

Towards the synchronic macro-areal profile of Africa

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1 Previous macro-areal studies

1.1 Greenberg (1959, 1983)

- "special features of African languages" - recurrent in Africa, almost absent outside:
 - phonology: clicks, labial velars, prenasal clusters, tone
 - morphology: noun classification, verb derivation
 - lexicon: 'meat'~'animal', 'child'-compounds, adpositions, 'eat'~'win'~'have sex'

It is noticeable that various sections of the continent differ in the intensity with which they partake of such common characteristics. There is a large central area in which all of these characteristics are found in most of the languages. This core area consists mainly of the Niger-Congo languages, Songhai, the Central Sudanic subgroup of the Macrosudanic family, and, to a certain degree, the Chad subgroup of Afro-Asiatic. (p.24)

Area	Features	Partaking lineages	Lineage bias
Core area	"special features"	<i>Niger-Congo, Central Sudanic, Songhai, Chadic</i>	<i>Niger-Kordofanian</i>
Khoisan	none	<i>South African Khoisan</i>	<i>Khoisan</i>
Horn of Africa	closed syllables, many consonants (ejectives), no tone, head-final	<i>Cushitic, Ethiosemitic, Kunama, Nera</i>	<i>Afroasiatic</i>
East Africa Nile valley	none	<i>Nilotic, Surmic, Moru-Madi</i>	<i>Nilo-Saharan</i>
Eastern Sahel	medial converbs, no gender, case system	<i>Saharan, Maban, Furan, Daju, Tama, Nubian</i>	<i>Nilo-Saharan</i>

Table 1: Greenberg's (1958) proposed macro-areas

(a) repeatedly without list of features

(b) overlap with his 4 genealogical super-groups can make areal approach vacuous

1.2 Heine (1975, 1976)

- word order survey:

A = SVO (head-initial)

C = VSO (head-initial)

D = SOV (head-final)

B "mixed" type: head-initial (V ADV) and head-final (GEN N, postpositions), !!!object position in basic clause no defining property (OV, VO or both) > two major subtypes:

- head-initial with GEN N, marginal OV

- head-final including consistent OV, but V ADV

> order split of object and obliques

2 Present methodology

2.1 Classes of feature

- (1) "cross-linguistic quirks" (Gensler 2003)
- (2) "continental diagnostics"
- (3) subareal features

2.2 Criteria for potentially diagnostic features

- (a) sufficient amount of clustering geographical distribution in at least one area
- (b) some empirical evidence of transferability
- (c) must not correlate with genealogical boundaries (???Greenberg 1963)

CONGO-KORDOFANIAN (= Niger-Kordofanian) (1500/>10)

Niger-Congo

(West) Atlantic

Mande

Voltaic (= Gur)

Kwa

Benue-Congo

Adamawa-Eastern (= Adamawa-Ubangi)

Kordofanian

NILO-SAHARAN (200/20)

Songhai

Saharan

Maban

Fur^{SL}

Chari-Nile

Eastern Sudanic

Central Sudanic

Berta^{SL}

Kunama^{SL}

Koman

AFROASIATIC (300/6)

Semitic

Egyptian^{SL}

Berber

Cushitic

Chadic

KHOISAN (30/5)

Southern African Khoisan

Northern

Central

Southern

Sandawe^{SL}

Hatsa^{SL}

Note: SL = single language, (...) approximate number of (languages/family level units)

Figure 1: Greenberg's (1963) classification of African languages

- > major problems of classification:
 - Khoisan (KS) not a proven unit, rather 3-4 independent lineages
 - Nilo-Saharan (NS) not a proven unit
 - Niger-Kordofanian (NK) only safe in more narrow sense of Niger-Congo, excludes Mande, Atlantic, Dogon, Ijoid, Kordofanian
- > no super-group NS+NK (Gregersen 1972, Blench 1995)
- !!! large linguistic area is alternative to unproven genealogical "super-group"

2.3 Continental feature survey

- identified features surveyed across all sufficiently known lineages
- > classification: frequent, occasionally present, absent
- lack of data on individual languages and whole families (eastern and east-central Africa, Nilo-Saharan)

2.4 Identification of areas

- (I) genealogically and typologically homogeneous areas > (recent) spread zones
- (II) large-scale clustering of isoglosses: quirks > continental diagnostics
 - > avoid feature interdependence

3 The proposed macro-areas of Africa

- (I) Sahara spread zone (Berber, Arabic)
- (II) Chad-Ethiopia
- (III) Macro-Sudan belt
- (IV) Bantu spread zone
- (V) Kalahari Basin

- one larger area unaccounted for: southern Sudan, Uganda, Kenia, northern Tanzania: expansion area of Nilotic "framed" by 4 fragmentation zones
- > serious lack of data
- > some apparently diagnostic features, but areally largely inconclusive:
 - verb-initial languages (Heine 1975, 1976)
 - consonant features (Schadeberg 1987)
 - marked nominative case system

MAP: The proposed macro-areas of Africa



3.1 Macro-Sudan belt

= Greenberg's (1959, 1983) "core area"

3.1.1 Genealogical composition

Family	Stock	Greenberg's supergroup
CORE		
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
PERIPHERY		
Atlantic	(Niger-Congo)	NK
Dogon	-	NK
Songhai	-	NS
Chadic	Afroasiatic	
Ijoid	-	NK
Narrow Bantu (Benue-Congo)	Niger-Congo	NK
Nilotic	East Sudanic	NS

Table 2: Families partaking in the Macro-Sudan belt

3.1.2 Features

- labial-velar consonants (Maddieson 1984, 2005)
- ATR vowel harmony (Hall et al. 1974, Dimmendaal 2001, Casali 2003)
- logophoricity (Güldemann 2003)

(1) Kera (Chadic, Afroasiatic)

a. *w*« *míntí tó kóoré* vs.
 3M.S_x QUOT 3M.S.LOG_x go.away

b. *w*« *míntí w*« *kóoré*
 3M.S_x QUOT 3M.S_y go.away

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

- word order S-(AUX)-O-V-X (Gensler and Güldemann 2003)

(2) Koranko (Mande)

ù sí wò lá-bùì yí r ỹ

1S PROSPECTIVE that.one CAUS-fall water in

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

- vowel nasalization (Hajek 2005)
- 3 and more level tones (Clements and Rialland forthcoming)

- sub-areal features, i.a.:

East: word order V-O-NEG (Dryer forthcoming)
labial flap consonants (Olson and Hajek 2003)

West: verb serialization

<i>Family</i>	<i>Stock</i>	<i>Logopho-ricity</i>	<i>Labial-velars</i>	<i>ATR harmony</i>	<i>S-(AUX)-O-V-X</i>	<i>V-O-NEG</i>	<i>Labial flaps</i>
Berber	Afroasiatic						
Saharan							
Maban							
Furan							
Kordofanian							
Nubian	Eastern Sudanic						
Kunama (isolate)							
Nera (isolate)							
Semitic	Afroasiatic						
Cushitic	Afroasiatic						
Omotic	Afroasiatic						
Kado							
Chadic	Afroasiatic						
Dogon							
Songhai							
Atlantic							
Mande							
Kru	N. Niger-Congo						
Gur	N. Niger-Congo						
Kwa	N. Niger-Congo						
Benue-Congo	N. Niger-Congo						
Adamawa-Ubangi	N. Niger-Congo						
Moru-Mangbetu	Central Sudanic						
Bongo-Bagirmi	Central Sudanic						
Ijoid							
Bantu (Benue-Congo)	N. Niger-Congo						
Nilotic	Eastern Sudanic						
Surmic	Eastern Sudanic						
Kuliak							
Hadza (isolate)							
Sandawe (isolate)							
Khoe-Kwadi							
Ju							
Tuu							

Notes: Family column: grey cell = families of the wider area; bold = families of the core area
Feature columns: dark grey = frequent, medium grey = present, light grey = rare, blank cell = absent or unknown

Table 3: Distribution of linguistic features across African lineages

3.2 Kalahari Basin

Güldemann (1998): linguistic area before Bantu expansion

3.2.1 Genealogical composition

Family	Stock	Greenberg's supergroup
CORE		
Khoe-Kwadi (includes "Central KS")	-	KS
Ju-ǀHõa (includes "Northern KS")	-	KS
Tuu ("Southern KS")	-	KS
PERIPHERY		
Narrow Bantu (Benue-Congo)	Niger-Congo	NK

Table 4: Families partaking in the Kalahari Basin

3.2.2 Features

- clicks as phonemic speech sounds, backbone of consonant system (Maddieson 2005)
- preferred phonotactic pattern of root: $C_1V_1C_2V_2$ (clicks in C_1) (Güldemann 2001)
- ejective and aspirated stops, vowel nasalization
- register tone languages
- mostly host-final morphology
- head-final genitive (clause order), productive noun compounding (> nominal suffixes)
- no subject cross-reference on the verb

3.3 Chad-Ethiopia

= Greenberg's (1959, 1983) Horn of Africa + Eastern Sahel

= Heine's (1975, 1976) "Chad-Ethiopia"

3.3.1 Genealogical composition

Family	Stock	Greenberg's supergroup
CORE		
Saharan		NS
Furan		NS
Maban		NS
Nubian	(East Sudanic)	NS
Nera	(East Sudanic)	NS
Kunama		NS
Cushitic	Afroasiatic	
Semitic	Afroasiatic	
Omotic	(Afroasiatic)	
PERIPHERY		
?		

Table 5: Families partaking in the Chad-Ethiopia area

3.3.2 Features

- complex predicates

> final, semantically generic verbs ('do', 'be (like)', 'become') convert as inflectional bases a different content signs ("expressives", short quotes, loans, nouns, adjectives, adverbs, verbs) into predicates/verbs; verb often used also as quotative, tendency to merger in a one-word sign (Güldemann 2006)

(1) Afar

a. *tàssa-iyy-* become happy
happiness-AUX-

b. *kowkàw-iyy-* chatter
ON:chatter-AUX-

c. *fak-ka hay-'t-e* vs. *fak-'t-e*
open-CF AUX-2S/3F.S-PERF open-2S/3F.S-PERF
you/she opened

(Hayward 1996: 541)

(Longacre 1990: 18-9)

- verb-final syntax > continentally diagnostic

4 Discussion

4.1 Long-term stability

- Nichols' (1992) idealized area types (spread vs. residual zone) problematic in Africa

+ Chad-Ethiopia:

- large wedge due to Arabic expansion

- size at margins due to expanding families: Saharan in the west, Cushitic in the east

+ Macro-Sudan:

- features repeatedly further east: Nuba mountains, Omotic, separated by Nilotic+Surmic

+ Kalahari Basin:

- recent shrinking with Bantu expansion

- Bantu expansion separated Kalahari Basin from East Africa (clicks, ejectives, laterals)

- ?Khoe-Kwadi expansion just 2000 BP, relation Ju-ǀHǀa ~ Tuu

> spreads can seriously affect size and shape of an area, extinction of areal profiles

4.2 Correlation with geography

NO?: Chad-Ethiopia, Bantu spread zone

YES?:

+ Kalahari Basin ~ dry areas of southern Africa

+ Sahara spread zone ~ dry areas of northern Africa

+ Macro-Sudan belt delimited by:

- the Atlantic Ocean and the Congo Basin in the south

- the Sahara and Sahel in the north

> geographical axis: Diamond (1999) > spreads are facilitated in an east-west trajectory, but inhibited in a north-south direction (climate, ecological conditions)

> axis pattern partly corroborated by other African macro-areas

> more stable macro-areas possibly determined by:

- trajectory of spread/diffusion (where/in what direction is contact facilitated or not?)

- sources/"hotbeds" of change

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