

## Areal typology, language families, and linguistic reconstruction: the case of Proto-Bantu and Proto-Niger-Congo

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### 1 Towards an early macro-areal profile of Africa

+ linguistic area:

wide sense = distribution of features according to a "compact" geographical entity  
> independent of historical explanation

narrow sense = distribution of features according to a "compact" geographical entity,  
which is not well explained by genealogical inheritance > "contact area"

+ pan-African survey of diagnostic linguistic features for the identification of large geographical areas with some type of linguistic commonality

(a) restricted geographical scope (except Greenberg 1959, 1983; Heine 1975, 1976)

(b) between languages unrelated according to Greenberg's (1963) lumping classification

+ types of areas:

(1) genealogically and typologically homogeneous areas > (recent) spread zones

(2) large-scale clustering of diagnostic isoglosses whose geographical distributions do not correlate with distributions of genealogical language groups

+ different types of areal isoglosses (importance in the order of appearance):

(1) "cross-linguistic quirks" (Gensler 2003), e.g. clicks

(2) "continental diagnostics" (typologically unremarkable, but areal), e.g. word order

(3) subareal features (can, but must not be quirky)

> avoid feature interdependence (e.g. word order correlations, medial-final verbs in verb-final languages, etc.)

+ identified features surveyed across all sufficiently known lineages

> according to secure families, not to Greenberg's (1963) "supergroups" like Khoisan, Nilo-Saharan, Niger-Kordofanian, because large linguistic contact area is alternative to unproven genealogical entity

+ proposed macro-areas of Africa (Güldemann forthcoming) > **Map 1**

(I) Berber spread zone - as genealogical offshoot of (II)

(II) Chad-Ethiopia

(III) Macro-Sudan belt

(IV) Bantu spread zone - as genealogical offshoot of (III)

- "Bantu nucleus" as an areal effect of homogenization after colonization

- periphery adopted features of neighbouring areas to varying degrees

(e.g., clicks in southern Bantu, ?what about Macro-Sudan)

(V) Kalahari Basin

+ one larger area unaccounted for: southern Sudan, Uganda, Kenia, northern Tanzania

+ see: <http://email.eva.mpg.de/~gueldema/pdf/AfricanMacro-areasH.pdf>



**Map 1: Linguistic macro-areas in Africa before recent large-scale colonizations**

## 2 The Macro-Sudan belt

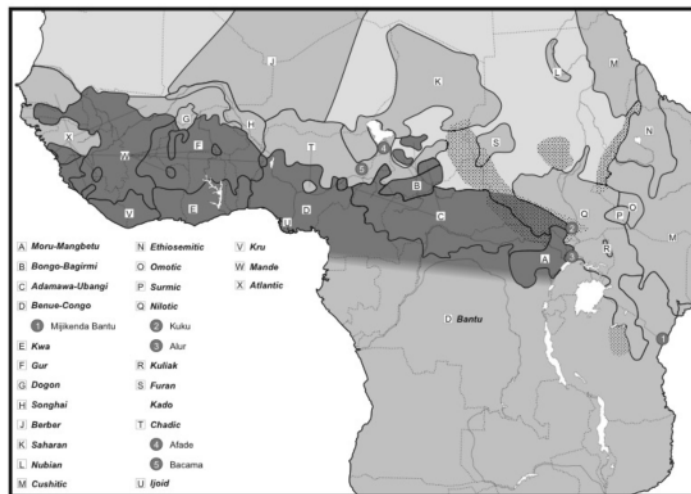
(= Greenberg's (1959, 1983) “African core area”, see Güldemann 2008)

- genealogical composition > **Table 1**

Family	Stock	Greenberg's Supergroup
<b>CORE</b>		
Mande	-	NK
Kru	Niger-Congo	NK
Gur	Niger-Congo	NK
Kwa	Niger-Congo	NK
Benue-Congo (except Narrow Bantu)	Niger-Congo	NK
Adamawa-Ubangi	Niger-Congo	NK
Bongo-Bagirmi	Central Sudanic	NS
Moru-Mangbetu	Central Sudanic	NS
<b>PERIPHERY</b>		
Atlantic	(Niger-Congo)	NK
Dogon	-	NK
Songhai	-	NS
Chadic	Afroasiatic	
Ijoid	-	NK
Narrow Bantu (Benue-Congo)	Niger-Congo	NK
Nilotic	East Sudanic	NS

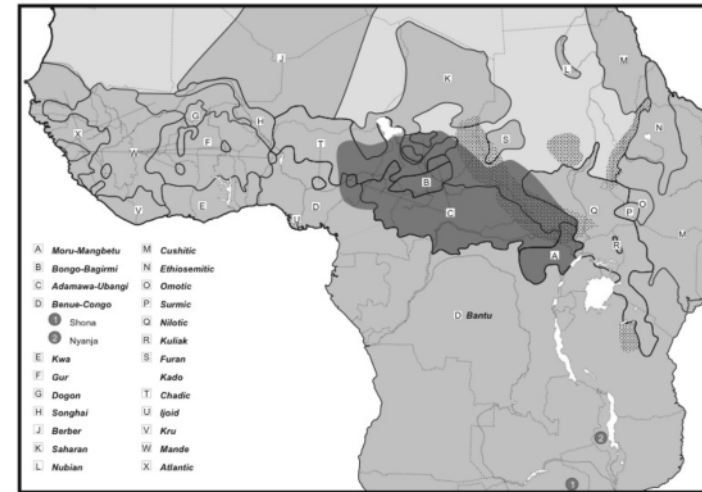
**Table 1: Families partaking in the Macro-Sudan belt**

- implosives, does not separate area from Bantu spread zone (Maddieson 2005a)
- labial-velar consonants (Maddieson 2005c) > **Map 2**



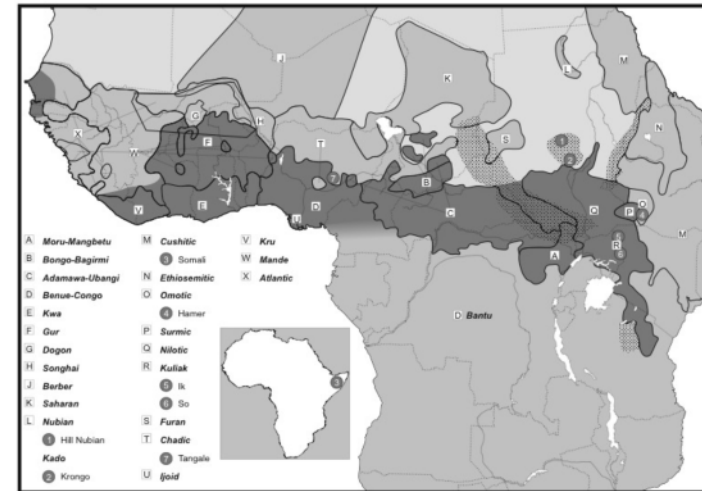
**Map 2: Labial-velar consonants in Africa**

- labial flap consonants, sub-areal feature in the east (Olson and Hajek 2003) > **Map 3**



**Map 3: Labial flap consonants in Africa ATR vowel harmony**

- three and more level tones (Clements and Riiland 2008, Maddieson 2005d)
- vowel nasalization (Hajek 2005)
- ATR harmony (Hall et al. 1974, Dimmendaal 2001, Maddieson 2005b) > **Map 4**



**Map 4: ATR vowel harmony in Africa**

- logophoricity (Güldemann 2003b) > **Map 5**

(1) Kera (Chadic, Afroasiatic)

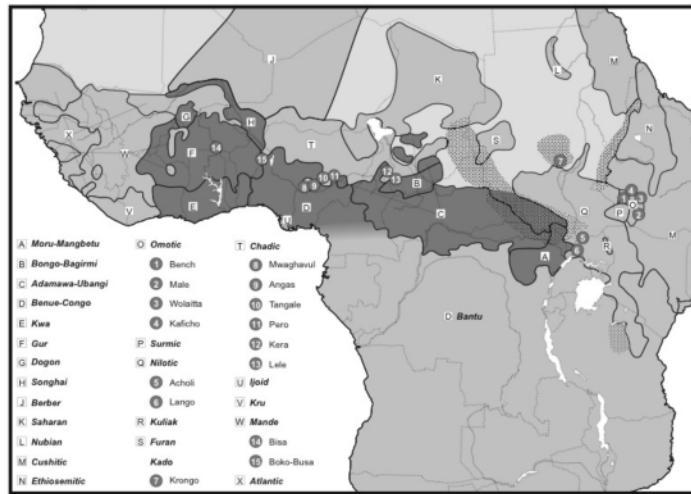
a. *wə mintí tó kóoré* vs.

3M.Sx QUOT 3M.S.LOGx go.away

b. *wə mintí wə kóoré*

3M.Sx QUOT 3M.Sy go.away

Er sagte, daß er weggehe [he said he would go] (Ebert 1979: 260)



**Map 5: Logophoricity in Africa**

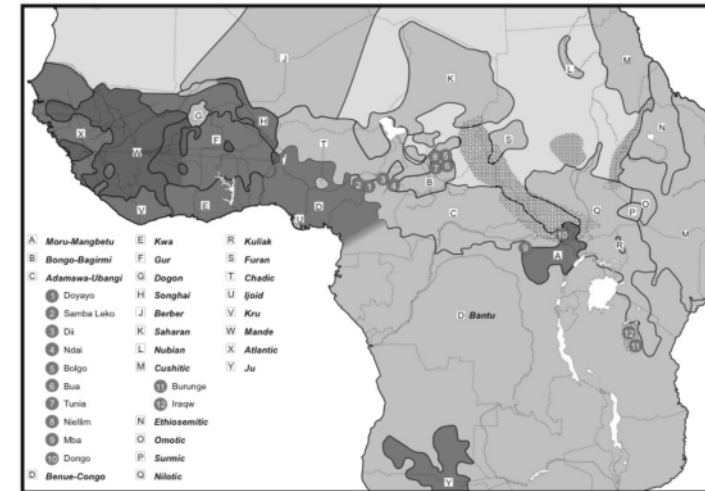
- word order S-(AUX)-O-V-X (Gensler and Güldemann 2003) > **Map 6**

(2) Koranko (Mande)

*ù sí wò lá-bùù yí rò*

1S PROSPECTIVE that.one CAUS-fall water in

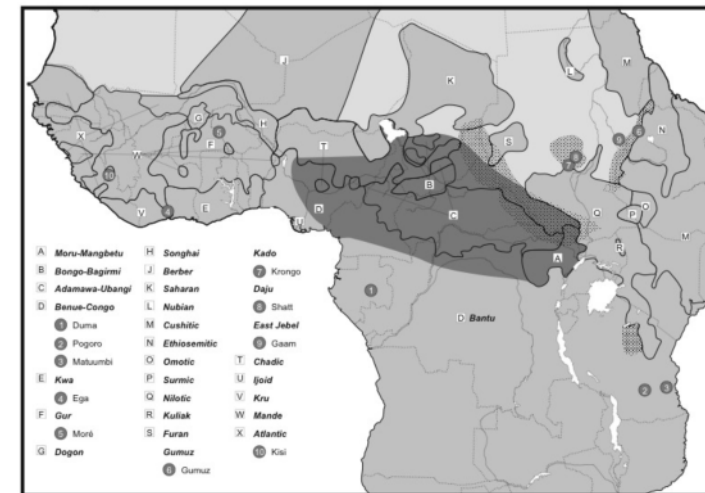
I'm going to throw her into the water (Kastenholz 1987: 117)



**Map 6: Word order S-(AUX)-O-V-X in Africa**

- comparative construction with '(sur)pass' (Greenberg 1983, Stassen 2005)

- word order V-O-NEG, sub-areal feature in the east (Dryer forthcoming) > **Map 7**



**Map 7: Word order V-O-NEG in Africa**

### 3 Bantu and the Macro-Sudan belt

+ Bantu origins in (?the southern periphery of) the Macro-Sudan belt (Greenberg 1972):  
 - most closely related to eastern Benue-Congo, particularly Bantoid, languages in Cameroon and Nigeria > homeland of Pre- and Proto-Bantu in this wider area  
 - limits of Bantu, and hence its exact genealogical position, unclear (see, e.g., Nurse and Philippson 2003: 3-10); holds also for higher levels like Bantoid, Benue-Congo, etc.  
 + Bantu and the Macro-Sudan features

- implosives
- in Northwest Bantu, eastern coastal area, and southeast (Maddieson 2003: 28-9)
- labial-velar consonants
- in numerous Bantu languages of zones A, C and D
- not in rest of Narrow Bantu
- isolated occurrence in Mijikenda (E70), from labialized velars
- labial flap consonants
- not in Narrow Bantu
- isolated occurrence in Nyanja (N31a) and Shona (S10)
- three and more level tones
- not in Narrow Bantu: predominantly H vs. L
- exceptions: Kamba (E55), Chaga (E60), Nguni (S40) (Kisseb. and Odden 2003: 59)
- vowel nasalization
- not in most of Narrow Bantu, but possibly to be reconstructed (Dimmendaal 2001)
- isolated occurrence in Fang (A75), Gyele (A801), Teke (B70), Ngungwel (B72a), Bembe (H11), Umbundu (R11), Yeyi (R41) (Maddieson 2003: 23-4)
- ATR vowel harmony
- not in most of Narrow Bantu
- exceptions in the north, e.g., Nande (D42) (Maddieson 2003: 20-3)
- logophoricity
- not in most of Narrow Bantu
- exceptions in some Northwest Bantu languages
- word order S-(AUX)-O-V-X (see §4 below)
- in some Northwest Bantu languages for pronoun objects
- not in most of Narrow Bantu, but can be reconstructed for early Bantu chronolect:  
 S-(AUX)-O-V-X restricted to pronominal objects "petrified" as a morphotactic pattern in verbs: S-INFLECTION-O-VERB.STEM (see §4 below)
- comparative construction with '(sur)pass'
- widespread in Bantu as a likely inherited feature

- (3) Swahili (G42d)  
*a-na-andika haraka kupita mimi*  
 1-PRS-write fast INF-pass 1S  
 He writes faster than me.

- word order V-O-NEG
- not in most of Narrow Bantu: generally with verbal prefix negation

- (4) Shona (S10)  
 a. *ndai-dá* *ha-ndái-dá*  
 1S:HAB-want NEG-1S:HAB-want  
 I used to like I did not used to like (Dale 1972: 266)  
 b. *ndí-pé* *ndí-sa-pé*  
 1S-give:SUBJ 1S-NEG-give:SUBJ  
 I should/may give I should/may not give (Dale 1972: 264-5)

- more recent innovation (e.g., in Tanzania, Angola, Democratic Republic of Congo);  
 negation reinforcement - Jespersen's cycle (see, e.g., Güldemann 1996: 256-8, 1999)

- (5) Umbundu (R11)  
*ha-tú-vi-mbandà-kó*  
 NEG:1P-8-doctor-NEG  
 We are not doctors. (Schadeberg 1990: 54)
- (6) Ndendeule (N101)  
*a-ki-tola ngöndi yě*  
 1-PST-take beans NEG  
 He didn't take beans.

+ Bantu differs markedly from the Macro-Sudan belt > two potential scenarios:  
 (1) early Bantu possessed the feature like other Macro-Sudan belt languages, but most descendants lost it when colonizing the area outside the Macro-Sudan belt  
 (2) early Bantu lacked the feature, but Northwest languages acquired it in contact with canonical Macro-Sudan belt languages  
 > both scenarios can in principle apply, depending on particular feature

### 4 The early typology of Bantu and Niger-Congo

+ history of science:  
 - Bantu is numerically and geographically THE major language family in Africa  
 - Bantuistic tradition important for African linguistics  
 - subsequent establishment of genealogical relationship to rest of Niger-Congo (Westermann 1927, 1935, 1949; Greenberg 1949/50/54, 1963)  
 > assumes occasionally the role of a standard by which the structure of other Niger-Congo languages is measured; cf. Semitic vs. Afroasiatic, Sinitic vs. Sino-Tibetan

+ verb stem structure  
 - contrast between mono-/disyllabic verb stems in Kwa vs. polysyllabic verb stems in Bantu (and Atlantic) (Hyman 2004)

- (7) Ewe (Kwa)  

<i>gblɔ</i>	<i>dzu-dzɔ</i>	<i>fa-nyã</i>
say	DUPL-wait	knead-knead
say	cease	knead (Hyman 2004: 70)
- (8) Yao (Bantu, Bantoid, Benue-Congo)  
*-taam-uk-ul-igw-aasy-an-il-a*  
 -sit-IMPOSITIVE-REVERSIVE-PASS-CAUS-RCPR-APPL-FV  
 cause each other to be unseated for/at (Hyman 2004: 70)
- (9) Ful (North Atlantic)  
*-mab6-it-id-an-ii*  
 -shut-REVERSIVE-COMPREHENSIVE-DAT-PST.ACT  
 opened all for (Hyman 2004: 70)

"Comparing Ewe with either Yao or Fula, the natural question to ask is: Why are these related languages so different? To answer this question, we assume, following Givón (1975) and Voeltz (1977), first, that the above Bantu/Atlantic verb-stem structure represents the Proto-Niger-Congo situation; and second, that Niger-Congo languages such as Ewe, Nupe, Yoruba, etc. which conform to the Westermann and Bryan characterization of Kwa [...] have modified the proto system – most likely in an areal fashion." (Hyman 2004: 71)

- a. Syntax: synthetic > analytic  
(head-marking > dependent or no marking)
- b. Morphology: agglutinative > isolating  
(suffixation > marking by syntactic elements)
- c. Phonology: free > restricted (unbounded > bounded) Hyman (2004: 72)

- reconstruction of a great number of verb extensions (Schadeberg 2003: 72)

> still unclear what Pre- and Proto-Bantu exactly looked like typologically

**Could all extensions be stacked on each other as in Atlantic and Yao-type Bantu?**

- Benue-Congo in and close to the Macro-Sudan belt, including Northwest Bantu, contrasts with Savannah Bantu: restriction on the maximal number of stem syllables, affecting i.a. the verbal derivation system (cf. (8): Yao verb with 8 syllables):

- (10) Koyo (Bantu, Bantoid): 3 (4)  
*tá-s-an-a*  
see-CAUS-RCPR-FV  
show each other (Hyman 2004: 80)
- (11) Mankon (Grassfields, Bantoid): 2 (3)  
*ží-nə*  
know-RCPR  
know each other (Hyman 2004: 85)
- (12) Igbo (Igboid): 1 (2)  
*bè-re*  
cut-BEN  
cut for (Hyman 2004: 71)

> ☺ to second, but ☹ to first assumption by Hyman (2004)

+ predicate structure

- contrast between grammatical particles/clitics in eastern Benue-Congo vs. prefixing inflection in (most of) Bantu for marking participants and predication operators before the verb stem - Güldemann (2003a: 183-7)

- slightly different take on Givón's (1971) "today's morphology is yesterday's syntax"

- O-V-X, besides V-O-X, widespread in Benue-Congo, and particularly in Bantoid (e.g., Mambiloid, Tikar, Beboid, Grassfields, Mbam) (Güldemann 2007)

- preverbal objects restricted to certain grammatical contexts:

(a) presence of auxiliary

- (13) Tikar (Bantoid, Benue-Congo)
- a. *wù sh-é mún*  
2S say-IRR 1S  
Si tu me l'avais dit, ... (Stanley 1991: 71)
- b. *à tá ñshe she*  
3S IPFV luggage carry  
Il porte le bagage. (Stanley 1991: 103)
- c. *à dunmi nun ji fe*  
3S begin:PFV 3S food give  
Il a commencé à lui donner de la nourriture. (Stanley 1991: 133)

(b) pronoun object; typologically attested elsewhere and motivated functionally (cf. Romance; Atlantic, Childs 2005)

(14) Kana (Cross-River, Benue-Congo)

- a. *wèè mē-tēērā pīī*  
3S:PST 1S-run meet  
He ran to me. (Ikoro 1996: 212)
- b. *wèè tēērā pīī nīdā*  
3S:PST run meet 1S.EMPH  
He ran to ME. (Ikoro 1996: 212)

- some Northwest Bantu languages combine the two restrictions

(15) Ewondo (Bantoid, A72a)

- a. *ma-vó jū jú*  
1S-give 3S.H 3S  
I am giving it to him. (Redden 1979: 166)
- b. *a-kad mə dzɔ vó*  
3S-HAB 1S 3S give  
He usually gives it to me. (Redden 1979: 167)
- c. *a-kad mə soób bīyě*  
3S-HAB 1S wash clothes  
He washes clothes for me. (Redden 1979:56)

+ basic hypothesis: early Bantu had a predicate of the East Benue-Congo type

SLOT	(preinitial)	initial	(postinitial) <sup>n</sup>	(preradical) <sup>n</sup>	radical	(prefinal) <sup>n</sup>	final	(postfinal) <sup>n</sup>
FUNC-	TAM <sup>li</sup>	subject	TAM/	object	verb root	TAM/	TAM	participant/
TIONS	negation/ clause type <sup>li</sup>		negation clause type <sup>li</sup>			valence change		negation <sup>li</sup> / clause type <sup>li</sup>

Note: (...) possibly empty; <sup>n</sup> possibly multiple occurrence, <sup>li</sup> later innovations

### Figure 1: The morphological structure of finite verb forms in Bantu (simplified)

- core of verbal word in modern Bantu derived from earlier syntactically complex predicates involving pronominal cross-reference of core participants - composed of:

- preverbal complex of predicate markers for subject and predication operators
- extended stem with multiple suffixes, but with size restriction
- non-subject pronouns alternatively before or after the extended stem

> prosodic properties of different domains within the modern Bantu word as possible reflexes of historically layered agglutination of verb affixes (e.g., Schadeberg (2003: 71) on initial stem position): [[initial-postinitial]-[(preradical)-[radical-(prefinal)-final]]]

+ Why not from Bantu to all less agglutinative variants of Benue-Congo?

- "dismantling" of agglutinative structure to isolating structures typologically less usual

- lowest amount of changes in order to derive two modern "extremes", viz. Bantu-type and Kwa-type structures, from an "intermediate" proto-form of Niger-Congo

- other (secure) Niger-Congo families like Gur, Adamawa, and Ubangi overall similar to East Benue-Congo rather than to eastern Bantu (and Kwa)

- **fits the geographical picture:** early Bantu should look more like an eastern Macro-Sudan language; shift to modern profile of eastern Bantu can be motivated by contact with other (unknown) languages outside the Macro-Sudan belt

+ similar cases should be investigated, e.g. South Cushitic against rest of family

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