve a final velar nasal, hence its reconstruction here. The preservation of a velar + a- prefix in Asheron, Temne and Tagbana argue for its antiquity. Defaka

again preserves an old form while the rest of Ijoid has innovated. Westermann (1927: 228, 282) considers there were two separate roots, #-ta and #-ka but the ka- seems to be an old prefix which becomes the root when the second syllable is lost. Mukarovsky (1976:138, 209) lists two separate roots, #-ka (-kya) and #-kwan, but these are surely the same.

References: Westermann (1927: 228, 282); Mukarovsky (1976:138, 209)

18. head Family	#tile Subgroup	Language	Attestation	Comment	Source
Kordofanian	Koalib	Koalib	th-i		RCS
	Koalib	Fungor	t-we		RCS
	Koalib	Heiban	ḥṛà		RCS
	Lafofa	Amira	te		RCS
Mande Atlantic Ijoid			— èdi pl. màdì Izõn tíḃí		M KW KW
Dogon		Tommo So	dana		Ho04
Kru		Dewoin	dúlú		ALKrCI
Gur		Dagara	zu pl. zuru		Ma75
		Lomaka	taka		ALGCI
	Adamawa	6	Karang	túl	U
Ubangian		Kpatiri	dàlè		Mo88
Kwa		Agni	tilé		ALKwCI
		Lelemi	lili pl. éli		Ho
Benue-Congo		Yoruba	orí		Ab58
		Nupe	eti		Ban
		Bantu	tóè		BLR3

Commentary: Evidence for a lateral in C₂ position is quite widespread. The **-bi** in Ijoid and **-ka** in Gur are treated as later suffixing. This root illustrates a process which I imagine is quite common in Kordofanian, the loss of C₁ of the stem and assimilation of the V of the prefix, reducing an old CVCV(CV) root to a simple CV, as the example of Lafofa suggests. Hence forms with alternating C prefixes in Kordofanian can be seen as the source of CV(CV) Niger-Congo roots. Kay Williamson says “I have tended to think that the -6- of Ijoid is old, and that its loss in some languages like Bantu leads to forms such as **tóè**” **but with no other evidence for a bilabial in this position, it seems hard to support this analysis.**

References: Westermann (1927: 287); Mukarovsky (1976:371)

19. to know

Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian	Tagoi	Orig	-ŋini		S&E
		Tagoi	-ŋəna		RCS
	Koalib	Koalib	iliŋidhi		RCS
Mande Atlantic			?		
		Gola	nima		W
		Bijogo	-ani		Sg
Ijoid Dogon		nyun	-nèn		Sg
		Ịzọn	nímí, né mí		KW
			—		
Kru Gur		Godie	yì		M
		Degha	ḷmna		M&T
Adamawa Kwa		Lobi	ni		W
			?		
		Eotile	ɲni		H
Benue-Congo		Twi	nim-		W
		Nkim	niri		W
		proto-Bantu	yíyɪ	A D E F J K M R	BLR2
		PWS	ni-, nia- + nasal [nima]		

Commentary: The Koalib form may well not be cognate as the **liŋ-** element appears as a detachable element in some languages of the group. Mukarovsky does not list this root, but he does list two roots, **#man-** and **#mi**, which might be related to the second element.

References: Westermann (1927: 266);

Family	Subgroup	Language	#kapa		Gloss	Source
			I	II		
Kordofanian	Koalib	Koalib		kaga	foot	RCS
	Talodi	Asheron	zε-gεk/nε-		leg	No00
	Tegali	Rashad		εkán	foot	RCS
	Katla	Katla	kàt pl. a-		foot	RCS
	Tagoi	Orig		tègàn		S&E
Mande		Vai		kèŋ	foot	K
		Guro	gãñě		leg	ALMSCI
Atlantic		Gola		ekpa	leg	W
		Fulfulde	koyngal		leg	Sg
		Nalu		ngbank	leg	Sg
Ijoid			—			
Dogon		Donno So		paga	leg	Ho04
Kru			—			
Gur		Lorhon		kparaya	leg	ALGCI
		Dagbane	gbale		leg	RMB
		Mono	ɓàl		<i> pied </i>	E
Adamawa			gala⁺		<i> pied </i>	Mo88
	Sango	Kpatiri		kàngà	<i> pied </i>	Mo88
Ubangian	Mba	'Dongo ko		akpa		W
		Logba		ɔ-kpà(á)	leg	KW
Kwa		Proto-Igboid		ú-kána		
	Benue-Congo	Plateau	Reshe			
		Cross river	Obolo	ú-kót		Co91
		Ekoid	Bendeghe	è-kád		Cr65
			Bafut	à-kòrò		BCCW
			PB		kónò³	E F G J K L
						M N P S
			PB	pàdí		CGNR
						BLR3

Commentary: There seem to be two inter-related roots here, depending on whether a lateral or a velar nasal is reconstructed in C₂ position. The absence of /kp/ in the Kordofanian languages cited suggests that initial /k/ must be the quasi-reconstruction. Discussed in Williamson (2000:64) but with a largely different set of cognates. Mukarovsky (1976:119) reconstructs a form #-**gwùl** for 'shin' which conflates various roots. Further work required.

References: Westermann (1927: 239); Mukarovsky (1976:119); Williamson (2000:64)

³ 'forearm, leg, hoof'

21. mouth Family	Subgroup	Language	#ŋgeN- I	#-nyo[li] II	Source	
Kordofanian	Tagoi	Rashad	ŋger		RCS	
	Lafofa	Amira	kiny		RCS	
	Heiban	Cwaya	inya pl. yinya		Guest (1997a)	
	Katla-Tima	Kaalak		ŋeŋ		RCS
		Domurik		kunye pl. unye		RCS
Mande Atlantic	Heiban	Cwaya		inyo	Gu	
		Kpelle	na		VV	
		Nyun		-rul	Sg	
		Gola	o-nyáá		M	
		Bijogo Caravela	ŋana		Sg	
Dogon	Toro		áŋa		GCG	
	Naŋa dama			no	Ho4	
Ijoid			—			
Kru		Bete		ŋo	ALKrCI	
Gur		Dagbane		nóli	Ma75	
		Bwamu		nyii	M	
		Zing	nyaa		Sh83	
Adamawa	Mumuye	proto-Gbaya		*nú	Mo88	
Ubangian		Adyukru	néŋ		ALKwCI	
Kwa		Likpe		kè-nyá/n-	M	
		Avikam		énó	ALKwCI	
	Benue-Congo		Yoruba		enũ	Ab58
			Igbo		ón↓ó	KW72
			Èdo		ùnù	Ag
			Efik		inwa	Co91
			PB		nùà	BLR3
	PWS	-ni,-nia	-nu, -nua,	W		

Commentary: There appear to be two distinct sets for ‘mouth’ which inter-relate, as both Westermann and Mukarovsky indicate. However, it is not easy to determine whether the key feature is the central vowel in V₁ position or the initial velar nasal as opposed to the nasal palatal.

References: Westermann (1927:271); Mukarovsky (1976:289, 298)

22. shoulder			#-Vbo[ro]	#-baga		
Family	Subgroup	Language	Attestation		Gloss	Source
			I	II		
Kordofanian	Heiban	Otoro	g-əbo			RCS
Mande Atlantic		Eliri	c-ebi			RCS
		Tura	gbǎ			VV
		Balanta	f-boŋ			?
		Palor		ɓagUb	upper arm	
Ijoid		Wolof		mbagg		Sg
		Apoi	apélé		shoulder	KW
Dogon		Ibani	abana		shoulder	KW
			—			
Kru		Koyo		papá		ALKrCI
Gur		Dagbani		boyu pl. bayri	upper arm	RMB
		Moore		bako	shoulder	Ma75
Adamawa		Mono		ɓàʔàl	<i>épaule</i>	E
Ubangian	Gbaya	Mbodomo		ɓàkà	arm	Mo88
Kwa		Twi		à-bókpo		ALKwCI
		Abidji	ɓbórɔ̀			ALKwCI
Benue-Congo		Idoma	àbo			Ab51
		Igbo	ùbu		shoulder	KW72
		Nupe	ebā			Ba
Bantu	Lower Cross	Anaang	á-fará		shoulder	Co91
	Manenguba	Mkaa		mbágʼ		Hed87
		proto-Bantu		bègà	A B C F G J	BLR3
		proto-Bantu		panga	M N CRS	BLR3

Commentary: Westermann (1927:212) gives this as ‘upper arm’. No reconstruction of a second syllable for Kordofanian is warranted, so S₂ appears to be a Mande-Congo development, presumably from compounding. There appear to be two series, one with a nasal/lateral in C₂ position, the other with a velar or bilabial, although with the loss of C₂ in some attestations, these cannot be assigned unambiguously. Still these forms are remarkably varied and it is likely that there has been interchange with the similar forms for ‘arm, hand’ [?] as well as ‘wing’. The reconstructed vowel change in V₁ in Bantu is surprising, especially since some A group languages still resemble Atlantic languages like Wolof. Far be from me to suggest that anything be revised in the great edifice of Bantu reconstruction. It is, however, noticeable that the more scattered form #**paŋa** better reflects its Niger-Congo antecedents.

Kay Williamson notes;

‘The Ijoid forms are interesting. Nkoro **ápá** appears to be a loan from Defaka. All other forms have C₁ p-, except for two which have b-. You’ve chosen Iḅani because it has a b-, I suppose, but it is far easier for –p- to become voiced between vowels than the reverse, so I reconstruct *p- definitely for Ijoid, possibly for NC. FU **bìrà túú** means ‘arm end’, ME **àpélé túú** may well have meant the same originally, supporting W’s gloss ‘upper arm’. It is rather difficult to reconstruct the Proto-Ijo form, but I suggest *ʔpɛ́dʒ. The implosive is suggested to account for the l/d variation, although I have not established this as a regular sound correspondence. The nasalized V₂ accounts for the -n-. The tenth vowel (+low, +exp) either becomes –exp yielding a or –low yielding e, which can become labialized to o. Now look up WING, and you will see either *pàbá, which I take to be the original word for

‘wing’, or the same *əpə́dǎ́, which I suppose has been extended from ‘shoulder’. *pàbá is rather like your Bantu panga, but the labial=velar correspondence is odd.’

References: Westermann (1927:212); Mukarovsky (1976: 33-34)

23. to sit, wait, remain, dwell, stay			#ka[le]		
Family	Subgroup	Language	Attestation	Gloss	Source
Kordofanian	Rashad	Tegali	ka	remain!	RCS
Mande		Maninka	kónó	wait	VV
Atlantic		Temne	kàr	wait	M
		Bijogo	-oka	sit	Sg
		Mankanya	ruka	sit	Sg
Ijoid		Ibani	kǎ́	remain	KW
Dogon			—		
Kru		Bete Daloa	kònu	wait for	ALKrCI
Gur		Buli	kali	sit down	K
Adamawa	Senufo	Tagwana	klé	sit down	ALGCI
	Mumuye	Zing	ga	to wait for	Sh83
		Mono	kyàŋ	<i>attendre</i>	E
		Karang	kàp	<i>s'asseoir</i>	U
		Duru	kààle	sit	Bon
Kwa		Gonja	kà		Rytz
Benue-Congo		Yoruba	-kalè	sit down (in compounds only)	Ab58
		Nupe	ka	wait	Ba
	Bantu		PB	yikad	sit, dwell
		CB	kàd-	sit, dwell	G

Commentary: There is no evidence for the existence of S₂ in Kordofanian, so this may be a Mande-Congo innovation through compounding.

References: Westermann (1927:230); Greenberg (1963:156); Mukarovsky (1976:142-3)

24. tail, handle	-di(r)-					
Family	Subgroup	Language	Attestation	Gloss	Source	
Kordofanian	Talodi	Masakin	ɥ-udi	tail	Cr84	
	Talodi	Asheron	gu-ɖik/rə-	tail	No00	
	Heiban	Koalib	ɥ-ia/ɖ-	tail	RCS	
	Katla-Tima	Domurik	kö-ɖré/ɾ-	tail	RCS	
Mande		Mandinka	túlu	handle of pot/basket	VV	
Atlantic		Mankanya	tant	(p-/i-)	Sg	
		Palor	luk	(Ø-/y-)	Sg	
Dogon		Jamsay	durɔ		Ho04	
Ijoid		Nkoro	tumɔ	tail	KW	
Kru		Kuwaa	ɲidewúlú	exceptional for Kru	ALKrcI	
Gur		Wama	du-re/-ya		Ma75	
		Safalaba	zuri		Ma75	
		Zing	dèn		Sh83	
Adamawa	Mumuye					
Ubangian		proto-Gbaya	*dòm	<i>queue</i>	Mo88	
Kwa		Ega	ùlù	<i>queue</i>	ALKwCI	
		Agni	dúò	<i>queue</i>	ALKwCI	
Benue-Congo		Yoruba	ìrù	tail	Ab58	
	Jukunoid	Kuteb	ù-tùm pl. à-	horse-tail	Sh	
	Mambiloid	Vute	dūúm		Co	
		PB	—		BLR3	
		PWS	-lu-	tail, handle	W	

Commentary: Westermann's original set probably conflates two distinct roots; -du- which is widespread for 'hoe' in the Benue-Congo area and may sometimes be applied to hoe-handles and -lu-, which as Greenberg (1963:158) points out is much more widespread for 'tail'. Not listed by Mukarovsky. Note also Krongo **ùtì**.

References: Westermann (1927:252); Greenberg (1963:158);

4. Conclusion

It must strike any reader that the number of reconstructions that can be confidently attributed to proto-Niger-Congo (i.e. Mande-Congo plus Kordofanian) is extremely small, and some of these given here may yet be undermined once Kordofanian is better-known. Secondly, although Kordofanian languages have alternating affixes, these can only be aligned with the rest of Niger-Congo by ignoring the many pairings that do not 'fit'. I hope the number will increase in the years to come, but it seems likely the number will remain small and the reconstructions controversial. The potential for regular sound-correspondences appears to be zero.

Secondly, the relationship between Kordofanian languages is far from certain. There are very few candidates for shared innovations and some of these are undermined by the presence of scattered attestations outside Kordofanian.

Appendix 1. Evaluation of Greenberg's proposed cognate sets for Niger-Kordofanian

The following list evaluates Greenberg's proposed cognate sets. Essentially these are divided into; under investigation, discussed and extended above, so shaky as to be not worth further investigation and widespread in other Niger-Congo languages and thus not evidence for the affiliation of Kordofanian.

1. All #pet

Greenberg displays a series of #pet(e) forms in Niger-Congo. Similar forms are found in various branches of Nilo-Saharan and in Sahelian Arabic.

2. And #na

Forms such as **na** for 'and' are extremely widespread, not only in Africa, but in the world. English 'and' is part of the global distribution of conjunctions of nasal + central vowel.

3. Antelope #ri/di

Africa has some thirty species of indigenous antelope as well as a highly ramified cattle terminology. It would be problematic not to discern some resemblances between the many thousands of possible lexemes that could be compared.

4. Arm #ɲin

Under investigation

5. To be #ro/ri

There are so many forms of the copula that it is impossible not to find some look-alikes.

6. To bear child/fruit #ma/mu

Another root found widely across Africa, even in Khoesan and certainly not restricted to Niger-Congo. This probably has a phonaesthetic component like some words for 'mother'.

7. To beat #bVrV

Under investigation
Proto-Ijo vó↓rɔ́ 'flog'

8. To beg ?

Greenberg's comparison here is extremely weak.

10. To bite #lam

Widespread in Africa, especially in Nilo-Saharan. See

Appendix 2.

11. blood #nyiN

Discussed above

12. to break off #kar

Widespread in Africa, not confined to Niger-Congo/

13. to buy #la

Widespread in Nilo-Saharan, see 26. below.

14. child #ba

As Greenberg observes this is in alternation with Niger-Congo #bi.

15. to cut #-ti

Discussed above in 6.

16. ear #nu

Discussed above in 8.

17. to eat #le

Discussed above in 10.

18. elephant

Discussed above in 12.

19. far

Greenberg's comparison here is extremely weak.

20. head #-du

Greenberg's comparison is only with Kadu languages, but there are cognates in Kordofanian, discussed in 18..

21. hill ?

Greenberg's comparison here is extremely weak.

22. to know #nyi

Widespread in Nilo-Saharan. Discussed below in 25.

23. large, thick ?

Greenberg cites a wide range of forms and Kordofanian exhibits great lexical diversity. Discussed (sceptically) by Schadeberg (1981c:193).

#-or- 'belly' (G.:154)

24. mouse ?#pwi

This root looks quite plausible but the best Mande-Congo roots occur in Kadu not in Kordofanian. There are of course many species of mouse and rat (I recorded eight distinct names in Kufo, a Kadu language) which may mean that, like 'antelope', it is too easy to find cognates.

25. mouth #nyu

Discussed above in 21.

26. oil ?#gba

This root under investigation, but there is another more convincing root for 'fat, oil' (13.).

27. to remain #ka

Discussed above in 23.

28. river #-bɔ

Undoubtedly a Mande-Congo root, but Kordofanian cognates very shaky.

29. rope #rik

This does look convincing. Under investigation
Ijo *diki

30. to run #bəri

Under investigation.

31. shoulder

There appear to be two distinct roots, for 'shoulder' and 'arm' which are probably conflated in Greenberg's list. 'Shoulder' is discussed under 22.

32. skin

Undoubtedly a Mande-Congo root but Kordofanian evidence is extremely weak.

33. small #tin

English 'tiny' is probably a loanword from Kordofanian. Possible, although, like 'large', this word is very diverse in Kordofanian.

34. to speak

Greenberg's forms compared seem to be extremely diverse.

35. spear

Undoubtedly a Mande-Congo root but Kordofanian evidence is extremely weak.

36. star

Under investigation.

37. to steal

Greenberg's forms compared seem to be extremely diverse.

38. sun

Under investigation.

39. tail

Discussed above in 24.

40. to take

Greenberg's comparison here is extremely weak.

41. to think

Greenberg's comparison here is extremely weak.

42. thorn

Undoubtedly a Mande-Congo root but Kordofanian evidence is weak. However, also widespread in Nilo-Saharan (Blench 1995 and 28.). Cited twice by Greenberg without a connection being made.

43. three

Undoubtedly throughout Niger-Congo but also widespread in Nilo-Saharan. Also discussed by Williamson (2000).

44. throat

Widespread in Africa. Discussed in Blench (1995) and 29.

45. tongue

Widespread in Africa. Discussed in Blench (1995) and 31.

46. tooth

Widespread in Africa. Discussed in 30.

47. tortoise

Pan-African root. Discussed in Blench (1997)

48. urine

Probably a widespread loanword rather than an old root. Occurs in Afroasiatic.

49. vein

This is the same root as 'rope' (29. above)

50. white

Under investigation.

51. to wish I.

Greenberg's comparison here is extremely weak.

52. to wish II.

Under investigation.

Appendix 2. Widespread African roots that are not evidence for the affiliation of Kordofanian

The following tables are drawn from various sources, including Blench (1995, in press a,b) which are arguments for a Niger-Saharan macrophylum. Many of the roots cited by Greenberg (1963) and Williamson (2000) are found widely outside Niger-Congo and so cannot be evidence for the genetic affiliation of Kordofanian, although they may be an expression of it. The format of the tables is not perfectly harmonised with those in the main text.

25. to know #ɲeli				
Ph	Family	Language	Attestation	Source
NS	Kuliak	Ik	íye-és	Heine (1999)
NS	ES	Gaam	ɲel	BA80
NS	ES	Liguri	yəx	Thelwall (1981)
NS	ES	Sungor	nyel	RCS
NS	ES	Lopit	hí-yén	Voßen (1982)
NS	CS	Ma'di	nì	Blackings (2000)
NS	Saharan	Kanuri	noŋ-	Cyffer (1994)
NC	Kordofanian	Orig	-ɲini	S&E
NC	Kordofanian	Koalib	iliɲidhi	RCS
NC	PWS		ni-, nia- + N	W.266
NC	Atlantic	Biafada	yan	Seegerer (n.d.)
NC	Ijoid	Izon	némí/nímí	Williamson (p.c.)
NC	Kru	Tepo	yì	ALKrCI
NC	Gur	Palaka	yõ	ALGCI
NC	Ubangian	Gbanzili	ɲì	Moñino (1988)
NC	Kwa	Adele	ɲĩ	Rongier (n.d., a)
NC	WBC	Urhobo	niē	Elugbe (1989)
NC	EBC	Iyongiyong	yín	St
NC	Bantu	CB	mèny	Guthrie CS 1301

Commentary: The -l- in C₂ position in Nilo-Saharan generally becomes -n- in Niger-Congo, but it is then difficult to account for C₂ -m- in Ijoid and its possible metathesis in Bantu. Mukarovsky (1976-77, II:273) reconstructs #min-, but his evidence suggests this is a distinct root characteristic of Gur, but it may be that composite forms evolved somewhere within Niger-Congo. The Koalib form may well not be cognate as the liɲ- element appears as a detachable element in some languages of the group.

Ref: W. 266; M. 375

26. #tala		buy, sell				
Phylum	Group	Language	Attestation	Attestation	Comment	Source
NS	Kunama	Kunama	-taa		buy	RCS
NS	Maban	Maba	rak-		buy	RCS
NS	ES	Nera	tol, dol		buy, sell	RCS
NS	ES	Murle	taal/a		buy	RCS
NS	ES	Nyimang	ṭaṭi		buy	RCS
NS	CS	Bagirmi	ndug ^w o		buy	RCS
NS	Fur	Fur	-la		buy, sell	Beaton (1968)
NS	Saharan	Zaghawa	là		buy	RCS
NS	Songhay	Kaado	déi		buy	DC
NC	Kordofanian	Katla	la		buy	RCS
NC	Mande	Mwa	lo		sell	P
		Guro	dá		to sell	VV
	Atlantic	Palor	lom		to buy	Sg
NC	Ijoid	PI	*dèrɪ		sell	KW
NC	Kru	Guéré	dē		buy	ALKrCI
NC	Gur	Mõõre	dà		buy	Man
NC	Kwa	Avatime	dà		sell	ALKCI
NC	EBC	Yoruba	rà		buy	A58
		Igbo	ré		sell	KW
NC	BC	CB	#dand-		buy	Gt

Commentary: There are clear traces of nasalisation or a nasal in C₂ position at the level of Benue-Kwa. Some Mande forms have back vowels throughout but otherwise show the same alternations between l/d that characterise other branches of Niger-Congo.

References: Gr:81; M:91; W:248

27. #papa		moon				
Phylum	Group	Language	Attestation	Attestation	Comment	Source
NS	Koman	Uduk	ape		àppéé (Ehret)	Bender (1983)
NS	Maban	Masalit		áyè	? C	E
NS	ES	Kakwa	yápà			Vo82
NS	ES	Maasai	ɔl-ápà			Vo88
NS	ES	Mabaan	paan			RCS
NS	CS	Baka	pɛ ⁺			Brisson (1975)
NS	CS	Yulu		jēɛp		Bo
NS	Songhay	Kaado	hàndù		?C	DC
NC	Kordofanian	Moro	u-βwa /n-		?C	Sch81b
NC	Atlantic	Bullom	i-pan			W
NC	Kru	Bete		nape		ALKrCI
NC	Gur	Kulango	fɪɲɔ			ALGCI
NC	Ubangian	Mbanza		jéɪ		Mo
NC	Kwa	Ebrie	pè			ALKCI
NC	WBC	Kupa	ɛpa			RMB
NC	EBC	Horom	u-fel			RMB

Commentary: Westermann (276) reconstructs this for PWS (proto-Atlantic-Congo on his evidence) as #-pian-. In both Nilo-Saharan and Niger-Congo forms corresponding to #**ɲVpV**- recur; these are listed in second column. Either these represent independent inversions of the syllables or else they represent an old variant derived through compounding. The Eastern Nilotic forms strongly suggest a reconstruction with

initial l-; Voßen (1982:395) proposes **-lyapat-*, but this may arise through the incorporation of the determiner into the stem (see cognate Maasai form). Although common in East Benue-Congo there appears to be no corresponding PB form.

Ref: Ehret (1998) 444; Gr:85; W:276

knee	#kulu					
Phylum	Family	Language	Attestation	Comment	Source	
NS	Shabo	Shabo	hutu/kutti		Teferra (p.c.)	
NS	Kuliak	Ik	kutuŋ		Heine (1975)	
NS	Koman	Kwama	dugul		RCS	
NS	Berta	Berta	guŋuŋ		RCS	
NS	Kunama	Kunama	tùgà	?C	Bender (ms.)	
NS	Maba	Mesalit	kàdíńó		E	
NS	Fur	Fur	kùrù		Jakobi (1990)	
NS	ES	Kenzi	kur(ti)		RCS	
NS	CS	Mangbetu	nè-káátì	pl. è-	Demolin (p.c.)	
NS	Saharan	Beria	kurru		G	
NS	Kadugli	Katcha	kúúgé	pl. nu-gúúgi	Sch94	
NC	Kordofanian	Tima	kuruŋa		RCS	
NC	Ubangian	Yakoma	li-kūrū		Mo	
NC	Kwa	Ewe	kòlí		Ro	
NC	Bantu	*PB	-kónò	leg	Me	
AA	Omotic	Wolaytta	gulba-ta		LS	
AA	Cushitic	*PC	*gulb-/*gwilb-		Ehret (1987:24)	
AA	South Cushitic	Dahalo	gilli		LS	
AA	Agaw	Bilin	gərəb		LS	
AA	Chadic	Sukur	kırım		JI	
AA	Chadic	Tera	xulukti		JI	
KS	Southern	!Xóǀ	g xúũ		Traill (1994)	
KS	Central	Kxoe- /Anda	kúdù		Vo97	
KS	Central	Shua-Cara	(kú)kúdù		Vo97	
KS	Northern	Ju ’hoan	g!xòà		Dickens (1994)	

Commentary: A preliminary version of this dataset appears in Blench (1997). Gregersen (1972) treats these as two distinct sets for ‘leg’ and ‘knee’ but they are probably to be put together and the more doubtful cognates discarded. Bender (1996:133) pursues linkages that includes a purported PNC root **k^hon* for ‘knee’ and brings in Mende **kon** ‘head’ because the ‘knee as head of the leg’. This analysis is not used here.

Refs: (B:133; B81:261, Gr.:82,84, G.:101,123, M.:II:223)

		#kur 'stone, hill'			
NS	ES	Nubian	kul, kur	stone	
	ES	*PN	*kɔr	stone	
	ES	Tama	kwura	stone	
NS	Maba	Maban	kɔdɔ-k	stone	
NS	CS	Fer	kòt	stone	
	CS	Yulu	káŋ	stone	
NS	Songhay	Songhay	guru	hill	
NS	Saharan	Kanuri	kâu	stone	
NC	Kordofanian	Ebang	k-ɔl (ɲ-)	stone	
NC	Mande	Malinke	kulu	rock	
NC	BC	Nupe	ta-kũ	stone	
NC	Bantu	#CB	-gùe	stone	
NC	Bantu	#CB	-gùdù	stone	

Commentary: Neither Westermann nor Mukarovsky reconstruct the -ku element for Niger-Congo although Westermann remarked on it. In Benue-Congo it frequently appears compounded with the more common -ta. Ta- appears in at least one NS language, Fur, which has **taru** for boulder. Gregersen (1972:87) appears to be the first to have collected the (admittedly scattered) attestations. Notice that the semantic association of stone and hill appears in Afro-Asiatic as well, e.g. Hausa *dutse*. Gregersen associates terms for 'testicle' with 'stone', a comparison also made in colloquial English. I think discussed in BCCW.

Refs: D.:53, Gr.:87)

28. thorn		#kaN-			
Family	Subgroup	Language	Attestation	Gloss	Source
NS	Songhay	Songhay	kardyi		
NS	Saharan	Kanuri	kalgî		
NS	Komuz	Anej	aak		
		Twampa	káakà	'sharp'	
NS	ES	*PN	*ku-kua		
NS	CS	Mangbetu	koko		
NS	CS	Fer	kúŋ_	épine	
NC	Atlantic	Bedik	ge-kwósʸ		
NC	Gur	Seme	kəme		
	Gur	Gulmance	konkon-u (-i)		
NC	BC	Nupe	ekã		
NC	Bantu	*PB	-igua		(Bourquin 1923:45)

Commentary: This root was recognised by Greenberg (1963: 126) as diagnostic for the Sudanic languages but not as a widespread Nilo-Saharan root. However, he also uses it as evidence for Niger-Kordofanian (Greenberg 1963:159). Mukarovsky (1976, Root 171) has a somewhat different reconstruction #-ghwuni, which does however, retain the velar in C₁ position. There are scattered attestations of a nasal consonant in C₂ position in Niger-Congo as well as in Central Sudanic, making this a possible innovation at the Congo-Central Sudanic node.

References: Greenberg (1963: 126, 159); Mukarovsky (1976:129)

29. Throat, voice, neck #goro

Family	Subgroup	Language	Attestation	Gloss	Source
NS	Saharan	Kanuri	kówo	voice	
NS	Fur	Fur	gərəŋərəŋ	throat	
NS	CS	Aja	kərəkə		
NS	CS	Logbara	ɔgərə	neck	
NS	CS	PCS	#Gol~r	neck	
NC	Kordofanian	Moro	lo-gor (pl. ŋo-)	throat	
NC	Adamawa	Mumuye	kórò	windpipe	
NC	BC	Gurmana	gərəgərə	nape	

Commentary: Reconstructed by Bender (1992:35) as an isogloss for Central Sudanic, but clearly a very widespread root. Williamson (1989b:253-254) gives a proliferation of forms within Benue-Congo.

References: Greenberg (1963: 159);

30. tongue

#deNe

Family	Subgroup	Language	Attestation	Gloss	Source
NS	Komuz	*PK	*let'		
NS	Songhay	Songhay	dèenè		
NS	Saharan	Kanuri	tó-lam		
NS	ES	*PEN	*ŋa-dyep		
NS	CS	Baka	dèndènè		
NS	Maban	Maba	delmi(k)		
NC	Kordofanian	Talodi	loŋe		
NC	Mande	Busa	léná		
NC		PWS	#-lima		
NC	Bantu	*PB	*-deme		

Commentary: The Koman forms are assumed to be a metathesis of the 'del' forms with d→t, whereas the initial laterals in Niger-Congo are presumably a weakening of d→l. The only confusing factor are the Saharan forms which raise the possibility of the deletion of the dV- prefix. This is one of the most satisfying PCS glosses as the word occurs in a remarkably similar form throughout both families.

Refs: C.:316, Greenberg (1963: 146, 159), Gregersen.:88

31. tooth

#nyi

Family	Subgroup	Language	Attestation	Gloss	Source
NS	ES	Birgid	jildi		
NS	Kadugli	#PKado	*-ini		
NC	Kordofanian	*PR	*-ŋiŋ		
NC		#PWS	*-ni, *-nin-		

Commentary:

Refs: B:258, G.:23, S.:1981, W.:267

Appendix 3. The Kordofanian languages: listing and classification

Kordofanian falls into four major groups, Katla, Heiban, Talodi-Tegem and Rashad. The following tables show the sub-groups found in Stevenson's notes⁴ and the equivalent names published by Schadeberg. The composition of the subgroups is as follows;

Katla-Tima in RCS' notes

RCS	Schadeberg	Current
Katla	Kalak	Kaalak
Tima	Lomorik	Domorik

Table A- 1. The Heiban (=Koalib-Moro) languages

RCS	Schadeberg	Current
Koalib	Rere	Kwalib
Heiban	Ebang	
Shwai	Shirumba	
Laro	Laru	
Otoro	Utoro	
Tira	Tiro	
Moro	Moro	
Fungor/Kau/Nyaro	Ko	
Werni	Warnang	
Lukha	Logol	

Kaki et al. (1998) is a ms. phonology of Hadara (Lote) which appears to be a variety of Kwalib.

	RCS	Schadeberg
Rashad	Rashad	Gom
(Tegali-Tagoi in RCS' notes)	Tegali	Tegali
	Tumale 2	Umale
	Kajakja	
	Tagoi	Goy
	Turjuk	Orig
	Moreib	
	Tumale 1	

Note: RCS distinguished two forms of Tumale in different groups. He collected Tumale 2 himself. Tumale 1 was extracted from Meinhof/Tuschek.

⁴N.B. Sometimes different from his early published work

Table A-2. The Talodi-Masakin languages

RCS	Schadeberg	Current
Talodi	Jomang	
Eliri	Nding	
Masakin Tuwal	Dengebu	
El Aheimar	?	
Daloka	Ngile	
Acheron	?	Asheron
Tacho	Tocho	
Torona	?	
Lumun	?	
Lafofa	Tegem	
Amira	?	

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