

## The wider Upper Niger region: just a Niger-Kordofanian extension or a hub of linguistic remnants?

Tom Güldemann

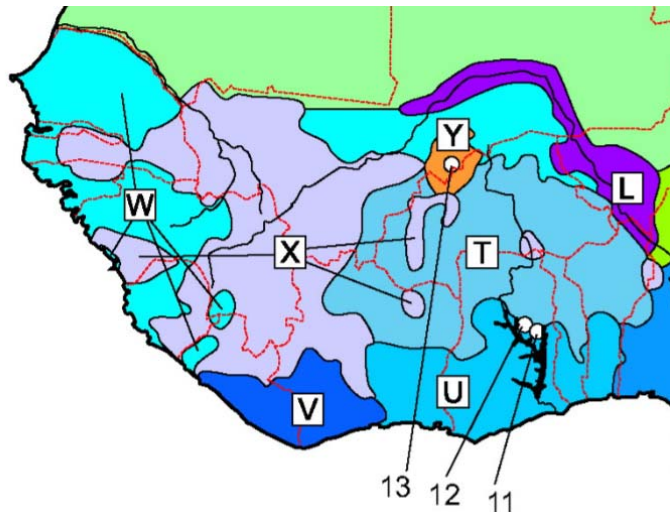
Humboldt University Berlin & Max Planck Institute for the Science of Human History Jena

### 1 Inventory of basic classificatory units

Basic unit	Language inventory	Map code	Geographic location	Accepted Greenberg classification
KWA (6)	81	U	Gulf-of-Guinea coast	Niger-Kordofanian
GUR (7)	98	T	central interior West Africa	
ATLANTIC (7)	64	W	western Atlantic coast	
<i>Pere</i> *	1	-	northern Ivory Coast	
KRU (2)	39	V	Liberia, Ivory Coast	
Dogon°	20	Y	Bandiagara Mountains	
<i>Bangime</i> °	1	13	Bandiagara Mountains	
Mande	68	X	western half of West Africa	Nilo-Saharan
Songhay	9	L	Niger bend	

Note: GENEALOGICAL POOL; (n) = number of potentially separate subgroups; no comprehensive modern and published description ° before 2000, \* today

Table 1: Nine basic classificatory language units in the wider Upper Niger region



Note: L Songhay, T Gur, U Kwa, V Kru, W Atlantic, X Mande, Y Dogon, 11, 12, 13 Bangime

Map 1: Basic classificatory language units in the wider Upper Niger region

## 2 Research history

### 2.1 Songhay (cf. Souag, this workshop)

- peripheral as Nilo-Saharan even within Greenberg's (1963) classification
- detailed critique of invoked evidence by Lacroix (1971) and Nicolai (2003)

### 2.2 Niger-Kordofanian units

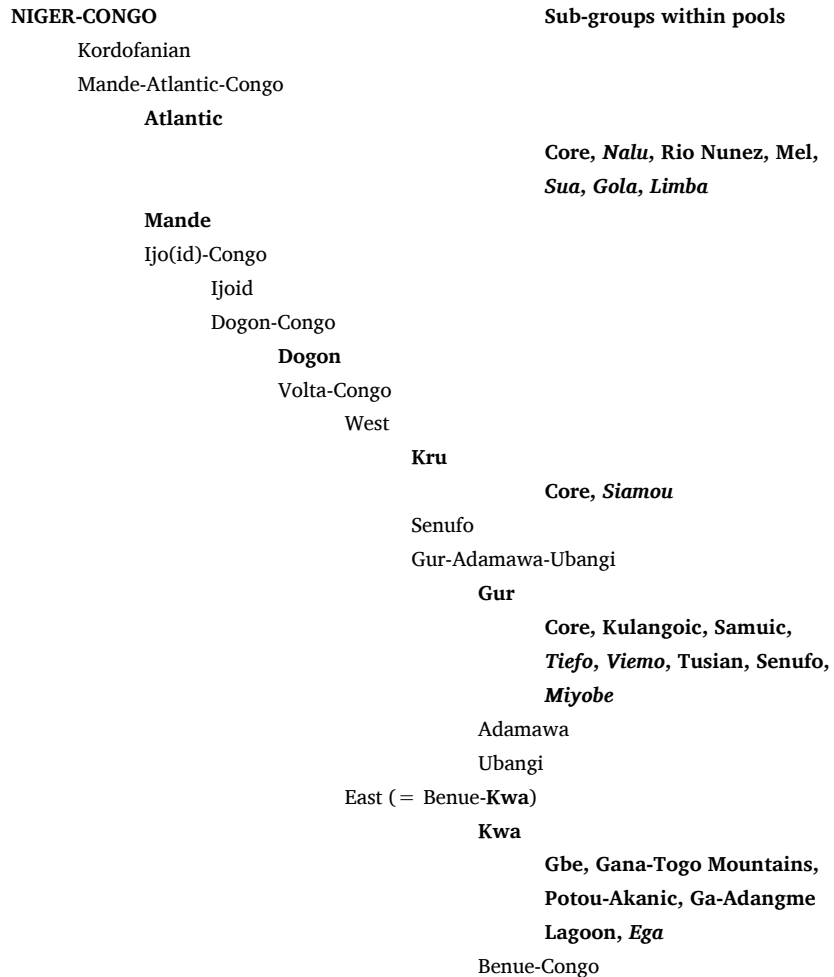
+ significant dynamics of Niger-Kordofanian classification from Greenberg (1963) to present > Figure 1-3 (**bold** = lineages in the wider Upper Niger region)

- Kordofanian
- Niger-Congo
  - West Atlantic (= **Atlantic**)
  - Mande**
  - Voltaic (= **Gur**, including **Dogon**)
  - Kwa** (including **Kru**)
  - Benue-Congo
  - Adamawa-Eastern

Figure 1: Niger-Kordofanian according to Greenberg (1963, "summary" map)

- Kordofanian
- Mande**
- Niger-Congo
  - West **Atlantic** (= **Atlantic**)
  - Central Niger-Congo
    - ?Ijo(id)
    - ?**Kru**
  - North Central Niger-Congo
    - Gur** (including **Dogon**)
    - Adamawa-Eastern (= Adamawa-Ubangi)
    - ?**Kru**
  - South Central Niger-Congo
    - Western
      - Kwa**
    - Eastern
      - Benue-Congo
      - ?Ijo(id)

Figure 2: Niger-Kordofanian according to Bennett and Sterk (1977)



**Figure 3: Niger-Kordofanian according to Williamson and Blench (2000)**

- + major changes with respect to wider Upper Niger region and its lineages:
  - a) discovery of new isolated languages: Pere, Bangime, and (within Kru) Siamou
  - b) identification of primary lineages subsumed earlier under other units: Dogon, Kru
  - c) “up-migration” in Niger-Congo family tree - 4 of 5 highest nodes are Upper-Niger units:
    - Atlantic, Mande, (Ijoid), Dogon, Kru**

### 3 Linguistic evidence for Niger-Kordofanian membership

+ assessment of typological profiles in terms of diachronic typology helps to assess probability but does not represent any robust evidence - language change can be radical > reconstructed “individual-identifying” features in terms of Nichols (1996) as best evidence for a genealogical relation - paradigmatic rather than atomic and grammatical rather than lexical:

its probability of multiple independent occurrence among the world's languages is so low that for practical purposes it can be regarded as unique and individual (ibid.: 48)

+ commonly mentioned evidence for Niger-Kordofanian:

a) noun classification system: see §3.2 below

b) verbal derivation suffix system:

- as typological trait in many language families in and outside Africa, possible form-meaning similarities in individual items across unrelated languages (cf. causative -S in Africa)

- recurrent reference for Niger-Kordofanian to Voeltz (1977) but his “reconstructions” are based on a Bantu-biased “mass comparison” rather than historical-comparative method - currently no proto-forms let alone proto-system (cf. Hyman 2014)

> unsuitable for a detailed comparison, merely as a typological feature

c) lexicon:

- extensive but somewhat outdated surveys: Westermann (1927), Mukarovsky (1976/7), lacking canonical reconstructions with regular sound correspondences

+ possible comparison of individual Upper Niger language with the expected Niger-Kordofanian canon in terms of typology and preliminary reconstructions of some paradigmatic patterns that are based first of all on secure lineages in the eastern and central realm of Niger-Kordofanian: Gur, Benue-Kwa, Adamawa, Ubangi

a) typology > Table A1

b) noun classification > Table A2

c) pronoun > Table A3

d) lower numerals > Table A4

> non-conforming characters on the right side of a cell

> Songhay included as an illustration that an unrelated family may not be too distinct from a family that is commonly assumed to be Niger-Kordofanian

#### 3.1 Typology

- all groups but Dogon and Mande unproblematic according to attested word order changes
- loss of noun classification widely attested in otherwise robust members

### 3.2 Noun classification

- first established by Westermann (1935) with reference to Proto-Bantu > Table 2
- > similar system with some cognate markers as best evidence for Niger-Congo membership

"Noun class"	NUMB	AGR	Different agreement targets				NFO
			CONC	NUM	SBJ	OBJ	
*1a	S	1(a)	ju-	u- ?	u-, a-	mu-	∅
*1	S						mu-
*3	S	3	gu-	u- ?	gu-	gu-	mu-
*18	TR	18	mu-	mu-	mu-	mu-	
*2	P	2	ba-	ba-	ba-	ba-	ba-
*4	P	4	gi-	i- ?	gi-	gi-	mi-
*5	S	5	di-	di-	di-	di-	i-
*6A	TR	6(A)	ga-	a- ?	ga-	ga-	ma-
*6	P						
*7	S	7	ki-	ki-	ki-	ki-	ki-
*8	P	8	bɪ-	bɪ-	bɪ-	bɪ-	bɪ-
*9	S	9	ji-	i- ?	ji-	ji-	n-
*10	P	10	jɪ-	ɪ-	jɪ-	jɪ-	
*11	S	11	du-	du-	du-	du-	du-
*12	S	12	ka-	ka-	ka-	ka-	ka-
*13	P	13	tu-	tu-	tu-	tu-	tu-
*14	S, TR	14	bu-	bu-	bu-	bu-	bu-
*15	S, TR	15/17	ku-	ku-	ku-	ku-	ku-
*17	TR						
*16	TR	16	pa-	pa-	pa-	pa-	pa-
*19	S	19	pɪ-	pɪ-	pɪ-	pɪ-	pɪ-

Table 2: Proto-Bantu "noun classes" (after Meeussen 1967: 96-9)

- recurrent minimal Niger-Congo core of three classes as a mini-paradigm:
  - 1(a) human singular/ 2 human plural/ 6A liquid~mass
- loss of noun classification system attested in many subgroups
- > possible retention of remnant markers both on noun and in pronouns: cf. Pere
- typologically comparable system but markers not clearly cognate
  - various Atlantic groups: Merrill (2016)
  - Kru > Figure 4
  - Dogon > Figure 5

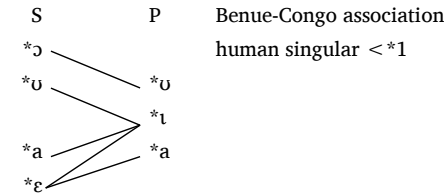


Figure 4: Gender system of Proto-Kru (after Marchese 1988: 324-8)

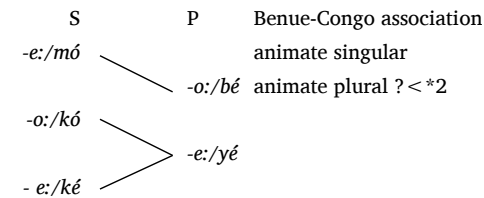


Figure 5: Gender system of Najamba (after Heath 2015)

### 3.3 Pronouns

- plural forms diverse across the whole of Niger-Kordofanian and thus not very diagnostic
- singular mV/mV canon and attested derivations robust, but only if complete
- > single item is difficult to distinguish from universal trends towards nasal pronouns

### 3.4 Numerals

- not grammatical but at least paradigmatic
- problem of potential borrowing of even lower numerals under heavy language contact and if original system before a language shift is restricted ('one', 'two', 'many')
- 'one' and 'two' are diagnostic in this connection but are so far hard to reconstruct for Niger-Kordofanian
- > overall unclear weight of the feature

### 3.5 Summary

- rough score of similarity to Niger-Congo patterns gives an approximate idea for a lineage or pool about the graspable amount of evidence in favor of its membership > Table 3

Basic unit (sub-groups)	A Typology		B Paradigms			Score(s) A + B = Total
	Word order	Noun class.	Classes 1/2/6A	Pro- nouns	Nume- rals	
KWA (6)	YES	(YES)	(YES)	(YES)	(YES)	1,5 + 1,5 = 3,0
GUR (7)	YES	YES	YES	(YES)	(YES)	2,0 + 2,0 = 4,0
ATLANTIC (7)	YES	YES	YES	(YES)	(YES)	2,0 + 2,0 = 4,0
<i>Pere</i>	YES	NO	(YES)	(YES)	YES	1,0 + 2,0 = 3,0
KRU (2)	YES	YES	(YES)	NO	(YES)	2,0 + 1,0 = 3,0
<i>Siamou</i>	(YES)	NO	NO	NO	NO	0,5 + 0,0 = 0,5
Dogon	NO	(YES)	(YES)	(YES)	YES	0,5 + 2,0 = 2,5
<i>Bangime</i>	YES	NO	NO	(YES)	YES	1,0 + 1,5 = 2,5
Mande	(YES)	NO	NO	NO	NO	0,5 + 0,0 = 0,5
Songhay	YES	NO	NO	NO	NO	1,0 + 0,0 = 1,0

**Table 3: Similarity of Upper-Niger language units with Niger-Congo canon**

## 4 Conclusions

+ low score does not exclude membership in Niger-Kordofanian - “absence of evidence is not evidence of absence”

> but diagnostic Niger-Congo features with uneven distribution in Upper Niger lineages

a) core of Kwa, Gur, and Atlantic are robust members of Niger-Congo

> individual low-scoring sub-groups to be ascertained in the future

> many Kwa sub-groups known to have drastically changed in specific areal context

b) Pere, Kru, Dogon, Bangime: equivocal picture in need of further research

c) Siamou, Mande: so far hardly any evidence for Niger-Congo membership

> less “likely” than for Songhay, which is not claimed to be related!!!

+ strong signals of areal convergence, e.g.:

- quirky word order patterns (cf. Mande and Dosso-Nikki areas by Heine 1976: 57-8)

- Mande-Songhay affinity - sometimes interpreted genealogically (cf., e.g., Creissels 1981)

- rare numeral system shared by Mande, Dogon, Gur and Bangime (Hammarström 2010: 32)

...

**Only three of five purported Niger-Kordofanian units in wider Upper Niger region are reasonably secure members of the family.**

**Non-linguists should be cautious with triangulating their hypotheses with the currently equivocal genealogical language classification.**

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## Appendices

**Table A1: Typological features**

	Lineage	Transitive sentence word order	Noun phrase word order		“Noun classes”	Major source(s)
			Genitive modifier	Other modifiers		
	<b>Proto-Niger-Congo</b>	<b>S-V-O/(S-AUX-O-V-X)</b>	<b>HEAD-MOD/?MOD-HEAD</b>	<b>HEAD-MOD</b>	<b>YES</b>	
KWA	Gbe	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	NO	Essegbey (2005)
	Ghana-Togo Mountains	S-V-O	MOD-HEAD	HEAD-MOD	YES	Kropp Dakubu and Ford (1988)
	Potou-Akanic	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	(YES)	Dolphyne and Kropp Dakubu (1988),
	Ga-Adangme	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	NO	Kropp Dakubu (1988)
	Lagoon: <i>Abe</i>	S-V-O	MOD-HEAD	HEAD-MOD	NO	Kouadiou (1983: 29-38)
	<i>Ega</i>	S-V-O	MOD-HEAD	HEAD-MOD	YES	Bolé-Richard (1983a, b)
GUR	Central	S-V-O/(S-AUX-O-V-X)	MOD-HEAD	HEAD-MOD	YES	Bendor-Samuel (1971), Naden (1989)
	Senufo	S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	YES	Carlson (1997)
ATLANTIC	Atlantic: Cangin	S-V-O/(S-AUX-O-V-X)	HEAD-MOD	HEAD-MOD	YES	Wilson (1989)
	Mel: Temnic	S-V-O/(S-AUX-O-V-X)	HEAD-MOD	HEAD-MOD	YES	Wilson (1989)
	<i>Gola</i>	S-V-O/(S-AUX-O-V-X)	HEAD-MOD/(MOD-HEAD)	HEAD-MOD	YES	Fachner (1994)
	<i>Limba</i>	S-V-O	HEAD-MOD	HEAD-MOD	YES	Berry (1958)
	<i>Sua</i>	S-V-O	MOD-HEAD	HEAD-MOD	YES	Wilson (2007: 147-51)
	<i>Nalu</i>	S-V-O	HEAD-MOD	HEAD-MOD	YES	Wilson (2007: 131-4)
	Rio Nunez	S-V-O	HEAD-MOD	HEAD-MOD	YES	Wilson (2007: 135-7)
	<i>Pere</i>	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	NO	Creissels (2010)
KRU	Kru	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	YES	Marchese (1983)
	<i>Siamou</i>	S-(AUX)-O-V-X	MOD-HEAD	HEAD-MOD	NO	Prost (1964), Toews (2015: 17-75)
	Dogon	S-O-V	MOD-HEAD	HEAD-MOD	(YES)	Heath and Prokhorov (2010), Heath et al. (2005-13)
	<i>Bangime</i>	S-V-O/(S-AUX-O-V-X)	MOD-HEAD	HEAD-MOD	NO	Hantgan (2013)
	Mande	S-AUX-O-V-X	MOD-HEAD	HEAD-MOD/ (MOD-HEAD)	NO	Dwyer (1989), Vydrin (2012)
	Songhay	S-V-O/S-AUX-O-V-X	MOD-HEAD	HEAD-MOD	NO	Heath (1999a, b, 2005)

Table A2: Potential reflexes of classes \*1, \*2, and \*6A as part of noun classification system

	Lineage	*1 Singular		*2 Plural		Meaning	*6A Transnumeral			Sources
		Noun affix	Concord/ pronoun	Noun affix	Concord/ pronoun		Noun affix	Concord/ pronoun	Meaning	
	<b>Proto-Niger-Congo</b>	*O	*O/?*a~e	*ba-	*ba	Animate	*ma	*ma	Liquid, mass	
KWA	Ghana-Togo-Mountains	*o- > -wə	*o	*ba- > -bə	*ba	Animate	*N-	*N	Liquid, mass	Heine (1968: 187-91; 129, 208-10)
	Potou-Akanic: Guang	*O-	*O-	*bA-	*bA-	Human	*N-	*N-	Liquid, mass	Manessy (1987), Snider (1990), Fiedler (p.c.)
	Ga-Adangme	-	*è-	-	*à-	3rd person	-	-	-	Kropp Dakubu (2006: 46)
	Ega	ɔ-	ɔ-	-	-	Human	a-	a-	Liquid, mass	Bolé-Richard (1983a)
GUR	Central: Oti-Volta	*-u/ a	*u/ a	*-(m)ba	*ba	Human	*-ma	*ma	Liquid, mass	Manessy (1975: 80-133)
	Senufo	*-wV	*wV	*-bVIV	*pV	Human	*-mV	*mV	Liquid, mass	Miehe (2007b)
ATLANTIC	Atlantic: Cangin	-	*(y)a	-	*ḃa	Animate	*m-	*m-	Liquid, mass	Drolc (2005: 122-4; 119-21)
	Mel: Temnic	*(w)o-	*(w)o	·a-	·a	Animate	·ma-	·ma	Liquid, mass	Wilson (1961: 53-7)
	<i>Gola</i>	(w)o-...-(o)	(w)o	a-...-(ṅa)	a	Animate	ma-...-(ma)	ma	Liquid, mass	Fachner (1994: 25-6, 59)
	<i>Limba</i>	wu- (et al.)	wo	bV- (et al.)	be	Animate	ma-	ma	Liquid, mass	Berry (1958)
	<i>Sua</i>	(æ)-	-	-(ān)	wa	Animate	m-/ N-	mɛ	Liquid	Wilson (2007: 148, 212-3, 217-8)
	<i>Nalu</i>	-	a-	bɛ-	bɛ(-)	Animate	ma-	-	Liquid (some)	Wilson (2007: 131-4, 212-3, 217-8)
	Rio Nunez	*(w)O-	-	-	-	Human	-	-	-	Wilson (2007: 136, 212-3, 217-8)
	<i>Pere</i>	-(y)O	a/ yɛ	-(m)bɛ	bé	(Animate) 3rd person	-mu	-	Liquid (some)	Creissels (2010: 3, 4-10)
KRU	Kru	*-ɔ	*ɔ	-	-	Human	-	-	-	Marchese (1988: 324-8)
	<i>Siamou</i>	-	à	-	-	3rd person	-	-	-	Prost (1964: 358)
	Dogon	-	-	-	·bO	Human, 3rd person	-	-	-	Heath and Prokhorov (2010)
	<i>Bangime</i>	-	-	-	-	-	-	-	-	Hantgan (2013)
	Mande	-	-	-	-	-	-	-	-	Dwyer (1989), Vydrin (2012)
	Songhay	-	-	-	-	-	-	-	-	Heath (1999a, b, 2005)

Table A3: Speech-act participant pronouns across Niger-Kordofanian classificatory units

	Lineage	1S	2S	1P(.E)	2P	Sources
	<b>Proto-Niger-Congo</b>	*mV <sup>front</sup> > *nV <sup>front</sup>	*mV <sup>back</sup> > *(w)V <sup>back</sup>	*TV <sup>close</sup>	*NV <sup>close</sup>	Güldemann (forthcoming)
KWA	Ghana-Togo-Mountains	*-mV	*-wó	*-TV	?	Heine (1968: 235, 253, 249)
	Potou-Akanic: Akanic	*-mE	*wO/fO	je	mO	Burmeister (1988: 103)
	Ga-Adangme	*mĩ-	*bò	*wò	*nyè	Kropp Dakubu (2006: 46-9)
	Lagoon: Abe	mə	fə	e-lə	e-ɲə	Kouadio (1983: 34-5)
	Ega	ní	ó	wá	ɲú	Bolé-Richard (1983b: 392)
GUR	Central: Oti-Volta	*mV	*bV/(f)V	*tV	*(n)yV	Manessy (1975: 175), cf. Miede (2004)
	Kulangoic	*mI	*wO	*bI	*I	Miede (2004: 117-8)
	Samuic	*n(i)	*mV	*Ti	?	Miede (2004: 118)
	Tiefo	no	mo	'eyuò	buò	Miede (2004: 118)
	Viamo	mu	a	sa	ɔ	Miede (2004: 118)
	Tusian	*mɛ	?	?	*ye	Miede (2004: 118)
	Senufo	*mI	*mO	*wo	*ye	Miede (2004: 119)
ATLANTIC	Atlantic: Cangin	*mɪ	*fɔ	?	*dO	Droic (2005: 187)
	Mel: Temnic	*mi	*mO	*sV	*nV	Wilson (1961: 58)
	Gola	mɛ̃	mɔ̃	(s)e	ne	Westermann (1921: 41)
	Limba	yañ	yi	min	been	Clarke (1922: 104, 147, 150)
	Sua	meN-	mɔɔ	nrɔ	nrɔ	Wilson (2007: 209-10)
	Nalu	mu-/ bee	yi	biye	Nee	Wilson (2007: 209-10)
	Rio Nunez	-	-	-	-	Wilson (2007: 209-10)
Pere	kV	mɔ	wó	ɲí	Creissels (2010: 3)	
K.	Kru	*n/í	*n/í	*à	*a	Marchese (1983: 228)
	Siamou	ní	á	ñ	yí	Toews (2015: 40)
Dogon	*mi	*O	*I	*E	Heath et al. (2005-13)	
Bangime	mí	a	ndɛ	aa(ru)	Hantgan (2013: 277)	
Mande	Manding	*N	*i/*e	*aN	*a(i)	Davydov (2010: 36-7)
	Southwest	*ɲé	*i/*é	*mù	*wó	Babaev (2010: 36, 44)
	Mani-Bandama	*N̄	*i/*ē	*yī/*ō	*kā	Vydrin (2006: 406), Babaev (2010a: 36)
	Niger-Volta	*mó	*ɲ	*wó	*kó	Schreiber (2008: 327)
Songhay	*agay	*yeri	*ni	*waraɲ	Souag (p.c.), cf. Nicolai (1981)	

**Table A4: Lower numerals**

	Lineage	'three'	'four'	'five'	Sources
	<b>Proto-Niger-Congo</b>	<b>*ta(C)</b>	<b>*na(C)</b>	<b>*nU &gt; *tVnU</b>	
KWA	Gbe	?	?	*-tɔ́	Capo (1991: 215, 224)
	Ghana-Togo-Mountains	*-ta	*-na	*-tonu	Heine (1968: 236-8, 245, 248, 261)
	Potou-Akanic	*-tã	*-nã	-	Stewart (1993: 28, 35, 37; 2002: 215, 223)
	Ga-Adangme	*-tɛ̃		„JwE *-nũ.mɔ̃	Kropp Dakubu (2006: 46, 54)
	Lagoon: <i>Abe</i>	<i>a.re</i>	<i>a.lɛ</i>	<i>o.ni</i>	Dumestre (1971: 270-1)
	<i>Ega</i>	-tà	-lè	-ɲwè	Blench (2004: 11)
GUR	Central: Oti-Volta	*tʰa	*na:(si)	*nu	Manessy (1975; 180, 306, 308)
	Kulangoic	„sA.(r)	„na	„tO	Miehe (2001: 271)
	Samuic	„tV	„naa.(so)	„susu	Miehe (2001: 271)
	<i>Tiefo</i>	<i>sa</i>	<i>ʔuʔɔ̃</i>	<i>ka</i>	Miehe (2001: 271)
	<i>Viemo</i>	<i>saa.si</i>	<i>juumi</i>	<i>kwege</i>	Miehe (2001: 271)
	<i>Tusian</i>	<i>ta.na</i>	<i>nyea</i>	<i>kola</i>	Miehe (2001: 271)
	Senufo	„ta.r(e)	„TiCyEr(E)	„kaKuro	Miehe (2001: 271)
ATLANTIC	Atlantic: Cangin	*a(ɛ)gɛ(a)y	?	?	Drolc (2005: 203)
	Mel: Temnic	*-sa.s	*-aŋ(ə)lɛ	„(kə)Tamat	Wilson (1961: 62)
	<i>Gola</i>	<i>tá.(l)</i>	<i>tí.ná</i>	<i>nó.no</i>	Westermann (1921: 39)
	<i>Limba</i>	-ta.t	-na.n̩	-sɔhi	Clarke (1922: 94, 96, 142, 144)
	<i>Sua</i>	-ra.r	-na.n	sɔŋgun	Wilson (2007: 200-1)
	<i>Nalu</i>	<i>pwaat</i>	-na.ŋ	tɛɛduŋ	Wilson (2007: 200-1)
	Rio Nunez	*-Tɛ.T	*-nə.ŋ	?	Wilson (2007: 200-1)
<i>Pere</i>	tà.ɲɔ́	ná:	nû	Creissels (2010: 7, 9, 10)	
K.	Kru	„ta/tã	„(-)na/piɛ	?	Marchese (1983: 399-400)
	<i>Siamou</i>	<i>tya.r</i>	<i>yiro</i>	<i>kwè</i>	Prost (1964: 354)
	Dogon	„ta.n(dV)	„nai	„nu(m)V	Heath et al. (2005-13)
	<i>Bangime</i>	<i>táá.rù</i>	<i>néɛ</i>	<i>núndi</i>	Hantgan (2013: 489)
M.	Southwest	*sa(g)ba	*naa.ni	*zɔɔ	Dwyer (1988: 145), Kastenholz (1996: 188, 189)
	Niger-Volta	*jalko	*sireko	*sodu	Schreiber (2008: 327)
	Songhay	*hinza	*taaki	*guu	Souag (p.c.), cf. Nicolai (1981)