

Prefixhood in the Bantu Noun Class System: A look at the Grassfields Borderland

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Abstract

As is well known, Bantu nouns typically consist of a stem each with an overt or covert prefix arranged in classes of singular and plural pairs called genders. In this article, I find interest in gender pairs in which both classes lack an overt prefix. A singular class with a covert prefix may form a gender with a plural one with an overt prefix, as typically illustrated by Gender 1/2 in many Bantu languages as in Babanki (Hyman 1979), Bafut (Tamanji, 2014) and Ngamambo (Achiri-Taboh, 2014). Cases where both classes take covert prefixes are certainly intriguing.

Achiri-Taboh (2014) makes a distinction between two forms of the attributive adjective in Ngamambo, namely, one with a low/rising tone used with a noun that takes a covert marker as in (1), and the other with a high/falling tone used with a noun that takes an overt marker as in (2).

(1)	a.	ønép	øzòǀí	/	ønép	*øzòǀí	‘dry house’
		9house	9dry		9house	9dry	
	b.	øwə̀d	øfíri	/	øwə̀d	*øfíri	‘black man’
		1man	1black		1man	1black	
	c.	ømben	øzù	/	ømben	*øzù	‘cold bush’
		9bush	9fresh		9bush	9fresh	
(2)	a.	ʒtúy	ʒzòǀí	/	ʒtúy	*ʒzòǀí	‘dry head’
		3head	3dry		3head	3dry	
	b.	ibâp	ifíri	/	ibâp	*ifíri	‘black wing’
		5wing	5black		5wing	5black	
	c.	rítíʔì	riʒù	/	rítíʔì	*riʒù	‘cold parcels’
		13parcel	13cold		13parcel	13cold	

With this observation, he establishes the Noun-Adjective Concord (NAC) Generalization, with the prediction that a noun class prefix is replicated on any modifying attributive adjective. By means of the NAC Generalization, it is demonstrated that, contra previous thoughts (see Asongwed and Hyman 1976), Ngamambo Gender 9/10, usually taken to exhibit a homorganic nasal prefix, actually takes no overt prefixes at all. Whatever the case, an important question that should be answered is: how are the plural nouns in such genders known? It is suggested in Achiri-Taboh (2015) that in order to mark their plurality, nouns of any plural class without an overt prefix like Class 10 must take an overt marker of another plural class on loan as a last resort – a class with which it shares the same concord consonant. This does not overtly show on a Ngamambo Class 10 noun but it does on any predicative adjective that modifies it. Thus, with the prediction of the NAC Generalization, Class 10 nouns are modified by the high/falling form of the adjective rather than the low/rising form as seen in (3).

(3)	a.	ønép	øzòßi ‘dry house’	/	ønép	rizóßí ‘dry houses’
		9house	9dry		10house	13dry
	b.	øngap	øzù ‘fresh antelope’/		øngap	rizù ‘fresh antelopes’
		9antelop	9fresh		10antelop	13fresh
	c.	øto?	økyen ‘big cup’	/	øto?	rikyén ‘big cups’
		9cup	9big		10cup	13big

In other words, in Ngamambo, Class 10 nouns share the same concord consonant [t] with Class 13 nouns as in the plural forms in (4) and (5).

(4)	a.	ønép	ze ‘the house’	/	ønép	te ‘the houses’
		9house	the		10house	the
	b.	øngap	ze ‘the antelope’	/	øngap	te ‘the antelopes’
		9antelop	the		10antelop	the
(5)	a.	fití?i	fe ‘the baskets’	/	rití?i	te ‘the parcels’
		12parcel	the		13parcel	the
	b.	fitám	fé ‘the seed’	/	ritám	té ‘the seeds’
		12seed	the		13seed	the

In the present article, I seek to extend the prediction of the NAC Generalization to cover the entire Bantu Grassfields. Specifically, I examine another Momo language and sample two Ring languages for the Western Grassfields and a fourth from the Ngemba language group for the Eastern Grassfields, and then show that (a) some classes that have previously been thought to exhibit overt class markers actually do not; (b) like in Ngamambo, nouns of Class 10 do take the plural marker of another class to show plurality; and (c) while the loan marker may appear covert on Ngamambo Class 10 nouns, it may actually be overt in other languages.

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**NIGER-CONGO LANGUAGES IN AKWA IBOM STATE: A COMPARISON AND
RECONSTRUCTION OF PROTO-FORMS.**

ABSTRACT

This study is concerned with the comparison and analysis of speech forms of Lower-Cross languages of the Niger-Congo language phylum. The speech forms are all spoken in Akwa Ibom State of Nigeria. It is undertaken with the objective of discovering their major types of systematic sound correspondences and the confirmation of their common origin using both the majority and natural principles of comparative reconstruction. A detailed analysis of cognate forms from eleven speech communities – Ibibio, Anaañ, Ọrọ, Ọkọbọ, Ekịd, Ibenọ, Itu Mbo Usọ, Iko, Obolo, Efi̋k, Ejai, and Eñwañ Uda was undertaken to discover the reflexes and reconstruct proto-forms, using the reflexes to draw a family connection tree illustrating how closely or distantly related the languages are to each other. The methodology is that of comparative reconstruction using the Ibadan 400 Wordlist. Lexicostatistics was also used to draw conclusions about the genetic relationships of these languages as depicted in the family tree. Ethno-historical facts were corroborated by linguistic evidence about the genetic relationships and common origin of the speakers of these speech forms. Feedback from the research reveals that Obolo was the first to break away and it is the most divergent, while Ibibio, Anaañ, and Itu Mbo Uso display a high degree of diachronic relatedness. Since the speakers of all other speech forms have a good mutual intelligibility and share with Ibibio common characteristics linguistically, culturally and traditionally, it is proposed that the speech forms be called ‘Ibibiod’ to re-echo Essien’s (1990) proposal. Minor differences in the linguistic and cultural tendencies should not be magnified but accepted as natural tendencies in order to aid unity in diversity

Proto-West Benue Congo Stem C₁

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Abstract

Reconstructing Niger–Congo is subject to reconstruction of its various internal nodes, one of which is WBC. The groups which make up WBC are Oko, Ukaan Akpes, Defoid, Ayere, Edoid, Ebiroid, Nupoid, Idomoid (Platoid) and Igbooid. Each group is comprised of several languages. The basic vocabulary of groups like Yoruboid, Edoid, Nupoid /Ebiroid have been reconstructed and their consonant inventories clearly identified by Akinkube , Elugbe (1986) and Bankale (2006). Although wordlists differ by authors, cognates across WBC were identified after an examination of all the available reconstructions and comparison with corresponding items in other WBC languages yet to be reconstructed. Stem C₁ consonant correspondences at this level were identified and reconstructed based on the phonological plausibility of their development. This was particularly necessary as groups like Defoid and the Akpes/Edoid/ Ukaan had more than one reconstructed form; (Defoid: hoe **-gb/*-ro*, navel **-kp/*-d*) and where there were single reconstructions, reflexes varied per reconstruction. Fresh reconstructions were carried out in stages based on the internal classification of WBC by Williamson and Blench (2000) as reviewed by the author. This resulted in major adjustments to WBC, YEAI and NOI in the form of a tree with three primary nodes EDIA, ONEI, Ikaan. Reconstruction was thus first at different nodes within WBC before arriving at the proposed Proto-WBC C₁. Olukumi was considered an additional Defoid language although it is located in the heart of Lower Niger languages. Some of the reconstructed C₁ sounds proposed as Proto-WBC consonants comprise: implosives, nasals, fortis/lenis plosives, affricate and approximants (see Table 2). Sometimes two sounds are reconstructed at Proto-WBC level when a number of the groups have variant forms; for instance Identified places of articulation include bilabial, alveolar, palatal velar and labial-velar. Further research is suggested into the proposition of Proto-WBC V₁, leading on to the reconstruction of complete basic lexical items; after which Proto-WBC may be synchronised with other nodes of Niger-Congo.

Table 1. Proto-WBC C₁ Consonants

	Bilabial	Alveolar	Palatal	Velar	Labial-velar
Nasal	*-m	*-n			
Lenis	*-mh				
Plosive	*-p *-b	*-t: *-d	*c	*-k *-g (u,i)	*-kp *-gb
Lenis	*ph *-bh	*-th *-dh	*-ch	*-kh *-gh	*-gbh
Implosive	*-ɓ	*-ɗ			
Affricate	*-ts				
Approximant			*-j		*-w

Table 2. Some WBC Cognates with two reconstructed Stem C₁

Gloss	Oko	Ukaan	Akpes	Yoruboid	Akokoid	Edoid	Nupoid	Ebiroid	Proposed Proto-WBC
Ashes	<i>ewunu</i>	<i>i-huko</i>	<i>u-hūhū</i>	<i>e-rīrū</i>	<i>ɔ-ŋɔ/ɔ-ndɔ</i>	<i>A-mhuNə</i>	<i>V-tuNu</i>	<i>a-tɪtɔ</i>	<i>*-mh / *-d</i>
Axe	<i>ɔ-dɔ</i>	<i>u-dugo</i>	<i>a-kēke</i>	<i>o-keke/ ɛdɔ(SEY)</i>	<i>ɔ-hɔ/ɔ-ŋgɔ/ɛ- ŋgɛ</i>	<i>A-ʒueNi</i>	<i>gbakun</i>	<i>ɪraga</i>	<i>*-gb/*-d</i>
Break(calabas h)	<i>apinɔ</i>	<i>fɛgɛ</i>	<i>jai</i>	<i>fɔ</i>	<i>fɔ</i>	<i>va</i>	<i>ba</i>	<i>tiaka</i>	<i>*p/*ti</i>
Corpse	<i>eporo</i>	<i>ɔniox^ox^o</i>	<i>ɔ- niohuhu</i>	<i>o-ku</i>	<i>kuokuō/ ikuku</i>	<i>O-dhɪmhɪ</i>	<i>-ku</i>	<i>o-ku</i>	<i>*-dh / *k</i>
Die	<i>efo</i>	<i>x^o</i>	<i>hu</i>	<i>Ku</i>	<i>kū/ku</i>	<i>ghU</i>	<i>tiu</i>	<i>Su</i>	<i>*-gh: / *-t:</i>
Ear	<i>ɔ-tɔ</i>	<i>a-ruk</i>	<i>a-suku</i>	<i>e-ti</i>	<i>u-to</i>	<i>ghU-chəGɪ</i>	<i>CV- tuNakpua</i>	<i>ɯ-tɔkpa</i>	<i>*-ch/ *-t</i>
Make	<i>e-sije</i>	<i>kɛnɛ</i>	<i>mɛ</i>	<i>Ce</i>	<i>ke</i>	<i>dhu</i>	<i>zi</i>	<i>mɛ</i>	<i>*-m / *-dh/ *c</i>
Saliva	<i>e-fua</i>	<i>a-sa/</i>	<i>ũ- sua/Nsu a</i>	<i>ɪ-tɔ</i>	<i>i-tĕ/ɹ-tĕ</i>	<i>A-ciaNɪ</i>	<i>miNikiNi</i>	<i>a-tɛ</i>	<i>*-b / *-ts</i>
Shoot	<i>bɛ</i>	<i>Fa</i>	<i>ɲā</i>	<i>ɲū/ta</i>	<i>ʃɪ/ʃibɔ</i>	<i>ca</i>	<i>tsie</i>	<i>tʒe</i>	<i>*-kp / *-t</i>
Tree	<i>o-ti</i>	<i>ɔ-hon</i>	<i>ɔ-hūnɛ</i>	<i>e-gi</i>	<i>ɔ-hɔ/ɹ-ŋgɔ</i>	<i>V-thaNɪ</i>	<i>V-cigbəNa</i>	<i>ɔ-ʃi</i>	<i>*-d / *-b</i>
Twent y	<i>ɔ-gbɔɔ</i>	<i>u-gbɔɔ</i>	<i>ŋmgbɔɔ</i>	<i>o-gū</i>	<i>u-gbɔɔ</i>	<i>U-gheGi</i>	<i>e-tsi</i>	<i>o-fu</i>	<i>*-b/ *th</i>

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Appendix

WBC cognates and Proto-WBC Stem C₁

Gloss	Oko	Ukaan	Akpes	Yoruboid	Akokoid	Edoid	Nupoid	Ebiroid	Proposed Proto-WBC
Animal/r	<i>o-Nɪ</i>	<i>ε-nam</i>	<i>ε-nambu</i>	<i>ε-rĩǎ</i>	<i>a-ruja</i>	<i>E-Nhamhi</i>	<i>nākā</i>	<i>u-je</i>	<i>*-n/*-r</i>
Ashes	<i>ewunu</i>	<i>i-huko</i>	<i>u-hũhũ</i>	<i>e-rĩrũ</i>	<i>ɔ-ŋɔ/ɔ-ndɔ</i>	<i>A-mhuNə</i>	<i>V-tuNu</i>	<i>a-tɪ tɔ</i>	<i>*-mh /*-d</i>
Axe	<i>ɔ-dɔ</i>	<i>u-dugo</i>	<i>a-keke</i>	<i>u-keke/ edu(SEY)</i>	<i>ɔ-hɔ/ɔ-ŋgɔ/ε-ŋ</i>	<i>A-ʒueNi</i>	<i>gbakun</i>	<i>ɪ raga</i>	<i>*-gb/*-d</i>
Arm	<i>u-ba</i>	<i>u-wɔ</i>	<i>u-huakab</i>	<i>u-b'ɔ</i>	<i>u-wɔ</i>	<i>ghU-bɔ</i>	<i>CV-gbuɔ</i>	<i>ubɔ</i>	<i>*-gb</i>
Bird	<i>ɔnini</i>	<i>ε-kɔ̃</i>	<i>ε-nama</i>	<i>ε-we</i>	<i>ɔ-rǎ</i>	<i>A-pɪ-</i>	<i>CV-luki</i>	<i>i nomi</i>	<i>*-r/*-n</i>
Blood	<i>ɛɲɔ̃</i>	<i>ɔ-dja</i>	<i>ŋkɔn</i>	<i>ε-bje</i>	<i>ε-je/ε-ɖje</i>	<i>V-ʒia</i>	<i>V-giə</i>	<i>aɲa</i>	<i>*-gi</i>
Blow wit	<i>ewure</i>	<i>Fun</i>	<i>fɪ</i>	<i>fɛ</i>	<i>hɛ</i>	<i>phupho</i>	<i>gbhiə</i>	<i>kuahɪ/ʃaʃe</i>	<i>*p/*gb</i>
Break(ca	<i>apino</i>	<i>fege</i>	<i>jai</i>	<i>fɔ</i>	<i>fɔ</i>	<i>va</i>	<i>ba</i>	<i>t iaka</i>	<i>*p/*ti</i>
Burn	<i>akini</i>	<i>hari</i>	<i>tɔ</i>	<i>jo</i>	<i>tũ</i>	<i>tuchɪ</i>	<i>diuNə</i>	<i>rɪra</i>	<i>*-d /*-k</i>
Buy	<i>jija</i>	<i>Jǎǎ</i>	<i>de</i>	<i>ra</i>	<i>da</i>	<i>de</i>	<i>si</i>	<i>ʃi</i>	<i>*-d</i>
Catch	<i>sija</i>	<i>nɛɛ</i>	<i>muse</i>	<i>mu /ŋu</i>	<i>hũ/ŋgu</i>	<i>mu</i>	<i>wɔNa</i>	<i>z a/g^wɔ</i>	<i>*-gu</i>
Corpse	<i>eporo</i>	<i>ɔmiox^wox^wo</i>	<i>ɔ-niohuhu</i>	<i>o-ku</i>	<i>kuokuɔ̃/ ikuku</i>	<i>O-dhɪmhɪ</i>	<i>-ku</i>	<i>o-ku</i>	<i>*-dh /k</i>
Chicken	<i>a-bisi</i>	<i>ε-kɔkɔ</i>	<i>i-koko</i>	<i>a-diwe</i>	<i>ɔ-wɔrɛrɛ/ε-he</i>	<i>O-khɔkhɔ</i>	<i>pitie</i>	<i>V-ʃiue</i>	<i>*-k/*-b</i>
Dance	<i>jajo</i>	<i>si</i>	<i>jo</i>	<i>Jo</i>	<i>rɛ/je</i>	<i>gbhe</i>	<i>jiən</i>	<i>ɲɛzɛ</i>	<i>*-j</i>
Die	<i>efo</i>	<i>x^wo</i>	<i>hu</i>	<i>Ku</i>	<i>kũ/ku</i>	<i>ghU</i>	<i>tiu</i>	<i>Su</i>	<i>*-gh: /*-t:</i>
Dog	<i>u-wo</i>	<i>ε-wu</i>	<i>e-bo</i>	<i>e-bja</i>	<i>o-fo</i>	<i>o-pu</i>	<i>A-bhua</i>	<i>əbui/ɛʒigi</i>	<i>*-bh</i>
Drink	<i>a dɛ</i>	<i>ŋ^wũ</i>	<i>ŋɔ̃</i>	<i>ŋmũ</i>	<i>bɔ/gbabɔ/g^wɔ</i>	<i>yɔNu</i>	<i>phiNi</i>	<i>Fu</i>	<i>*-gb/*d</i>
Dry	<i>ejeji</i>	<i>hɔ:</i>	<i>e-kehu</i>	<i>gbɛ</i>	<i>u-sɛ/i-gogo</i>	<i>ka</i>	<i>kawiə</i>	<i>ɔwɛ</i>	<i>*-gb</i>

Ear	ɔ-tu	a-ruk	a-suku	e-ti	u-to	ghU-chəGɪ	CV-tuNakpu	u-təkpa	*-ch/ *-t
Eat	ɕi	je	ɕe	je	ɕu	dhI	gi	a-ɕe	*-gi: /*dh
Egg	e-ɕi	i-tʃɛ̃ɛ̃	a-ntʃi	eŋɛ̃	e-jaha/e-sa	dhI-kiNə	gi	ri	*-
Elephant	e-dagba	e-ni	ɔ-ni	e-ɹi	e-ɹi	E-Ni	CV-dagba	ɔ-dɔgba	*-d
Hoe (dig)	kpe	kɔn	hua/h ^w a	ro/wa	kpe/gbe	gua	gba	Gba	*-gb
Feaces	egbū	a-ɹi	i-biŋ	i-wi/ewi	e-me	A-cəNə	V-biNi	e-mi	*-gb
Fish	a-jecɛ	e-nɔmumɔ	e-teŋ	e-ja	e-sɔ/i-x ^w e/i-ku	-chiəNhi	V-jiəKɔN	i-seŋi	*-ch
Five	u-pi	toon	i-ɟon	a-rua	i-tɔ̃	ii-chiNəNhi	CV-tiuNu	e-ɟɪ	*-ch / *p
Goat	u-mū	e-wɪ	e-bu	e-b'u	a-ɹã/ara	E-bhɪ	ə-Na	e-bu	*-bh
Ground	i-ɕe	u-sa	a-tɔ	V-le	e-si/e-ɟi	U-tɔ	V-kiNi	e-te	*-t
Housefly	i-ri	e-tʃo	i-neɟi	V-cici	e-siɹi	A-khɪa	V-ziNi	si	*-kh
Kill	ŋ ^w ä	ju	wei	Kpa	kpu	gbeGi	wu	wu	*-gb
Make	e-sije	kene	mɛ	Ce	ke	dhu	zi	mɛ	*-m /*dh/ *
Market	e-ɕi	a-tʃɔk	e-tʃi	ɔ-ja	a-ja	A-ki	CV-ghiko	o-fu	*-k
Moon	ɔ-ɟɪ	o-ɕo	a-dɔm	o-tʃu kpa	e-rija/e-tʃgba/e	U-ki	ə-piə	u-h ^w ɛ	*-
Name	i-wuru	i-ni	i-mun(u)	u-do	e-ɹi	dhi-Ni	CV-je	iɹe-ɟa	*-kp
Navel	i-bobo	o-kpodu	ɔ-ŋkɔ	u-do	e-kpɔ̃/i-pɔ̃/i-d	U-khəN	CV-kə	iɹe-ɕe	*-m
Nose	ɔ-mudɔɹɛ	ɔ-kɔnɔ̃	a-ŋū	i-ŋmū	o-juwɔ̃/u-wɔ̃	-chuveNi	V-bhɪə	a-ɟi	*-gb:
Oil	a-mu	u-bit	i-miti	e-kpo	o-go/u-go	A-bhidhi	ə-mi	a-ŋ ^w ɛ	*-ɟ:
Plait	wo e-pɛ̃/ wepɛ̃	sis	bɔŋ	ba/di	pã/ba	ɓana	tsiNi	Za	*-ɗ/*-g
Pound	eɹwɹjã	sɔ	tʃo	gū	bu/gwū	ɗumhi	tiu	tu	*-
Rope	o-ji	u-ku	ɔ-ŋju	v-kū	o-kū	U-dhuNi	e-gbhɔ	o-rukpa	*-

Saliva	<i>e-fua</i>	<i>a-sa/</i>	<i>ũ-sua/Nst</i>	<i>r-tɔ</i>	<i>i-tě/u-tě</i>	<i>A-ciaNɪ</i>	<i>miNikiNi</i>	<i>a-tɛ</i>	<i>*-b / *-ts</i>
Sell	<i>maɕɕuea</i>	<i>nɔɔ</i>	<i>jai</i>	<i>Ta</i>	<i>saʃa/ʃa</i>	<i>dɛGi</i>	<i>kuNu</i>	<i>Na</i>	<i>*-</i>
Shoot	<i>bɛ</i>	<i>fa</i>	<i>ɲã</i>	<i>ɲĩ/ta</i>	<i>ʃĩ/ʃibɔ</i>	<i>ca</i>	<i>tsie</i>	<i>tʒe</i>	<i>*-kp / *-t</i>
Song	<i>oguru</i>	<i>u-ŋmo</i>	<i>o-humɔ</i>	<i>e-ĩ</i>	<i>i-ʃĩ/u-sĩ/u-sě</i>	<i>I-yodho</i>	<i>ə-Niəŋ</i>	<i>a-ʃɛ</i>	<i>*-b</i>
Stone	<i>ɔ-tarɛ</i>	<i>e-kpɔ</i>	-----	<i>ɔ-kuta</i>	<i>ɛ-ta/i-ta</i>	<i>U-doGhi</i>	<i>o-kuta</i>	<i>irɛ-ta</i>	<i>*-th</i>
Swallow	<i>rʊɛ</i>	<i>mɪ</i>	<i>boɕ</i>	<i>nĩ</i>	<i>ʃiromi/siromi/ tirɔmi/u-rɔmi</i>	<i>dhɔNɪ</i>	<i>minɪ</i>	<i>mʊnɛ</i>	<i>*- p</i>
Tail	<i>o-ʃi</i>	<i>o-rum</i>	<i>o-mɔ</i>	<i>u-rũ</i>	<i>u-ja/i-ru</i>	<i>U-thiəmhi</i>	<i>tiəNtiə</i>	<i>o-mu</i>	<i>*-gb</i>
Ten	<i>ɛ-fɔ</i>	<i>o-pu</i>	<i>i-joʃ(u)</i>	<i>ɛ-gwa</i>	<i>i-je/keje</i>	<i>-gbeNi</i>	<i>CV-wo</i>	<i>ɛ-wʊ</i>	<i>*-ch</i>
Thirty	<i>ɔgbɔluka</i>	<i>ɔ-gbɔ</i>	<i>i-joʃiŋmɔ</i>	<i>ɔ-gbã</i>	<i>ɔ-ŋmɔba</i>	<i>o-gbaN</i>	-	<i>o-furɛ wa</i>	<i>*-kp</i>
Three	<i>ɛ-ta</i>	<i>ta:s</i>	<i>i-sas</i>	<i>ɛ-ta</i>	<i>i-da/kida</i>	<i>ɪɪ-chaGɪ</i>	<i>gu-ta</i>	<i>ɛ-ta</i>	<i>*-dh</i>
Tie	<i>a paɛa</i>	<i>kun</i>	<i>ɔ kpenɔ</i>	<i>So</i>	<i>pe/gbu</i>	<i>pi</i>	<i>ciə</i>	<i>e</i>	<i>*-c</i>
Tongue	<i>ɛ-larɛ</i>	<i>ɛ-mʊ</i>	<i>nda</i>	<i>ʊ-bʔã</i>	<i>ɛ-rě/i-rě</i>	<i>U-dhamɪɪ</i>	<i>a-giNtara</i>	<i>ira-rɛ</i>	<i>*-gb</i>
Tree	<i>o-ti</i>	<i>ɔ-hun</i>	<i>ɔ-hũnɛ</i>	<i>e-gi</i>	<i>ɔ-hɔ/u-ŋɔ</i>	<i>V-thaNɪ</i>	<i>V-cigbəNa</i>	<i>ɔ-ʃi</i>	<i>*-d / *-b</i>
Twenty	<i>ɔ-gbɔlɔ</i>	<i>u-gbɔrɔ</i>	<i>ŋmɔgbɔlɔ</i>	<i>o-gũ</i>	<i>u-gbɔrɔ</i>	<i>U-gheGi</i>	<i>e-tsi</i>	<i>o-fu</i>	<i>*-b:b,w / *th:th, t</i>
Two	<i>ɛ-bɔrɛ</i>	<i>wa</i>	<i>i-diaŋ</i>	<i>e-ji</i>	--	<i>I-və</i>	<i>gu-ba</i>	<i>e-ba</i>	<i>*-b</i>
Untie	<i>a-bɔrɛ</i>	<i>xwijo</i>	<i>wɔlɔ</i>	<i>Tu</i>	<i>tudu/ʃudu/ʃud</i>	<i>thaN</i>	<i>lə</i>	<i>ŋʷa</i>	<i>*-d / *-w</i>
Water	<i>e-bi</i>	<i>u-mɔ</i>	<i>i-mi</i>	<i>o-mi</i>	<i>e-ŋĩ/u-dʒi/</i>	<i>A-miN</i>	<i>nuŋʷa</i>	<i>e-ɲi</i>	<i>*- p / *-j</i>
Weave	<i>wo</i>	<i>jo</i>	<i>jo</i>	<i>ŋũ</i>	<i>rɔ/hu</i>	<i>do</i>	<i>lu</i>	<i>ʃɪ</i>	<i>*- b</i>
Wet	<i>ɛ-joŋ</i>	<i>ŋjãʃi</i>	<i>e-fũ</i>	<i>tũ</i>	<i>sě hě/i-fũtũ/u-</i>	<i>pɔchɪ</i>	<i>da</i>	<i>o-fuefũ</i>	<i>*- kp: kp, /ph:f,h</i>
White	<i>o-kukuru</i>	<i>u-hãhã</i>	<i>ɛ-ŋfɔ</i>	<i>-fũ</i>	<i>e-tũtũ/i-hoho</i>	<i>puNa</i>	<i>bʊ</i>	<i>ɔ-bʊ</i>	<i>*-gb</i>

Wind	<i>e-kpe:ri</i>	<i>o-ju</i>	<i>o-hɔm</i>	<i>v-fu</i>	<i>a-tegũ/hehe/i-ɔ</i>	<i>A-fofo</i>	<i>-phe</i>	<i>aʃe</i>	
Year	<i>i-mũ</i>	<i>ɪ-waga</i>	<i>i-ji</i>	<i>ɔ-dũ</i>	<i>e-bo/u-dɔ/ɔ-dũ</i>	<i>U-kpe</i>	<i>ə-ja</i>	<i>ira-je</i>	

Supposing we have been completely wrong about the shape of early Niger-Congo roots?

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A common assumption about the shape of Proto-Niger-Congo roots is that stems were disyllabic. This is supported by a vision of Bantu-like roots for nouns with the canonical shape (C)V-CVCV. Even where noun-classes have been lost, stems are often disyllabic synchronically. Reconstructed roots (such as they are) in Westermann (1927) and Mukarovsky (1976-1977) are frequently one or two syllables. There are problems with this interpretation, connected with additional syllables which appear in citation forms, especially in languages without any traces of noun classes such as Dogon and Ijoid. If roots in these languages are cognate, then the additional syllables must be analysed as affixes or old compounds. If a cognate segment also shows up in a noun-class branch of Niger-Congo, then it is hard to know why it should not be reconstructed.

Another problematic issue in Niger-Congo reconstruction is vowel alternation between branches. In common roots like 'head' the basic form looks like #tV, but the vowel sometimes surfaces as a high back vowel and sometimes a high front vowel. Hence reconstructed proto-forms are given the shape *tui, *twi and similar. This is hard to account for by some regular process of sound correspondence, but explicable if both are descendants of a long form which included both front and back vowels.

This paper puts forward a radical alternative, that many early Niger-Congo roots were trisyllabic, CVCVCV, and that surface forms across the phylum can be accounted for by a variety of erosional pathways. The inspiration for this comes from the Ijoid and Dogon branches of Niger-Congo and in particular a paper by Kay Williamson (1979), where she touches on this idea for Ijò but never completely accepts it. Williamson (1992) also sets out cognates for some triconsonantal roots although it does not discuss the implications for reconstruction. Observing that a significant number of proto-Ijoid forms have to be reconstructed with a CVCVCV formula, she suggests that the medial consonants can be found elsewhere in Niger-Congo in segments otherwise discarded in proposed reconstructions. This is relevant to Bantu, which often appears to be particularly conservative. Mukarovsky's (1976-1977) 'Proto-Western Nigritic' forms purport to be Africa wide, but all too often reflect the segmental material in proto-Bantu, lacking evidence from languages westward. Mukarovsky did not admit Ijoid or Dogon into his canon, thereby overlooking crucial evidence.

The proposal advanced here is that in early Niger-Congo, triconsonantal roots were far more common than in most languages today, and that this reflected a language where tone had a low functional load, and which semantic classes were not marked morphologically. If so, then Dogon and Ijoid conserve some of these roots in a shape close to their original form, and most other branches have eroded the segments according to a variety of pathways, often finally becoming monosyllabic. An exactly similar route is characteristic of Sino-Tibetan, where the long forms of Nepalese languages become pervasive monosyllabism in Sinitic and other East Asian branches. Secondly, that these triconsonantal roots usually included a mix of high front and back vowels, and that as erosion occurred, either one could emerge as the stem vowel, but with the consequence that labialisation was often phonologically significant. Alternatively erosion could give rise to labial-velars, and front rounded vowels.

An additional feature of the triconsonantal roots reconstructed here is that the 'third syllable' in Dogon and Ijoid was often r/IV- (usually a back vowel) and this becomes NV- and then nasalisation

in other Niger-Congo languages. Furthermore, typical eroded forms of CVCV shape took on a life of their own and were then transmitted in parallel to forms which retained traces of the three original consonants. This partly accounts for the multiple versions of the same root proposed by Guthrie for Common Bantu. Harmony processes are pervasive in Niger-Congo and were certainly present from the period when Ijoid evolved, which accounts for vowel copying and assimilation in cognates in many languages. The interpretation of what looks like an old affix in both Dogon and Ijoid is uncertain, but it is possibly a definiteness marker.

Finally, is this ‘proto-form-stuffing’, to use a term adopted by Blust for Austronesian? Is this an attempt to account for all surface forms by simply positing long reconstructions? I would argue not, as these long forms are attested synchronically with cognate segments in at least two Niger-Congo branches. However, they inevitably make us think quite differently about the canonic forms of early Niger-Congo.

Sur la fonction de la nasalité dans les noms du Proto Gbe

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Cette communication propose d'analyser le rôle de la nasalité dans les noms du Proto Proto Gbe. Cette Proto langue, à l'instar de la plupart de ses langues filles, est analysée comme une langue sans consonnes nasales phonologiques mais avec des voyelles nasales phonologiques. On propose que cette situation serait en fait celle d'une langue ne possédant ni consonnes ni voyelles nasales phonologiques. La nasalité serait un trait flottant alternant entre la nasalité présente sur les voyelles et une syllabe $\eta^w\text{u}\sim\eta\text{i}$ selon le contexte syllabique. La fonction de cette nasalité aurait été de former de nouveaux noms, notamment dans le cadre de la lexicalisation de composés. Ce processus se serait fait en propageant la nasalité d'un mot à un autre du composé lorsque le contexte phonologique l'auraient permis. Il en aurait résulté la lexicalisation du composé, celui-ci disposant alors d'un sens non-compositionnel (Ewe : xo 'ami' + lo 'aimer' \rightarrow $\text{x}\text{o}\text{l}\text{o}$ 'ami proche' ; Fon : $\eta^w\text{a}$ 'odeur' + $\text{j}\text{i}\text{j}\text{i}$ 'action de recevoir' \rightarrow $\eta^w\text{a}\eta\text{i}\eta\text{i}$ 'amour'). Lorsque les conditions phonologiques ne l'auraient pas permis, c'est le suffixe $-\text{i}$ qui se serait substitué à la nasalité. Ce suffixe a déjà été analysé entre autres comme un marqueur de composition (cf. Ewe : da 'serpent' + gbo 'gros' \rightarrow $\text{d}\text{a}\text{g}\text{bui}$ 'python' Fon : da 'serpent' + gbo 'gros' \rightarrow $\text{d}\text{a}\text{g}\text{be}$ 'python'). La plus grande distribution et productivité du suffixe $-\text{i}$ en Gbe occidental qu'en Gbe oriental serait à expliquer par la perte de la nasalité plus fréquente dans le premier groupe que dans le second.

The definite article in Mel

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As a function word, the definite article is subject to some attrition in the course of language change, usually originating in a form with fuller phonetic substance such as a demonstrative, e.g., Greenberg 1978. This generalization holds true for the Mel languages, spoken in the countries of Guinea, Sierra Leone, and Liberia. These languages were formerly part of the southern branch of Atlantic but are now thought to constitute an independent, e.g., Segerer Forthcoming. The reconstructed form of the Mel definite article is likely *lɛ (tone uncertain). In some dialects of Bom-Kim and the Dema dialect of Sherbro its realization is still lɛ. In (1)

(1) The definite article in Mel, underlying forms and surface realizations

Kisi	/+alv/	[wɛ] / [+rnd], [yɛ] / [-rnd], [l] / [l]+__, [d]/[+nas]+__ (no TBU, but following tone on nun class marker always high)
Mani	/ʃɛ/ polar tone	
Bom-Kim	/ɛ/	[wɛ] / [+rnd], [yɛ] / [-rnd], [lɛ] / [l] + __, [dɛ] / [+nas]+__, [ɛ]
Bom dialect of Bom-Kim	/lɛ/	[lɛ], [dɛ] / [+nas]+__ (tone presently unknown)
Sherbro	/ɛ/	[wɛ] / [+rnd], [yɛ] / [-rnd], [lɛ] / [l] + __, [dɛ] / [+nas]+__, [ɛ] (tone indeterminate)
Dema dialect of Sherbro	/lɛ/	[lɛ], [dɛ] / [+nas]+__ (tone presently unknown)

After discussing these facts in the Bullom languages and Kisi, I turn to less closely related languages such as Temne to see how the definite article is realized there. In Temne there is no trace of a cognate form. The segments present in the reconstructed form are entirely absent. Furthermore, there is a formal DEFINITE/INDEFINITE distinction in Temne (marked by both tonal and segmental differences), which is not found anywhere else in Bullom and Kisi. The facts around the definite article are placed within the context of other changes in these languages. Significant differences in the noun class systems exist in terms of both sheer number of classes and in agreement patterns. The definite article, of course, is one of a number of dependent elements forming part of the noun phrase and showing agreement with the head noun.

The role that the definite article played in the changeover from prefixing to suffixing in Kisi has been documented, as has its role in the desuetude of the noun class systems of these languages on the whole (Childs 1983). That these facts can be put in order with some plausible explanations for the variation shows the cohesiveness of the Bullom and Kisi languages as a subgroup of Mel and the lack of cohesiveness beyond the group.

The paper concludes by discussing the possible impacts of language contact on the definite article, particularly in its local consequences in language shift and language death. With the exception of Kisi, all of the languages are endangered if not dead. Only a few speakers of the Kim dialect remain, and the Bom speakers number less a few score. All are elderly (over sixty) and no children are exposed to the language.

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Lexical Tone in Proto-Mambiloid

Bruce Connell

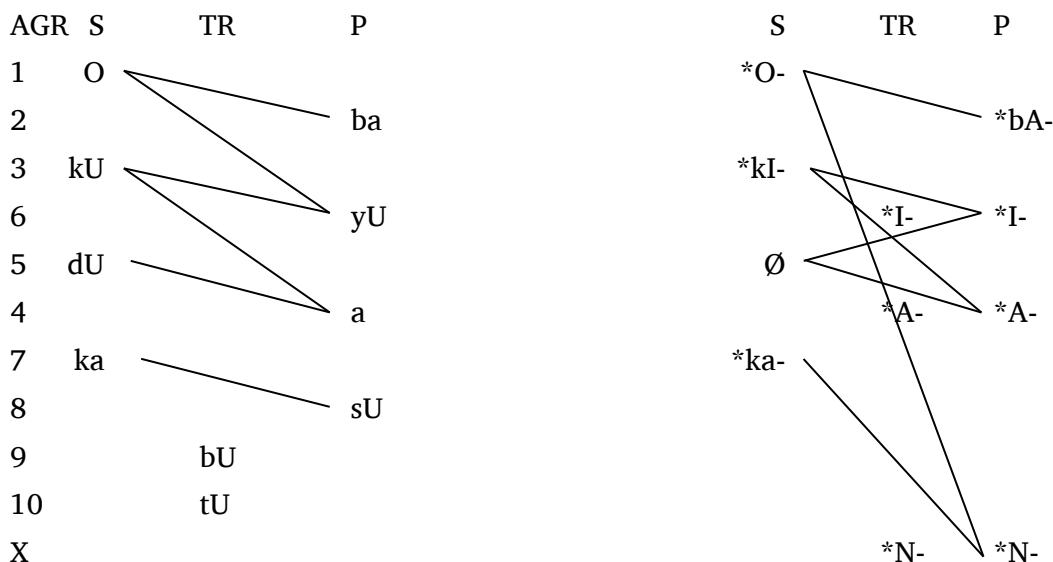
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The Bantoid sub-group Mambiloid comprises some 10 different languages of which Mambila, with at least 12 different dialects and over 100,000 speakers, is the largest; among the others are Kwanja, Ngoro, Vute, and Wawa, each of which also has dialectal variation, and Tep, Mbongo Mvanip, Ndunda, Somyev, and Nizaa, none of which is reported to have demonstrable dialectal variation. While for many of these the only data available are extended wordlists, most Mambiloid languages appear to have four contrastive lexical tones; Nizaa and Vute have three lexical tones, while one distinguishing feature among Mambila lects is three as opposed to four tones.

Historical reconstruction of the latest common parent of the Mambiloid languages is only in its early stages, particularly with regard to tone. The lack of correspondence in tone across those languages with four tones, however, suggests they have evolved their systems independently, rather than having inherited them. Unpublished work by Connell for Mambila, comparing across its dialects, suggests the route by which the Mambila system evolved from two to three and then four tones in those dialects which have four. Independently, Endresen, in unpublished work using internal reconstruction, shows how Nizaa has evolved from a system of two tones in Pre-Nizaa to three in modern Nizaa. One feature shared by Nizaa and Mambila is that verb roots typically contrast just two tones, while nouns contrast three (Nizaa) or four (Mambila), suggesting the proliferation of tone contrasts with nouns is tied to the loss of noun class prefixes. Building on these insights, the present work proposes a reconstruction of the contrastive lexical tones of Proto-Mambiloid, and attempts to trace its evolution in the present day Mambiloid languages. Comparison is also made with reconstructed Proto-Bantu tones, allowing for comment on the lexical tones of the common parent of Proto-Mambiloid and Proto-Bantoid.

Comparison of gender systems across Kwa

The paper compares the synchronic gender systems of different Kwa language groups in order to contribute to the reconstruction of these systems in Kwa and in Niger-Congo in general. The comparison of nominal classification systems in Kwa reveals huge differences with respect to their design and complexity. Whereas most Ghana-Togo-Mountain languages and Ega display systems with a high number of agreement classes, which are also overtly reflected on the noun, some languages only have remainders of such a system reflected to different degrees in their nominal morphology (Lagoon languages, Guang) or no reflexes at all (Gbe). For two Kwa groups, Ghana-Togo-Mountain (GTM) languages and Guang languages, a reconstruction of the system was already proposed. However, the reconstructions are based on different systemic components, as is also often the case with the description of synchronic systems: while Heine (1968) reconstructed Proto-GTM largely by means of agreement classes, Snider (1988) and Manessy (1987) relied for their Proto-Guang on noun form classes. That such different approaches yield very different proto-systems can be shown by a comparison between the system of Proto-Guang based on noun form classes with the agreement-based system of modern Foodo (the only Guang language with productive agreement but not considered by Snider), as shown in the figure below.



Note: X = no independent counterpart

Gender system of Foodo based on agreement classes (left, Fiedler field notes) vs. gender system of Proto-Guang based on noun (form) classes (right, after Snider 1990: 138)

This paper applies a more systematic cross-linguistically oriented approach to the analysis of gender systems, as proposed. i.a., by Güldemann (2000); it distinguishes consistently the three following gender-related concepts: (a) agreement classes as the ultimate basis of the system of genders, (b) gender (classes) as reflecting the classification of nouns in the lexicon/reference domain, and (c) noun (form) classes as the partial reflex of genders hosted by the nouns themselves. Building on a first application of this approach to Niger-Congo languages by Fiedler and Güldemann (2015), the talk aims at putting the comparison of gender systems in Kwa and beyond on a theoretically firmer footing in order to arrive at an improved reconstruction of earlier language states.

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Genetic unity of the Niger-Congo family

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Since the early twentieth century, numerous classifications of African languages have been established (Koelle, 1954; Westermann, 1911; Meinhof, 1912; Greenberg, 1963) for African languages. In recent years the classification mostly used by historical linguists are Greenberg's classification with four main families: Niger-Congo, Nilo-Saharan, Afro-Asiatic and Khoisan. Of these, the Niger-Congo family constitutes the largest African language family in terms of geographical area (the Niger-Congo languages cover the greater part of Sub-Saharan Africa), the number of speakers (more than 300 million of speakers) and the number of distinct languages (approximately 1400 languages spoken). This also makes the Niger-Congo family one of the world's largest languages families.

Several classifications of Niger-Congo languages have been proposed (Greenberg, 1963; Bennett and Sterk, 1977; Williamson, 1989; Bendor-Samuel, 1989 and Williamson and Blench, 2000) from lexicostatistical and mass comparison analyses, but no comprehensive phylogenetic classification has yet been established for the phylum using modern phylogenetic statistical methods. The most recent classification of Niger-Congo languages known is the one established by Williamson and Blench in 2000.

The main objective of this study is to propose the first phylogenetic classification of the Niger-Congo languages. We have created a database of 1046 Niger-Congo languages, from data collected fieldwork and dictionaries and including each Niger-Congo subgroup: Atlantic, Mande, Gur, Kru, Kwa, Dogon, Ijoid, Kainji, Nupoid, Plateau, Idomoid, Akokoid, Defoid, Igboid, Edoid, Ukaan, Cross, Ubangi, Mambiloid, Dakoid, Ekoid, Tivoid, Beboid, Jukunoid, Grassfields, Jarawan and Bantu languages. Our primary data consist of wordlists of 100 words belonging to the basic vocabulary and for each word, we have identified cognate sets. We then infer the tree, using a likelihood model of lexical evolution that allows different rates of evolution for the words studied and Bayesian inference of phylogeny using Markov chain Monte Carlo methods. We employ 'relaxed clock' dating methods, which produce a topology and date estimates for all nodes of the tree.

The results reveal that the Niger-Congo family forms a genetic unity. We find that the Ijoid languages, whose placement in the Niger-Congo tree is controversial, are placed in the tree near to Delta Cross languages. Our phylogeny does not support the East/West Volta-Congo division, neither the West/East Benue-Congo division nor North/South Bantoid division. However, the results have shown strong support for a Bantoid group composed of Ekoid, Bendi, Dakoid, Jukunoid, Tivoid, Mambiloid, Beboid, Mamfe, Tikar, Grassfields and Bantu languages.

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Automated reconstruction of Proto-Bantu using a statistical model of phoneme evolution

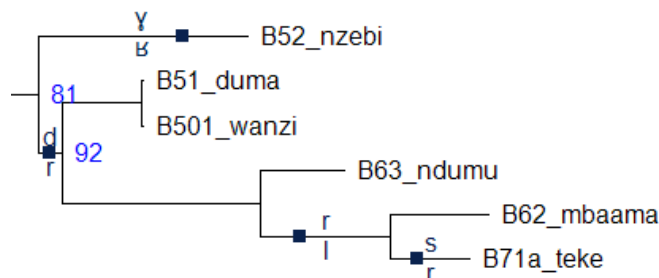
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The comparative method is widely used by linguists to study the relatedness between languages and also to reconstruct proto-languages. Based on the comparison of similar words (cognates) from a group of languages and understanding of the regularity of sound changes, linguists use the Comparative Method to reconstruct proto-languages.

Here we present an automated likelihood-based statistical model that captures phonological aspects of language change in order to reconstruct proto-words. The model can detect sound changes characterizing language evolution and reconstruct the proto-phoneme for each site in the alignment.

To produce an alignment we start with the current phonological representations for a set of words in the basic vocabulary. For each of these word sets, we further split into cognate sets and these are then aligned phonemically. To this alignment we apply a Bayesian Markov chain Monte Carlo approach that can simultaneously estimate the phylogenetic tree and the matrix for the regular sound changes. This allows us to propose the most probable ancestral state for each site at any node of the tree.

We applied our model to the Bantu languages spoken in Africa (243 languages) for 100 words belonging to the basic vocabulary. Our model detects the regular sound changes that occur in Bantu (such as *d to l or *t to d).



Example of the classification of B50-60-70 languages with regular sound changes

By applying the same model we have produced a reconstruction of proto-Bantu and proto languages for several internal nodes (such as proto-Mbam-Bubi, proto north-Western, proto-Western, etc.). We will present the proto-words reconstructed and we will compare them with the ones reconstructed by Guthrie (1967-71) or Meeussen (1969).

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The use of data on minority Bantu languages to compare Niger-Kongo languages

The article includes an analysis of five minority languages of Tanzania, which are the only languages of intraethnic communication. Based on data, which have been obtained by the authors themselves from field research through questionnaires of respondents, noun class systems in the languages Jita (= Echijita E.25), Manda (= Kimanda N.11), Ndali (= Isindali N.30), Ndonde (= Kindonde P.20) and Nyiha (= Ishinyiha M.23) are examined. The impact of a strong socio-contacting Swahili, fortunately, did not lead to increased destruction of the primary system of the nominal classes. Unlike Swahili with its reduced nominal class system in the represented languages the archaic noun prefixes are preserved, in some cases, not mentioned in the classification by M. Guthrie. Moreover, at least 19 noun classes are fixed in these languages compared with 15 classes in Swahili.

In a number of these languages noun prefixes have an initial vowel. Thus, in Jita (E.25) *omu-* in *omumura* “master”, in Ndali (N.30) *umu-* in *umundu* “people”, in Nyiha (M.23) *umu-* in *umuntu* “people”. Other initial vowels of disyllabic class prefixes in these languages are /a/, /e/, /i/, /o/, /u/. In Manda (N.11) and Ndonde (P.20) the noun prefixes have the structure CV, rarely V.

Of particular interest are prefixes of classes 1a and 2a. Thus, in the language Ndali (N.30) *abo-* in *abokabwa* (2a) < *ukabwa* (1a) “dog”, in the language Manda (N.11) *vavi-* in *vavihemeleza* (2a) < *yaihemeleza* (1a) “shopman”.

The aspirated *bh-* in Jita (E.25) may be noted in noun prefixes of classes 2 *abha-*, 8 *ebhi-* and 14 *ubhu-*. In the language Nyiha (M.23) as the allomorphs of the class prefix 2 *aba-* act prefixes *awa-*, *avwa-* and *avw-*.

In all the represented languages occur class 11 (‘long objects’), identified through the use of the prefixes *olu-/ulu-/lu-/u-*, the diminutive class 12 with prefixes *aka-/aha/-ka-*. The plural form to class 12 is formed in class 13 *otu-/utu/-tu-*. Class 14 (‘abstract nouns’) in Jita (E.25), Ndali (N.30) and Ndonde (P.20) has noun prefixes *ubhu-*, *obhu-* / *ubu-*, *bu-* / *u-*. The augmentative class 20 *gu-* is fixed in Manda (N.11), and class 21 *gi-* appears in Ndali (N.30).

Semantic kernel of classes implements clear, for example, loans are allocated, as a rule, by semantic features. Thus, a loanword from Swahili *sahani* “plate” in Jita (E.25) is represented in class 11 (‘long objects’) *olu-sahani*, and in Ndali (N.30), for instance, a loan *soko* “market” goes to the same class with prefix *ulu-*. At the same time there is a violation of this general rule. The loanword *soko* “market” that has been already mentioned can be found in different classes in Ndali: class 3 *um-soko*, class 4 *imi-soko* (the plural to class 3), class 7 *ichi-soko*, class 8 *ifi-soko* (the plural to class 7).

Data analysis makes it possible to take a fresh look at the classification of Bantu languages on the morphological and semantic levels.

Verbal stem-gradation in Proto-Dogon

Jeffrey Heath (University of Michigan)

The internal genetic structure of the Dogon family is slowly becoming clearer. There appears to be a primary binary division into eastern and western, both of which have subdivisions.

- (1) Eastern Dogon (uninterrupted)
 - Toro Tegu
 - mainstream Jamsay, montane Jamsay (e.g. Pergué), Togo Kan, Tengou Kan, Guimri Kan, Woru Kan
 - Ben Tey (Beni), Bankan Tey (Walo), Nanga
 - Tommo So, Donno So
 - Toro So group (Yorno So, Sangha So, Ibi So, etc.)
 - Tomo Kan

- (2) Western Dogon, in two geographic (not necessarily genetic) clusters
 - a) eastern cliffs
 - Yanda Dom
 - Tebul Ure
 - b) western cliffs
 - Najamba, Kindigué
 - Tiranige (Duleri)
 - Dogul Dom
 - SW Dogon: Bunoge Mombo, Ampari, Penange

In addition to sound changes and lexicon, key diachronic issues bearing on Proto-Dogon include verbal derivation (causative, mediopassive, etc.), verbal inflection (stem-gradation, inflectional suffixes, auxiliaries, lexical and grammatical tones), pronominals (independent, clitic, and affixal), nominal suffixation or stem-gradation (e.g. animate/inanimate, singular/plural, sometimes more than one inanimate class), possession, focalization, relativization, and NP tonosyntax.

This talk focuses on verbal inflection, especially the role of stem-gradation, which may suggest wider Niger-Congo (especially Gur) connections. Stem-gradation refers to vocalic alternations, either in the form of final-vowel **mutation** or stem-wide **ablaut** (the latter involving ATR harmony). The 7 vowels distinguish \pm ATR only at mid-height: high {i u}, mid-height {e ε o ɔ}, low a.

CvCv is the prototypical shape for verb stems, though others (Cv:, Cv:Cv, CvNCv, CvCvCv, etc.) are also possible. Regularly occurring CvCv vocalisms are in (3).

- (3)
 - a. identical non-high vowels: CeCe, CεCε, CoCo, CɔCɔ, CaCa
 - b. high-mid sequences agreeing in backness/rounding: CiCe, CiCε, CuCo, CuCɔ

Using the types in (3a), typical stem-gradation patterns that appear to be reconstructible for Proto-Dogon are those in (4).

(4)	bare stem:	CeCe	CεCε	CoCo	CɔCɔ	CaCa
	I/U-stem:	CeCi/u	CεCi/u	CoCi/u	CɔCi/u	CaCi/u
	E-stem:	CeCe	CεCε	CoCe	CɔCε	CaCe/ε
	A/O-stem:	CeCo	Cε/eCa	CoCo	Cɔ/oCa	CaCa/o

There is much variation among Dogon languages as to the set of stem-grades distinguished and their grammatical functions, making reconstruction difficult. At one extreme, Jamsay has no productive stem-gradation, basing all verbal inflections on the bare stem, except that an LH-toned form of the U-stem functions as verbal noun. At the other extreme is Penange, which lacks a lexically primary bare stem, but has distinct O-, A/O-, and A-stems corresponding to the A/O-stem in (4), in addition to an E-stem and distinct I- and U-stems.

Languages that have some variant of the A/O-stem disagree as to whether it is characterized by final vowel-mutation only, or whether nonfinal -ATR vowels are simultaneously ablauted to +ATR. The relevant cells in (4) are Cε/eCa for bare stem CεCε and Cɔ/oCa for bare stem CɔCɔ. A further complication is that several Dogon languages distinguish two major verb classes, in one of which (typically including all prosodically “heavy” stems plus some others) the I/U-stem corresponds functionally to the bare stem and E-stem of the other class.

The E-stem may disappear entirely (Jamsay), or conversely it may spread and become lexically basic (Donno So). However, evidence from several languages points to a diachronic locus in the otherwise inflectionally unsuffixed perfective positive paradigm. In some languages it is specific to the 3Sg subject (or generalized Sg subject) in this paradigm. The A/O-stem commonly functions, in the absence of further inflectional suffixes, as imperative positive, and is also common before marked inflectional suffixes (perfective negative, imperfective negative, imperfective positive). Strikingly, there is also some evidence that the A/O-stem occurred in the 3Pl subject perfective positive.

Reconstruction of verbal stem-grades must therefore be articulated with that of pronominal-subject marking, which in the daughter languages ranges from outer suffixes on the verb, through enclitics and proclitics, to English-like clause-initial pronouns.

Reconstruction of the Proto-Dogon E-stem as a simple perfective may lead to wider connections in Niger-Congo, particularly with Gur languages. Verbs in Tiefo (SW Burkina), for example, have a binary perfective/imperfective stem split, and in many cases the perfective shows final vowel-mutation to e/ε. I hope to learn of other possible connections.

Robert Hepburn-Gray

A survey of Niger-Congo noun class agreement systems

As pointed out by Good (2012) for Benue-Congo, the noun class markers and pairings so distinctive of Niger-Congo languages are parts of a larger morphosyntactic *system*. Although there are long-standing proposals concerning the noun class markers and some pairings for Proto-Niger-Congo (Williamson 1989), less attention has been paid to the broader morpho-syntactic properties of the system. The wealth of descriptive data collected over the past thirty years allows us to revisit these valuable proposals and expand their coverage of the entire system. This paper will present the results of a survey of the noun class *agreement* systems of Niger-Congo languages. In scope this paper aims to address all of Niger-Congo, although language families exhibiting little evidence of noun class systems (e.g. Mande) are necessarily excluded. Here I mean *noun class system* to be narrowly defined as a system displaying the following properties typical of Niger-Congo collected by Kiessling (2013:44): “a) all nouns assigned to a limited set of noun classes marked by nominal prefixes or suffixes; b) all nouns control, by virtue of their assignment to a class, a system of concordial agreement which penetrates vast sections of the morphosyntax and which is also used for anaphoric reference; c) class assignment is governed by semantic principles so that classes could be described as semantic networks; d) most noun classes form singular-plural pairs or genders.” The point in c) should be made more specific: unlike in familiar Indo-European systems, sex/gender is *not* a feature relevant to typical Niger-Congo systems, and thus families such as Ijoid (Jenewari 1989) are excluded as well.

Noun class agreement system features

- i. Number of Noun Classes/Pairings
- ii. Affix Type
- iii. Agreement Targets
- iv. Number of Agreement Series
- v. Variation in the form of agreement marker within a series
- vi. Variable Exponence of noun class or agreement markers
- vii. Semantic coherence of noun class/gender

A genealogically balanced pilot survey has revealed the above features to be relevant to the reconstruction of the PNC agreement system. While the descriptive literature of Niger-Congo makes these parameters quite clear, no attempt has yet been made to reconstruct all of these aspects of the Proto-Niger-Congo system.

Noun Class Markers. Noun class inventories can range from relatively small to quite large (e.g. twenty-five in Fula). Languages with large noun class inventories can have even larger inventories of pairings (Bainouk, Northern Atlantic, as described in Cobbinah 2013, has around 60 different pairings). Affix type can vary between prefixing (found in most subfamilies), suffixing (found predominantly in Gur and to some extent Atlantic), circumfixing (as in Ditammari, a North Central Gur language, e.g. *mā-tāā-mà* ‘voice’, Reineke 2012: 135), and mixed systems.

Agreement Targets. In all languages of the pilot survey, noun class agreement is triggered on adjectives, demonstratives, (a subset of) numerals, and pronouns (subject, object, possessive, and relative pronouns). These may be considered good candidates for agreement targets of the proto system. To this list may be added interrogatives (‘which’ and ‘how many’), although they did not appear in one language of the pilot (Ditammari). Faraclas (1986) argues that subject-verb con-

cord is the most persistent target in Cross-River languages, but the historical status of subject-verb agreement outside of Benue-Congo is less clear (Hyman 2011, Güldemann 2011).

Agreement Series. Agreement *series* refers to the number of distinct realizations of a noun class marker (or agreement marker) conditioned by the different word classes of the target. For example, Meeussen's (1967: 97) reconstruction of the Proto-Bantu noun class system has five distinct series, the nominal prefix, numeral prefix, pronominal prefix, verb initial prefix, and verbal pre-radical prefix. Arnott's (1970) description of Fula, barring a more abstract morphological analysis, shows an impressive eleven distinct series. Agreement series are then possibly subject to internal variation caused by phonological or morpho-phonological processes, such as vowel harmony, as seen in the Cicipu class 1 prefix: *ka-ádándá* 'thorn' vs. *ko-óci* 'hole' (McGill 2007: 65).

Variable Exponence. This feature refers broadly to a set of phenomena including the fact that in languages such as Khisa (Southwestern Gur), adjectives "take on" the noun class marker of the head noun (*hárá* 'woman', but *há-fíra* 'white woman', Mieke 2007: 156). This situation is even more extreme in Aghem (Kwa), where there are a number of constructions in which nouns appear without their class prefix, such as possessives (compare *tí-bvú* 'dogs' with *bvú'tájá* 'my dogs'), demonstratives (*bvú'tín* 'these dogs'), and associatives (*bvú'tí 'wé* 'the dogs of the child', Hyman 1979). In each of these cases the class is marked on the modifier of the noun.

Semantic Coherence. The feature semantic coherence examines the extent to which noun class membership can be defined in semantic terms (e.g. Bantu human pairing 1/2), as well as any and all derivational functions classes may exhibit.

The results of this survey serve as a first step toward the comprehensive reconstruction of these features, serving to summarize the diversity of agreement systems seen in the Niger-Congo family and to populate the hypothesis space of the nature of the Proto-Niger-Congo system.

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Tonal Correspondences with Proto-Bantu

The purpose of this talk is to trace tonal correspondences between the widely accepted reconstructed tones of Proto-Bantu lexical morphemes (Meeussen 1980, *Bantu Lexical Reconstructions* 3) outside of Narrow Bantu proper. From the reconstructions of Proto-Grassfields Bantu (Hyman 1979, Elias et al 1984) we know that that the tones of noun stems and verb roots largely correspond (but with some differences), and we suspect that this may be true in other subgroups within Bantoid. The question which we propose to address in this paper is: How far out from Bantu and Bantoid do these tones reliably correspond? This is a timely question as we now have access to both data and analyses of numerous Bantoid and Benue-Congo languages. We will start by identifying a set of reconstructed Proto-Bantu noun and verb forms that are known to have widespread cognates elsewhere in Niger-Congo, e.g. from Mukarovsky's (1966-7) Proto-Nigritic. We will then compare these reconstructed tones with selected Bantoid languages and subgroups (Grassfields, Ekoid, Mambiloid, Tivoid etc.). After this we will venture outside Bantoid to other Benue-Congo, especially Cross-River. Depending on how this goes, we will venture further out. While we have already begun some preliminary examination of limited data, and have contacted a couple of colleagues to get their input and try to determine what is known about proto tone in different groups, the bulk of the study will take place in late spring and over the summer. As part of the introduction of the problem, we will highlight methodological issues that will undoubtedly arise, particularly in interpreting the data. Among these are the following initial concerns about each of the two word classes:

(i) For nouns, the stem tone is often affected by the noun class marker, usually a prefix, but sometimes a suffix. While noun class prefixes are reconstructed as *L in Proto-Bantu, the augment had a H tone which often shifts onto the noun stem even in Narrow Bantu. Once we move a little further out, Proto-Western Grassfields Bantu is reconstructed with mostly *H noun class prefixes. Given de Wolf's (1971) reconstruction of different tones on Benue-Congo prefixes, if noun classes have merged here and there, with *H or *L fusing onto the noun stems, this could complicate our ability to detect regular tonal correspondences. A second problem will occur in languages which have lost the second syllable of the mostly bisyllabic Proto-Bantu noun stems.

(ii) For verbs, the problem is even more acute for two reasons: First, it is well-known that many Niger-Congo languages do not have a lexical tonal contrast on verb roots. This is found in some Narrow Bantu languages which have lost the *H vs. *L contrast, but also in Edoid, Akan etc. Instead, tones are assigned by the morphology (tense-aspect-mood-negation etc.). Such languages will therefore be largely irrelevant to the search for tonal correspondences with Proto-Bantu lexical verb tones. We therefore will focus on languages that do have such a contrast. The second problem is that verb tones are heavily affected by these TAM markers, which differ significantly from language to language.

Our assumption is that it will be easiest (and perhaps most productive) to test for regular tonal correspondences between languages that have only (underlying) H and L tones, the assumed situation in Proto-Bantu. This would suggest considering the Proto-Igboid work of Williamson et al (2013), which we will do. However, it may be more difficult to have confidence in identifying cognates as Igboid has reduced Proto-Benue-Congo forms to CV roots. We therefore will first look at languages which have maintained a sizeable number of CVC roots, e.g. within Cross-River, often thought to be the closest sub-branch to Bantoid. While we cannot be assured of success in identifying regular correspondences outside of Bantoid, we do expect interesting

results and a possible contribution to methodology required in doing tonal reconstruction—and its possible relevance for subgrouping.

Implications of the lexical frequency of labial-velar stops in northern sub-Saharan Africa for Niger-Congo reconstruction

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Cross-linguistically, labial-velar stops are rather rare, but they are known to be common in the languages of northern sub-Saharan Africa (NSSA) (Cahill 2008, Maddieson 2011). For this reason, labial-velar stops are usually considered to be a distinctive areal feature of NSSA (Clements & Rialland 2008, Güldemann 2008). At the same time, a cursory examination of the descriptions of the languages that have labial-velar stops quickly reveals that they can vary significantly with respect to the status of labial-velar stops in their phonologies and lexicons. This paper presents the results of a large-scale survey of the lexical frequency of labial-velar stops in 336 languages of NSSA and discusses their implications for Niger-Congo reconstruction.

The spatial analysis of the data shows that there are two major areas with high lexical frequency of labial-velar stops within NSSA, roughly corresponding to coastal West Africa on the one hand and CAR & northern DRC on the other. These areas are separated by a major discontinuity in Cameroon and northeastern Nigeria. When considered against the geography of NSSA, this spatial distribution suggests that the two areas are hotbeds not so much for spread but for retention of labial-velar stops, with the hotbeds arguably correlating with higher incidence of language shift events (as opposed to language contact) as the principal mechanism for the transfer of labial-velars. The data clearly imply that labial-velar stops and a number of other correlated phonetic and phonological features should not be reconstructed for Proto Niger-Congo or any of its major branches. Furthermore, the observed distribution suggests a rather northern localization of the homelands of most major branches of Niger-Congoin grassland and savanna core regions. Finally, the data are strongly indicative of a late and relatively quick passage of Bantoid through the areas of high lexical frequency of labial-velar stops, supporting the “East-out-of-West” hypothesis of the Eastern Bantu emergence with the Eastern Bantu break-off point somewhere south of the rainforest.

BACKGROUND: This paper investigates vowel sound change in Kinshasa-Lingala (KL). It examines the claim that KL speakers do not discriminate between [ɛ] and [e] and [ɔ] and [o] (Cambell and King 2013, Montingea 2006, Bokamba 2012). The paper further tests the observation that there is a split of [o] into [o] and [u]. Cambell and King (2013: 965) argue that, “/ɛ ɔ/ are found only in certain dialects (of Lingala) – the urban Lingala of Kinshasa, for example, does not distinguish them from /e o/, and they are not marked in the orthography.” Bokamba (2012: 303) and Montingea (2006: 20) attest the reduction of vowel in KL to a-five vowel system. These studies support the account of vowel change from a-seven to a-five vowel system. The analysis of the acoustic features of [ɛ] and [e], and [ɔ] and [o] (Di Paolo, Yaeger-Dror, and Wassink, 2011; Ladefoged, 2001) can challenge the foregoing rhetoric. Because, none of the foregoing studies provided any acoustic evidence to support their claims. These studies can not determine whether KL speakers fail to perceptually or articulatory discriminate between [ɛ] and [e], and [ɔ] and [o], or whether they fail to both perceptually and articulatory discriminate between [ɛ] and [e], and [ɔ] and [o].

HYPOTHESES: The null hypothesis (H_0) stipulates there is no difference between [ɛ] and [e], and [ɔ] and [o] ($H_0 = [ɛ] = [e]$, and $[ɔ] = [o]$). This means [ɛ] and [e], and [ɔ] and [o] have lost their contrast respectively. The alternative hypothesis (H_1) stipulates there is a difference between [ɛ] and [e], and [ɔ] and [o] ($H_1 = [ɛ] \neq [e]$, and $[ɔ] \neq [o]$). This implies that there is contrast between [ɛ] and [e], and [ɔ] and [o]; these vowels are still produced as distinct vowels. My hypothesis furthermore stipulates there is split of [o] into [o] and [u]; that is [o] is being raised to [u] position.

EXPERIMENT: Sixteen participants attended the experiment. Subjects were administered tests of both perceptual and articulatory contrast of those pairs of vowels. The expectation, if there is loss of contrast, was to observe participants producing [o] instead of [ɔ] in words that have [ɔ], and [e] rather than [ɛ] in words that formerly contained [ɛ]; this would confirm the loss of articulatory contrast. The articulatory task tested whether [o] is being raised to [u] position. These phonological processes are synchronically observed in KL. [o] apparently splits to [o] and [u] and KL speakers are left with two options in the production of words which had an [o] originally. I further test to determine whether the choice of [u] versus [o] is related to age grading variation between younger people who are projected to use [u] while older folks prefer [o].

THE RESULTS: Only the results of the articulatory contrast test are reported at this stage. T-tests have shown that, articulatory, there are significant differences between the F1 means of the vowels [ɔ] and [o], and of [ɛ] and [e]. These differences, in articulatory contrast, provide the evidence that both pairs of vowel sounds are still produced as distinct phonetic entities. Their perceptual contrast needs to be determined in order to shed more light on this concern. The study has further shown that there is split of [o] into [u] and [o]. [u] and [o] are used in free variation which implies that KL speakers choose between [u] and [o] to produce a word that contains [o]. This choice is not available in the case of the infinitival prefix ko- which is always realized as [o].

CONCLUSION: Unlike what is claimed in the literature, the paper has shown that KL speakers still produce those pairs of vowels with contrast. This implies that [+ATR] is still a preferred vowel feature in the linguistic system of KL. I project to test KL speakers' ability to perceive the contrast of those pairs of vowels in order to identify the phonological process that vowel system of KL is undergoing. If it is attested that KL speakers do not make any perceptual differences between those pairs of vowels, I will confirm the case of near merger as that was observed in the studies of Labov et al. (1991), Yu (2011), Numberg (1980), Harris (1985), Milroy and Harris (1980), and Di Paolo (1988) to name just a few.

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Table (1) Part of the experiment data

Subject	Word	F1 [ɔ]	word	F1[o]	Word	F2 [ɔ]	word	F2[o]
1	ndako	562.3	ndako	527.7	ndako	1134	ndako	1186
1	mbeto	493	mbeto	596.9	mbeto	1001	mbeto	1186
1	mino	527.7	mino	458.4	mino	1220	mino	1289
1	moto	527.7	moto	354.5	moto	908.6	moto	1047
1	koyemba	596.9	moto	458.4	koyemba	1082	moto	1082
1	koyemba	596.9	koyemba	437.3	koyemba	1151	koyemba	1101
1	kobela	562	kobela	470.5	kobela	1220	kobela	1001
1	komela	596	komela	404.2	komela	1047	komela	967.9
1	kosenga	562	kosenga	371	kosenga	1151	kosenga	1167
1	Komema	527.7	Komema	371	Komema	1116	Komema	967.9
2	ndako	473.4	ndako	419	ndako	1095	ndako	1014
2	mbeto	473.4	mbeto	473.4	mbeto	1095	mbeto	1176
2	mino	554.4	mino	419.3	mino	1095	mino	878.6
2	moto	554.4	moto	419.3	moto	1068	moto	878.6
2	koyemba	554.4	moto	446.3	koyemba	986.7	moto	1176
2	koyemba	554.4	koyemba	404.2	koyemba	1041	koyemba	1200
2	kobela	554.4	kobela	437.3	kobela	1014	kobela	1067
2	komela	554.4	komela	437.3	komela	959.7	komela	1067
2	kosenga	527	kosenga	404.2	kosenga	1095	kosenga	967.9
2	Komema	527	Komema	404.2	Komema	1041	Komema	967.9
3	ndako	536.8	ndako	470.5	ndako	1001	ndako	1101
3	mbeto	536.8	mbeto	437.3	mbeto	1034	mbeto	1134
3	mino	437.3	mino	470.5	mino	1101	mino	1167
3	moto	470.5	moto	404.2	moto	1134	moto	1067
3	koyemba	503.7	moto	503.7	koyemba	1233	moto	1266
3	koyemba	503.7	koyemba	437.3	koyemba	1067	koyemba	1067

Abstract : Les mots protobantous pour « père ».

Pour exprimer la notion de «père », les langues bantoues disposent d'un grand nombre de termes ; un certain nombre de thèmes ont été reconstruits jusqu'à présent avec le sens de « père ». Les BANTU LEXICAL RECONSTRUCTIONS 3 ont retenu les thèmes suivants : *-taata « père, mon père » ; *-taate « père, mon père » ; *-ce « son père » ; *-cangU « père » ; *-co « ton père » ; *-cangUe « père » ; *-jIcIe « son père » ; *-baaba « père » et *-paapa « père », alors que les reconstructions *cI « père », *-cango « père », *ci « père », *jico « ton père », *-jIco « ton père », *-jicI « son père », *-jico « ton père » et *-jice « son père » ont été écartés.

Après avoir passé en revue les reconstructions proposées antérieurement, il a été possible, sur base des données actuelles, soit de confirmer certaines reconstructions, soit d'en modifier d'autres, soit encore de rehabiler certaines d'entre elles, soit de proposer de nouvelles protoformes. Voici l'essentiel de nos conclusions :

- 1.- Le thème *-taata devrait être corrigé en *taatai, ce qui permet de regrouper *taata et *taate. En outre, un thème monosyllabique *-tai « père » qui était suivi d'un autre mot, aurait coexisté à côté du thème *taatai « mon père ».
- 2.- Le thème *-taatai s'employait surtout à la première personne et s'opposait aux thèmes *-jico / *-co et *-jice / *-ce qui désignent respectivement la deuxième personne et la classe 1. Par ailleurs, il convient de rehabiler les thèmes à deux syllabes précédemment écartés par les auteurs des BLR 3, à savoir *-jico / *-jIco « ton père », *-jicI / *-jice « son père ».
- 3.- La protolange bantoue aurait attesté deux séries de thèmes , des thèmes à une seule syllabe et d'autres à deux syllabes.
- 4.- Il convient de noter la présence de morphèmes substitutifs *-o (deuxième personne) et *-e (troisième personne) ; ces deux morphèmes constituent les seuls éléments différenciant les deux personnes. C'est ainsi, par exemple, que les thèmes *-jico et *-jice devraient être analysés respectivement comme suit : *-jicI – a – o et *-jicI – a – e ; il en est de même des thèmes monosyllabiques *-co et *-ce. Ceci conduit à ne retenir comme thèmes de base que les thèmes *-jicI / *-jIcI et *-ci / *-cI auquel il faudrait joindre une nouvelle protoforme *-ca. Ce dernier thème apparaît soit seul, soit suivi d'un appendice de type *-ngU.

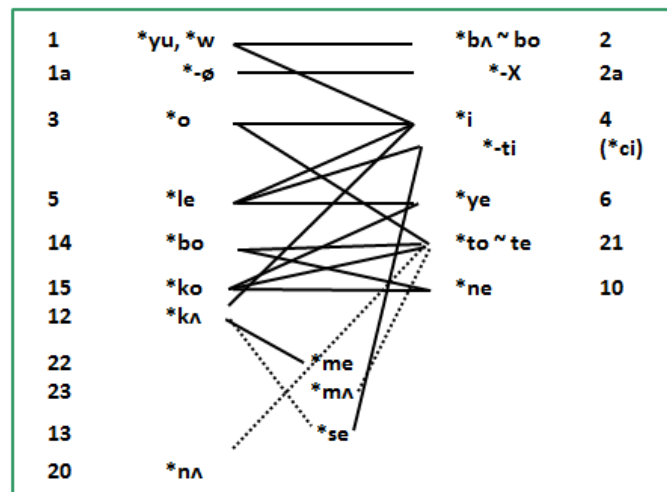
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Class *nλ and Class *-ti in Samba-Duru, a subgroup of Adamawa-Gur

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Recent research has shown that Lɔŋto and the Gimme-Vere languages, members of the Samba-Duru Group in Central Adamawa, are outstanding within the so-called 'Adamawa' languages due to their particularly complex noun class systems. While the majority of languages in 'Adamawa' have largely reduced or even lost former noun class systems, these few languages and dialect clusters spoken in and around the Alantika Mountains apparently preserved archaisms in their noun class morphology which show fascinating correspondences with the class systems reconstructed for Central Gur (Manessy 1999, Miehe et al. 2012). The range of morphological correspondences apparently exceeds what was already known for Tula-Waja and Central Gur (Kleinewillinghöfer 1996), and thus further support and expand the (somewhat ambiguous and slim lexical) evidence linking certain 'Adamawa' groups and Central Gur (cp. Bennett & Sterk 1977 and Bennett 1983). The tentative reconstruction of the class system of Central Adamawa below gives an impression of the numerous cognates. The formal correspondences of the class markers and affixes are convincingly matched by similar genders (singular-plural oppositions), and the semantics and derivative functions of certain classes (in particular *ne, *to, and *se) within the respective systems.



Noun class system of Central Adamawa (Kleinewillinghöferms)¹

The main formal differences between this overview and reconstructed class systems of Central Gur are the vowel qualities of the cognate class markers. In Gur vowel systems with 9 or 10 oral vowels and ATR harmonies abound. This is not the case in Samba-Duru, although an ATR harmony may have been a decisive phonological feature in the past. Most languages do not differentiate between more than two or three vowel qualities in their respective class markers, with the result that class markers of distinct noun classes have merged phonologically. Prominent examples are classes *ko and *kλ (12 and 15), classes *i and *ye (4 and 6), and classes *mλ and *me (22 and 23). In most languages class *me and *mλ cannot formally be distinguished, yet *mλ is cognate to the *ma liquid and mass class while *me (cf. Gur *mu) forms the plurals in the widely attested gender *kλ/*me.

¹The reconstructed class markers are based on the concord morphemes as they are linked to the demonstrative pronouns 'this' ~ 'that'. The class numbers are an additional tag to facilitate the formal identification of corresponding/cognate class morphemes in Gur and Volta Congo language groupings, following Miehe et al 2012. The lines between singular classes on the left and plural classes to the right represent the most common genders or class pairings. *se is placed in the middle, which refers to its status as a 'singular' and/or 'plural' in distinct genders in the individual languages.

A comprehensive discussion of the impressive morphological evidence clearly supporting the common genetic descent of these geographically widely separated language groups would be beyond the scope of this presentation. We therefore focus only on the evidence for class *nɔ and class*-ti of Central Adamawa, which both share remarkable peculiarities with the probable cognates classes *da and *ci in languages of the Oti-Volta branch of Gur.

Samba-Duru class *nɔ generally contains only one underived noun, namely 'thing', and in addition a number of nouns of quality and state. These are either derived from verbs or represent the independent/neutral form of adjectives, e.g. 'newness; something new', 'height; something high' etc. The class pronoun of *nɔ may accordingly function as the neuter pronoun in the respective language. These features match most of the characteristics of class *da in Oti-Volta, major exceptions are the diminutive meanings cited in the quote below.

"Class 20 [*da] is only attested in Oti-Volta languages. Manessy (1975) gives the reconstruction *la for Proto Oti-Volta but does not integrate this class on the higher level of Proto Central Gur. ... The noun suffix and pronoun appear with an initial liquid or nasal, the vowel quality varying from a to i. ... The content of class 20 shows two major semantic fields: the term 'thing', compounds with it or deverbal derivations clearly referring to 'thing' (e.g. 'what is blue') and the neuter pronoun on the one hand, and the term 'small', compounds with it and denominal derivation with diminutive meaning on the other hand."(Miehe et al. 2012: 28ff).

The second case to be presented is a plural class which we set up in the overview above with solely its nominal suffix*-ti. On a first glance *-ti appears to be a suffix variant of the plural class *i(*yi), the regular nominal suffixes of which are -i or -yi, since *-ti chiefly occurs with the same concord markings. However, *-ti is not merely a variant of class *i, since *-ti appears to the regular plural form in distinct genders(e.g. *se/-*ti). A suffix *-ti as a subset within a plural class *i (or *yi) is also attested in class systems of other so-called 'Adamawa' groups, namely Bəna-Mboi (Yungur) and Tula-Waja. This in turn may indicate that this oddity might be an old and wider spread feature. Comparable phenomena are also known from Gur and mainly found in Oti-Volta languages. There a 'provisional plural class' *ci is postulated; its main characteristics are summarised in the citations from (Miehe et al. 2012: 34ff).

"Under the label *ci we group together different noun class morphemes, mostly suffixes, found in North Central Gur and two isolated languages, i.e. the pronoun ci, the suffixes -ci, ɲə, -hɲ, -k, -ŋ, -x, -di, -de, -rɪ and possibly -fi, most of which look like suffix variants of class 4 [*i] because they all show the class 4 pronominal concord."(2012: 34f)

Given the impressive number of clear morphological correspondences already attested, the evidence to be presented appears to be sufficient to also equate the peculiar plural class*-ti of 'Adamawa' with the equally peculiar plural class *ci set up for Gur.

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Patterns of Noun Class System Attrition in Kwa

It is generally assumed that Proto-Niger-Congo had an extensive system of nominal classification whereby pairs of affixes were consistently used with fixed groups of noun stems in singular and plural forms, also triggering concord/agreement on a number of targets inside and outside a noun phrase. However, various types of noun class systems are attested in modern Niger-Congo languages (cf. Givón 1970, Welmers 1973, Demuth et al. 1986, Good 2012 among numerous others). The two basic language types are sometimes contrasted in literature – the largely isolating Kwa-type with occasional relics of nominal classification and the largely agglutinating Bantu-type with robust nominal classification; most Niger-Congo languages being somewhere in between – cf. Hyman (2004), Good (2012). Clearly, not all Bantu languages are close to the canonical “Bantu type”, and, crucially, some Kwa languages have extensive noun class systems bringing them closer to the Bantu-type rather than the Kwa-type. However, the less “Bantu-ish” Bantu have been studied much more (see Maho (1999), Katamba (2004) for some discussion and references) than the less “Kwa-ish” Kwa languages.

Rich noun class systems are characteristic of two groups within Kwa family – the Guang languages (Snider 1988) and the so-called Ghana-Togo Mountain languages (GTM, Heine 1968, Blench 2009). It is highly probable that Proto-Guang as well as Proto-GTM had rather complex systems of nominal classification, which have undergone various types of attrition in modern languages (Heine 1968:182; Snider 1988:138). Also, given the rich noun class system reconstructed for proto-Benue-Congo (de Wolf 1971), one may reasonably assume that a complex noun class system could be present in proto-Kwa, but it was lost in most modern groups of the family. Although Heine (1968) and Snider (1988) provide plausible reconstructions of nominal class markers in proto-GTM and proto-Guang respectively, they mostly focus on the phonological shape of the markers paying little attention to historical processes of morphosyntactic simplification attested in modern languages to various degrees. Also, while there is a brief discussion of class agreement in proto-GTM in (Heine 1968), Snider (1988) does not touch upon this topic in his reconstruction of proto-Guang noun classes.

In this paper we present an overview of noun class systems and class concord¹ in modern Kwa with special attention to diachronic patterns of change resulting in the simplification of a presumably rich proto-system, its complexity being comparable with the Bantu-type nominal classification. Our study is based on the existing grammatical descriptions of Ghana-Togo Mountain languages, Guang languages as well as Akanic idioms. An overwhelming majority of languages within the former two branches demonstrate more or less robust noun class systems; and the latter linkage only shows relics of nominal classification.

The general properties of noun class systems in Kwa are as follows. In most languages class markers are prefixes; however, Akebu employs both prefixes and suffixes for class marking. Most languages have about ten unique class markers, but there is seldom one-to-one correspondence between singular and plural markers. Concord usually occurs on numerals and determiners (definite and indefinite markers, demonstratives meaning ‘this’ and ‘that’). Adjectival concord is much less common.

We have revealed the following patterns of diversion from the “robust” nominal classification system in modern Kwa languages:

- (a) animacy-based affix overgeneralization in plural formation as well as concord marking, e.g. in Lelemi (Allan 1973), Tuwuli (Harley 2005), Igo (Gblem 1995);

¹ The term *concord* is used here to denote class marking on nominal modifiers within a noun phrase, usually adjectives, numerals, demonstratives and definiteness markers. Verbal and pronominal marking are beyond the scope of this paper.

- (b) optional class marking on nouns (attested in Nyangbo, Essegbey 2009) or optional concord, e.g. concord on numerals from 2 to 6 in Lelemi, (Allan 1973);
- (c) loss of class marking for some nouns in singular, e.g. in Akan (Osam 1993);
- (d) number rather than class concord, e.g. on adjectives in Tuwuli (Harley 2005);
- (e) productive or residual nominal class marking with no concord – Efutu (Obeng 2008), Ikposo (Subrier 2013);
- (f) categorial restrictions on class concord, e.g. only numerals showing concord in Akebu (Storch & Koffi 2000, Makeeva & Shluinsky 2015), only adjectives marked for class in Akan (Osam 1993);
- (g) “vocalic” and tonal rather than full prefixal concord whereby in concord prefixes with CV- structure the consonant remains invariable for all classes and it’s only the vowel and the tone which change depending on the nominal class, e.g. in Avatime and Nyangbo (Schuh 1995; Essegbey 2009).

Most patterns of diversion from a canonical nominal classification system presented here largely correspond to diachronic phenomena discussed for some Bantu (Katamba 2003), non-Bantu Bantoid languages (Good 2012) as well as Kru and Cross River languages in Demuth et al. (1986). However, categorial restrictions on concord (f) appear to pattern differently in Kwa as opposed to Kru and Cross River languages. While numeral concord is very robust in Kwa as opposed to restricted adjectival concord, it is most often lost in Kru and Cross River languages, which are more likely to preserve adjectival concord (Demuth et al. 1986). Also, “vocalic” concord (g) attested in closely related Avatime and Nyangbo seems quite unusual – we are not aware of any similar cases reported for other Niger-Congo languages.

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Abstract

Reconstruction of the Ghana-Togo-Mountain languages: a revision

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This essay is essentially a revision of Heine (1968). In view of the reservations expressed by several scholars on the validity of aspects of his work, the approach is deliberately conservative. Heine's data have been drastically pruned in an attempt to ensure the acceptability of the proposed correspondence series. At the same time, data from more recent work on the GTM languages have been added, and cognates in other Kwa languages taken into consideration. Heine's primary classification into NA and KA branches is accepted. The possibility that proto-Ga-Dangme belongs within GTM is also considered.

Proto-NA

NA includes seven languages: Basila, Gidere (Adele), Buem (Lefana and Lelemi), Siwu (Akpafu and Lolobi), Sɛlɛɛ (Santrokofi), Sɛkpeɛ (Likpe) and Ikpana (Logba).

Tones: High tones often correspond across languages, especially in nouns. The data and the state of reconstruction within the group are not such as to allow reconstruction of non-high tone(s), although proto-NA probably had a lexical contrast between high and non-high syllable tones, and no downdrift.

Vowels: The following change rules account for a reconstructed eight vowel system, and leave the question of a ten vowel system open.

1. *a, *i, *u are retained unchanged.
2. *e was lowered to *ə in Anii, raised to *i in Siwu, retained unchanged elsewhere.
3. *o lost ATR to become /ɔ/ in Buem, but lost rounding (or +back) in Sekpele to become /ə/, and was retained unchanged elsewhere.
4. *ɛ was generally retained, but /ɛ/, /e/ and /ə/ alternate under as yet undefined conditions.
5. *ɔ was raised to /u/ in Anii, and retained unchanged elsewhere.
6. The occurrence of /i/ in some languages apparently corresponding to /e/ in others suggests *i.
7. Similarly, apparent correspondences between /ɔ/ and /u/ suggest *u.

Consonants:

We propose a proto-NA consonant system that differs in several respects from Heine's proto-GTM, and what he implies about proto-NA. In particular, we reconstruct *d and *s.

Proto KA

Tones: High tones correspond on roots, but (as in NA) the data available do not provide correspondence series for mid and low tones.

Vowels: Proto-KA must have had nine or ten oral vowel phonemes.

Consonants

The proto-KA consonant system appears to have been different from that of NA in several respects. To account for the data we propose *p and a series of three voiceless implosives, but no *d̥ or *f, and a fricative *c as well as an affricate *ts.

Proto-GTM: Consonant correspondences NA : KA

The consonant system reconstructed for proto-GTM is:

*b	*d̥				
*p	*t̥	*t		*k	*kp
*β		*f		*k̥	*k̥p
*f		*s			
			*y	*w	
*m		*n			

In proto-NA the contrast ± implosive was lost, so that implosives merged with the non-implosive equivalents. Also, dental and alveolar voiceless stops merged as the alveolar (if they were not already allophones).

GTM *β > NA *p; GTM *f, *t̥ > NA *t; GTM *k̥ > NA *k; GTM *k̥p > NA *kp.

One shift defines proto-KA, namely lateralization of the voiced dental stop, which thus became a continuant:

GTM *d̥ > KA *l.

Reference:

Heine, Bernd, 1968. *Die Verbreitung und Gliederung der Togorestsprachen*. Berlin: Dietrich Reimer.

A Leipzig-Jakarta Vocabulary Reconstruction and Sound Correspondence based Sub-grouping of North Edoid

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Abstract

North Edoid (NE) has only been described as a node off Edoid with North Western and North Central branches (Elugbe, 1989; Lewis, 2013). Though two hundred words of Edoid vocabulary were reconstructed in Elugbe (1989); neither the proto-vocabulary of North Edoid nor that of either of its branches has been reconstructed. As a result of this dearth of reconstruction, the types of sound correspondences in North Edoid have not been adequately described. This study, therefore, proposes to reconstruct the Leipzig-Jakarta list for Proto-North Edoid, starting with its composite Proto-North Western Edoid and Proto-North Central Edoid; and to document sound correspondences across North Edoid.

The choice of the Leipzig-Jakarta list stems from evidential, rather than intuitive judgements about the non-borrowability of its words, and the fact that (LJL) has not been explored in Edoid studies. If this same list is reconstructed for other Edoid groups, it would help to establish uniformity in comparison among Edoid scholars, who up till now, have worked on different self-determined lists. The compendium of sound correspondences to emerge from this work will be compared in kind and frequency with those catalogued by Brown, Holman and Wichmann (2013); and the rarity or frequency of such correspondences will help to discover the specific features and innovations which bind members of specific nodes, and distinguish one node from the others.

Data comprise LJL 100 words from 12 North Central and 8 North Western Edoid languages (See Appendix¹). Corresponding sounds of stems and affixes would be compared for regularity, as well as the plausibility and direction of sound change. Thus, judgements would be made about proto- North Central; North Western and North Edoid vocabulary reconstructions. Cognacy of words will be determined by the extension of sound correspondences across the languages. Sound correspondences would be the sole basis for subgrouping within NE, We shall use the Automated Similarities Judgement Program (ASJP) developed by Brown et al (2013) to build a phylogentic tree with the prescribed 40 items of vocabulary.

Table 1 contains four items from the Leipzig Jakarta List. Consider the item bone with the following reflexes:

1. Prefix Vowel: a ~ u ~ i

*a : unpredictable, unaffected by the consonant quality

2. C₁: kp ~ g^w ~ w

*kp: Unpredictable: voiceless with double articulation and intervocalic.

3. V₁: u ~ o ~ a

*o: the forms with kp/gb have it; u was likely raised from o position due to the presence of kp.

4. *ka: was a suffix that has been dropped in other varieties.

¹ For items have not been acquired. They would be in by the time of the conference.

Table 1: Sample data of cognacy across North Edoid

NCE	Bone	Fire	Ear	Heavy
Okpuje	ákpūkà	ērā	é:xò	ṽkúà
Sabo	ākpó:kà	ērāi	é:xò	ṽkuài
Ososo	ùg ^w à	ēdf ā	éxò	ōyóyò
Ghotuo	ūg ^w ā	rīrā	ì:hòwě	ìjéhè
Sasaru	ùwá:	erā	wózó	ūkò:nì
Ikhin	ìg ^w à	ērā	éyò	ókūā
Arokho	úg ^w à	írá	éxò	òxòxòū
Uroe	ákpókà	ìrè	éxò	ṽx ^w ài
Igwe	ìg ^w à	īrā	éxò	ṽxòxò:nì
Ake	ìg ^w à	ērā	éxò	īmókúà
Uneme	úg ^w à	èrāmì	érò	émégúā
Uokha	āgbókà	ìrāi	éhò	òkúà
NWE				
Okpella	úg ^w à	èxàrì	éjò	ìkòkò
North Ibie	úg ^w à	èrè	éjò	khò
Ikpeshi	òg ^w à	-	íẏèbì	úbòbò
Okpe	óx ^w à	édẏāmì	óẏò:dì	òkò
Atte	úg ^w à	èrārì	ésò	xò
Enwa	óg ^w à	èrāyì	ésòyì	òlòxò
Akuku	ù:wà	éẏà	éẏò	dìdẏè
Okpamheri	úwà	wéẏa	wózó	ukpòwrami
Proto	*akpoka	*era	*esò	*òkò

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Leipzig-Jakarta list (North Western Edoid)

S/N	Gloss	Okpe	Ate	Okphamheri	Okpella	North Ibie	Ikpeshi	Akuku	Enwan
1.	ant								
2.	arm/hand	éhà	óbà	wóbà	óbà	ùpfópóbà	ūbóxà	ábà	
3.	ash	ímó	èḡwè	wémò	èmùè	èḡwè	ìwèmò	íḡmè	
4.	back	ókókó	ùkhòkhò	éfùmù	òkòkò	ùxòxò	ùkòhò	ú gù ú kù	ùxòxò
5.	big	ḏrémì	lèmì	tèmù	ìgbéḡí	ḡbà	ò.rè	dìdḡè	
6.	bird	āfèrì	épfèrì	wá fí	éfèrì ífèrì	ípfe	wòfū	ápfi	
7.	to bite	úrémì/nì		nòmù	ìrèrè	ḡmǎ	únèmì	nòni	ḡmhi
8.	bitter								
9.	black	órìrì	bìfì	ḡbìsè	bísì	bìfì	óbì	ḡiwì	
10.	blood	àtè	óryà	ázè	órìà	ólyà	èḡḡè		óràni
11.	to blow	fìèrè	p'yòlò	fyè	ìtòtè	pfi	ḡrhò	fì	fyòlò
12.	bone	úxwà	úgwà	úvè	úgùà	úgwà	ògùà		ógwà
13.	breast	ébéri	ápèrì	ìrémèì	ìḡrèrè	ìḡyèlè	jèrùdì	ìḡéḡrì	úḡyè
14.	to burn (intransitive)	tòhè:	tòsè	fwésè	òtúā	tòsìá	ḡlòkùā		tòḡā
15.	to carry	móì	ḡbà	ḡè	ìtòkā	tswà	ḡāḡò	vò^	yàzè
16.	child (rec iprocal of paren t)	ómò	ómò	ómò	ómò	ómò	ómò	ómò	ómò
17.	to come	èlé	bhàlè		wàrè	bhé	kìrèrì	tḡázì	vèrè
18.	to crush/to grind	hò	ḡmèrì	hò	ìmèrì	mèlì ìmè!lí	úwòni	hò	wò
19.	to cry/to weep	ìdḡérà	vyè	vyè kwìḡnèsè	kéḡbābà	bvyè	zìò	vyè	évyè vyè
20.	to do/to make	ḡí:		sìsèmù	ìfíèrè	xyèlì ìkhé!lí ìcè!lí	àsèsè	sèsè	zòzò

21.	dog	àròkòmí	úkpéle	shónsákò	ògbè	ògbè	édíòtṣà	únwá kò	ògbèlì
22.	to drink	jíwòwù	dà	ḡwò	ìdàdà	dà	údàrì	ḡwè	rà
23.	ear	òzò:di	ésò	wósòù	éṣò	ésò	ìzèbì	ézò	ésòyì
24.	to eat	ìrésì	lè	rè	émínàrè	lè	úròmì	ryè	lèṣì
25.	egg	èṣṣáì	ékèrì	èṣṣá	èkpèrì	ékèlì	ìròhò	é !ṣṣá`	ékèlì
26.	eye	ùlòhù:	èòrì	ítíràdù	àrò	ìkpálò àlò	ìjèrò	ílàlò íràrò	àlò
27.	to fall	dégùè	dè		dèdè	dè	úṣṣèrè	zè	dèfyá
28.	far								
29.	fire	édzānì	èrārì	wèṣānì	èxārì	èṣṣè	wégùṣṣì	é zà	èyṣyè
30.	fish	āfērēmì	áfélé	èmókè	jáfērē	áfé	ìjèrèrè	é!mókè	ànèhèlè
31.	flesh/meat	énāmè	élàmhì	édò	éràmì	èlāmì	èdò	á nāmì	élàmhì
32.	fly	dzānā	p'yalà		ìfíarā		úrúarà	fyālā	
33.	to give	dānánò	ṣṣnā	rwè ní	ōnāmè	ṣṣnà ṣṣnà`	ṣṣìkpórínérì	mò	dānā
34.	to go	ēlá	tóyò		é:vù	kélè /vù	jāgā	tṣà	lìzā
35.	good	ōlè:	sò (ónó!ṣṣì)	ṣṣumù	ólètè	cì	ódūmì	ṣṣì	ódómhì
36.	hair	étò	ìsú	wèhù	ìsò	ìṣṣù	étò	éhù	étòyì
37.	hard	ḡbòyòlò	ḡwúúnù	kpáará	tólò		ómò:	ḡphàḡphà	
38.	he/she/it/him/her				ònà				
39.	to hear	tò:	swò		ṣṣúò	swò	sōré	zò	zò
40.	heavy	òkò	xò	khàròtò	ìkòkò	khò	úbòbò	dìdṣè	ò lóxò xò
41.	to hide								
42.	to hit/to beat	kùàmē	ḡbè	ḡbè ḡbónì	ḡbèḡbè	ḡbè ìḡbèmbì	kpò	ḡbè	ḡbè
43.	horn	òkpámì	èkpàrì	òkphànì	èkpàrì	èkphè	ùkpàrì	ìḡbhá ìbhá	
44.	house								
45.	I/me				mèmè				
46.	in								
47.	knee	òkpò		ìrèvè	ìkómékpè	ìxómìḡwà	àḡúḡḡè	ílèvà	ég
48.	to know	ínìdṣèmì	zò		ìjè	yésè	nòzúà	ḡèzè	

49.	to laugh	dá:	tʃa		idʒàdʒà	dʒà	ḡbià	ḡbùá (úḡbéḡbyà- laughing)	gyà
50.	leaf	òbè	ébè	wò bí	ébè	ébè	èbè	ébi	ébèyì
51.	leg/foot	ò:dò	òwè	wómìnà	òwè	àwè	úròḡbi	â vò	òfḡyì
52.	liver								
53.	long	ḡḡbḡḡḡ	ḡmèmhì	sèrì	ìndnūē	nwè	óbìdìhé	zìrì	
54.	louse	útfà	ácà	wétʃè	ítʃà átʃà	ícà	úrútuà	úkpàsà	
55.	mouth	ónù	únò	únǔ	únù	únǔ	únù	únǔ	únù ùkpátùnù
56.	name	ájàḡbà	évà	rénì ìrénì	évà	évà	òrà	óvà	
57.	navel	ó:kɔ	ùxɔ	útwóè	òkɔ	úxɔ	ùkɔ	útwà úḡwà	ùxɔ
58.	neck	éhànì	ùrùrù	ìràhànà	ùtùrì	ùḡwì	idʒidʒi		
59.	new	ɔfà/ ónɔfà	òḡbḡ	fà	ónòkpɔ	òḡbḡmì	òbáízi	fà	òḡbḡmì ḡbḡmì
60.	night	-	élúwèsè	wásyḡ wá syḡ	óbìrì	élíyḡsè	édíwézḡ	úfè	úxèrè úxèxè
61.	nose	ízúì	íswè	ísù	ífùè	íswè	ézù	úswà	íswè
62.	not								
63.	old	ɔfó	wòmhè	rɔrɔ	ìhómē	ɔdʒɔ	òkpàzè	ḡbhàsè	ɔdʒɔdʒɔ
64.	one	ɔkpá	ḡinèḡbá	útōwù	ō:gò	ówò	wurowo	ḡḡbù	ò wò
65.	rain	ódʒò	àmè	ónóʃò	àmè	àmè	àmè	ósóxùmù	àmè
66.	red	òwùmē	zìlè	hǔḡmè	ólòirè	lìlè	óbòdò	ḡḡdò	
67.	root	úkùmà	ùmìlì	úmìḡì ùmínóʃá	ùmìrì	íkpyóḡḡ ìkpì	írù:rù	î milǎ	Ìnùmì
68.	rope	ùrì	ū`ì	úrì	úrì	úli	úrèù	úrì	úliyì
69.	to run	ídʒírìā	nā		nànā	nà	ḡḡrè	tíā	nà
70.	salt	wèmì	úwèlì	úbwèni	úḡwèrì	úḡbhè	ómì	úwè úḡmè	

71.	sand	étàtà	èkè	ékè	étʃrè	èxàʃè	ērórò	é kè	èkè
72.	to say	lūá	ŋmè	wè	mimē	ŋmè	mè	ŋwá rà	ŋmè
73.	to see	inádó	lèkè		rínò	bìnò	véré	yéré	liyó
74.	shade/shadow								
75.	skin/hide	ájínúsì	và	wésì	èkùè				zè zúʃì
76.	small								
77.	smoke	éhō	èwàrì	áhò	èwàrì	èwè	èwò	â hò	èràyù
78.	soil		úgbèrì	ékè	úgbèrì		ē.hê	ìráràkèsó	èkè
79.	to stand	gùddè	bùlè	hásinà	vùrēēminà	vwě	dāré	ʃítàzì	kpèyí
80.	star	ózánūzè	úsàsà	úsyá ʃyá`	ìkpétàtà	ítàtà	báʃàʃā	íʃyèʃyè	
81.	stone/rock	èʃè	èʃèmhì	wégbá`	étʃèrì	étʃè	ùrèʃè	írásìè	
82.	to suck								
83.	sweet	ólélé	lèlè	nèmù	ìdʒólò	bvyàlò lèlè	ōnénè	rìnì	òlólòmhì
84.	tail	íjá	úʃàmhì	úhùmù	ùdʒà	ùdʒà	ú.rùkā	ú dʒà	
85.	to take	jēdé	mɔ	ɲè	itùètùè	ŋyè twè/ɾwè	mō	mò	mò
86.	thick								
87.	this								
88.	this								
89.	to tie	dʒūè/ kpáé	gò	gé`	gègè	ŋwùdzú	úgègè	gègè	gègè
90.	tongue	úrèmì	élèmhì	ódèmù	érèmhì	ólèmì	jérèmì	ó limì	ólèmhì
91.	tooth	ákò	èkòrì	útúràkò	àtò	àkò	úwòkò	á kò	àkò
92.	water	àmè	àmè	àmè	àmè	àmè	àmè	émè	àmè
93.	what?				ì				
94.	who?								
95.	wide								
96.	wind	òhéhé	àkpèkpèrì	òfyésè	àkpèkpìrì	àkpèkpèlè	ūwófè	ífyèzè	òfyòfyòyì
97.	wing	ífúà	ípfwà	ífwè	ifua	ípfwà	úfúà	éfwáfi éfwátì	Ífwàmhì

98.	wood	ētétà	àrà	éjǎ	óḍḍkàkà	érénáràkpè	útǎbàbà	éḥláfèzà	
99.	yesterday								
100.	you (singular)				jèjè / jori				

Leipzig-Jakarta list (North Central Edoid)

S/N	Gloss	Ghotou	Sasaru	Ikhin	Arokho	Uroe	Igwe-Sale	Igwe-Oke	Ake	Okpuje	Sobongida
1.	ant										
2.	arm/hand	bābá	ídikē	úkóòtò	ífáókpò	ábò	óbò	itʃágūā	óbò	ūkpòì	ó:bò
3.	ash	yēmōj	émó	éŋwé	émóí	èwì	émó	ēmó	éváè	èwè	ēŋwē
4.	back	kōki/órí	íxòxò	íké	wóhó	èhìmì	òxòxò	òxòxò	ùxòxò	éhímí	èhìní
5.	big			ékpà	áfíā	àfiàmì	éfúé	à:fúé	áfíā	ègíākò	
6.	bird	dāfē	dá:fūē	ófìdògù	áfíā	àfiàmì	éfúé	bà:fúé	áfíā	ókíāmì	áfíāmù
7.	to bite	jíwì	jómí	èjāū	àjā	òkiahòhò	ìjówí	ìjówí	ākójāmì		dóhìá:kò
8.	bitter										
9.	black	bihì	imìbì	ébìrì	òbìì	òbì:		òwúdi	ónúdi	óbì	òbìjì
10.	blood	ādē	òrà	órà	òja	èrè	òrà	òrà	òràì	èrè	èrè
11.	to blow	fì	òfílógó	òhó	áfírà/ìwówó	òfìdòrò	òfúrénúā	áfíó	éfìò	èfìxófìò	èkpā
12.	bone	ūgūā	úgúá	ìgùà	úgùà	ákpókà	ígúá	òtēkū	rāi	ákpúkà	ákpò:kà
13.	breast	ín!è	lè:lè	éjé	éwì	ìjè	ìhèlè:	é:lè:	éjè	é:jè	éxèxè
14.	to burn (intransitive)	túriyā	ówàlà	gūé	òtòà	ògòf:	ò tò	ìtòrìá	túā`	òtò	àtòxòì
15.	to carry	jú	dānì	mūó	wò:̀	ìhíémì	mìò:	ìnúnú	ínúnú	mú:	múì
16.	child (reciprocal of parent)	ómò	ómó	òmò	ómò	ómò	úmímè	òmò	ómò	ómò	òbùhò
17.	to come	vārē	vārè	vārè	vārē	váè	vārē	vārē	vārì	vàè/ò:rè	vāè
18.	to crush/to grind	íló	ìwówò	lò:	ānēinó	ílómè	òrìòhà	ìjójó	ìnéndòmì	ā:lòì	mā:lòè
19.	to cry/to weep	éviè	òviè	kpèjávò/èviè	òtò	ébiè	ìrìámánà	àrūāzì:gbè/ábè	èbià	éviè	ā:xùè
20.	to do/to make	jí	nòsòní	xìó	àìdò	íémì	àrhè rò	ìréré	ìhòì	wìéhù	áfíhù
21.	dog	wàwà	wāwā	àwà	áwà	áwà	wàwà	wàwà	ò:bò	òbò	òbò

22.	to drink	wɔ̃	ɔ̃rújɔ̃	ãjɔ̃jɔ̃	wɔ̃ ɔ̃	ámíhómì	ìjɔ̃ará	ìlálá	úmù òmíáwɔ̃	ãhɔ̃	ɔ̃:wɔ̃wì
23.	ear	íhòwè	wózɔ̃	èyɔ̃	éxɔ̃	èkè	óxɔ̃	wórɔ̃	exo	é:xɔ̃	é:xɔ̃
24.	to eat	ijé	rézí	èmāèèè	émāè	émírémi	idēré	ìlélé	ùgbàì	ébàè	ébàè
25.	egg	éhéhɔ̃	éhé	èkèoxɔ̃xɔ̃	ékíoxɔ̃	íkíoxɔ̃		étóíxɔ̃	éhe	ékè	ékè
26.	eye	éó	rērō	éyó	ēxō	ēxō	ēxō	ērō	ōkpéxò	ēxō	ēxō
27.	to fall	dé	bé	digbótè	òdè	idémì		idé:dé	idé:mì	òdè:	òdè:
28.	far	ré:	úrérērì	ēmílólá:	òrééréò	ūlúámì	ízùējɔ̃ūrè	òidéí	ēréré	òlúà	òlúàè
29.	fire	rírā	yērā	ērā	írā	irè	rhērā	irā	erà	erà	ērāi
30.	fish	ēzjē	ìnòno	éyá	ējē	èhè	ìgénakpè	biábíē	èjè	ihē	ehē
31.	flesh/meat	érá	érá	ejami	érà	èràmi		érà	éjàmi	éxàmi	éhàmi
32.	fly	viárà	òhíàlà/ítjsá	édà	ódà	ítími	òríànàjā	ìjārā	ítími	ótí/íjā	íjā
33.	to give			l5in5	wóònāà	ārēní	dānā	ādāmá	árēni	wɔ̃:nɔ̃	véinè
34.	to go	ìdálé	érākhià	édzà	ātjá	òghéá	ūwátjā	evárē	šāšá	ájā	ájā
35.	good			úmá	ō:mà	òmó		òrr mìnì	òndòì	hómò	òhómúì
36.	hair	étò	étó	ètò	étò	ètò	ètò	ètò	ètò	ètò	ètò
37.	hard	ósúnāwúó	òtótòmi	ówùjā	òìgbògbògbò	lóhíé	ònoówùó	òtótómì	ínóshè	òkákà	éboóxórhíè
38.	he/she/it/him/her	ómòì	l5r5		ómòì	ómò hè		ògbò:zì	ómòhì	jɔ̃jɔ̃	ómòhè
39.	to hear	zì	ìzòzò	uhohò	gá jò	íhómì	òdíé/nórē wónì	ìhóhó	íxɔ̃	ihɔ̃:	áhèni
40.	heavy	jéhè	ùkɔ̃:nì	ha:ti/òkūā	òxòxòū	ònwàì	òndòfòfò/ íjùà	ùxòxòniì	ìmókùàì	òkùà	òkùàì
41.	to hide										
42.	to hit/to beat	gbémùgbíè	lnenge/ ògbénū	èmiláhāmā	sùrémísò	àtòjā:	šùábò	āfínā	fiè	híhò	báfíòèmi
43.	horn	ūgūā	ùhùà	ēgūā	mòó	ēgwàmi	éwáníhɔ̃	ēhūā	íhé	èkòhì	éhúámì
44.	house										
45.	I/me	mēmē	mēmē	neme	mēmē	mèmè	meme	mēmē	mèmè	mèmè	mēmē
46.	in	òrúdónì	jòmìòni		àráíwésò	èkèjò	mámá:ná	íxómínà	èké:	àhíèhè	òréhíò
47.	knee	ōkpō	òjà	ūgbòwé	wējà	ūgúè	ēhérià	kúējà	ūgúòwè	ūgúàì	ógúá:hè
48.	to know	nèè	òlísèni	rè	é:xò	òyò/ihemi	rénè	ìjè:rè:	míàmì	hà:hè	újwè

49.	to laugh	ēḏḏēā	ēḏḏā	ḏḏiè	ḏḏā̀	òḏḏiè		èḏḏà	óḏḏè	óḏḏè	máḏḏè
50.	leaf	wōbē	èbè	ode	ó:ḡbè	ébéyóra		ódè	ódè	ébé	ébé
51.	leg/foot	gūvḏ	ōvḏ	úwé	ūwāi	ùwε	govo	ḡgouḡ	ōḡōbós	ùwè	ūwē
52.	liver	ijō	ihú`kmò´							íbé	é:bè
53.	long	éhè	rérè̀mù	élùà	ḏéréè	ílúámí	ínàḡbà	ōnákparì	írèrè	ḡlúà	mólúāhē
54.	louse										
55.	mouth	únù	únú	ùnù	únù	únù	ùnù	únù	únù	únù	únù
56.	name	évà	ōvā	èvà	èvà	é:ḡi	úrá:mí	óvà	éḡi	ēhí	éhi
57.	navel	úyógí	ókó	óréúkó	ōkō	òḡùè	bōbō	oxḡ	úkóì	úbḡ:	ḡhḡ
58.	neck	ēwōrḡ	únè̀vè	ḡḡḡ	ūḡūḡ	ùrù	úfé	ūfè	ūrúè	é:hà	ùròhù
59.	new	ḡḡbḡ	ólízè̀ni		ḡḡḡḡḡḡ	òbù		ólòḡpò	ónḡḡùà	ḡḡbḡ	ḡḡḡḡḡḡ
60.	night	é:bì	ḡlízázú	àsḡ	ìébi	ásù	ḡárò	érhádò	ásù	ásù	ásù
61.	nose	ízúé	ízúé	èwè	íwè	íwè	ísúè	ísúè	íwè	érùè	éwè
62.	not	òxínà	áxilò	ewōni	ḡwḡ	íwéòkḡ	íhòḡḡ	ókhinā	éwōni	ōhó	ijó'kḡ
63.	old	ḡbái	ódíódíó	ūḡpōlódó	ódíá	ódiḡ	óḡḡóíḡḡ	ādíḡóḡni	ḡdíḡ	émíubè	ḡdiḡ
64.	one	òḡpā	ówú	óròḡpā	òḡpā	òḡpá	ó:wò ódííḡḡ	òwḡ	èḡpā	óḡpā	òḡpā
65.	rain	āmē	itótḡ	āmē	óròù	àmè̀irōmì	āmē	íróró	àmè	āmè̀drò	àmè
										éḡéòrà	
66.	red	wúmè	òmigḡ	sàì	óísàì	ívá/émì		óíkòḡḡ	ónḡvài	óràì	ó:rhai
67.	root	ūhíhí	ímímí	ìòrà	ijèrè	éēmórà	ōmíní	ívíní	wíníní	ìrùà	é:nádàḡḡè
68.	rope	ū:ḡi	wúrì	úrì	újì	úrì	w:rì	wúirì	wúxì	úrì	úḡpúrè
69.	to run	já	ḡhúná`	ūlā	nà`à	úrè	ū`wà	ívàvā	ínà	ólāfīā	hūāli
70.	salt	úwè	úwé	ówé	úḡùè	úmè	úwè	úwè	úwè	úḡwè	úmè̀hè
71.	sand	rōbō	éké	éké/òtè	ēkē	èkè	íhūnè/ékéóḡtè kò	íkē	íkè	éké	ēkē:
72.	to say	ḡú:	óḡūè	zúó	ùḡbúè	ígúmi	òḡḡpòrò	ìhó	tà	òtá/ḡḡóḡdiā	tàrè:
73.	to see	mé	mè	múó	jóḡwèò	āḡāhódè		ìmémé	íròmì	ūḡá:rḡ	kāḡóì
74.	shade/shadow										
75.	skin/hide	ēḡbā	úfí	èḡpè èḡpè	éḡpā	éḡbè	úfè éḡbè	ùfí èḡpè	érù	óhià	óhià
76.	small	òíkénḡ	òkérè̀mì	kèrè	òíkéré	kékérè̀mì	òíkénè	éjè	nókèrè		ó:kísi

77.	smoke	īwō	ítūō	írò	éwōī	īuō	ítúá	ítúá	í:vò	f:gò	ókisī
78.	soil										
79.	to stand	ríyè	súnipèrè	ḡrékwāirè	úzá	íwúzémi	úgbērè			ūzá	kpāmūzè
80.	star	wānásē	úzàzì	ájḡḡpè òzò	íjājì	īḡḡbìrì	wūzázā	ūḡáḡḡ	ùkpáijè		háhìèhìè
81.	stone/rock	èjḡ	εjé	ùgò	údò	údò	ē:sè:	éjḡ	údò	údoù	údù
82.	to suck	hígà	óvìḡḡirò	áráimì	ìwé/ímò	jómì ábùtīḡ	nánámérā`	irēréré	né`ḡì	ātōfìò	tōfìòì
83.	sweet	nínè	wérèmi	rēhùnù	órērè		ḡḡḡnómínì	mìómí	ḡ:zè	ówèyḡ	móxègè
84.	tail	ūviā	jārā	úrú	ḡjāi	ūkpúrúmi ḡì	úrúāhò	ūjā	éājìè	úkpúrúmi	ḡkpáigbèrè
85.	to take	ḡé	dá:	mè	mò:	émíwúì	mò:	ìdádá	mò	mè	válìḡhìni
86.	thick	mōsúnāvú	ḡgbéni/ ḡhónì			īkpákúémí sù		ḡtótómì	ḡkpókḡò	ḡhḡ:	mòzì:dèi
87.	this	ḡnḡ	ḡgbà	ḡnā	ḡnḡ	ḡá'jì	mésónò	ḡnò	ḡnā	ḡnā	mí:nì
88.	this										
89.	to tie	gélè	ḡḡḡḡnì		gēnē	īgbálómè		ùdénè	gbólómì	bāi	díḡhì
90.	tongue	nímèlè	úrèrē	úwèrè	óxèrē	órēmì	īḡèrè	ínènè	úrēmì	óxèmì	óxèmì
91.	tooth	ēkḡ	lē:kḡ	áká	ākḡ	àkù	ākḡ	ēkḡ	àkpákò	ákḡ	akū
92.	water	āmē	āmē	ámé	āmē	āmē	àmè	āmē	àmè	àmè	àmè
93.	what?	wúmónì	wō:rì		èbóhò	ebḡhù		bḡ:rḡ	ímḡù	bḡ:hò	bḡhū
94.	who?	hḡó	hḡzì	ḡnḡ wù	ḡnú:	wóhìhḡ		óinā	ḡnḡ wù	dḡlḡù	ḡ:nì
95.	wide	músúnḡyégā	irémì	lómè	ḡgbétàxàrà	íbémi		ḡíkḡòkò`	ḡwé mi	ḡvḡ:	mḡwé
96.	wind	ikòkò	ḡfìḡlḡghò		ḡbḡbḡ	éxìhò		ḡfìḡhò	ḡxìfìò	éfió	éfiò
97.	wing	ísúà	ífúá	ābébé/íbf:wà	ábìbài	ūḡúábìrùh è	ífúà	ífúà	úgbúābḡsàfiā jì	īḡwò	égúábò
98.	wood	ūgbósitā	étá		ōràì	óruā		jómúkḡkù à	éurà	órà	órà
99.	yesterday										
100.	you (singular)	wēwē	wèwè	éwé	wēwē	wèwè	wēwē	wēwē	wèwè	wēwē	wēwē

A comparative morphology of non-productive Tarok affixes and stem cognates for suggested Proto-Tarokoid reconstructions¹

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Abstract

Longtau (2007a) alluded to the existence of Tarok CV and NV prefixes in the light of cognate evidence in the Plateau language family of East Benue-Congo. This can be used as a basis to determine what could be regarded as the affix and stem of polysyllabic cognates in Tarok, Tarokoid and Plateau. A look at Blench's (ined a) Tarokoid reconstruction and classification shows clearly that there are non-productive noun prefixes in Tarokoid. Their presence in Tarok demands a more in-depth diachronic discussion² using the frame that canonical shapes of Tarok noun and verb stems are basically monosyllabic. Tarok polysyllabic cognates are interpreted using the frame and the deductions are applied in setting up the theoretical basis for an initial step towards a Proto-Tarokoid reconstruction. Our methodology is simple. A search is made of Tarokoid cognates in Sibomana (1980, 1981b), the Plateau Language Survey Wordlists by Roger Blench³, his drafts of dictionaries of Plateau languages and the reservoir of mother language knowledge of Tarok to provide evidence that the Tarok noun class affixes are not just productively reconstructed but are relics of a very elaborate and stable system before the break-up of the sub-family.

Cognate evidence for fossilised –CV- and –NV- affixes in both nominal and verbal stems are used to postulate also that some of the synchronic N- and V- prefixes are the result of erosion of longer segments that have become fused. The presence of fossil or unproductive affixes in Tarok provides an opportunity for a comparative study of how the reduction in the length of diachronic prefixes took place. It shall be shown that the non-productive affixes may not be the products of mere re-invention of lost noun classes of Bantu types, but are *bona fide* relics. If so, we can forge ahead in better understanding of East Benue-Congo and not be tied to the notion that Bantu is the canon for its noun classes. Evidence from both Tarokoid and Plateau is adduced for the interpretation of data in tables. The commentary columns are the main discussion and analysis of this paper.

¹ A paper initially presented at a Symposium organized by the Department of Linguistics and Communication Studies, University of Port Harcourt in Honour of Prof. Ozo-mekuri Ndimele, held March 12-14, 2014, Ebitimi Banigo Hall, University of Port Harcourt. I appreciate Dr. Roger Blench's comments on an earlier version of this paper, which is from far from being an endorsement by him.

² Tarok is regarded as the most conservative in terms of noun classes in the Sub-family.

³ <http://www.rogerblench.info/Language/Niger-Congo/BC/Plateau/PIOP.htm>

Towards a comparative description of the Adamawa languages of Mumuye-Yendang and
 Leko groups

The paper presents an attempt of comparative analysis of some Adamawa languages of Mumuye-Yendang (Yendang, Waka, Maya (Bali), Kugama, Gengle) and Leko (Nyong and Samba Leko) groups. All these languages are very scarcely documented (some word lists and articles on specific topics, eg. numeral systems).

The data were collected during linguistic expedition to Eastern Nigeria in January-February 2012, 2013 and 2014. During the expeditions the following work was done: thematic vocabularies, sociolinguistic questionnaire, basic grammar questionnaire, systematic morphosyntax questionnaire.

The following comparative results are going to be presented:

basic sociolinguistic information: names of the languages and ethnic groups, dialectal varieties, collection, checking and correction of wordlists, basic phonological peculiarities, means of forming plural forms, pronominal systems, basic numerals, nominal predication: constructions of qualification, identification, locative and presentative constructions, verbal constructions, elements of noun phrase syntax, elements of kinship terms systems.

As an example of data which are going to be presented we show below the comparative analysis of pronominal systems and basic numerals.

Pronominal systems. (1, 2 person, Sg)

1 Sg	Subject		Object		Possessiv
	Independe	Aff	Independe	Aff	
Yenda	məkʔ	a-	məkʔ	- n	maŋ
Wakka	(i)mí	á-	mí	-úŋ	(m)ámì
Maya (Bali)	mo	m-		-m	amò, -m
Nyong	má	ĩ	má	- o, -	máŋ
2 Sg	Subject		Object		Possessi
	Independen	Aff	Independe	Aff	
Yenda	məkʔ	mɔ	məkʔ	- no	bɔ
Wakka	(i)mú	mú	mú	- ú	(b)ògè
Maya (Bali)	nyoŋ	ŋ-		- o, -	aó, -ré
Nyong	mo	mo	mo(kɔ)	- no, n	múŋ
Preliminary reconstruction		Yendang/ Wakka/ Maya (Bali)/ N Nyong			

1 sg	mI/ma
2 sg	mU

Numeral systems

Though the Adamawa languages are ones of the least studied languages within the Niger-Congo macro-family their numerical systems have attracted some attention. In [Boyd 1989] we can find a lot of data for numerals of various Adamawa groups and some hypotheses about possible reconstruction. Since the appearance of Boyd's overview some new data on the Adamawa languages have appeared, e.g. [Fabre 2004], grammar of Samba Leko. Some data about numerals can be also found in the word lists [Blench, date of application 10.04.2015], [PanLex, date of application 08.05.2012]. Besides that in 1212-2014 my colleagues and I made some field studies

	Maya	Kpasham	Yoti	Yendang	Waka	Teme	Kugama	Gengle	Kumba	Mumuye (Zing)	Samba Leko
3	<i>tat</i>	<i>tat</i>	<i>taat</i>	<i>tat</i>	<i>taa?</i>	<i>tat</i>	<i>nēsà</i>	<i>kasat</i>	<i>saat</i>	<i>tat</i>	<i>toora</i>
4	<i>nat</i>	<i>nat</i>	<i>naat</i>	<i>nat</i>	<i>naa?</i>	<i>nat</i>	<i>nēhè</i>	<i>kajnat/kayat</i>	<i>naat</i>	<i>dneero</i>	<i>naara</i>

of Adamawa languages of Maya-Yendang (Yendang, Wakka, Maya, Kugama, Gengle) and Leko (Nyong) groups in Adamawa province of Nigeria. So, here 3 aspects concerning numerals are presented: 1) common roots for the languages (mostly numerals 1-5, 10), 2) a diversity of not only roots but also strategies (e.g. 8 = X + 3, X + 4, 5+3 etc) for 6-9, 20-40, 100, 1000, 3) analogical changes that influence greatly the numerical systems (3-4 - most common, 2-3-4, 2-3-4-5).

1) Common roots are rather easily found for 1-5, 10. In case of 3 and 4 many parallels with other Niger-Congo languages can be observed:

We can also see some possible innovations confirming internal grouping for 1, 2, and 5 in Mumuye and 1 and 2 in Samba Leko and Nyong.

2) Numerals 6-9 can also show some meaningful innovations assisting in the distributing the languages into groups, but they also show some interesting typological variety in the strategies forming numerals (6+) in closely related languages (e.g. 8):

	Maya Kpasham Yoti	Yendang Waka Temne	Kugama Gengle Mumuye (Zing)	Kumba	Samba Leko	Nyong
8	nV + 3	<i>bālā + 4</i> <i>Bala + 4</i> <i>Gbola + 4</i>	<i>ò-nā + 4</i> <i>Oṇoṇ + 4</i> <i>Nawa + 4</i>	<i>5 + 3</i>	<i>Dagwa?</i>	<i>durtea</i>

3) Analogical changes are also of great importance in numerical systems of the Adamawa languages. We are going to show some cases demonstrating it, e.g. analogical (submorphemic) tuning of 3 and 4 in various languages:

	Maya	Kpasham	Yoti	Yendang	Waka	Teme	Kugama	Gengle	Kumba	Mumuye (Zing)	Samba Leko	Nyong
--	------	---------	------	---------	------	------	--------	--------	-------	---------------	------------	-------

3	<u>t</u> at	t <u>a</u> t	ta <u>a</u> t	t <u>a</u> t	taa <u>ʔ</u>	t <u>a</u> t	nēsà	ka <u>s</u> at	sa <u>a</u> t	t <u>a</u> t	to <u>o</u> ra	ta <u>r</u> a
4	na <u>t</u>	na <u>t</u>	na <u>a</u> t	na <u>t</u>	naa <u>ʔ</u>	na <u>t</u>	nēhè	ka <u>n</u> at/ <u>k</u> ayat	na <u>a</u> t	dneero	na <u>a</u> ra	na <u>r</u> a

Words for two intimate parts in the Bantu languages

Jacky Maniacky¹, Michela Araujo Ribeiro² and Rosa Maria de Lima Ribeiro²

Body parts are said to be part of the basic vocabulary of a language, although particularly propitious for semantic shifts (Andersen 1978, Bastin 1985). Nevertheless, the vocabulary for body parts in Bantu is far from being well studied, in spite of old attempts (Homburger 1929).

In the present communication, we propose to analyse the Bantu words for two intimate parts, those for “foreskin” and those for “clitoris”. Indeed, the BLR (Bastin & al. 2002) contains only one stem (*-còé, said to be confined to zone C) for the former meaning and (*-gùmá, *-tòmbo, *-kòngò, each of them being confined to only one or two zones) for the latter.

The idea behind this study is not only to contribute to a reconstruction of the corresponding stems in the Proto-Language, but also to start a contribution to the vocabulary linked to circumcision (operation, ritual camp, circumciser, circumcised person...). Indeed, little linguistic research (Vansina 1990) has been done until now on what is generally considered an old tradition in the Bantu-speaking area, at least as far as male circumcision is concerned (Marck 1997).

Our research seeks to remedy this lack by:

- Providing more candidates for a reconstruction of ‘foreskin’ and ‘clitoris’ in Proto-Bantu.
- Understanding the semantic processes behind the variety of terms for those two intimate parts.
- Broaden the scope of the study to part of the vocabulary of circumcision in the Bantu languages.

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Hunting for a semantic network in Bantu

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This communication presents the results of an investigation on the vocabulary for various relatively independent meanings in the Bantu languages. It shows that there is a semantic network between several concepts: “meat”, “animal”, “bush”, “horn”, “antelope”, “hunt(ing)”...

The relation between “meat” and “animal” is well known (Guthrie 1967-1971). With the reconstruction *-nyàmà (Bastin et al. 2002), the semantic blurring is in fact attested even beyond Bantu (Williamson, K. and K. Shimazu 1968).

With the data we collected in the same semantic field, we bring to light other cases of such stems with different meanings, sometimes through a change in the associated nominal class. Examples in (1) show that fact in one and a same language while examples in (2) call for a comparison between different languages.

(1)

H11 Kibeembe	mbúlú ‘jackal’ cl.9	~	kibúlú ‘animal’ cl.7
K12b Ngangela	káθitu ‘animal’ cl.12	~	múθitu ‘thicket along a river’ cl.3

(2)

(H11 Kibeembe) nséké ‘savanna’ cl.9	~	(C73 Nkutsu) nséké ‘horn’ cl.9
(L11 Pende) gibongo ‘horn’ cl.7	~	(B62 Mbaama) mbòṅò ‘antelope bongo’ cl.9

Although they do not have a general distribution, the forms that we analyse allow to broaden the semantic network ‘meat / animal’. Through a mapping of the various

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semantic shifts they exhibit, we draw hypotheses that contribute to a better understanding of language contacts and linguistic history in the Bantu group.

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Noun Class Typology as Evidence of Genetic Relation in Africa

Since Greenberg's proposal of the Niger-Congo language phylum, the genetic validity of this hypothesized family of African languages has been controversial, being defined primarily by typological criteria rather than well-established cognates and sound correspondences at the highest levels of the family. By the traditional tools of historical linguistics, simple typological similarity is not enough to prove genetic relatedness, and most such typological properties have been rejected as evidence of such a relation, e.g. Hyman (2014) for systems of verbal extensions. And yet one typological property in particular is so striking that it continues to be put forth as evidence of genetic affiliation, even in the absence of cognate morphemes; namely, the noun class systems of these Niger-Congo languages. The Greenbergian argument is essentially that the typological properties of Niger-Congo noun class systems are so unique in the world's languages that they could not have arisen independently in unrelated languages, but must rather all be descended from a single proto-system. Welmers (1974: 184) makes this argument as follows: "Independent innovation or borrowing of such a complex element of morphologic structure seems incredible; it is surely more reasonable to suppose that Proto-Niger-Kordofanian had a noun class system to begin with." More recently Güldemann (2011) argues that these systems are "certainly inherited," stating, "After all, this feature was and is the best non-lexical diagnostic for genealogical classification in the Niger-Congo domain since Westermann (1935)." Schadeberg (2011) defends this argument as well.

Of course, within many established sub-groups, the class markers can be shown to be cognate, and in these cases a clearly legitimate argument for relatedness exists. In this paper the focus will mainly be on the class systems of Atlantic languages as compared to the genetically-coherent Benue-Congo noun class systems. When compared to each other and to Benue-Congo, the noun class systems of Atlantic languages do for the most part share a number of typological features, but the markers themselves show no clear indication of being cognate. In such cases, the burden is on the Greenbergian argument to show that the typological profile of these noun class systems is indeed so unique that it could only have arisen once in the history of language, and could not have been spread by areal diffusion. Otherwise, we must fall back on the traditional assumption of historical linguistics that typological similarity is not sufficient to prove relatedness.

I will argue that simply possessing a "Niger-Congo-like" noun class system, without demonstrating the cognacy of the classes, cannot be taken as an argument for genetic relatedness, as the defining characteristics of these systems are not unique enough such that they could not have been innovated in unrelated languages under areal pressure. The structure of this paper is as follows: we will first establish that many of the noun class systems in question do not make use of obviously cognate markers. We will then turn to the question of what exactly defines Niger-Congo noun class systems as a whole, and assess to what extent these properties are unique among the world's languages. It will be found that there are less typological properties in common between Niger-Congo noun class systems than is often assumed, and that for the properties that do exist, none are unique typologically. Finally, we will examine the potential ways in which noun class systems of the Niger-Congo type could have arisen in unrelated languages through areal influence.

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TONOLOGIES DES LANGUES BANTOUES DU NORD ET DU CENTRE-OUEST DU CONGO ET PROBLEMES DE FILIATION GENEALOGIQUE

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Des faits phonétiques particuliers aux langues congolaises et avoisinantes ont déjà été mis à contribution dans la comparative bantoue : traces de dix voyelles (Coupez, 1980), labiales vélaires (Heijboer, 1948; Mutaka & Ebosisé, 1996/7; Clements & Railland, 2008: 42-44), imbrication (Bastin, 1983), alternance vocalique en finale (Grégoire, 1979), voyelle des radicaux –CV (Meeussen, 1952), nasale suivie de consonne sourde (Kerremans, 1980), syllabe fermée (Guthrie, 1960: 3-8), etc.

D'autres de grand intérêt pour la linguistique générale ont également été étudiés au niveau des langues individuelles : gémiation consonantique (Daeleman, 1982), harmonie vocalique ATR (Kutsch Lojenga, 2008) et RTR (Leitch, 1996), nasale vélaire (Mamet, 1955: 9; Schadeberg, 1989; Bastin, 2003: 507; Motingea, 2010: 149), alternance consonantique (Kaji, 1982; Toronzoni, 1996 ?), voyelles centrales (Rottland, 1970: 1), règle de Kwanyama (Hulstaert, 1948; Sulzmann, 1980: 469), traces des clics (De Boeck, 1950; De Mahieu, 1962: 19-20; Vansina, 1966: 11)

Notre exposé porte sur leurs systèmes tonals pour lesquels le problème de leur forte diversité et de la « bizarrerie » (De Boeck, 1951) de certains d'entre eux, tout comme des faits « nouveaux » tels que la répétition tonale *HB > HH et la propagation du ton haut en certains dialectes môngo orientales (Labaere, 1994), n'ont encore jusqu'ici fait l'objet d'aucune discussion approfondie.

Le but est, en dépit des controverses qui existent encore sur le plan théorique autour de la tonogénèse (Yip, 2002: 35-38; Gussenhoven, 2004: 230), du développement des systèmes tonals (Bennett, 1970; Hombert, Ohala & Ewan, 1979) et de l'acquisition du ton (Demuth, 1991; Yip, 2002: 289-310) ainsi que de la quasi-absence d'une esquisse générale sur la tonologie des langues nigéro-congolaises (Clements & Railland, 2008: 70) :

(i) de tenter de répondre à la question que s'était posée le P. De Boeck (1951: 900) dans une étude qui n'a malheureusement pas pu voir le jour, celle de savoir si ces différents types de tonologie qu'on observe aujourd'hui sont des évolutions d'un système ancestral unique, en examinant ici les facteurs universels, génétiques ou aréals qui expliqueraient leur diversité ;

(ii) de rechercher la filiation de ce protosystème autant que faire se peut à une unité plus large, en l'occurrence le proto-Bénoué-Congo et/ou l'une ou l'autre de ces filles (Greenberg, 1974) ; et probablement ainsi apporter une contribution si modeste soit elle aux études sur la révision de la position trop inférieure du bantou sur l'arbre généalogique du Niger-Congo (Schadeberg, 2005: 114; Schadeberg, 2003: 155).

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Kinshasa, le 31-01-2016

Konstantin Pozdniakov

From Proto-Atlantic to Proto-Niger-Congo: the root structure

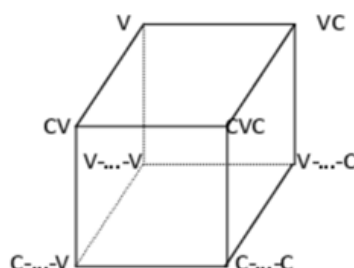
It would be useful to get some clear ideas about lexical root structure in Proto-Niger-Congo before trying to advance concrete lexical reconstructions. Meanwhile, we know very little about the root structures in different branches of Niger-Congo. A deplorable state of our knowledge in this area could be illustrated by the last publication (Blench 2016) on the subject where we read, in particular, the following:

« A common assumption about the shape of Proto-Niger-Congo roots is that stems were disyllabic. This is supported by a vision of Bantu-like roots for nouns with the canonical shape (C)V-CVCV. <...> This paper puts forward a radical alternative, that many early Niger-Congo roots were trisyllabic, CVCVCV. »¹

This quote raises a lot of questions. Is this assumption really common? With regard to the Bantu languages, what is “the canonical shape” for Verbs and how could we explain the striking differences of Noun and Verb structures in Bantu? Does the simple scale (monosyllabic, disyllabic, trisyllabic roots) suffice and is it suitable for a systematic comparison of root structures?

The main focus of my presentation is a comparison of the root structures in the Atlantic languages. I also discuss some structure problems that arise when comparing Atlantic roots with those in other branches of the Niger-Congo (NC) and, in particular, the vocabulary of the proto-Bantu (PB).

I suggest the following model for comparison of various root structures:



The front / back faces of the cube: structures ‘Initial C-... / Initial V-...’

The top / bottom faces: structures ‘Monosyllabic / Polysyllabic’

The left / right faces: ‘Final -V / Final -C’.

Among these 8 structures, those 4 which are on the front face of the cube are more relevant than 4 others, because in general the roots with initial vowels are much less typical for NC languages.

Here I will demonstrate some problems treated in my topic by using the PB statistical data. Firstly, it is easy to control them because they were calculated on the basis of BLR reconstructions². Secondly, for specialists in Atlantic these well-known PB data are particularly interesting, if we accept the following postulate: as proto-Atlantic and PB represent two polar zones of NC without any contact between them, any reliable Atlantic-Bantu cognate can be attributed to proto-NC.

Basing on the BLR reconstructions, we get the following frequencies of the structures: CV 6% ; CVC 23% ; CVCV, CV ... CV 51% ; CVCVC, CV ... CVC 20%. However, these figures vary considerably if we choose the most reliable (the most stable) Bantu roots represented in

¹ A draft circulated for comment with the intriguing title « Supposing we have been completely wrong about the shape of early Niger-Congo roots ? » REF. The very title of the text contains a statement of the existence of a common position on this issue, which, in my opinion, is doubtful.

² <http://www.africamuseum.be/collections/browsecollections/humansciences/blr>

seven zones or more (“Bantu 7+”). We find 948 such reconstructions in BLR and the structure frequencies are very different there: the CVCVC frequency is lower by half (only 11%). In general, more stable is a root, more is it “shorter” (Table 1).

The next interesting point is that PB structures are represented unequally in different Bantu zones. If we select PB roots represented in different zones, we could conclude, for example, that the CVCVC structure has 25% in the zone J and only 6% in the zone A, where 953 PB roots are represented (Table 1).

The main point is that the structure frequencies in Nouns and in Verbs are strikingly different (Table 1).

Tabl. 1

	N	N	N	N	%	%	%	%	%	%
	Bantu ALL	bantu 7+	zone J	zone A	Bantu ALL	bantu 7+	zone J	zone A	Nouns ALL	Verbs ALL
CV	570	101	218	87	6	11	5	9	8	2
CVC	2217	288	880	270	23	30	22	28	0	49
CVCV	5045	450	1887	538	51	47	47	56	91	6
CVCVC	1988	109	995	55	20	11	25	6	0	43
	9820	948	3980	953	100	100	100	100	100	100

It is clear while regarding the data in 2 last columns of the Table 1, that before proposing any reconstruction of the root structure in NC, we need a coherent interpretation from bantuists concerning possible scenarios in which these differences could arise: 92% of Bantu Verb roots have a final consonant, while it is totally absent in Noun roots. I am going to discuss this indispensable problem.

A comparison of the root structures is extremely important also for the Atlantic reconstruction. Here I give just some illustrations to this point.

While comparing frequencies in mono- and polysyllabic roots on Nouns and Verbs of an « average » Atlantic language, we get the following distribution (Table 2):

Table 2. Monosyllabic structures opposed to polysyllabic structures (the opposition “top – bottom”).

Average	Monosyllabic	Polysyllabic	SUM
Nouns	23% (-)	77% (+)	100%
Verbs	47% (+)	53% (-)	100%

In the majority of the examined Atlantic languages there are many more monosyllabic Verbs than Nouns. That means that Nouns are longer than Verbs. Why? Only one explication is possible: the presence of fused morphemes in Nouns (markers of noun classes).

Table 3. Structures with final consonants vs. structures with final vowels

%	Basari	Jaad	Gola	%	Basari	Jaad	Gola
Verbs -	33	13	97	Nouns -	34	82	81
Verbs -	67 (+)	87	3	Nouns -	66 (+)	18	19
	100%	100%	100%		100%	100%	100%

This table presents very interesting data. The situation in Basari reflects a typical situation for Atlantic languages: words with final consonants represent the majority of the words in the dictionary (approximately two-thirds of the entries) as the most frequent structure of the lexical stem is CVC. This prototypical situation is valid both for Verbs and Nouns.

In the Nouns of Jaad the opposite situation is encountered: approximately 80% of the Nouns present in the dictionary have final vowels but not the Verbs (only 13%). In this language this particular distribution was influenced by two factors. First of all, thanks to this statistical data I paid attention to the fact that in the derivation of Nouns from Verbs (of CVC structure) you have not only a class prefix but also an additional final vowel: *cid* ‘to cook’ > *ka-cid-e* ‘kitchen’; *pees* ‘to sweep’ > *ka-mpees-a* ‘broom’; *puuf* ‘to blow’ > *ka-mpuuf-e* ‘bellows’; *raf* ‘to make old’ > *ka-ntaf-ε* ‘old age’, etc. This is characteristic also for other languages of the group Tenda-Jaad. Compare the closely related forms in Konyagi: *i-pas* ‘to sweep’ > > *æ-fas-a* ‘broom’; *bedik u-wuf* ‘to blow’ > *gi-mbuf-e* ‘bellows’; *bedik u-raf* ‘to be old’ > *ndaf-a* ‘old man’. But in Jaad there was also another cause for the appearance of the final vowel in Nouns. In Jaad there are a lot of loanwords from Mande languages with an initial CVCV structure and the Nouns are much more often borrowed than are Verbs³.

Statistically, in Verbs Gola is different from Basari-Jaad and in Nouns Basari is different from Jaad-Gola. Summing up the data, it is clear that the opposition of Basari to Jaad and Gola in Nouns is not of a genetic nature. There are no doubts that Basari and Jaad belong to the same group in the Northern branch of the Atlantic languages. Gola instead apparently does not belong with the Atlantic languages, representing an independent branch in the NC macro-family. This is confirmed by the distribution of frequencies in Verbs: Basari and Jaad are opposed to Gola where (the only one in the three languages) all the Verbs have a final vowel.

How could such a strange distribution of frequencies occur? It reflects two different independent diachronic changes which took place in Gola, on the one hand, and in Jaad, on the other hand.

In Gola proto-language roots systematically lost the second consonant. Some examples are reported as follows:

- ATL. **jeb* ‘cure’ (Mankanya *p-jeb*, Nyun *jeb*, ...) ~ **Gola *jwεε***;
- ATL. **namb* ‘elephant’ (Joola **naab*, Basari *nàmb*, ...) ~ **Gola *ó-ɲǵǵ***;
- ATL. **deng* ‘thorn’ (Wolof *deg*, ...) ~ Sua *deng-en* ~ **Gola *é-dǵé***;
- ATL-North. **dug* ‘cow without horns’ (Palor *dug*, Sereer *dūik*, ...) ~ **Gola *ó-dūi***;
- Balant *tɔg* ‘push’ ~ **Gola *tɔɔ***;
- ATL. **bɔŋ* ‘thigh’ (Joola **bɔŋ*, Ndut *baŋ*) ~ **Gola *o-gbàǵ***;
- Balant *tɔŋ* ‘show’ ~ Sherbro *tonki*, Bom *tɔŋi* ~ Nalu *tɔŋ-el* ~ Limba *tɔŋ-ina* ~ **Gola *tɔɔ***;
- ATL. **nof* ‘ear’ (Bijogo *kɔ-nnɔ*, Cobia *si-nuf*, Basari *a-náf*, Palor *nuf*, Wolof *nɔpp*, Fula **nof-ru*, Baga Mboteni *ε-náf*, Baga Fore *i-nɔp*, Nalu *nεεw*, ...) ~ Limba *ku-luh-a* ~ **Gola *ké-núú***;
- ATL-CENTRE **sun* ‘horn’ (Joola **sun*, Nalu *seen*) ~ Limba *kɔ-se* ~ **Gola *é-sii***.

This list of examples can be significantly extended. The loss of the final consonant in Gola regularly gives the compensatory length of the vowel. The loss of the final vowels in Gola in the words with the CVC structure can be found differently as well. For example, Table 4 shows a comparison of the frequencies of the monosyllabic words in two different languages:

³ I would like to thank Guillaume Segerer who drew my attention to this important characteristic of loans influencing frequency distribution.

Table 4

	Gola	Wolof
CV	38%	2% (-)
CVC	10% (-)	41%
VC	0%	1%
SUM	48%	44%

In both languages the percentage of monosyllabic words is mainly the same – a little bit less than one half of a dictionary. The two concrete structures have a complementary distribution: apparently the majority of words with CVC structures in Wolof should correspond to words with CV structure in Gola.

In Table 5 the frequencies of structures in an average Atlantic language are presented.

Table 5

Average (%)	Verbs	Nouns
CVCVC,	14 (-)	25 (+)
CVCV, CVCVCV	26 (-)	34 (+)
CVC	41 (+)	19 (-)
CV	5	3
VCVC, VCVCVC	10	11
VCV, VCVCV	4	7
VC	1	1
V	0	0
	100%	100%

The transformation of *CVC in CV-CVC in Nouns (integration of noun classes in the roots) is very clear. Despite this, the sum of these two structures in the Verbs (41+14=55%) is much higher than the same sum in the Nouns (19+25=44%). This means that the present explanation is not enough. We can suppose the change *CVC > CVC-V where the last vowel is a noun class suffix, a determiner or a derivational morpheme.

Some other interesting aspects of comparison of the root structures in NC languages will be discussed as well.

Toward a typology of Niger-Congo complementation

Subordinate constituents as verb arguments, i.e. complement clauses, whether S-like (*that Kofi killed the chicken*) or truncated (*Kofi's killing a chicken, to kill a chicken, killing a chicken*), have attracted some attention in the crosslinguistic literature (Noonan 1985, 2007, Ransom 1986, Wierzbicka 1988, Dixon 1991). Noonan, in particular, has advanced an initial typology, maintaining that while all languages exhibit complementation not all employ equal numbers and types of complementizers. Languages differentiate S-like from I-like (infinitive) complements and distinguish, within and among these types (relative to a matrix clause), dependency functions related to independent/dependent time reference, assertive/non-assertive epistemic commitment or realis/irrealis discourse assumption.

Within Niger-Congo, however, less attention has been devoted to clausal arguments. For example, Watters (2000) provides an initial and general overview of complementation in Africa. He highlights the relative frequency of parataxis and coordination over subordination. But with respect to the latter, he notes that sentence complements occur more often than truncated ones and that multiple S-like complements occur in some languages. He also claims that truncated clauses in subject and direct object positions, while uncommon (relative clauses being favored), do occur in I-like shapes. This complex set of impressions informs but does not determine our pursuit of subordinated arguments in Niger Congo.

Our overarching goal is to survey subfamilies within Niger Congo using available grammars, dictionaries and text collections. We seek to ascertain the nature of complementation systems existing among these families and to postulate a resulting system for Niger Congo. As a first step toward these goals, we note the broad character of complementation in West Africa.

Anchoring our analysis is the rather robust system of complementation in West Benue Congo's Edoid language Emai compared to the more streamlined system in Kwa's Akan and Ewe. Emai, for example, distinguishes three S-like complements with particles for indicative *khi*, subjunctive *li* and conditional *si*, the former two occurring in subject and direct object positions. It also evinces I-like infinitival and gerundive forms, the former in direct object position and the latter in subject and direct object positions. Functions related to these forms bear on independent/dependent time reference for *khi/li*, non-assertive epistemic condition for *si* and realis/irrealis discourse assumptions for infinitivals and gerundives.

Akan, by contrast, maintains a single S-like complement with *se* as well as an I-like infinitival complement. As a consequence, its formal marking of argument complementation fails to differentiate among time, epistemic and discourse functions. A similar situation appears to characterize Ewe's S-like *bé* complement and its I-like forms.

While our findings at this juncture are preliminary, our initial impression is that Niger Congo showed both S-like and I-like complementation. Beyond this, however, it is not yet clear what functions are associated with verb argument complements. Does the S-like vs I-like split constitute an indicative/subjunctive mood split with contrastive functions related to time reference, epistemicity and discourse presumption subsumed thereby or might there be additional formal differentiation of functions. Further data is intended to clarify this situation.

The unusually unstable basic vocabulary of the Joola languages

Guillaume Segerer – LLACAN (CNRS, INALCO, USPC)

The Joola languages form a quite homogenous cluster in southern Senegal and Northern Guinea Bissau. However, this homogeneity is more obvious for grammatical features than for the basic lexicon. Lexical counts (Carlton & Rand 1993) show that there is considerable variation in the stability of the supposedly most stable part of the lexicon, with figures ranging from 90% or more to less than 15%. The minute examination of this puzzling situation may be regarded as a laboratory experiment that might serve to account for the long recognized fact that NC languages in general seem to share more grammatical (i.e. typological) features than lexical cognates.

In my talk, I will present lexical series pertaining to basic lexicon but showing many different forms, such as the following (in grey, lexical roots of probable NC origin):

	to eat	to drink	ear	bird	to say
Fogny	-ri	-raan	ka-wɔs	ba-sɔwa	-rɛg
Kasa	-tɛŋ	-hob, -raan	ɛ-jan	ba-sɔa	-lob
Keeraak	-ɲɔɔfɔ	-hɔɔɔ	ka-wɔs-ak	jə-lɛh-aw	-an, -tɔk
Banjai	-tɪŋ	-rɛm	ga-nnɔ	ga-ppɔ	-lob
Gusilay	-cɛrɔ	-rɛn	ga-nɔ		-lob
Kwaatay	-tɛŋ	-hɔjɔ	kaakɔndɪn	a-lɛɛ	-anɔ, -sɔk
Karon	-li	-laan	kə-nu	ɛ-sɔwa	-sɔk
Gulompay	-li	-lɛni	kaa-nɔ	e-lukulɛŋ	-kub
Bayot	-tɪŋ	-lumɔ	ka-nɔ	e-no	-zɪa, -lɔ
nb of diff. roots	4	4 ~ 5	4	5	5 ~ 6

I will also show how homogeneous the principal grammatical features are (with most paradigms showing very similar contents: personal pronouns, noun class markers, verb extensions, etc.).

Finally, I will show how the Joola languages tend to renew their lexical stock, more by internal means (semantic shifts, lexical derivation) than from external influence. The general message I wish to deliver is twofold:

- first, a serious lexical comparison cannot be undertaken with short wordlists only. For example, the only reflex of the NC root *DI 'to eat' in Joola Keeraak is found in the word *mɔ-ri-aay-am* 'food', whereas the regular Keeraak word for 'to eat' is now *-ɲɔɔfɔ*. Thus, a superficial comparison between Joola lects would result in considering that the NC root *DI is not represented in Keeraak.
- second, the Joola case could be a model for similar investigations in other parts of the Niger-Congo domain. In fact, phenomena like polysemy or semantic shifts have been globally overlooked in lexical comparison of African languages, probably because during decades there were so few data available. This is no more the case.

Towards a reconstruction of the Proto-Ekoid phonological system

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In my talk I am going to present the current results of ongoing work on the reconstruction of the Proto-Ekoid phonological system.

The Ekoid languages is a group of closely related idioms (a glottochronological time-depth of ~2000 years) spread in southeastern Nigeria and in the adjacent areas of Cameroon. Commonly they are attributed to the South-Bantoid branch of the Bantoid languages within Benue-Congo, the Niger-Congo phylum.

At the present time the main materials juxtaposing different idioms are represented by lists of words in phonetic transcription from the latter half of the 20th – early 21th centuries.

On the basis of the available materials (wordlists in [Crabb 1965], [Yoder 2008], [Blench 2014] and examples from [Watters 1981, 2001], [Sibomana 1986], [Bamgbose 1967], etc.) an etymological database was compiled by means of the [Starling software](#). It includes 19 Ekoid variants (maximal subdivision) and Mbe, the nearest language to the Ekoid group proper. The main database is also accompanied by supplementary databases containing the earlier data ([Clarke 1848], [Johnston 1919-22], [Mansfeld 1908]).

Applying the comparative method, the regular sound correspondences between idioms were established separately for the segmental inventory and tones.

Presumably, the Proto-Ekoid language has the following segments:

vowels *i e ε a ɔ o u*

consonants *p b t d/r l ʃ ɖ ʒ k g kp gb m n ŋ/n (ŋm) (f) s y w*

and 2 level tones.

Taking into account the common innovations in the idioms it is possible to suggest an internal classification of the group.

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**Once more on the genetic affiliation of Krongo-Kadugli (Kadu) languages:
the basic lexicon perspective**

Among the various African language groups whose wider affiliation remains questionable or completely mysterious, the Krongo-Kadugli languages of the Nuba mountains have long occupied quite a prominent position. Sharing various typological features in common both with various «Nilo-Saharan» groups of the Macro-Sudanic belt and with their close geographical neighbours of the Kordofanian family, they are clearly at best very distantly related to anything (Blench 2006), and it is not surprising that intuitive assumptions and tentative hypotheses on their ancestry made by Africanists over the last half-century vary significantly, depending on the type, amount, and quality of data taken into consideration.

The two major competing hypotheses, each of which has its further subvariants, are «Niger-Congo» and «Nilo-Saharan» affiliation. The former was originally advanced by Greenberg (1966), who regarded Kadu as the most divergent branch of Kordofanian, and strongly supported by Ehret (2000), who prefers to relate Kadu to Niger-Congo as a whole, without any specific Kordofanian sub-filiation, based on a small group of basic lexical roots that allegedly pair up well with lexical roots reconstructible on intermediate or top levels of Niger-Congo.

The major alternative was first presented by Thilo Schadeberg (1981), whose extensive fieldwork and analytical research on these languages led him to the conclusion that they share far more in common with «Nilo-Saharan», and that the Niger-Congo links are better explained through late period convergence processes. This idea was later endorsed by G. Dimmendaal (1987), R. C. Stevenson (1991), and M. L. Bender (1997), but since «Nilo-Saharan» itself remains a much more controversial taxon than Niger-Congo, it is clear that such an endorsement cannot be taken too seriously either until definitive evidence has been presented for «Nilo-Saharan» (and Kadu languages are shown to conform with this evidence), or until Kadu languages are shown to be related to a specific non-controversial subset of Nilo-Saharan.

In a brief, but comprehensive overview (Blench 2006), R. Blench compares some typological, lexical, and grammatical features of Kadu not only to «Niger-Congo» and «Nilo-Saharan», but also to Afro-Asiatic, and concludes that no definitive judgement may be pronounced, but still leans towards a «Nilo-Saharan» affiliation, eventually compromised by long periods of convergence and even linguistic «metatypy» that took place between Kadu and its Afro-Asiatic, Kordofanian, and possibly other Niger-Congo neighbours. He also discusses the possibility that certain morphemic links between Kadu, Niger-Congo, and «Nilo-Saharan» may be interpreted in terms of an original «Niger-Saharan» unity, of which Kadu may have been a separately divergent branch, although this hypothesis is even more speculative than any of the others.

Although some comparison of the basic lexicon of Kadu with Niger-Congo and Nilo-Saharan data has already been performed, beginning with Schadeberg 1981 and culminating in an extensive survey by C. Ehret (1995), all of these comparisons suffered from methodological flaws that reduced, if not completely eliminated, their effectiveness. On the Kadu side, comparanda were drawn from individual languages rather than Proto-Kadu (this is particularly typical of Ehret's comparison, which is totally focused on the Krongo language that represents only one of the subbranches of this small family). On the other side, comparanda could be randomly drawn from any subset of «Nilo-Saharan» or Niger-Congo languages, even though «Proto-Nilo-Saharan» reconstructions are virtually non-existent (Ehret's own NS reconstruction remains highly controversial), and Proto-Niger-Congo reconstructions used in comparisons vary in quality. This not only means that data could be cherry-picked to match any intuitively preferable hypothesis, but

also raises the risks of mistaking the results of recent linguistic contacts for archaic markers of genetic affiliation.

As part of my ongoing study on mid-level and deep-level genetic relations between the various language families of Africa, I have conducted a preliminary survey of the basic lexicon of Krongo-Kadugli languages along with a first attempt at the reconstruction of the Proto-Krongo-Kadugli Swadesh wordlist. This not only leads to a better formalized and transparent lexically based classification of this group, but also allows for a more reliable comparison with other families. Such a comparison has also been conducted, between Kadu and all the potential constituents of the «Nilo-Saharan» macrofamily as well as several constituents of Niger-Congo (most notably Kordofanian languages and Bantu), based on formal rules of phonetic similarity and some additional considerations on the historical phonology of Kadu.

Results of the comparison show that, while the methodology is insufficient to definitively place Krongo-Kadugli within any larger linguistic subset, there is a strong and hardly accidental lexical signal which indicates that Kadu's nearest relative may be the Central Sudanic family (a generally non-controversial grouping within «Nilo-Saharan»), or possibly a somewhat larger cluster that also involves a few smaller taxa such as the Maba languages of Chad. All the other signals are incomparable in strength, and should probably be explained as results of later contacts (e. g. with Kordofanian) or accidental resemblances. In any case, «smart lexicostatistics» (combined with a more thorough distributional and etymological analysis) speaks strongly against any possible Niger-Congo affiliation of Kadu, and the entire case seems to be an excellent example of how deeper linguistic analysis allows to distinguish between convergence and genetic ancestry.

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Reconstruction of the Proto-Southern Mande pronominal system

All Southern Mande languages have rich pronominal systems; number of pronominal series in some of them may exceed 20. In Mano, Dan, Gban, Beng, Goo, there are “pronominal predicative markers” (PPM), entities which are different from true pronouns by their syntactic function, however, for the purposes of the proto-language reconstruction, they can be considered together. Most often, the pronominal and the PPM series result from fusion with auxiliary words (predicative markers, postpositions, possessive markers) at the level of individual languages, however, in some cases, the fusion can be dated back to the level of subgroups within the Southern Mande group, and in some others, it can be reconstructed for the Proto-Southern Mande level.

So far, the following Proto-Southern Mande forms can be reconstructed.

Series	Singular			Dual	Plural			
	1	2	3	1 incl.	1 incl.	1 excl.	2	3
Subjective	* \bar{N}	* \bar{i}/\bar{e}	* \bar{e}	* $k\bar{o}/k\bar{v}$	* $k\bar{o}á$	* $y\bar{i}/\bar{o}$	* $k\bar{a}$	* $w\bar{o}$
Subjunctive	* \acute{N}	* \acute{i}	* \acute{e}	* $k\acute{o}/k\acute{v}$	* $k\acute{o}á$	* $y\acute{i}/\acute{o}$	* $k\acute{a}$	* $w\acute{o}$
Imperative	–	* $b\bar{e}$	–	* $k\bar{o}/k\bar{v}$	* $k\bar{o}à$	–	* $k\bar{a}$	–
Non-subjunctive	* \bar{N}	* \bar{i}/\bar{e}	* \bar{a}	* $k\bar{o}/k\bar{v}$	* $k\bar{o}á$	* $y\bar{i}/\bar{o}$	* $k\bar{a}$	* $\bar{a}n\bar{u}$
Reflexive	* \bar{N}	* \bar{i}/\bar{e}	* \bar{e}	* $k\bar{o}/k\bar{v}$	* $k\bar{o}á$	* $y\bar{i}/\bar{o}$	* $k\bar{a}$	* $w\bar{o}$
Focalized	* $m\bar{a}$	* $b\bar{i}/y\bar{i}$	* $y\bar{e}$	* $k\bar{o}/k\bar{v}$	* $k\bar{o}á$	* $y\bar{i}/\bar{o}$	* $k\bar{a}$	* $w\bar{o}$
Portemanteau	* $m\bar{a}$	* $b\bar{i}/y\bar{i}$	* $y\bar{a}$	* $k\bar{o}/k\bar{v}$	* $k\bar{o}à$	* $w\bar{a}$	* $k\bar{a}$	* $w\bar{a}$

In my presentation I am going to provide the details of this reconstruction.

An Initial Understanding of the Proto-Ekoid-Mbe Noun Class System

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The noun class systems of the 8-10 Ekoid-Mbe languages have been given some attention over the past 45-50 years. Crabb (1969) in the late 1960's began comparing the Ekoid languages. Edmondson & Edmondson (Ms.) analyzed the Etung dialect of Western Ejagham and Watters (1980 and 1981) described the Ejagham noun class system with attention given to the variation among its three major dialects. Bamgbose (1967?) and Pohlig (1981) have provided us with analyses of Mbe. However, no one has published a reconstruction of the Proto-Ekoid noun class system, and no one has published on the Proto-Ekoid-Mbe noun class system.

In this study I will present my beginning understanding of the Proto-Ekoid-Mbe noun class system. I will also compare aspects of this system with other Bantoid groups such as Proto-Grassfields and Proto-Bantu. The study will also take into consideration comments of Good on the morphological behavior of East Benue-Congo noun class systems (to appear).

Bamgbose, Ayo. 1967?. Nominal classes in Mbe. *Afrika und Ubersee*, Band XLIX, pp. 32-53.

Crabb, David. 1969?. Ms. Some noun class comparisons.

Good, Jeff. Eastern Benue-Congo noun classes, with a focus on their morphological behavior. (chapter in forthcoming volume on Comparative-historical studies in East Benue-Congo)

Pohlig, James N. 2013. The noun class system in Mbe. SIL International. Ms.

Edmondson, Eileen and Tom Edmondson. Noun classes in Etung.

Watters, John R. 1980. Noun Classes in the Grassfields Bantu Borderland. *Southern California Occasional Papers in Linguistics* No. 8.

Watters, John R. 1981. A phonology and morphology of Ejagham. Doctoral dissertation. University of California, Los Angeles. (Available at

On the Historical Comparison of the Mundu-Baka Nominal System

The internal classification of Mundu-Baka (formerly Ngbaka), a language family of the notoriously under-researched Ubangi group, is traditionally based on a fraction of the available lexical data rather than on the comparison of grammatical structures. Fairly little work from a diachronic viewpoint has been produced on this group of languages since its establishment by Greenberg (1963). Among the most important lexical comparisons are Boyeldieu & Cloarec-Heiss (1986) and Moñino (1988). Against this background, I provide a more substantial diachronic assessment of Mundu-Baka. Based on the comparison of their nominal systems, I propose a more robust and detailed classification of this family. While the traditional division into an eastern and a western main branch finds verification by my work, I argue against the subdivision into six groups but propose four sub-branches. These are, regarding the western branch, Baka-Gundi and River, which subsumes three of the former sub-groups. The eastern branch incorporates Mayogo-Bangba and Mundu.

I examine the usability of bare nouns and apply the internal structural differences of the family as diagnostics to establish genealogical proximity. In my analysis, I concentrate on the basic principle of Mundu-Baka nouns. Being morphologically rather isolating and with lexical inventories that consist largely of monosyllabic stems, these languages disallow monosyllabic noun forms due to a ‘minimality condition’. Bare nouns in isolation cannot be used without some morpho-syntactic extension, a phenomenon also evident in the Bandic family (Olson 2012). As I show, three main strategies to meet the existing minimality constraints are known: 1) reduplication, 2) affixation, and 3) root compounding.

Reduplication (RED) as in (1b) is the most common one and is found across large parts of the family to differing extents.

(1) Baka (reduplication)

- | | |
|-------------|---------------------------|
| a. kpā | b. kpā-kpā |
| hand | RED-hand |
| ‘hand of X’ | ‘hand’ (Djoupee 2002: 30) |

The application of various bound morphological items such as the prothetic vowel (E) as in (2b), but also numeral affixes, generic affixes, and infinitive morphemes are building-blocks of permitted nouns.

(2) Mayogo (affixation)

- | | |
|-------------|-------------------------|
| a. li | b. i-li |
| name | E-name |
| ‘name of X’ | ‘name’ (Sawka 2001: 12) |

Finally, root compounding plays a vital role in avoiding minimal noun forms, as shown in (3). Where compounds are used, the other strategies become suppressed.

(3) Monzombo (root compounding)

- mò-tē
mouth-house
‘door’ (Boyi 1983: 205)

These structural strategies are not evenly distributed in the family. Building on my comparative analysis I propose a re-classification of the Mundu-Baka family. While reduplication and compounding are reconstructable for the proto-stage, differences in plural

marking support the west-east division. The generic suffix -bo speaks for Baka-Gundi. The unique prothetic vowels lead to the proposition of Mayogo-Bangba against Mundu. Different infinitive morphemes additionally confirm three of the proposed sub-branches. River sticks out by applying reduplication to express the infinitive.

This concludes an onset of the revision of Mundu-Baka. An evaluation of further grammatical subject areas is absolutely possible and indispensable for a broader picture.

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Did the Category “Adjective” Exist in Proto-Kru?
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For decades, linguists studying Niger-Congo languages have noted the small size and irregular behavior of the grammatical class called “adjective”. In the Kru language family, while the majority of adjectival notions are expressed by adjectival verbs exhibiting the full gamut of verbal properties, there is indeed a restricted class of what can be termed “true adjectives”, expressing such notions as physical shape and size as well as color. Citing data from over 12 languages from both Western and Eastern Kru, in this paper, we set out to explore how Kru languages express adjectival notions, with a view to examining the question: did the category ‘adjective’ exist in Proto-Kru? Possible scenarios and mechanisms for syntactic change, including nominal constructions as a source of current adjectives, will be explored.

As in many language families in Niger-Congo, there is no single way to express adjectival notions within Kru. All Kru languages employ a number of strategies, including:

1. verbs with adjectival meaning,
2. verbal constructions with nominal complements,
3. ideophones,
4. relative clauses,
5. what appears in most languages to be a class of ‘true’ adjectives.

Strategy (1), adjectival verbs, is by far the most common and frequent means of expressing adjectival notions. Many languages have well over twenty such verbs covering a wide semantic range (“to be white”, “little”, “dry”, “smart”, “stupid”, “straight”, etc.). It is fairly easy to reconstruct proto forms for both Eastern (E) and Western (W) Kru, and then to propose Proto Kru forms, for example:

- *kpe ‘to be black’ (EKoyo kpe/WNyabwa kpè/WWobe kpe)
- *plu ‘to be white’ (EKouya'pɔlv/ WTchien Krahn 'plu/WNyabwa 'plu)
- *za(n?) ‘to be red’ (EKoyo za / EGodie zλ/W Nyabwa zaan)

Several of these verbs co-occur with verbal particles (most often derived from noun body parts), with repetitive cycles of particle formation producing a variety of adjectival nuances:

Wobé (Egner)

- nmə...‘i ‘to be good’ (good in the eyes)
- nmə...-jri i ‘to be beautiful’ (good in the eyes eyes)
- nmə...-cIe ‘i ‘to be handy’ (good with fingers eyes)

Strategy (2), verbal constructions with nominal complements, for example a transitive locative “be at” (“be at dirty”), the verb ‘have’ (“have dirtiness”), or ‘do’ (“doing + ideophone/abstract behavior”), may also be partially reconstructable for Proto-Kru (and perhaps Niger-Congo?).

While strategies 1-4 are fairly straightforward both synchronically and diachronically, it is not surprising that strategy (5) raises considerable difficulties both on a synchronic and diachronic level. Within Kru, “true adjectives”, appearing in post-nominal position (N ADJ NUM DEM), are few in number and show little homogeneity. They are typically divided into subclasses based on agreement and/or plural markings. The irregularity in this grammatical class leads us to ask two crucial questions:

- Was there an “adjective” category in proto-Kru which “disintegrated” over time, leaving behind odd-behaving remnants? or
- Was proto-Kru “adjective-less”, i.e. are the current “adjectives” products of other mechanisms?

It is indeed possible that Proto-Kru had “true” adjectives, exhibiting, as other branches of Niger-Congo, extensive noun class agreement. If this is the case, then Eastern Kru languages would present the oldest NP paradigms, such as:

Godie (Marchese) Noun + Adjective + Demonstrative		
nyūkpō kádō nō	‘this big (great) man’	(ōhuman class)
bùtu kádv nṽ	‘this big house’	(ṽclass, including liquids)
mīē kádē nē	‘this big animal’	(ē class, large animals)
nmlə kádā nā	‘this big bird’	(a class, rice, birds, etc.)
ḡìtī kádī nī	‘these big houses’	(īclass, non human plural)
nyūkpà kádvā nṽā	‘these big (great) men’	(wā/vāclass, human plural)

Following this scenario, all Western Kru would have lost class agreement in adjectives, except for some lexical items where class has reduced to singular/plural agreement.

While the above scenario seems very plausible, the morphological structure of some “true adjectives”, as well as their tonal behavior, suggest other possible scenarios. In many languages in both Eastern and Western Kru, adjectives may undergo tonal lowering (marked below by -), similar to the lowering in compound noun structures:

Tchien Krahn (Sauder)		
‘yu - gbolo ’	child young	nyo - bholv ’ man old

Another intriguing fact is that many current adjectives are either reduplicated forms and/or end in LV/NV/DV syllables, suggesting another possible compound structure: adjectival verb + pro-form (or lexical nominal such as “thing”). Is it possible that present day adjectives exhibit nominal qualities because they are, in fact, reanalyzed compound nouns?

NOUNVERB-PROFORMNOUNADJ			
bhutu	na-nṽ→	bhutu	nanṽ
‘housebeautiful-one’		‘a beautiful house’	

Such a scenario for adjective development would paint a very different picture for the Proto Kru noun phrase than in the first instance (*N ADJ QUANT). These are questions we hope to explore and further develop in this paper.