

THE PROBLEM OF PAN-AFRICAN ROOTS

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ABSTRACT

A problem of establishing macrophylic relations in Africa is the existence of common lexical items are shared between the phyla in ways which do not suggest can they be used as evidence for a genetic connection. This suggests that proposals for large-scale language classification in Africa may be flawed by a failure to consider the transphylic distribution of many roots. The paper gives some examples of such lexical items and canvasses possible explanations;

- a) they are ancient loanwords
- b) they are convergent because of common phonaesthemes
- c) African language phyla really are all related
- d) they are retained from an early stage of world language diversification

Some roots seem to have a wider distribution in Eurasia, which suggests that d) may be relevant in some cases.

Acronyms and Terminology

I have adopted the convention for reconstructions used in the Niger-Congo volume edited by Bender-Samuel (1989), distinguishing those established by regular sound-correspondences from those derived by quick inspection of cognates. By this criterion, most major reconstructions are 'quasi-reconstructions' (inevitably). The effect of this is to translate the starred forms of various writers to hache '#'.

* Reconstruction established from complete analysis of sound-change

'Pseudo-reconstruction' established from quick inspection of cognates

Acronym	Expansion or source	Reference or language treated
A49	Abrahams (1949)	Hausa
AA	Afroasiatic	
ALGCI	Mensah & Tchagbale (1983)	Gur
ALKCI	Hérault (1983)	Kwa
ALKrCI	Marchese (1983)	Kru
ALMCI	Halaoui, Tera and Trabi (1983)	Mande
B	Bender (1997)	Nilo-Saharan
B79	Bender (1979)	Gumuz
Ba	Bailleul (1996)	Bambara
Ban	Banfield (1914)	Nupe
BC	Benue-Congo	
BCCW	Williamson & Shimizu (1968) & Williamson (1973)	Benue-Congo
BWK	Bernard & White-Kaba (1994)	Zarma
C	Consonant	
CB	Common Bantu	Guthrie 1967-71
Chr	Christaller (1933)	Twɪ
Co91	Bruce Connell (p.c.)	Lower Cross
Cy	Cyffer (1994)	Kanuri
D	Dimmendaal (1988)	Proto-Nilotic
DC	Ducroz & Charles (1978)	Songhay Kaado
Demolin	Didier Demolin (p.c.)	Central Sudanic
E	Ehret (2001)	Nilo-Saharan
Ed	Edgar (1991)	Maba group
ES	Eastern Sudanic	
G	Greenberg (1963)	African languages
Gr	Gregersen (1972)	Kongo-Saharan
GS	Guillaume Segerer (p.c.)	Atlantic
Gt	Guthrie (1967-1971)	Bantu
HECD	Hudson (1989)	Highland East Cushitic
JI	Jungraithmayr & Ibrizimow (1995)	Chadic
JC	Jakobi & Crass	Zaghawa
JS	Jan Sterk (p.c.)	Upper Cross
KW	Kay Williamson (†) (p.c.)	Ijoid, Cross River
LS	Lamberti & Sottile (1997)	Cushitic and Omotic
M	Mukarovsky (1976/7)	Proto-Western Nigritic [=Proto-Atlantic-Congo]
Ma	Manessy (1975)	Oti-Volta
MK	Mous & Kießling (2004)	Southern Cushitic
Mo	Moñino (1988)	Ubangian
N	Nasal	
NC	Niger-Congo	
NS	Nilo-Saharan	

Acronym	Expansion or source	Reference or language treated
P	Prost (1953)	South Mande
PB	Proto-Bantu	
PD	Proto-Daju	Thelwall, 1989
PI	Proto-Ijo	Williamson, in prep.
PM	Perrin & Mouh (1995)	Mambila
PN	Proto-Nilotic	
PNC	Proto-Niger-Congo	
PNS	Proto-Nilo-Saharan	
PWN	Proto-Western Nigritic	Mukarovsky, 1976/77
PWS	Proto-West Sudanic	Westermann, 1927
RCS	Roland Stevenson mss.	Nilo-Saharan, Kordofanian
RMB	Author's fieldwork	
Ro	Rongier (1995)	Ewe
Sands	Bonny Sands (p.c.)	Hadza, Sandawe
Sch94	Schadeberg (1994)	Kadu
V	Vowel	
Vo82	Voßen (1982)	Eastern Nilotic
Vo88	Voßen (1988)	Maa
Vo97	Voßen (1997)	Khoisan
VV	Valentin Vydrine (p.c.)	Mande
W	Westermann (1927)	Western Sudanic

...at the time of his compilation...the desire to astonish the World by the number and variety of Languages, and to supply materials to the builders of Philological Castles in the air, based upon words, brought together, and their fancied resemblance: with this object the compiler collected words from every part of Africa, not only of Languages,, but of Dialectal Varieties of Languages, quotations from published works, or from manuscripts..

Cust (1883:27)

1. Introduction

In a paper¹ ‘Is Niger-Congo simply a branch of Nilo-Saharan?’ (Blench 1995) I proposed that Niger-Congo and Nilo-Saharan formed a single macrophylum and adduced lexical, phonological and morphological evidence for this hypothesis. Although two further papers (Blench in press a,b) present additional evidence for the Niger-Saharan hypothesis, a consequence of trawling the literature has been the identification of proposed Niger-Saharan glosses are also shared with Afroasiatic and even Khoisan, which rules them out as evidence for a genetic connection. Some of the lexical items presented in Blench (1995) as evidence for Niger-Saharan turn out to have a still wider distribution in Africa. Examples are #*kulu* ‘skin, hide’, #*kulu* ‘knee’, #*kuru* ‘tortoise, turtle’. This is rather surprising, since even those addicted to wide-ranging hypotheses do not usually consider all African language phyla to form a single macrophylum. Some roots also seem to have a wider distribution in Eurasia, which may point to early diffusion with human expansion. Blench (1997) presented some preliminary evidence for some of these widespread roots and proposed a type of phonaesthetic convergence related to cultural salience, in particular the earliest phases of human expansion, when gathered aquatic resources such as crabs and turtles were of considerable dietary importance. Clearly, this is relevant, but will not explain every case; why should body parts such as ‘knee’ be more convergent than more ‘head’? Westermann (1927) in his pioneering identification of ‘West Sudanic’ common lexemes (Niger-Congo in modern terms) also identified *Wanderworte*, ‘wander-words’ that show up in widely differing language families in similar form. An example is *aku*, for grey parrot (*Poicephalus senegalensis*) recorded from Senegambia to Southern Sudan and even in diaspora communities in Brazil. Why should this word conserve its form when many more culturally salient birds have names that are replaced and diversify phonologically?

The existence of transphylic roots has the more general consequence that some elements of proposals for large-scale language classification in Africa may be flawed by a failure to consider these wider distributions. They also suggest a methodological problem for the comparativists, which depends broadly on lexical and phonological diversification. Particular lexemes that are clearly not recent loanwords, simply do not diversify like others, without clear semantic motivation. For the comparative method to work, these have to be leached out of datasets. This paper² gives some examples of such pan-African lexical items and considers what hypotheses can be used to explain their occurrence. Possible explanations that have been canvassed are;

- a) ancient loanwords
- b) convergence through common phonaestemes
- c) African language phyla really *are* all related
- d) transphylic roots are retained from a very early stage of language diversification

It is important to emphasise that not all words with a transphylic distribution in Africa belong to a marked conceptual set or have an evident phonaesthetic element. The tables presented below represent preliminary datasets intended to identify common forms encountered in the search for Niger-Saharan roots.

¹ Parts of this paper were originally presented as an appendix to a paper on the proposed Niger-Saharan macrophylum at the VIIth Nilo-Saharan Conference in Vienna, 2-6th September, 1998. Although it was sent to the editor, Norbert Cyffer, in 1999 and proofed in 2000, it has never appeared and will probably now not be published.

² I would here like to acknowledge the influence of Hal Fleming, for whose Festschrift this has been prepared, as well as the pioneering work in editing Mother Tongue and making available speculations on the links between world language phyla. Thanks also to John Bengtson for additional cognates

2. Setting out the evidence

Broad transphylic comparisons require large data tables, and inevitably draw on a wide range of materials. Earlier scholars, such as Westermann and Greenberg, did not cite a reference for specific lexical items and did not give a complete bibliography of sources. This is a long, tedious task, takes up considerable space and time and may have seemed unnecessary. Moreover, those who pioneer in a field rarely heed the scholarly conventions of a less trustful age. But science is nothing if not about repeatability; we should be able to check the claims of historical linguists just as much as those of laboratory scientists. Language citations therefore provide sources, and proto-languages, marked by starred forms, must be carefully treated. Where I have been unable to confirm other authors' cited attestations in the data tables below these are silently omitted. Semantically, the datasets given below are extremely conservative, since permitting a wide range of comparisons is the most common critique of 'world etymologies'.

A common but problematic practice in this area is the citation of starred forms to represent families or even phyla. If such forms are based on the intensive reconstruction of a small group of well-studied languages this may have some validity, but generally these forms are quasi-reconstructions based on rapid inspection of purported cognates, and often the source is frankly mysterious. Thus Ehret (2001) cites starred forms for proto-Central Sudanic, the source of which is unclear. Only one reconstruction of Central Sudanic has been published (Bender 1992) but Ehret does not cite this and his forms do not agree with it. Bender (1997: 131 ff.) has a section titled 'items linking N-S and N-C' where he cites a number of forms for *N-C. These eschew the two major published sources (Westermann 1927; Mukarovsky 1976-77) and list forms not recognisable to scholars of Niger-Congo. Starred forms must therefore be treated with a considerable degree of scepticism unless their pedigree is well-established³.

3. Data tables: pan-African roots

The following tables present datasets for pan-African roots and include some examples of extra-African cognates. The forms preceded by # are common forms created for the purpose of reference rather than reconstructions. A gloss is only given when the meaning differs from the head gloss.

³ Another common problem is that the 'Common Bantu' reconstructions of Guthrie (1967-1971) are frequently cited as Proto-Bantu. Guthrie did not intend this to be the case and many of these forms are demonstrably *not* Proto-Bantu.

1. #6woN come

Phylum	Group	Language	Attestation	Comment	Source
NS	ES	proto-Daju	* ḡoN		RCS
NS	ES	proto-Nilotic	* ḡun	pl. * pɔ	D
NS	ES	Nuer	ben		RCS
NS	ES	Padang Dinka	bo		RCS
NS	ES	Mabaan	bɛɛd		RCS
NS	ES	Nara	wɔ		E
NS	Fur	Fur	bo-	reach	Jakobi (1990)
NC	Dogon	Walo	wá		RMB
NC	Mande	Guro	ḡo		ALMCI
NC	Atlantic	Mankanya	bi, ban	<i>arriver</i>	GS
NC	Ijɔ	Proto-Ijɔ	* ḡó		KW
NC	Gur	Deg	bà		ALGCI
NC	Adamawa	Waja	ba-		Kleinewillinghöfer (1991)
NC	Kwa	Twi	bà		Chr
NC	WBC	Ọnịca Igbo	-bra		Williamson (1972)
NC	EBC	Pe	bén		RMB
AA	W Chadic	Yiwom	bèl		JI
AA	W Chadic	Kulere	bo		JI
AA	W Chadic	Tsagu	bàà		JI
AA	C Chadic	Tera	ḡa		JI
AA	E Chadic	Mawa	ooboŋ		Jim Roberts (p.c.)

Commentary: Not attested in Khoesan and Afro-Asiatic outside Chadic. Westermann (p. 209) noted that this word frequently shows up as a future auxiliary in Niger-Congo languages. Dimmendaal (1988:35) notes that the irregular plural ***pɔ** must be reconstructed to Proto-Nilotic and forms with initial p- appear elsewhere, hinting at a still greater time-depth. Palatalisation is scattered throughout Niger-Congo but nowhere forms a consistent pattern. cf. also some Indo-European forms, e.g. French *viens!*

Ref: W:209, E:563

2. #keri to split, cut, break

Phylum	Group	Language	Attestation	Gloss	Source
NS	Kuliak	Ik	ka-uʔot-	cut	Heine (1999)
NS	Koman	Uduk	kwal	split	Bender (1983)
NS	Berta	Undu	kʃrā	split hard substance	RCS
NS	ES	Dongola Nubian	gor	cut grass	RCS
NS	ES	Nyimang	kɪr	cut	RCS
NS	Fur	Fur	karr-	split	Jakobi (1990)
NS	Saharan	Daza	kər	<i>couper</i>	Le Coeur (1950)
NS	Saharan	Beria	kót	<i>couper</i>	JC
NS	Songhay	Zarma	körtù-	tear, split	BKW
NC	Dogon	Ana	keɖele	cut	RMB
NC	Ijoid	Proto-Ijò	pélé	cut	KW
NC	Mande	Bambara	kári	cut	Ba
NC	Atlantic	Bullom	keth-	<i>couper</i>	GS
NC	Kru	Nyabwa	cei	cut	ALKrCI
NC	Ubangian	Ndunga-le	-kèlé-	cut	Mo
NC	WBC	Onïca Igbo	-cà	cut	Williamson (1972)
NC	EBC	Tarok	ca	break, cut	RMB
AA	Omotiic	proto-Dizoid	k'aat'-	cut	Bender (2003:302)
AA	Central Cushitic	Arbore	k'uur-	cut	LS
AA	Agaw	Bilin	kər	break	LS
AA	Cushitic	Dahalo	k'eer-	chop	LS
AA	South Cushitic	Iraqw	qeet	be broken	MK
AA	Berber	Kabyle	cerref	<i>couper</i>	Dallet (1982)
AA	Chadic	Masa	káná	cut	JI
AA	Chadic	Dghwede	kɫà	cut	JI
AA	Chadic	Warji	kón	cut	JI
AA	Chadic	Ngas	can	cut	JI
KS	Southern	!Xóǀ	t'kx'ála	open meat to flatten it	Traill (1994)
KS	Central	Proto-East Khoe	*kade	cut flesh in strips	Vo97

Commentary: This lexeme has been proposed as a ‘world etymology’, and the cognate set would presumably then including English ‘cut’ (see Bender 1997:122 for more Nilo-Saharan examples). In Cushitic and Omotic these forms are very widespread (see examples under **k'er** ‘split’ and **kaal-ta** ‘axe’ in Lamberti & Sottile 1997:411, 435).

Refs: Gr:80; G:97,135,154; B:122, 133

3.#kulu knee

Phylum	Family	Language	Attestation	Comment	Source
NS	Shabo	Shabo	hutu/kutti		Teferra (p.c.)
NS	Kuliak	Ik	kútúŋ		Heine (1999)
NS	Koman	Kwama	dugul		RCS
NS	Berta	Berta	guŋuŋ		RCS
NS	Kunama	Kunama	tùgà	?C	Bender (ms.)
NS	Maba	Mesalit	kàdíńó		Ed
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	kóru		JC
NS	Kadu	Katcha	kúúgé	pl. nu-gúúgi	Sch94
NC	Dogon	Tebul Ure	kundugo		RMB
NC	Ijoid	Biseni	íkóníée		KW
NC	Mande	Soninke	xuruŋi/o	pl. -onu	VV
NC	Atlantic	Bijogo C	kunu	pl. ŋanu [<i>genou</i>]	GS
NC	Kordofanian	Tima	kurun̄a		RCS
NC	Ubangian	Yakoma	li-kũũ		Mo
NC	Kwa	Ewe	kòlí		Ro
NC	Bantu	Zones C, H etc.	#-koto, -godo	knee	BLR3
NC	Bantu	Zones E, F etc.	-kónò	forearm, leg	BLR3
AA	Omotiic	Wolaytta	gulba-ta		LS
AA	Cushitic	*PC	*gulb-/*gwillb-		Ehret (1987:24)
AA	S Cushitic	Asax	ngulu-et		MK
AA	Cushitic	Dahalo	gilli		LS
AA	East Cushitic	Sidamo	gulube		HECD
AA	Agaw	Bilin	gərəb		LS
AA	Semitic	Amharic	gulbät		HECD
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. There are two potential cognates, in Bantu, the more widespread **#-kónò** which generally means ‘forearm’ and the less common **#-koto/godo** which is knee directly. It is more probable that the rare forms are genuine cognates and **#-kónò** just a chance resemblance. Bender (1997:133) pursues linkages that include 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. A rather different form, ***BU(N)KA** is proposed as a ‘world etymology’ in Bengtson & Ruhlen (1994).

Refs: B81:261, Gr.:82,84, G.:101,123, M.:II:223, B:134

4. #kuru Tortoise, turtle

Phylum	Family	Language	Attestation			Gloss	Source	
—	Sandawe	Sandawe		k^hú	rú	tortoise	Sands p.c.	
—	Hadza	Hadza		k'õ	ló	tortoise	Sands p.c.	
—	Hadza	Hadza		k'úú		turtle	Sands p.c.	
—	Laal	Laal		kú		<i>petite tortue</i>	Boyeldieu ms.	
NS	Kuliak	Ik	ro	ki	ro	k	tortoise	Heine (1999)
NS	Koman	Kwama		k'	u	kiʃ	turtle	RCS
NS	Songhay	Songhay	ń	kúú	r	á	small tortoise	BWK
NS	Saharan	Kanuri		kó	ro	wú	tortoise	Cy
NS	Maba	Maba	fa	k	ruu	n	tortoise	Ed
NS	Surmic	Didinga	bo-	ko	l		tortoise	RCS
NS	ES	Dinka	le-	ku	r		tortoise	RCS
NS	CS	Asua	ùn	gú	lú		tortoise	Demolin (p.c.)
NS	CS	Ma'di	o	kù			tortoise	RCS
NS	Kadu	Krongo		-kó	ò	ŋ (ní-)	tortoise	Reh (1985)
NC	Dogon	Tebul Ure	aŋguŋ	gu	ru		tortoise	RMB
NC	Ijoid	Furupagha	ɔbu	kɔ	rɔ		turtle	KW
NC	Mande	Yaure		kú	lú		tortoise	ALMCI
NC	Atlantic	Serer		xɔ		m	<i>tortue</i>	GS
NC	Kordofanian	Masakin		(k)ə	rə		tortoise	RCS
NC	?	Pre		k	ru	wɛ	tortoise	Creissels (p.c.)
NC	Senufo	Nabaj		xu	ru		tortoise	ALGCI
NC	Ubangian	Geme		kú	lō		turtle	Mo
NC	Kwa	Mbatto	ómó	k	rō	é	tortoise	ALKCI
NC	Kwa	Ewe		k	lo		tortoise	Ro
NC	WBC	Işekiri	ólu	kú	rú	mè	tortoise	BCCW
NC	EBC	Doka	a-	ku	l		tortoise	BCCW
NC	Bantu	CB	-	kú	dù		tortoise	BLR3
AA	S Cushitic	Gorowa		ka	n	ke'	tortoise	MK
AA	E Cushitic	Burji		ko		c'áa	tortoise, turtle	Sasse (1982)
AA	Beja	Beja	se	ku	ur		tortoise	Hudson (n.d.)
AA	W. Chadic	Hausa	kùŋ	ku	ruu		tortoise	A49
AA	W. Chadic	Mwaghavul		kú	r		tortoise	JI
AA	C. Chadic	Huba	kwà	kú	rù	m	tortoise	Kraft (1981)
AA	Masa	Lame		gù	rè	i	tortoise sp.	Sachnine (1982)
AA	E. Chadic	Toram	kùn	gù	rù		turtle	Jungraithmayr (p.c.)
AA	Berber	Kabyle	tafe	k	ru	rt	tortoise	Dallet (1982)
KS	North	Auen		!gu	ru		tortoise-shell	Bleek (1956)
KS	Central	Naro		 go	e		tortoise	Traill (1986)
KS	Central	Mohissa		cu	ru		tortoise	Bleek (1956)

Commentary: An early version of this table was presented in Blench (1997) where it was argued that the importance of turtles and tortoises in the gathering phase of human history had made this word particularly salient. The diversity of forms attested may reflect the fact that different species may have compound names (see the Kanuri and Aiki forms). Examples of possible extra-African cognates have been recorded; Sora (Muṅḍā, Austroasiatic) **kola** and Tamil (Dravidian) **куруḷai**, both for tortoise.

Refs: C.:321, Gr.:88, G.:159

5. #kulu ‘skin, hide’

Phylum	Family	Language	Attestation	Gloss	Source
NS	Kunama	Kunama	agala		RCS
NS	ES	Nuer	kul		RCS
NS	ES	Murle	kween		RCS
NS	Saharan	Teda	koro-ta		Le Coeur (1950)
NS	Songhay	Songhay	kúurú		DC
NC	Dogon	Tebul Ure	gudugo		RMB
NC	Ijoid	Defaka	íkpa		KW
NC	Mande	Kpelle	kɔlɔ	<i>peau</i>	Creissels (1981)
NC	Atlantic	Gola	ókóló	<i>peau</i>	GS
NC	Atlantic	Nalu	makú	pl. akū	GS
NC	Kru	Kuwaa	kũ		ALKrCI
NC	Gur	Bieri	kwanu	<i>peau</i>	Ma
NC	Ubangian	Mundu	k̀̀ǹ̀		Mo
NC	Kwa	Siwu	̀̀kó	pl. sì-kó	RMB
AA	Omotiic	Wolayta	galba	skin	LS
AA	Beja	Beja	kurbe	skin	LS
AA	Agaw	Kwaräsa	korbe	skin/leather	LS
AA	East Cushitic	Ba'iso	galba	skin	LS
AA	South Cushitic	Alagwa	kaari	hide, skin	MK
AA	Semitic	Amharic	qurbät	hide	HECD
AA	E Chadic	Ndam	gərə	skin	JI
AA	C Chadic	Kotoko	ɲkə̀̀	skin	JI
AA	W Chadic	Tala	kuur	skin	JI
KS	Southern	!Xóǝ	ǀgúnu	dried skin	Traill (1994)
KS	Central	Naro	khò	<i>Haut/Fell</i>	Vo97

Commentary: A preliminary version of this dataset appears in Blench (1997). Greenberg (1963:21) initially identified this root for Niger-Congo. He later (p. 157) quotes Krongo, but his form does not correspond to that in Reh (1985) which is not evidently cognate. Blench (1997) represents a preliminary compilation of this gloss for Africa. Creissels (1981:316) points out the Songhay cognate and adds further citations for Niger-Congo. Bender (1997:129) gives further examples for Nilo-Saharan, although he includes ‘basket’ in his semantic set. Other commentators include ‘bark’, for example Uduk (Eastern Sudanic) **khur** ‘bark’.

Refs: G.:21, Gr.:84, B:129, E:491

6. #mor- 'fat, oil, grease

Phylum	Group	Language	Attestation		Gloss	Source
			I	II		
NS	ES	Murle	more			RCS
NS	ES	*PN	*mɔ-r			D
NS	ES	Proto-Daju	*mwi-			RCS
NS	Maba	Masalit		ɲuŋgi	<i>oil, fat</i>	Ed
NS	Songhay	Zarma	máání		<i>graisse</i>	BWK
NC	Dogon	Walo		nù	oil	RMB
NC	Dogon	Ana		nii	oil	RMB
NC	Ijo	Furupagha	imeeli		fat	KW
NC		#PWS	-mì			W
NC	Mande	Kpelle		ɲulo	oil	VV
NC	Atlantic	Bassari		nĩl	<i>graisse</i>	GS
NC	Atlantic	Balanta		-ngelēe	<i>graisse</i>	GS
NC	Kordofanian	Talodi		ɲ-aag	(?C)	RCS
NC	Kordofanian	Moro		ɲela	grease	RMB
NC	EBC	Eten	mos		fat	RMB
AA	Omotiic	Zayse	moora		fat	LS
AA	Cushitic	Oromo	moora		fat	HECD
AA	Semitic	Amharic	mora		fat	HECD
AA	Chadic	Tala	mɔl		oil	JI
AA	Chadic	Gudu	mar		oil	JI
AA	Chadic	Masa	mùl		oil	JI
KS	Southern	!Xóǝ		' nǎhǎ	fat	Trails (1994)
KS	Khoe	PNKhoe		*//nui	<i>Fett/Öl</i>	Vo97
KS	Khoe	PWKhoe		*//núi	<i>Fett/Öl</i>	Vo97

Commentary: At first sight these might appear to be two separate roots. However, the assumption here is that the m- is originally a class affix, signifying liquids or mass nouns which has become fused to these stem. Forms for mass nouns with m- affixes correspond to Kordofanian ɲ- classes in other branches of Niger-Congo (Schadeberg 1989). The Khoisan forms with their combination of high back and front vowels suggest the reason for their alternation in other language families. The 'original' form (if that has a meaning in this context) would then have been something like #muri or #ɲuri.

Refs: D.:40, W.:257

7. #(dw)isi fire

Phylum	Group	Language	Attestation	Comment	Source
NS	ES	Meidob	ussi		RCS
NS	Kadu	Miri	issi		RCS
NS	CS	Miza	a(t)si		Bender (1992)
NS	CS	Shemyar	dufu-n		Bender (1992)
NS	Saharan	Beria	jié		JC
NC	Mande ⁴	Beng	sié		VV
NC	Kordofanian	Moro	isia		RMB
NC	Dakoid	Nnakenyare	yisi		RMB
NC	Tivoid	Tiv	úsu		Abraham (1940)
AA	Semitic	Akkadian	ifaa-		
AA	South Cushitic	Iraqw	'ała		MK
AA	Chadic	Ron Kulere	wùŋ		JI
AA	Chadic	Karekare	ʔèsi		Schuh (p.c.)
AA	Chadic	Miya	osi		Schuh (p.c.)

Commentary: Not attested in Khoisan, Atlantic. Only recorded in some subgroups of West Chadic and thus probably a local loanword. If the Akkadian form is genuinely related, then it is tempting to assume this an old AA root loaned into NS and thence into eastern NC. Bender (1992:43) reconstructs Proto-Central Sudanic #co, but as an areal loan, reconstruction is probably not a meaningful exercise.

Refs: Bender (1991:5)

8. #-si. dog

Phylum	Group	Language	Attestation	Source
NS	Fur	Fur	asà	Jakobi (1990)
NS	ES	Proto-Daju	*iise	RCS
NS	ES	Nara	wos	RCS
NS	CS	Baka	isi	RCS
NS	CS	Lugbara	atsí	RCS
NS	CS	Lendu	kaẓẓ	RCS
NS	Koman	Anej	kas	RCS
NS	Maba	Masalit	wasi	Ed
NS	Kadu	Katcha	is(s)i	RCS
NS	Songhay	Kaado	hánsi	DC
NC	Atlantic	Manjaku	û-bûs	GS
NC	Adamawa	Dza	iicwá	UKW
NC	BC	E. Ogbia	isið	KW
NC	BC	Nupe	efi	Ban
NC	Bantoid	Ndoro	sié	RMB
AA	Semitic	Amharic	wifa	HECD
AA	Cushitic	PHEC	wafa	HECD
AA	Cushitic	Beja	yas	Hudson ms.
AA	Chadic	Mwaghavul	as	JI
AA	Chadic	Kola	hàzà	JI

Commentary: Although originally cited by Greenberg (1963:120), more complete evidence was marshalled by Bender (1981:258) with attestations in Fur, Sudanic, Kordofanian and possibly Ari [Omotic]. Not attested in Khoisan, Mande and most branches of Afro-Asiatic, which have variants of kVr/n-. This root is extremely widespread in Central Africa and yet does not form a convincing pattern. In Central Sudanic, for

⁴ Widespread in South Mande (see cognates in Vydrine ined.)

example, it is attested in almost every language (Bender, 1992:40,48). Bender separates the roots with initial b-, but it is likely that the two forms go together.

Refs: G:120

4. Roots with extra-African distributions

Some pan-African roots have possible extra-European cognates, for example ‘fly’ (given in 10.), which may be explained as ideophonic convergence, the sound of beating wings giving rise to the verb. But other lexical items are more difficult to account for in this way, notably ‘crab’. The table shows the African attestations of this word. Because ‘crab’ does not occur in standard wordlists and is associated with wetter regions, it is simply not recorded in many lexical sources.

9. #kala crab

African crabs are highly speciated but can be divided into three categories; marine, freshwater and land crabs. The taxonomy of freshwater crabs is given in Cumberlidge (1999). Material on land crabs is not easily available but they are widespread throughout the continent and are frequently culturally important because of their role in divination systems. Crab divination is reviewed in Blench and Zeitlyn (1989/90) which shows that the words for ‘spider’ and ‘crab’ are etymologically interconnected in the Bantu borderland because of their comparable significance in divination systems. The table presents a sample of crab names. The evidence here is weaker than for other lexical items, largely because words for crab are much more rarely cited. Many of the sources used for the other two tables simply lack the lexeme ‘crab’.

Phylum	Family	Language	Attestation	Source
—	Hadza	Hadza	goma:	Sands (p.c.)
NS	C. Sudanic	Mbay	kó-bàr	Keegan (1997)
NC	Ijoid	Nembe	à-kàngà	Kaliai (1964)
NC		PWS	#-ka(l)-	W
NC	Mande	Gban	klá	VV
NC	Unclassified	Pre	kamu	Creissels (p.c.)
NC	Atlantic	Temne	a-kara	W
NC	Gur	Mõõre	gará-ga	Canu (1976)
NC	Kwa	Ewe	à-gálà	Ro
NC	WBC	Nupe	kara	Ban
NC	WBC	Obolo	úkà	Co91
NC	Mambiloid	Mambila	kaab ²¹	PM
AA	W. Chadic	Hausa	káágwáá	A49
AA	C. Chadic	Bana	kwérekwérekij	Gravina (p.c.)

Commentary: Mukarovsky (1976:144) adds further Niger-Congo cognates. The Niger-Congo roots are discussed in Williamson & Shimizu (1968:92).

Refs: M:144; W:230

‘Crab’ also has widespread Eurasian cognates (Blench 1997). The table below sets out some attestations and reconstructions that have been proposed for ‘crab’ in Old World language phyla.

Phylum	Family	Language	Attestation	Source
Japonic		Modern Japanese	kani	
Altaic		Modern Korean	ke	
Austroasiatic	Proto-Mon-Khmer		*kə(n)taam	Diffloth (1994)
	Proto-North Bahnaric		*katam	Smith (1972)
Austronesian	Proto-Austronesian		*kaRaŋ	Blust (ined.)
	Proto-Nuclear		*karika	Marck (p.c.)
	Micronesian			
Andamanese	Great Andaman	Aka Biada	kátta-da	Portman (1887:22)
	Little Andaman	Onge	tekandue	Dasgupta & Sharma (1982)
Sino-Tibetan	Tibeto-Burman	Tamang	khakre	Rana (2005)
Kusundic		Kusunda	kakchi	Rana (2005)
Dravidian	Common Dravidian		kup(p)i	Burrow & Emeneau (1984:158)
Indo-European		Greek	karkinos	
Vasconic		Basque	karramorro	Trask (p.c.)

Clues to the processes at work in African languages can be gained by comparison with Indo-European associations of words for ‘crab’. Indo-European has a root *#kar-* meaning ‘hard’ which has a complex association with words for ‘crab’⁵. Latin *cancer* and Greek *karkinos* are both derived from reduplications of the original root, the image apparently being the hardness of the crab’s shell (Watkins 1982). A similar association also exists in Niger-Congo; Westermann (1927:240) reconstructs *#kual-* for ‘to be hard’ in Proto-Western Sudanic, and *#-kal-* for ‘crab’.

10. *#pur-* ‘to fly, jump’

This root presents an intriguing methodological problem. The citations are so similar that they must be related in some way. Is this simply a case of ideophonic convergence, where similar languages come to similar conclusions about the sound of beating wings? Not all languages do this as many datasets for ‘fly’ are omitted on the grounds of non-cognacy. Similarly, the semantic link with ‘jump’ which seems to be typical for Africa is not generally found elsewhere, where the common association appears to be ‘flee’.

Phylum	Family	Language	Attestation	Gloss	Source
NS	Maba	Mesalit	fir		Ed
NS	Berta	Berta	hə'rəŋ		Bender (1989)
NS	ES	Gaam	pərd-	fly	Bender & Ayre (1980)
NS	ES	*PN	*pär	fly, jump	D
NS	Songhay	Djenné Chiini	firri	fly	Heath (1998)
NS	Saharan	Kanuri	fār	to jump, fly	Cy
NC	Dogon	Bunɔgɛ	pile	to fly	RMB
NC	Ijoid	Nkoro	fī	fly	KW
NC		*PWS	*pi, pil-	to fly, flutter	W
NC	Mande	Bamana	pá	fly, jump	VV
NC	Atlantic	Temne	fal(ar)	<i>voler</i>	GS
NC	Kordofanian	Moro	abəro	to fly	RMB
NC	EBC	Lokə	fiiló	to fly	JS
AA	Beja	Beja	biir	fly	Hudson (p.c.)
AA	Agaw	Awngi	pərr-	jump	Applewyrd (p.c.)
AA	Proto-East-Cushitic		*bar(ar)	fly	Sasse (1982)
AA	East Cushitic	Burji	burr-	fly	HECD

⁵I am grateful to Václav Blažek for this observation.

Phylum	Family	Language	Attestation	Gloss	Source
AA	South Cushitic	Gorowa	furuu'	fly	MK
AA	Chadic	Hausa	̀̀ràá	jump	JI
AA	Chadic	Yedina	f̀r	jump	JI
AA	Chadic	Kwang	b̀ré	jump	JI
AA	Berber	Kabyle	fferfer	<i>voler</i>	Dallet (1982)
KS	Khoe	PNKhoe	*pe	<i>springen</i>	Vo97
KS	Khoe	PEKhoe	*pe	<i>springen</i>	Vo97

Commentary: The meanings of 'fly' and 'jump' are regularly intertwined throughout African language phyla. Bender (1997:121) lists more Nilo-Saharan cognates in elliptical style.

Refs: Gr.:83, D.:42, W.:275, B: 121, E: 382, Ehret (1987:26)

Swadesh (1971) derived a similar form ideophonically as a world gloss, although he spreads the semantic net wider than is included here. This etymology is reprised in Bengtson & Ruhlen (1994) with a proposed proto-form ***par**. Some of the more clearly cognate forms drawn from these sources are;

Phylum	Family	Language	Attestation	Gloss
Kartvelian		Georgian	p'er	
North Caucasian		Abkhaz	pir	
Indo-European	Iranian	Persian	parr--	
Indo-European		English	fly	
Uralic	Ugric	Khanty	por	
Dravidian		Tamil	paRa	fly, hover, flutter
Isolate		Gilyak	parpar	fly, hover about
Austroasiatic	Mon-Khmer	Khmer	par	
Sino-Tibetan	Sinitic	Chinese	fei	

5. Conclusions

The tables given above provide *a priori* evidence for a series of Pan-African roots that occur across the language phyla of Africa in forms sufficiently similar as to exclude their use as evidence for genetic affiliation. There is probably no one explanation for these forms, but it is striking that so many confirm the general formula k + back vowel + r/l. 'Turtle', 'skin' and 'knee' have no obvious link and are only joined by the phonaesthetic qualities of their canonic form. Even 'cut' and 'crab' have kVr- structures although the vowels are more diverse. Exactly how this works is unclear, but it seems that some canonic forms prevent words from undergoing the usual diversification typical of language genesis. Some of these are apparently confined to Africa, while others are more global. Another canonic form, not collated here, is *#koro* for 'round, wheel, circular', which has cognates across Eurasia, the Pacific and the New World as well as throughout Africa.

The other transphylic lexemes have a narrower distribution, and cultural salience may be at work. 'Fat' may not be culturally salient today, but in an era when hunting and gathering was the basis of subsistence, both oils and animal fats were highly valued and terms for them would thus become deeply embedded. Similarly, 'fire', essential to hunting and cooking, would have the same deep significance as 'water', which appears to be marked throughout Africa and Eurasia by a bilabial nasal. The case of 'dog', may be somewhat different, as the dog is an ancient but datable introduction into Africa, hence these wandering words (Blench 2000). Dogs appear in rock-paintings at a defined point and gradually appear in excavations over the last few thousand years. The forms of the *#ifi* frame are more obviously coherent geographically, and may well reflect the diffusion of the dog across Central Africa.

The existence of widespread roots that prove to be scattered across African language phyla but that have been used for the identification and classification of language families, should make us wary. Although more

obvious ideophones are easily discarded, it is clear that many pan-African roots cannot be predicted on this basis. Their deep embedding may be related to cultural salience in prehistory, or simply transferred homophony; frames that mark key terms are retained in homophonous but less marked concepts. This points to an important research lacuna in our understanding of phonaestemes and their broader significance for historical linguistics.

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