Introduction to the workshop 'Gender across Niger-Congo'

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1 The project "Noun classification systems in Africa between gender and nominal declension"

- duration: March 2017 – February 2020 (with envisioned 2nd phase)
- staff: Tom Güldemann, Ines Fiedler, 2 PhD students: Jan Junglas, Michael Schulze

1.1 Theoretical background and core concepts

+ gender = classification of noun (trigger) reflected by agreement on another word (target) (cf. Corbett 1991 etc.)
- but very often also other features in agreement system, most often conflated with number
> full understanding of gender system requires that all agreement factors other than gender are analyzed exhaustively and "subtracted": **Gender = Agreement minus Number et al.**

+ agreement of target(s) with a nominal trigger determined by:
    - semantic properties mostly of a noun lexeme as an abstract item in the lexicon AND
    - formal properties of a concrete noun form in the grammatical agreement context
> 4 concepts (cf. Corbett 1991, 2006; Evans, Brown and Corbett 1998; Güldemann 2000):
a) AGREEMENT CLASS (abbreviated here as AGR) = class of concrete noun forms based on account of identical behavior across all agreement contexts,
    !!! irrespective of number value, conflated reflex of diverse agreement features
b) GENDER (CLASS) = class of nouns in the lexicon - central target of analysis
c) NOUN FORM CLASS (abbreviated here as NF): = class of concrete noun forms based on account of identical properties in their own morpho(phono)logical form,
    !!! irrespective of number value, often determines formal agreement
d) DERIFLECTION (CLASS): = class of nouns in the lexicon established on account of their morpho(phono)logical variation in terms of number, gender, case, etc.

Relates to:	Concrete noun in a morpho-syntactic context = word form	Abstract noun in the lexicon = lexeme
Syntax	a. AGREEMENT CLASS (abbreviated as AGR and Arabic number)	b. GENDER
Morpho(pho-no)logy	c. NOUN FORM CLASS (abbreviated as NF)	d. DERIFLECTION

Table 1: The four concepts used for analyzing gender systems

1.2 Major project goals

> two main research foci:
a) (cross-African) typology
b) historical-comparison of Niger-Congo

Typology

	(I) Genders sex-based	**(II) Genders not sex-based**
(A) AGR strongly sensitive to number	"Khoisan" other than Non-Khoe, most Afroasiatic (except Cushitic), parts of "Nilo-Saharan" (Eastern Nilotic, Daju)	Bantu and much of the rest of Niger-Congo, most Kordofanian
(B) AGR weakly sensitive to number	Cushitic, Kadu	Non-Khoe "Khoisan" (= Kx'a and Tuu)

Table 2: Typology of African gender systems based on two features (after Güldemann 2000: 28)

+ unitary assessment of the organizational principles of gender systems in African languages in order to refine the cross-linguistic typology, particularly in relation to number and the associated deriflection system
+ some advanced work achieved within previous projects on (BII): Kx'a and Tuu
> research focus on languages of type (BI): currently **Kadu (Ph.D. Jan Junglas)**
- Niger-Congo, which also turns out to display languages with (B)-type characteristics

Comparative Niger-Congo

+ establishment of a more reliable historical-comparative analysis of the gender and deriflection systems in the core of Niger-Congo but beyond BANTOID by analyzing languages according to above approach and reconstructing earlier proto-stages at different levels, currently among others **Mel (Ph.D. Michael Schulze)**
- shed more light on the dynamics and ultimate origin of its "noun class" system
- refine the Niger-Congo classification based on this diagnostic morphological evidence but at the level of more robust lineages (**see Appendix Table A1**)
- assess the status of problematic "members" of Niger-Kordofanian (Dogon, Kordofanian, ...)
+ some work already carried out on:
    BENUE-KWA: KAINJI-PLATOID, CROSS RIVER, Nupoid, *Ikaan*, Potou-Tano, GHANA-TOGO-MOUNTAIN, *Ega*
    ATLANTIC: Fula-Sereer, Cangin, *Limba*
    GUR: *Miyobe*
    UBANGI: Mbaic

2 Multiple challenges of Niger-Congo "classes"

2.1 Agreement vs. noun form classes

+ philological Niger-Congo "noun class" concept, which conflates agreement and noun form class, hampers description, analysis, reconstruction, and typological appreciation of Niger-Congo noun classification, particularly outside Bantu

+ cf. Swahili

(1)a. ***m*-toto**　　***yu*-le**　　***m*-moja**　　***a*-me-anguka**
　　　M(W)-child(**1**)　**1**-D.DEM　**1**-one　　**1**-PERF-fall
　　　'that one child has fallen'

　b. ***wa*-toto**　　***wa*-le**　　***wa*-wili**　　***wa*-me-anguka**
　　　W(A)-child(**2**)　**2**-D.DEM　**2**-two　　**2**-PERF-fall
　　　'those two children have fallen'

(2)a. *rafiki*　　***yu*-le**　　***m*-moja**　　***a*-me-anguka**
　　　Ø:friend(**1**)　**1**-D.DEM　**1**-one　　**1**-PERF-fall
　　　'that one friend has fallen'

　b. ***ma*-rafiki**　　***wa*-le**　　***wa*-wili**　　***wa*-me-anguka**
　　　MA-friend(**2**)　**2**-D.DEM　**2**-two　　**2**-PERF-fall
　　　'those two friends have fallen'

(3)a. ***m*-ti**　　***u*-le**　　***m*-moja**　　***u*-me-anguka**
　　　M(W)-tree(**3**)　**3**-D.DEM　**3**-one　　**3**-PERF-fall
　　　'that one tree has fallen'

　b. ***mi*-ti**　　***i*-le**　　***mi*-wili**　　***i*-me-anguka**
　　　MI-tree(**4**)　**4**-D.DEM　**4**-two　　**4**-PERF-fall
　　　'those two trees have fallen'

- "noun class" as a 1-to-1 relation between agreement and noun form class: W(A) vs. 2
- but:　a) one noun form with more than one agreement counterpart: M(W) vs. 1 and 3
　　　　b) one agreement with more than one noun form counterpart: 1 vs. M(W) and Ø
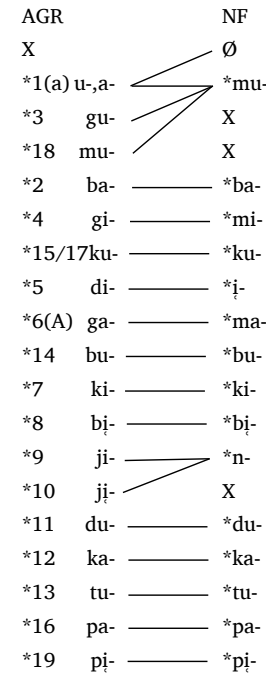
+ Proto-Bantu is the prime model for assessing other Niger-Congo gender systems with reference to detailed reconstruction of its "noun class" system (e.g., Meeussen 1967: 96-9)
> independent of the adequacy of the reconstruction, the detailed information allows one to establish a close approximation to the original situation regarding:
a) mapping of agreement classes and noun form classes
b) gender system based on agreement classes
c) deriflection system based on noun form classes

AGR		NF
X		Ø
*1(a)	u-,a-	*mu-
*3	gu-	X
*18	mu-	X
*2	ba-	*ba-
*4	gi-	*mi-
*15/17	ku-	*ku-
*5	di-	*i̧-
*6(A)	ga-	*ma-
*14	bu-	*bu-
*7	ki-	*ki-
*8	bi̧-	*bi̧-
*9	ji-	*n-
*10	ji-	X
*11	du-	*du-
*12	ka-	*ka-
*13	tu-	*tu-
*16	pa-	*pa-
*19	pi̧-	*pi̧-

Note: X = no independent agreement class counterpart

Figure 1: Mapping of agreement classes and noun form classes in Proto-Bantu
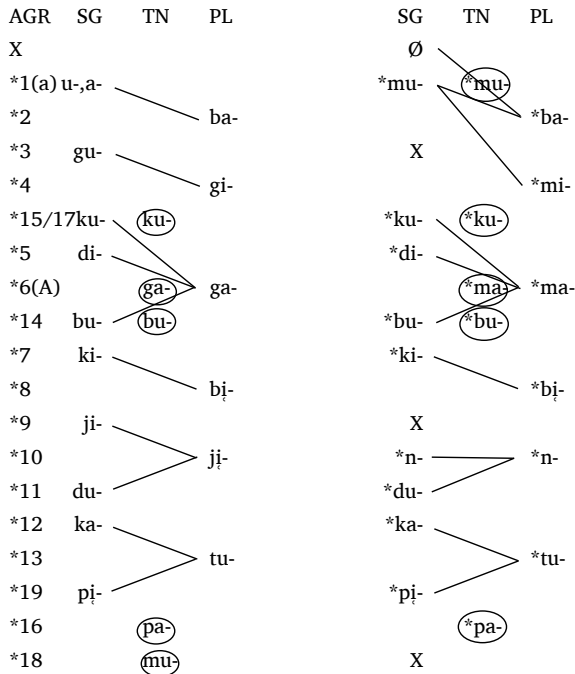
+ mapping of agreement classes and noun form classes in Figure 5:
- different number of 18 agreement classes vs. 16 noun form classes
- strongly but not absolutely alliterative (and more importantly) with a one-to-one relation:
　　2 cases where one noun form class matches more than one agreement class
　　1 case where one agreement class matches more than one noun form class

AGR	SG	TN	PL		SG	TN	PL
X					Ø		
*1(a)	u-,a-				*mu-	*mu-	
*2			ba-				*ba-
*3	gu-				X		
*4			gi-				*mi-
*15/17	ku-	ku-			*ku-	*ku-	
*5	di-				*di-		
*6(A)		ga-	ga-			*ma-	*ma-
*14	bu-	bu-			*bu-	*bu-	
*7	ki-				*ki-		
*8			bi̖-				*bi̖-
*9	ji-				X		
*10		ji-			*n-		*n-
*11	du-				*du-		
*12	ka-				*ka-		
*13			tu-				*tu-
*19	pi̖-				*pi̖-		
*16		pa-				*pa-	
*18		mu-			X		

Note: X = no independent counterpart in the other class type

Figure 2: Gender system (left) vs. deriflection system (right) of Proto-Bantu

+ despite strong one-to-one alliterative mapping in Figure 1 difference between gender and deriflection system in Figure 2:
- gender system with 18 agreement classes is "convergent" and entails 10 paired genders vs.
- deriflection system of 16 noun form classes is "crossed" and entails 11 number alternations

2.2 Classes and increased divergence

+ recent research, notably by Fedden and Corbett (2017), identifies several cases where noun classification is conveyed by two "concurrent" systems in the specific sense of being functionally parallel but overall (largely) independent against the "No-concurrent-feature conjecture" (Round and Corbett 2017: 57): classifiers + genders (e.g., Nanti, Pnar, Mian), two distinct gender systems (e.g., Paumarí, Michif)
> criteria for identifying two separate systems:

   (i)   the degree to which the semantics of the two systems are orthogonal to each other, …

   (ii) the degree to which their means of realization are different. (Corbett, F. and F. 2017: 215)

+ (partial) reduction of inherited Niger-Congo noun classification system widespread
> notably, gender system more innovative and locus of reorganization/simplification while deriflection system more conservative and remains complex, pace the finding below:

   Though the gender system is minimally functional, the agreement system is still productive, indicating a primacy of concord over nominal marking. (Demuth, Faraclas and Marchese (1986: 462) on Kru and Cross-River)

> so far, deriflection systems in Niger-Congo are regularly more complex, or at least not simpler, than the associated gender systems in terms of inventory as well as systemic structure: assuming that both systems were once quite similar and complex

The example of Gonja

+ "parallel" gender system of two genders for animates and inanimates based on four agreement classes:

|	SG		PL
1	e-	Animate	
2			bo-
3	ki-	Inanimate	
4			a-
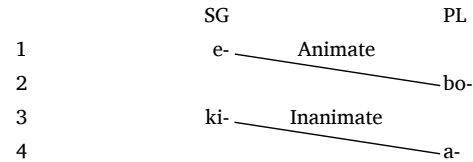
Note: exponents represented by subject pronouns

Figure 3: Gender system of Gonja (after Painter 1970)

+ complex system of nine noun form classes formed by 6 nominal prefixes and the plural suffix *-ana*, Ø-marked nouns
> number mapping of NF classes establishes 6 paired and 3 non-paired deriflections (KU-, KA- are singularia and N- plurale tantum) forming a complex "crossed" deriflection system

SG	TN	PL
		Ø-.-ana
		E-.-ana
Ø	Ø	
		BV-
E-	E-	
	A-	A-
KU-	KU-	
KA-	KA-	
	N-	N-
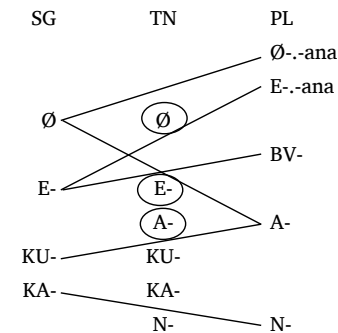
Note: inventory disregards exceptional "inquorate" patterns

Figure 4: Deriflection system of Gonja (after Painter 1970)

> several deriflections have clear semantic cores, also evident by regular assignment of derivations (4) and integrated loans with deriflection Ø-/A- but variable agreement (5)

(4)   KA-/N-:   group membership   *kà-málbà / m̀-málbà*   'Hausa person'

       E-/BV-:   nomina agentis   *é-dɔ́-pò / bú-dɔ́-pò*   'farmer' < *dɔ* 'to farm'

       KU-:   verbal noun   *kú-dɔ́*   'farming' < *dɔ* 'to farm'

(5)   Ø-/A-:   animate gender   *Ø-tícà / á-tícà*   'teacher'

       Ø-/A-:   inanimate gender   *Ø-tébùl / à-tébùl*   'table'

- special type of nominal classification as previously anticipated:

> Nonagreeing classification. In many languages there are distinct declension classes of nouns, or other formal classes of nouns, which can sometimes be associated with semantic categories like those involved in gender and other kinds of classification but which never involve agreement, selection, or other formal response. (Nichols 1992: 134)

Niger-Congo and typology of concurrency

Niger-Congo subgroup	Example language	Country
Central Gur	Koromfe	Burkina Faso
Samuic	Samu	Burkina Faso
Tusian	Win	Burkina Faso
Potou-Tano, Tano	Akan	Ghana
Potou-Tano, Guang	Gonja	Ghana
Ghana-Togo-Mountain, Ka-Togo	Animere	Ghana
Nupoid	Gade	Nigeria
Bantoid, Non-Bantu, Grassfields	Medumba	Cameroon
Bantoid, Bantu, Zone B	Nzadi	DR Congo
Bantoid, Bantu, Zone D	Beke	DR Congo

**Table 3: (Candidate) cases of concurrent noun classification in Niger-Congo**

+ concurrent classification systems arise by means of two opposite scenarios:

a) two different systems emerge in different morpho-syntactic contexts: accounts for most cases of concurrent systems identified so far (all cases reported up to now)

b) one originally unitary system diversifies in different morpho-syntactic domains: principal scenario in Niger-Congo, contingent on the design of its inherited classification system with originally strong parallels between syntactic agreement and morphological deriflection

2.3 Classes dedicated to gender and number?

+ stereotype of agreement (and noun form) classes as dedicated to gender and number

- taken over from Indo-European patterns

> responsible for Corbett's (1991) complex conceptual and terminological machinery of "controller gender", "target gender", "agreement class", and "consistent agreement pattern"

Overall value-sensitivity of classes

+ typologically attested systems with agreement classes that are overall poorly dedicated to gender and/or number > Güldemann (2000) on Kx'a and Tuu ("Non-Khoe Khoisan")

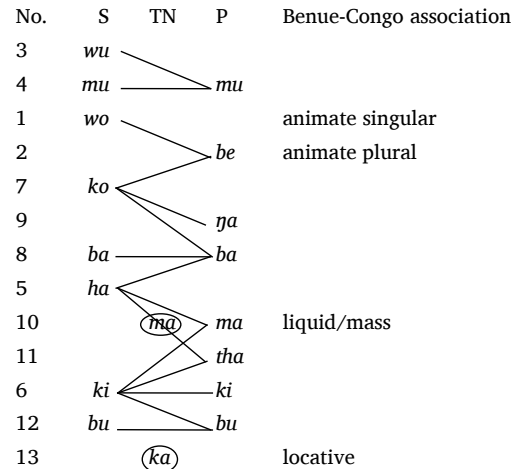| AGR	S		P
3	*ká*	V	*ká*
4	*hì*	IV	*hì*
1	*ha*	II / III	*ha*
2	*sì*	I	*sì*
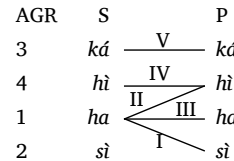
Figure 5: Gender system in Ju|'hoan (after Dickens 2005)

Niger-Congo classes with particular reference to number

+ stereotype of agreement (and noun form) classes as forming pairs over two numbers

> overall neglect of transnumeral nouns (mass nouns, personal names, etc.) and their agreement behavior

- agreement classes non-sensitive to number in Limba (ATLANTIC)

No.	S	TN	P	Benue-Congo association
3	*wu*			
4	*mu*		*mu*	
1	*wo*			animate singular
2			*be*	animate plural
7	*ko*			
9			*ŋa*	
8	*ba*		*ba*	
5	*ha*			
10		*ma*	*ma*	liquid/mass
11			*tha*	
6	*ki*		*ki*	
12	*bu*		*bu*	
13		*ka*		locative

Figure 6: Gender system of Limba (after Berry 1958)

(6)

a. *ŋ-kala*   *ŋ-kalɛŋ*
   N-rope   N-rope:P
   rope   ropes   (gender *ki/ki*)

b. *baŋka*   *baŋkɛŋ*
   house   house:P
   house   houses   (gender *ba/ba*)

c. *boli*   *boli-ŋ*
   gold   gold-P
   gold   pieces of gold (gender *bʊ/bʊ*)

d. *ku-gbeke*   *gbeke-ŋ*
   KU-arm   arm-P
   arm   arms   (gender *ko/be*)   (Berry 1958: 170, 171, 172)

- all agreement classes have transnumeral use in Lelemi (GTM)

SG   TN   PL

              ba-   *ba-*
O-   *O-*
lE-/nì   *lE-/nyà*   *lE-/nyà*
              a-   *a-/nyà*
kO-   *kO-*   *kO-*
ka-   *ka-*
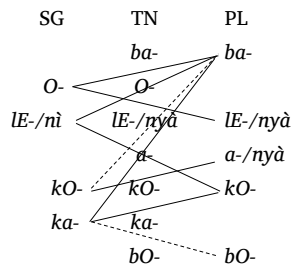   *bO-*

Figure 7: Gender system of Lelemi (GTM)

- Niger-Congo data do not confirm a simple generalized singular-plural distinction and the dedication of classes to either of the two values
> possibly a large portion of agreement and noun form classes in Niger-Congo were number-unspecific and developed a number value only later, depending on semantics of nouns in the class (cf. Denny and Creider (1986) on Proto-Bantu!)

2.4 Classes with bound exponence?

+ focus on class exponents in Bantu (and some other Niger-Congo groups) where they are:
    - phonologically bound to a host rather than free forms
    - lexically tied to a noun lexeme > obligatory overt noun form class marking
> overall neglect of synchronic analysis of nouns without class affixes like proper names, loan words etc. despite their important and partly diagnostic role in the system

+ widely overlooked view by Greenberg (1977: 102) on free status of class markers:

Our answer, then, to the question posed in the title of this paper is that the class marker was neither a prefix or a suffix but varied in its order and became fixed as it developed into an article, ...

+ extensive evidence outside Bantu that class markers cannot unambiguously reconstructed as morphemes that are universally bound to a specific lexical host - selected evidence:
> nouns recurrently used without class affix, e.g., in Gola (ATLANTIC):

(7) *ɓɛɛ*   *fela-ɔ*
     trouser   man-1
     the man's trouser   (Koroma 1994: 192)

> single class affix has scope over complex expression with more than one noun lexeme
- e.g., in Rigwe (KANJI-PLATOID, BENUE-KWA) compounds:

(8) *ì-kpɛ̀*   +   *kə-nú*   >   *ì-kpɛ̀-nù*
     CL-skin   CL-mouth   CL-skin-mouth
     skin   mouth   lip   (Gerhardt 1988: 72)

- e.g., in Mbane (Mbaic, UBANGI) noun-modifier structures:

(9)a. *gá-lɛ̀*
      tree-3
      tree
   b. *gá-yáólò-lɛ̀*
      tree-light-3
      light tree   (Pasch 1986: 157)

> class affix restricted to contexts without class marking, e.g., in C'Lela: *k-tɛ̀lɛ̀* 'bone'

(10)a. *tɛ̀l*   *kə-hnà*   *tɛ̀l*   *kə-nè*
       bone <CL-this   bone <CL-DEF
       this bone   the bone
    b. *tɛ̀l*   *kâ-d-cìnə̀*   *tɛ̀l*   *kə́n*   *tɔ̀rɔ́*
       bone <CL:GEN-CL-back   bone <CL:COMPD neck
       spine [lit.: bone of the back]   collar-bone
    c. *tɛ̀l*   *k-pús-k(ə)-ní*
       bone <CL-white-<CL-ADJ
       white bone   (Hoffmann 1967: 244, 247, 249, 250, 251)

2.5 Classes as earlier classifiers: the origin of the Niger-Congo system

+ Grinevald and Seifart (2004) observe the similar semantic and inventory profile of Niger-Congo classes to nominal classifiers in languages of Amazonia and (South)east Asia but conclude at the same time:

> All the available evidence points to an old age of Niger-Congo classification systems. The classification system reconstructed for Proto-Bantu is very similar, in all respects, to the systems of many modern Bantu languages. As for Niger-Congo, there is so far no real reconstruction of a proto-language, but the other branches of Niger-Congo do not seem to provide any evidence supporting the reconstruction of a less grammaticalized noun class system at the level of Niger-Congo languages. Noun class systems that are somehow "incomplete" in comparison with the Bantu prototype are very common in various branches of Niger-Congo. However, it is clear that these systems are not emerging class systems, but rather the result of the disintegration of former systems of the Bantu type. (ibid.: 256)

> Noun class systems of Niger-Congo languages do not seem, however, to have preserved any trace of stages of evolution in which they would have been characterized by a lesser degree of grammaticalization than the one at which they have been reconstructed in Proto-Bantu. (ibid.: 257)

+ growing evidence that class markers across Niger-Congo were originally:

a) not dedicated/sensitive to number

b) not fixed parts of a phonological word based on a noun lexeme

Proto-Niger-Congo "noun class" system may have been a classifier system that had just turned into a gender system through innovation of alliterative class agreement.

cf. Seifart (2005) for a cross-linguistic precedent in Amazonia and Kießling (2013) for the local relevance in the Macro-Sudan Belt

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Appendix

+ Mande and Ijoid excluded

Language pools	No.	Primary unit and sub-unit	AGR class	NF class	Project phase
U6 BENUE-KWA	1	A BANTOID	YES	YES	-
	2	B CROSS RIVER	YES	YES	I
	3	C KAINJI-PLATOID	YES	YES	I
	4	D Igboid	NO	(YES)	II
	5	E Idomoid	(YES)	(YES)	I
	6	F Nupoid	(YES)	(YES)	II
	7	G Edoid	YES	YES	I
	8	H Akpes	NO	(YES)	II
	9	I Ukaan	YES	YES	I
	10	J Oko	NO	(YES)	II
	11	K Akokoid	NO	(YES)	II
	12	L Ayere-Ahan	NO	(YES)	II
	13	M Yoruboid	NO	(YES)	II
	14	N Gbe	NO	(YES)	II
	15	O GHANA-TOGO-M.	YES	YES	I
	16	P Potou-Tano	(YES)	YES	I
	17	Q Ga-Adangme	NO	(YES)	II
	18	R LAGOON	NO	YES	II
	19	S Ega	YES	YES	I
	20	U7 Dakoid	?	?	
U9 Kru	21	A (Narrow) Kru	YES	YES	II
	22	B Siamou	NO	NO	-
	23	U10 Pɛrɛ	NO	NO	-
U11 ATLANTIC	24	A (NARROW) ATLANTIC	YES	YES	I
	25	B Mel	YES	YES	I
	26	C Gola	YES	YES	I
	27	D Limba	YES	YES	I
	28	E Sua	YES	YES	I
	29	F Nalu	(YES)	(YES)	I
	30	G Rio Nunez	(YES)	YES	I
	31	U13 Dogon	(YES)	(YES)	II
	32	U14 Bangime	NO	NO	-
U15 GUR	33	A (Central) Gur	YES	YES	I
	34	B Kulangoic	(YES)	YES	I
	35	C Samuic	(YES)	(YES)	I
	36	D Tiefo	(YES)	YES	I
	37	E Viemo	YES	YES	I
	38	F Tusian	(YES)	YES	I
	39	G Senufo	YES	YES	I
	40	H Miyobe	YES	YES	I
U16 ADAMAWA	41	A Tula-Waja	YES	YES	I
	44	B Longuda	YES	YES	I
	45	C Bena-Mboi	YES	YES	I
	46	D Bikwin-Jen	NO	NO	-
	47	E Samba-Duru	YES	YES	I
	48	F Mumuyic	NO	NO	-
	49	G Maya	NO	YES	II
	50	H Kebi-Benue	NO	YES	II
	51	I Kimic	NO	NO	-
	52	J Buaic	NO	YES	II
	53	K Day	NO	NO	-
	54	L Baa (Kwa)	NO	NO	-
	55	M Kam	NO	NO	-
	56	N Fali	NO	NO	-
U17 UBANGI	57	A Gbayaic	NO	NO	-
	58	B Zandic	NO	NO	-
	59	C Mbaic	YES	YES	I
	60	D Mundu-Baka	NO	NO	-
	61	E Ngbandic	NO	NO	-
	62	F Bandic	NO	NO	-
	63	G Ndogoic	NO	NO	-
U18 KORDOF.	64	A Heibanic	YES	YES	II
	65	B Talodic	YES	YES	II
	66	C Lafofa	YES	YES	II
	67	D Rashadic	YES	YES	II
	68	U19 Katlaic	NO	(YES)	II

Note: LANGUAGE POOLS rather than established lineages

Table A1: Niger-Kordofanian classification (after Güldemann 2018)