

## 2 The macro-areal profile of Afrabia

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### 2.1 Earlier research

- + Greenberg (1959, 1983) also the first to provide major impulse for areal linguistics in Africa with particular reference to contact-induced areas
- starts out with "special features of African languages"
  - phonology: clicks, labial-velars, prenasal clusters, tone
  - morphology: noun classification, verb derivation
  - lexicon: 'meat' = 'animal', 'child'-compounds, adpositions, 'eat' = 'win' = 'have sex'

Area	Features	Relevant lineages	Group bias
<b>Core area</b>	most of the "special features of African languages"	<i>Niger-Congo</i> , Central Sudanic, Songhay, Chadic	<i>NK</i>
<b>Khoisan</b>	none	<i>South African Khoisan</i>	<i>KS</i>
<b>Horn of Africa</b>	closed syllables, many consonants (ejectives), no tone, head-final	Cushitic, Ethiosemitic, Kunama, Nara	<i>Afroasiatic</i>
<b>Eastern Sahel</b>	medial~converbs, no gender, case system	Saharan, Maban, Furan, Dajuic, Taman, Nubian	<i>NS</i>
East Africa Nile valley	none	Nilotic-Surmic, Moru-Madi (of Central Sudanic)	<i>NS</i>

Note: **Bold** = resurfaces in later research, *Italic* = group predominanting/with bias in area

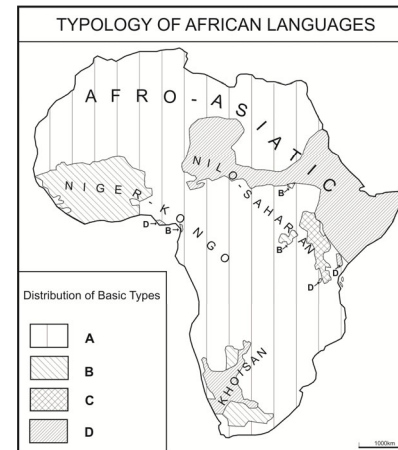
Table 1: Greenberg's (1959) proposed macro-areas

> prepared a larger research program:

What is the actual distribution geographically within Africa of each such trait? How can these distributions be explained historically? Do diverse areal characteristics show at least roughly similar distributions so that an areal classification of African languages themselves becomes feasible? Are the traits which seem most particularly African on a worldwide basis concentrated within certain areas within Africa itself? (Greenberg 1983: 3-4)

+ Heine's (1975, 1976) continental word order survey inspired by Greenberg (1963):

- A = SVO (head-initial)
- C = VSO (head-initial)
- D = SOV (head-final) > "Chad-Ethiopia"
- B = "mixed" type with important recognition of Africa-"typical" word order split between object and oblique/adjunct

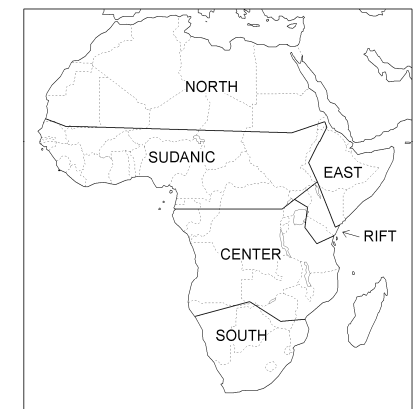
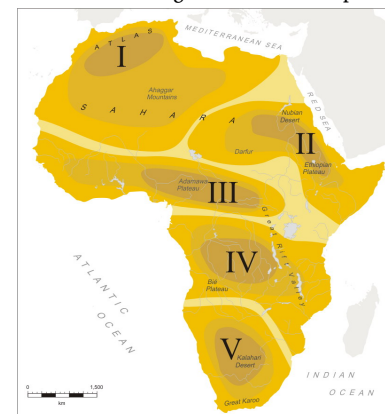


Map 1: Distribution of basic word order types in Africa (Heine 1975)

+ since late 1990s, I started to work in particular on Greenberg's (1983) last question:

- Güldemann (1998): areal alternative to Khoisan > Kalahari Basin
- Güldemann (1999): substrate in eastern/southern Bantu > High Africa
- Güldemann (2003): logophoricity > Macro-Sudan Belt
- Güldemann (2005): complex predicates with light verb > Chad-Ethiopia
- > Güldemann (2006): continental synopsis

+ Clements and Rialland (2008): outline large phonological areas of the continent, despite misleading title "Africa as a phonological area"



Map 2: Macro-areal profiles of Africa according to:

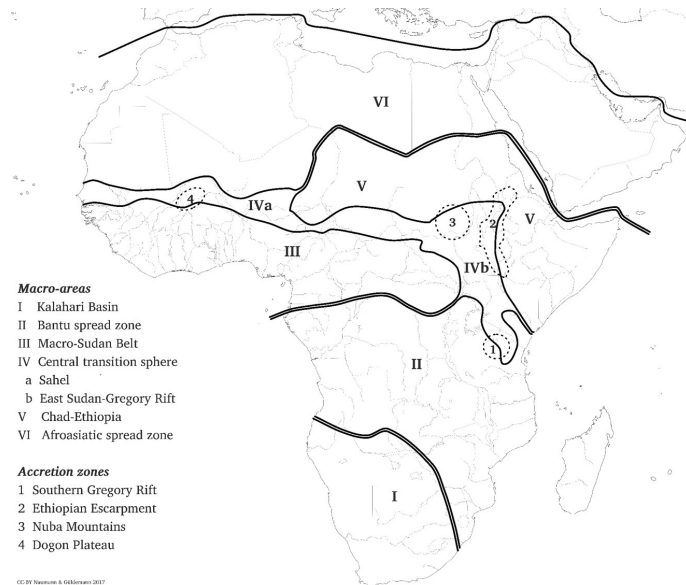
Güldemann (1998, 2003, 2005, 2006)

Clements and Rialland (2008)

- + comparison of the two continental proposals:
- overall results considerably parallel - promising given the apparently independent research
- different features: diverse domains vs. phonological features only
- different conceptualization of macro-areas
- major areal difference in central-eastern Africa: no discussion by Clements and Rialland (2008) due to absent reference to such previous work as Heine (1975, 1976) and Güldemann (1999, 2003, 2005, 2006); but see Güldemann (2010)

## 2.2 A new update

- + Güldemann (2018a): synopsis of the renewed macro-areal research and the reactions to it in the last 10 years > in line with but considerable revision of Güldemann (2010)



**Map 3: Macro-areal profile of Africa according to Güldemann (2018a)**

- + areal linguistics in a complete sense ≠ research about convergence!!!
- > instead broader research program concerning the geographical distribution of any language related features, in line with Nichols (1992) etc.
- > implies different types of areal entities, as suggested by above African profile:
  - transition zones (IV): no defining isoglosses but rather multiple affiliations
  - accretion zones (1-4): high genealogical diversity with or without isoglosses
  - spread zones (II, VI): genealogical homogeneity with numerous isoglosses
  - convergence zones (I, III, V): diagnostic isoglosses with a lot of contact mediation

- + macro-areas (= all except accretion zones) with their own genealogical profile including core and peripheral classificatory units (see Lecture 1)
- > various classificatory units with multiple areal alliance

Macro-area	Core classificatory unit(s)	Peripheral classificatory units
I Kalahari Basin	Tuu (U1)/ Kx'a (U2)/ Khoe-Kwadi (U3)	<b>Niger-Congo:</b> Bantu of BENUÉ-KWA (U6)
II Bantu spread zone	<b>Niger-Congo:</b> Bantu of BENUÉ-KWA (U6)	-
III Macro-Sudan belt	Central Sudanic (U22)/ Ijoid (U8)/ <b>Niger-Congo:</b> UBANGI (U17), DAKOID (U7), BENUÉ-KWA (U6), ADAMAWA (U16), GUR (U15)/ KRU (U9)/ <i>Pere</i> (U10)/ Mande (U12)	Songhay (U23)/ <b>Afroasiatic:</b> Chadic (48)/ <b>Nilotic-Surmic:</b> Nilotic (U36)/ <b>Niger-Congo:</b> Bantu of BENUÉ-KWA (U6), ATLANTIC (U11)
IVa Sahel	Songhay (U23)/ <b>Afroasiatic:</b> Chadic (U48), <i>Arabic</i> of Semitic (U42)/ Dajuic (U34)	Mande (U12)/ Dogon (U13)/ <i>Bangime</i> (U14)/ Laal-Labe (U49)/ <i>Kujarge</i> (U50)
IVb East Sudan-Gregory Rift	<b>Nilotic-Surmic:</b> Nilotic (U36), Surmic (U37)	<u>KORDOFANIAN</u> (U18)/ Katlaic (U19)/ Kadu (U20)/ Temeinic (U35)/ Jebel (U38)/ <i>Berta</i> (U39)/ Kuliak (U21)/ <i>Hadza</i> (U5)/ <i>Sandawe</i> (U4)/ <b>Afroasiatic:</b> Cushitic (U45)
V Chad-Ethiopia	Saharan (U27)/ Furan (U26)/ Maban (U28)/ ( <b>Wadi Howar</b> ): Taman (U29), Nyimang (U30), <i>Nara</i> (U31), <i>Meroitic</i> (U32), Nubian (U33)/ <i>Kunama</i> (U24)/ <b>Afroasiatic:</b> Ethiosemitic of Semitic (U42), Cushitic (U45), Ta-Ne (U46.A) + Maji (U46.B) of <u>OMOTIC</u> / Ari-Banna (U46.C) of <u>OMOTIC</u>	? <i>Shabo</i> (U25)/ ? Mao (U46.D) of <u>OMOTIC</u> / ? <i>Ongota</i> (U47)/ <b>Nilotic-Surmic:</b> Surmic (U37)
VI Afroasiatic spread zone	<b>Afroasiatic:</b> <i>Egyptian-Coptic</i> (U43), Berber (U44), Semitic (U42)	Songhay (U23)

Notes: GENEALOGICAL POOL; AREAL POOL; *single-language unit*; **(possible) family above basic units**; / separates independent units

**Table 2: Basic classificatory units and macro-areas in Afrabia**

### 2.3 Central transition sphere (IV) and accretion zones (1-4)

- + Güldemann (2017): "boundaries" are areas themselves'
- + Sahel (IVa) separates III from VI and western portion of V
- language and lineage density in between that of adjacent macro-areas, hosts (parts of) a few larger lineages, including major vehicular languages, but also remnant lineages
- no single "Sprachbund" but rather a geographical chain of regional contact areas
- + East Sudan-Gregory Rift (IVb) separates II and III from V
- largely constituted by Nilotic-Surmic spread zone rather than representing a contact area as occasionally suggested previously

Name	1 Southern Gregory Rift	2 Ethiopian Escarpment	3 Nuba Mountains	4 Dogon Plateau
Geographical description	from blind drainage zone of Eyasi and Manyara Lakes southwards	transition of western Ethiopian Plateau to lowlands	mountainous area in the South Kordofan province of Sudan	mountainous area in southern Mali
Selected sources	Obst (1915); Kießling, Mous, and Nurse (2008)	Bryan (1945), Grottanelli (1948, 1966)	Stevenson (1956-7), Thelwall and Schadeberg (1983), Schadeberg and Blench (2013)	Mayor et al. (2005)
Autochthonous independent classificatory units	<i>Hadza, Sandawe</i>	<i>Nara*</i> , <i>Kunama</i> , <i>Baga</i> , <i>Jebel</i> , <i>Berta</i> , <i>Koman</i> , <i>Mao</i> , <i>Shabo</i> , <i>Ari-Banna</i> , <i>Ongota</i>	Heibanic, Talodic, <i>Lafofa</i> , Rashadic, Katlaic, Kadu, Nyimang*, Temeinic	Dogon, <i>Bangime</i>
	2	10	8	2
Other classificatory units	Cushitic, BENUÉ-KWA (Bantu), Nilotic	Maji, Ta-Ne, Cushitic, Semitic; Nilotic, Surmic	Nubian*, Dajuic, Semitic ( <i>Arabic</i> )	ATLANTIC ( <i>Fula</i> ), Mande, Songhay, Berber
	3	6	3	4
<b>Total: 37-38!!!</b>	5	16	11 (10)	6

Notes: *Single language*; GENEALOGICAL POOL of Niger-Congo; \* = candidate member of promising Wadi Howar family

**Table 3: Four African accretion zones with more than ¼ of Africa's lineage diversity**

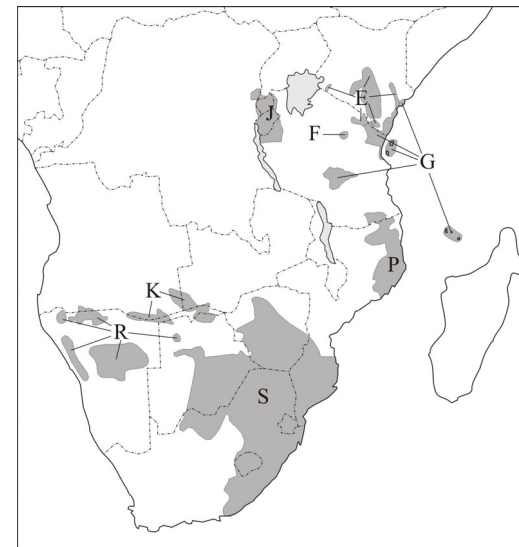
### 2.4 Spread zones

- + Bantu spread zone (II)
- three distinct frontier zones with specific local profiles:
  - northern rainforest: UBANGI, Central Sudanic
  - eastern Africa: Nilotic, Cushitic, Sandawe, Hadza
  - southern Kalahari Basin: Khoe-Kwadi, Kx'a, Tuu
- in addition to genealogical inheritance, important convergence phenomena: Guthrie's "Bantu nucleus" better interpreted by internal contact-induced homogenization
- + Afroasiatic spread zone (VI)
- formed by a coherent block of three typologically homogeneous family branches
- notable contact effects mostly in connection with language replacement (Coptic, Berber)
- unity of northern Africa and Arabia confirmed by three historical cross-migrations
- > combines Africa with Asia with important implications for global areal linguistics!

### 2.5 Contact-mediated macro-areas

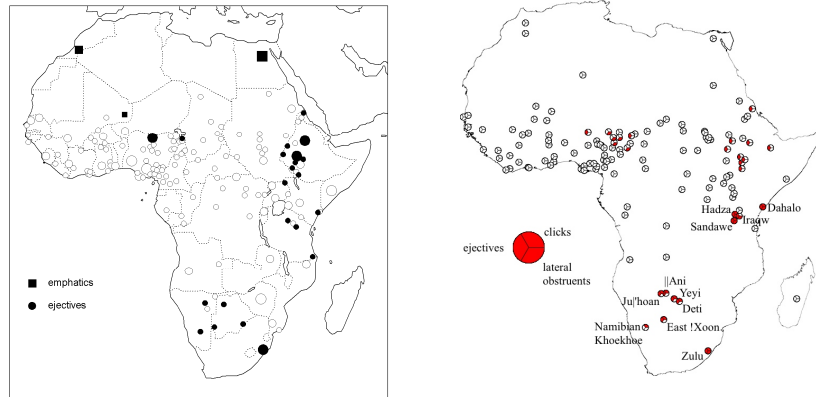
#### 2.5.1 High Africa (not in map)

- + Güldemann (1999): attempt to explain family-untypical nominal morphology in eastern and southern Bantu
- parallel to predominant profile of contact languages in and beyond relevant Bantu frontiers
- > hypothesis about an old macro-area submerged by the Bantu expansion



**Map 4: Untypical host-final nominal morphology in Bantu (Güldemann 1999)**

- + subsequent identification of a similar "saddle distribution" of quirky consonant features with an apparently parallel historical explanation
- > Naumann (2016): similar findings and additional candidate features



Map 5: Rare consonants and High Africa according to

Clements and Rialland (2008):  
emphatics and ejectives

Güldemann (2010):  
ejectives, clicks and laterals

2.5.2 Kalahari Basin (I)

- + prefigured by Greenberg (1959), albeit weakened by genealogical "Khoisan" hypothesis
- + large amount of lexicon shared across all major lineages and the entire area (Traill 1986)
- > identification of various types of contact patterns (cf. Güldemann and Loughnane 2012)

Borrowing pattern	Meaning	Tuu	Kx'a		Khoe-Kwadi	
		Taa	†Amkoe	Ju	Khoekhoe	Kalahari K.
(I)	stupid, insane	-	-	Ju!hoan <b>!xúmó</b>	Namibian <b>!XÒM-PÓÒ</b>	-
(II)	tin, box, pot	East !Xoon <b>tò<sup>h</sup>o</b>	-	Ju!hoan <b>tò<sup>h</sup>ò</b>	Namibian <b>TÓÓ-s/p</b>	Naro <b>tòó</b>
(III)	dirt(y)	-	Proto-Kx'a *KX'URI		-	
			†Hoan <b>/kx'óri</b>	Owambo !Xuun <b>g/kx'úri</b> Ju!hoan <b>/kx'úri + /'úri-hã</b>	Proto-Khoek. <b>* kx'uri-</b> > Namibian <b>/'ÚRĪ-XĀ</b>	Naro <b>/kx'úri</b>

Note: bold = loan, CAPITAL = LOAN SOURCE

Table 4: Examples for three major patterns of lexical borrowing in the Kalahari Basin

- + numerous shared structural features in phonetics-phonology, lexicon, and morphosyntax

Feature	Tuu	Kx'a	Khoe-Kwadi	Nguni (Bantu)	Tswana (Bantu)	Afrikaans
Phonetics-phonology						
Lingual ingresses = clicks	X	X	X	X	(X)	(X)
Glottalic egressives = ejectives	X	X	X	X	(X)	-
Uvular stops	X	(X)	(X)	-	-	-
Aspirated obstruents	X	X	X	X	X	-
Obstruent-obstruent clusters	X	X	X	-	-	-
Nasalized vowels	X	X	X	-	-	-
Pharyngealized vowels	X	X	(X)	-	-	-
Register tone system	X	X	X	-	-	-
Specific lexical root phonotactics	X	X	X	-	-	-
Lexical structure						
Restricted numeral system	X	X	(X)	-	-	-
Specific perception verb conflation	X	X	(X)	X	X	-
Morphosyntax						
Head-final genitive	X	X	X	-	-	X
Host-final locative flagging	X	X	X	X	X	X
Host-final derivation	X	X	X	X	X	X
Clusivity	X	X	(X)	-	-	-
Multi-verb constructions	X	X	X	-	-	(X)
TAM morphotactics	X	(X)	(X)	-	-	-
Clause-second pivot	X	X	(X)	-	-	(X)
Non-semantic participant flagging	X	X	(X)	-	-	-
Non-canonical clausal noun modifiers	X	(X)	(X)	X	X	-
Reduplicative causative	(X)	(X)	X	-	-	-
Dedicated associative plural	X	(X)	(X)	-	-	X

Table 5: Linguistic features of the Kalahari Basin (after Güldemann and Fehn 2017)

- + compact areal distribution no longer holds today - widespread language shift/extinction
- + Naumann (2016): southern Africa, comprising Kalahari Basin AND southeastern Bantu up to northern Zimbabwe and Mozambique, is a promising, albeit weaker phonological area (cf. Clements and Rialland's (2008) similar "South" in Map 2 above)
- > areality possibly with a (partly) different configuration in the past (cf. High Africa!!!)
- + which areal character? - possibly an area of subsequent lineage replacements (Tuu-Kx'a < Khoek-Kwadi < Bantu), rather than "accretion zone" (as per Güldemann 1998)

**2.5.3 Chad-Ethiopia (V)**

- + proposed first by Heine (1975, 1976) on the basis of compact word order profile (cf. Map 1 above), prefigured by Greenberg's (1959) Horn of Africa + Eastern Sahel
- + subsequent identification of a specific type of light-verb construction as a structurally independent isogloss with largely parallel distribution (cf. Güldemann 2001a, 2005; Cohen, Simeone-Senelle, and Vanhove 2002)
- + Güldemann (2010) with two additional features: peripheral case, missing /p/

Lineage*	Unit No.*	Head final syntax	Peripheral case	Complex predicate	Missing /p/
Semitic	U42	(X)	X	X	X
Cushitic	U45	X	X	X	X
Ta-Ne (Omotic)	U46.A	X	X	X	X
Maji (Omotic)	U46.B	X	X	X	X
Mao (Omotic)	U46.D	X	X	-	-
Ari-Banna (Omotic)	U46.C	X	X	X	X
Ongota	U47	X	X	-	X
Shabo	U25	X	X	X	-
Kunama	U24	X	X	X	X
Nara	U31	X	X	X	X
Meroitic	U32	X	?	?	?X
Nubian	U33	X	X	X	X
Nyimang	U30	X	X	X	X
Taman	U29	X	X	X	X
Furan	U26	X	X	X	X
Maban	U28	X	X	X	X
Saharan	U27	X	X	X	X

Notes: \* = according to Güldemann (2018b); frame = robust Afroasiatic family; dashed frame = promising Wadi Howar family

**Table 6: Linguistic features of Chad-Ethiopia across its lineage inventory**

- + area absent in Clements and Rialland's (2008) areal account of Africa - partly due to their exclusive focus on phonology
- + modern opaque configuration: two apparently independent areas in the west (southern Chad) and east (Horn of Africa) separated by a large wedge
- > saddle distribution, similar to High Africa, due to desertification and spread of Arabic

- + Ethiopia as textbook example of a contact area (cf. Clements and Rialland's (2008) "East")
- but not robustly defined in Ferguson's (1970, 1976) terms, in line with Tosco's (2000) objections, although not warranting his final conclusion
- and not an "accretion zone" as per Nichols (1992), ?rather successive language spreads

Feature	I	II	III	IV	V		
					Anywa	Kunama	Nara*
P1 /f/ for /p/		X		X		X	X
P2 Palatalization			X				
P3 Glottalic [emphatic] consonants		X		X			
P4 Presence of /d'/ [as opposed to /d/]				X			
P5 Presence of /h/ and /ʕ/		X		X			
P6 Gemination		X	X	X	X	X	X
P7 Presence of /i ε/							
P8 Helping [anaptyctic] vowel	X						X
G1 SOV word order				X		X	X
G2 Subordinate clauses first			X	X		X	X
G3 Converb			X	X		X	X
G4 Postpositions			X	X		X	X
G5 "Quoting clauses"			X	X		X	
G6 Compound verbs			X	X		X	X
G7 Negative copula			X		X		
G8 Singular with numerals			X			X	
G9 Possessive suffixes		X	X		X		
G10 Person-gender pattern	X	X					
G11 Prefix tense	X	X				X	
G12 Root and pattern	X	X					
G13 Reduplicated intensives			X				
G14 Broken plurals	X	X					
G15 Independent-subordinate tenses				X			
G16 Plural-feminine singular concord	X						
G17 irregular imperative of 'come'		X	X				
G18 Singulative		X		X			X
Total	6	11	12	13	3	10	8

Notes: I = Restricted to Ethiosemitic; II = Inherited from Afroasiatic; III = Typologically recurrent; IV = Adjacent distribution beyond Ethiopia; V = Absence in Ethiopian Nilo-Saharan; \* added after Schadeberg (1987: 227) and Güldemann (2005: 137)

**Table 7: Assessment of Ferguson's (1976) "Ethiopian" features**

**2.5.4 Macro-Sudan Belt (III)**

+ historical development of concept:

- Westermann (1911) "Sudansprachen" originally genealogical
- > Greenberg (1959, 1983) "African core area" areal, but partly continental
- > Güldemann (2003) "Macro Sudan" areal, truly sub-African

+ Greenberg's (1959: 24) original areal concept:

It is noticeable that various sections of the continent differ in the intensity with which they partake of such common characteristics [= typical African features, cf. §2.1]. 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.

> Greenberg (1983) with more extensive discussion of four features:

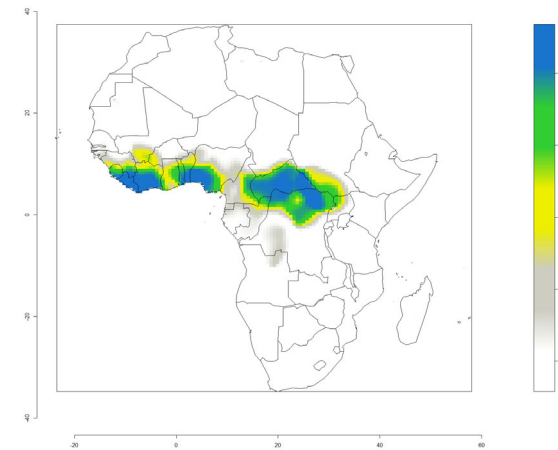
- labial velars
- labiodental flaps
- comparative construction by means of "surpass"
- "meat" = "animal"

Feature	Green-berg (1959, 1983)	Gülde-mann (2003)	Gülde-mann (2008, 2010)	Clements and Riailand (2008)	Gülde-mann (2018a)
Labial-velars	X	X	X	X	X
Implosives	X		X	X	X
Labial flaps	X		X	X	(X)
ATR harmony > 7 + vowel qualities		ATR	ATR~7+	ATR	7+
3+ tone heights	(X)		X	X	X
Nasalized vowels	(X)		X	X	X
"Lax" question prosody				X	X
"(Sur)pass" comparative	X		X		X
Logophoricity		X	X		X
Minimal-augmented pronoun system			X		(X)
(S-AUX)-O-V-OTHER		X	X		X
(S)-AUX-O-V-(OTHER) ~ STAMP morph					X
V-O-NEG > Post-V/clause-final NEG			X		X
Plural word					X
Locative-existential conflation					X

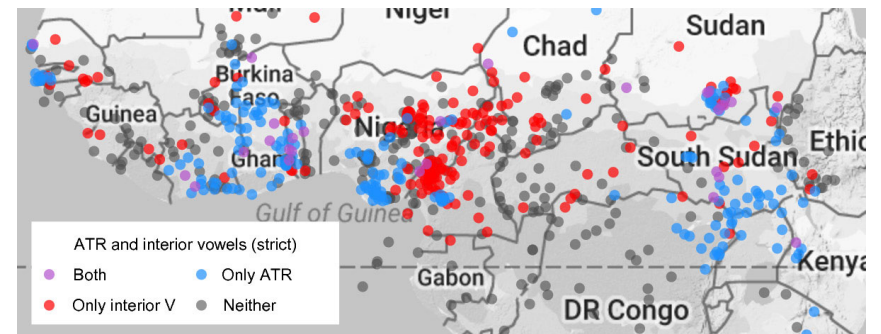
**Table 8: History of the feature profile of the Macro-Sudan Belt**

- + increase of features: *m-m* canon for singular pronouns in the east (Güldemann 2017), serial verbs from Gulf-of-Guinea coast (Dimmendaal 2001) deep into Central Africa
- + comparison of geographical definition~extension between Clements and Riailand (2008) and Güldemann (2008):

- a) major areal difference in the east concerning zone between Lake Chad and Ethiopian Escarpment north of Nuba Mountains
- b) agreement for zone further south: possible extension further east in the past - cf. tone heights, vowel systems, implosives, logophoricity
- + considerable intensification of research with more fine-grained definition of distribution clusters and identification of sub-areas, notably Idiатов and Van de Velde (2018) on labial-velars and Rolle, Lionnet and Faytak (forthcoming) on vowel systems
- > no simple account in terms of a single hotbed, but rather a chain of overlapping clusters



**Map 6: Distribution clusters of labial-velars (Idiатов and Van de Velde 2018)**



**Map 7: Distribution clusters of vowel system types (Rolle, Lionnet and Faytak forth.)**

## 2.6 Discussion

### 2.6.1 Africa's two spread zones and continental feature profiles

- + African profile involves two large spread zones (II, VI) and one convergence area dominated by a single genealogical lineage (III): Afroasiatic, Niger-Congo
- > potential skewing of the overall areal distribution of certain features in Africa
- + example of pronoun systems with inclusive-exclusive distinction:
  - In general, the inclusive/exclusive distinction is rather uncommon in Africa and Eurasia. There is no distinction in any language in Europe and its wider surroundings. The nearest cases are a few languages in the Caucasus. **The distinction is also relatively uncommon in Africa; only a few sub-Saharan languages show the distinction.** (Cysouw 2013)
- in fact, more than half of Africa's basic classificatory units have languages with clusivity distinctions (cf. Segerer's data base):
  - a) basic inclusive-exclusive: Kadu, Kuliak, Kunama, Nyimang, Nubian, Temeinic, Surmic, Koman, Baga, Kx'a, Tuu
  - b) also minimal-augmented: (Khoe-Kwadi), Heibanic, Talodic, Nilotic, Dajuic, Chadic, Central Sudanic, Atlantic, Adamawa, Ubangi, Benue-Kwa, Mande
- originally, minimal-augmented as potential Macro-Sudan feature (Güldemann 2008)
- > however, rather embedded in larger clusivity area that includes Chad-Ethiopia and East Sudan-Gregory Rift; clusivity also in Kalahari Basin
- > apparent macro-areal restriction may merely reflect the replacement of an earlier balanced African clusivity distribution by the skewing spread of just two major lineages, (northern) Afroasiatic and Bantu (or Niger-Congo)
- + possible other candidates for such features: predominance of head-initial languages and transitive S-V-O order in Africa (cf. Map 1) opposed to the global trend (cf. Dryer)
- > warns against rash areal generalizations on such a large continental level and calls for sampling that is as complete as possible in genealogical and areal terms

### 2.6.2 Africa as a continental entity

- + Northern vs. "Sub-Saharan Africa": long tradition in linguistics and beyond of separating northern Africa from the rest of the continent, as a result of European perspective from the north and differential historical interaction
- > unwarranted stereotype needs to be replaced by a holistic approach to the continent (cf. MacEachern 2007)

- + Greenberg (1959, 1983); cf. also Wald (1994), Heine and Zelealem (2008): questionable hypothesis of Africa as a linguistic area:

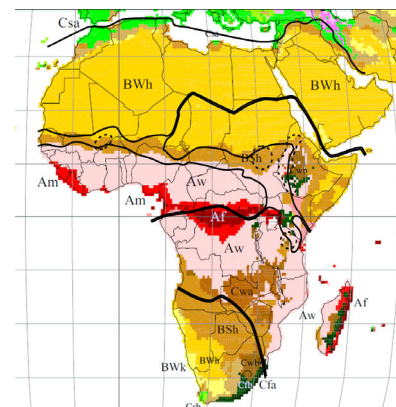
Ideally, if what is meant by an Africa areal characteristic is one which is found everywhere in Africa but nowhere else, then clearly none exists.

For present purposes then, we will define areal properties in less stringent terms, as those which are either exclusive to Africa, though not found everywhere within it, or those which are especially common in Africa although not confined to that continent. (Greenberg 1983: 3)

- > considerable impact on Creole linguistics: "Pan-African" substrate in Atlantic and Indic creoles (Boretzky 1983; Singler 1983, 1988; Gilman 1986) better accounted for as substrates of specific macro-areal origin - Macro-Sudan belt, Bantu spread zone
- + Africa traditionally seen as an entity for global areal typology but Afroasiatic spread zone transgresses this geographical boundary
- > Afrabia as a better unit of global macro-areal classification, Western Asia (Haig 2017, Haig and Khan 2019) as a transition zone between Afrabia and Asia

### 2.6.3 Macro-areas and geography

- + Güldemann (2008): explanation of Macro-Sudan in terms of long-term geographical integrity rather than as the result of accidental historical events
- > question of correlation between macro-areas and geographical entities
- > allusion to Diamond's (1999) east-west axis hypothesis related to similar ecological conditions for humans and their subsistence > "latitudinal spread potential"
- + climate zones according to Kottke et al. (2006)
- a) Afroasiatic spread zone: northern arid hot desert zone (BWh) of Africa-Arabia
- b) Macro-Sudan: equatorial winter-dry zone (Aw) north of the Central African Rainforest



Map 8: Correlation between climate zones and linguistic macro-areas in Afrabia

Climate zone	Linguistic macro-area
Arid south = B	I Kalahari Basin
Equatorial = A	II Bantu spread zone, III Macro-Sudan belt, IVb East Sudan-Gregory Rift
Arid north = B	IVa Sahel, V Chad-Ethiopia, VI Afroasiatic spread zone

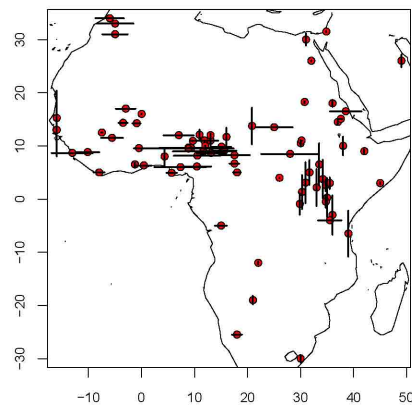
**Table 9: Correlation between climate zones and linguistic macro-areas in Afrabia**

+ physical geography and landmarks:

- a) High Africa: physiographic concept (cf. Lobeck 1946; O'Brien and Peters 1999), defined also by major landmarks like coastline and Rift Valley with lakes and escarpments
- b) Chad-Ethiopia: traces major, partly defunct, east-west tributaries of the (White) Nile
  - a) Blue Nile and Atbara of the Ethiopian Plateau from the southeast
  - b) currently dry Wadi Howar (or Yellow Nile) and Wadi el Milk from the southwest

### 2.6.4 Long-term stability?

- + areas partly stable but major dynamics, nevertheless; seriously affect their size, shape, and possibly even character:
- can shrink at periphery: Macro-Sudan belt with features that sporadically but repeatedly appear further east (Nuba mountains, Omotic); today separated by Nilotic-Surmic
- can be fragmented: High Africa and Chad-Ethiopia with saddle distribution due to Arabic expansion + desertification and Bantu expansion, respectively
- can disintegrate: Kalahari Basin due to language extinction and shift
- can change profile? Kalahari Basin as earlier spread zone rather than accretion zone
- > modern shape of macro-areas are only partly related to area-internal dynamics but also depend crucially on neighboring dynamics and interaction between the two aspects



**Map 9: Axis orientation of typological similarity in Africa (Cysouw and Comrie 2009)**

### 2.6.5 Macro-areas and cultural zones

- a) High Africa: largely coextensive with a cluster of two Later Stone Age cultures defined by Newman (1995: 32)
  - a) "southern and eastern African savannah and highland tradition"
  - b) "area with later stone age rock art"
    - > possibly replicated by later "cattle complex" across eastern flank of Africa
- b) Macro-Sudan: largely coextensive with two "culture provinces" defined by Murdock (1959) primarily in terms of precolonial food production
  - a) "Western Sudan"
  - b) "Yam belt"

**Do large-scale linguistic distributions reflect to some extent linguistic populations?**

### 2.6.6 Macro-areal linguistics as a research tool

- + approach provides, similar to genealogical classification, crucial information for science-based research agendas, typological linguistics (control of language samples for areal factors!), and prehistorical modelling
- + potential of developing into a useful tool of historical linguistics itself (Nichols 1992)
  - > can help to:
    - a) refine problematic genealogical hypotheses > **Lecture 3**
    - b) model lineage history through space and time > **Lecture 4**

### For references see:

- Güldemann, Tom. 2018a. Areal linguistics beyond contact, and linguistic areas of Afrabia. In Güldemann, 448-545.
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- Güldemann, Tom (ed.). 2018. The languages and linguistics of Africa. The World of Linguistics 11. Berlin: Mouton de Gruyter.