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The problem of pan-African roots

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A problem of establishing macrophylic relations in Africa is the existence of common lexical items that 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.

.... 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)

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

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it was sent to the editor, Norbert Cyffer, in 1999 and proofed in 2000, it has never appeared and will probably now not be published.

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 phonaesthemes
- c. African language phyla really *are* all related
- d. transphylic roots are retained from a very early stage of language diversification

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.

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.

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-established.³

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.

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.

1. #bwoN come

| Phylum | Group | Language | Attestation | Comment | Source |
|--------|-----------------|-----------------------|-------------------|---------------------|---------------------------|
| NS | ES | proto-Daju | *b _o N | | RCS |
| NS | ES | proto-Nilotic | *b _u n | PL. *p _o | D |
| NS | ES | Nuer | ben | | RCS |
| NS | ES | Padang Dinka | b _o | | RCS |
| NS | ES | Mabaan | b _e εd | | RCS |
| NS | ES | Nara | w _o | | E |
| NS | Fur | Fur | bo- | reach | Jakobi (1990) |
| NC | Dogon | Walo | wá | | RMB |
| NC | Mande | Guro | b _o | | ALMCI |
| NC | Atlantic | Mankanya | bi, ban | arriver | GS |
| NC | Ij _o | Proto-Ij _o | *b _o | | KW |
| NC | Gur | Deg | bà | | ALGCI |
| NC | Adamawa | Waja | ba- | | Kleinewillinghöfer (1991) |
| NC | Kwa | Twi | bà | | Chr |
| NC | WBC | Ōnīca Igbo | -bia | | 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 | ba | | JI |
| AA | E Chadic | Mawa | oobon | | 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. Dimmendal (1988: 35) notes that the irregular plural *p_o 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-uƙot- | cut | Heine (1999) |
| NS | Koman | Uduk | kwal | split | Bender (1983) |
| NS | Berta | Undu | kíírà | split hard substance | RCS |
| NS | ES | Dongola Nubian | gor | cut grass | RCS |
| NS | ES | Nyimang | kír | 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 | kefele | cut | RMB |
| NC | Ijoid | Proto-Ijò | pélé | cut | KW |
| NC | Mande | Bambara | kárí | cut | Ba |
| NC | Atlantic | Bullom | keth- | <i>couper</i> | GS |
| NC | Kru | Nyabwa | cei | cut | ALKrCI |
| NC | Ubangian | Ndunga-le | -kélé- | cut | Mo |
| NC | WBC | Ọ̀nị́ca Igbo | -cà | cut | Williamson (1972) |
| NC | EBC | Tarok | ca | break, cut | RMB |
| AA | Omotic | 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 | k̀l̀à | cut | JI |
| AA | Chadic | Warji | kón | cut | JI |
| AA | Chadic | Ngas | can | cut | JI |
| KS | Southern | !Xóó | ʔkx'ála | open meat to flatten it | Traill (1994) |
| KS | Central | Proto-East Khoe | *kade | cut flesh in strips | Vo97 |

(continued)

2. #keri to split, cut, break (Continued)

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 *ker* “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 | kútúnj | | Heine (1999) |
| NS | Koman | Kwama | dugol | | RCS |
| NS | Berta | Berta | guʃuŋ | | RCS |
| NS | Kunama | Kunama | tùgà | ?C | Bender (ms.) |
| NS | Maba | Mesalit | kàdǐjónó | | Ed |
| NS | Fur | Fur | kùrù | | Jakobi (1990) |
| NS | ES | Kenzi | kur(ti) | | RCS |
| NS | CS | Mangbetu | nè-kááti | PL. è- | Demolin (p.c.) |
| NS | Saharan | Beria | kórú | | JC |
| NS | Kadu | Katcha | kúúge | PL. nu-gúúgi | Sch94 |
| NC | Dogon | Tebul Ure | kundugɔ | | RMB |
| NC | Ijoid | Biseni | íkóníée | | KW |
| NC | Mande | Soninke | xuruŋi/o | PL. -onu | VV |
| NC | Atlantic | Bijogo C | kunu | PL. ŋanu [genou] | GS |
| NC | Kordofanian | Tima | kuruŋa | | 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 | Omotic | Wolaytta | gulba-ta | | LS |
| AA | Cushitic | *PC | *gulb-/ *gwilb- | | Ehret (1987: 24) |
| AA | S Cushitic | Asax | ngulu-et | | MK |
| AA | Cushitic | Dahalo | gilli | | LS |
| AA | East Cushitic | Sidamo | gulube | | HECD |
| AA | Agaw | Bilin | gəɾəb | | LS |

(continued)

3. #kulu knee (Continued)

| Phylum | Family | Language | Attestation | Comment | Source |
|--------|----------|-------------|-------------|---------|----------------|
| AA | Semitic | Amharic | gulbät | | HECD |
| AA | Chadic | Sukur | kırım | | Jl |
| AA | Chadic | Tera | xulukti | | Jl |
| KS | Southern | !Xóó | g xúú | | Trail (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 ^h ú rú | tortoise | Sands p.c. |
| — | Hadza | Hadza | kö ló | tortoise | Sands p.c. |
| — | Hadza | Hadza | k'úú tá- | turtle | Sands p.c. |
| — | Laal | Laal | kú nán | <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 |

(continued)

4. #kuru Tortoise, turtle (Continued)

| Phylum | Family | Language | Attestation | Gloss | Source | | | |
|--------|-------------|-----------|-------------|-------|----------|----------|---------------------|-------------------------|
| NC | Kordofanian | Masakin | (k)ə | rə | tortoise | RCS | | |
| NC | ? | Pre | k | ru | wε | 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 | Iṣẹkiri | 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 | kùṅ | 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 | Jungraihtmayr (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 (Munḡā, Austroasiatic) *kola* and Tamil (Dravidian) *kuruḷai*, 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) |

(continued)

5. #kulu “skin, hide” (Continued)

| Phylum | Family | Language | Attestation | Gloss | Source |
|--------|----------------|-----------|-------------|------------------|------------------|
| NS | Songhay | Songhay | kúurú | | DC |
| NC | Dogon | Tebul Ure | gudugo | | RMB |
| NC | Ijoid | Defaka | íkpa | | KW |
| NC | Mande | Kpelle | kolo | <i>peau</i> | Creissels (1981) |
| NC | Atlantic | Gola | ókóló | <i>peau</i> | GS |
| NC | Atlantic | Nalu | makū | PL. akū | GS |
| NC | Kru | Kuwaa | kū̀ | | ALKrCI |
| NC | Gur | Bieri | kwanu | <i>peau</i> | Ma |
| NC | Ubangian | Mundu | kònò | | Mo |
| NC | Kwa | Siwu | ò-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 | ɲkòne | skin | JI |
| AA | W Chadic | Tala | kuur | skin | JI |
| KS | Southern | !Xóõ | ǂgúnu | 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 |

(continued)

6. #mor- ‘fat, oil, grease (Continued)

| Phylum | Group | Language | Attestation | | Gloss | Source |
|--------|-------------|-----------|---------------|----------------|-----------------|--------------|
| | | | I | II | | |
| NS | Maba | Masalit | | ɲungi | <i>oil, fat</i> | Ed |
| NS | Songhay | Zarma | máání | | <i>graisse</i> | BWK |
| NC | Dogon | Walo | | nù | <i>oil</i> | RMB |
| NC | Dogon | Ana | | niì | <i>oil</i> | RMB |
| NC | Ijo | Furupagha | imeeli | | <i>fat</i> | KW |
| NC | | #PWS | -mì | | | W |
| NC | Mande | Kpelle | | ɲulo | <i>oil</i> | VV |
| NC | Atlantic | Bassari | | niì | <i>graisse</i> | GS |
| NC | Atlantic | Balanta | | -ngelēe | <i>graisse</i> | GS |
| NC | Kordofanian | Talodi | | ɲ-aag | (?C) | RCS |
| NC | Kordofanian | Moro | | ɲela | <i>grease</i> | RMB |
| NC | EBC | Eten | mos | | <i>fat</i> | RMB |
| AA | Omotiic | Zayse | moora | | <i>fat</i> | LS |
| AA | Cushitic | Oromo | moora | | <i>fat</i> | HECD |
| AA | Semitic | Amharic | mora | | <i>fat</i> | HECD |
| AA | Chadic | Tala | mɔl | | <i>oil</i> | JI |
| AA | Chadic | Gudu | mar | | <i>oil</i> | JI |
| AA | Chadic | Masa | mùl | | <i>oil</i> | JI |
| KS | Southern | !Xóó | | ʼ nàhã | <i>fat</i> | Trail (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) |

(continued)

7. #(dw)isi fire (Continued)

| Phylum | Group | Language | Attestation | Comment | Source |
|--------|--------------------|------------|-------------|---------|----------------|
| NS | CS | Shemyar | duʃu-n | | Bender (1992) |
| NS | Saharan | Beria | ʃíé | | JC |
| NC | Mande ⁴ | Beng | síé | | VV |
| NC | Kordofanian | Moro | isia | | RMB |
| NC | Dakoid | Nnakenyare | yísi | | RMB |
| NC | Tivoid | Tiv | úsu | | Abraham (1940) |
| AA | Semitic | Akkadian | iʃaat- | | |
| AA | South Cushitic | Iraqw | 'aʎa | | MK |
| AA | Chadic | Ron Kulere | wùʃ | | 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 | ísi | RCS |
| NS | CS | Lugbara | atsí | RCS |
| NS | CS | Lendu | kazʒ | 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-bús | GS |
| NC | Adamawa | Dza | iicwá | UKW |
| NC | BC | E. Ogbia | isið | KW |
| NC | BC | Nupe | eʃi | Ban |
| NC | Bantoid | Ndoro | síe | RMB |
| AA | Semitic | Amharic | wíʃa | HECD |
| AA | Cushitic | PHEC | wáʃa | HECD |

(continued)

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

8. #-si. dog (Continued)

| Phylum | Group | Language | Attestation | Source |
|--------|----------|-----------|-------------|------------|
| 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 [Omoti]. Not attested in Khoesan, 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 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

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 Cumberland (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) |

(continued)

| Phylum | Family | Language | Attestation | Source |
|--------|--------------|----------|--------------------|------------------|
| 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 | Môôre | 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 | ƙáágwáá | A49 |
| AA | C. Chadic | Bana | kwérékwérékiŋ | 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 | hɔʼrɔŋ | | 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 | Bunɔge | pile | to fly | RMB |
| NC | Ijoid | Nkoro | fii | 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 |

(continued)

5. I am grateful to Václav Blažek for this observation.

| Phylum | Family | Language | Attestation | Gloss | Source |
|--------|----------------|----------|----------------|-----------------|---------------|
| AA | South Cushitic | Gorowa | furuu' | fly | MK |
| AA | Chadic | Hausa | ùrúáá | jump | JI |
| AA | Chadic | Yedina | fór | jump | JI |
| AA | Chadic | Kwang | bóré | 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 | pèr | |
| 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 | |

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 phonaesthemes and their broader significance for historical linguistics.

Acronyms and terminology

I have adopted the convention for reconstructions used in the Niger-Congo volume edited by Bendor-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 |

| Acronym | Expansion or source | Reference or language treated |
|---------|-------------------------------------------------|----------------------------------------------------|
| 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 | Chrastaller (1933) | Twi |
| 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 | Jungrathmayr & 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 | |
| P | Prost (1953) | South Mande |
| PB | Proto-Bantu | |
| PD | Proto-Daju | Thelwall 1989 |

(continued)

(Continued)

| Acronym | Expansion or source | Reference or language treated |
|---------|-------------------------|-------------------------------|
| PI | Proto-Ijò | 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 |

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