

**Nuba Mountain Verb Extensions in African Perspective**

Larry M. Hyman

*University of California, Berkeley*

(1) *Purpose of this talk:* To discuss some of the issues arising in the study of verb extensions as they may ultimately apply to the Nuba mountain languages, e.g. for the purposes of description, reconstruction, classification and subgrouping. I will first give a general overview and then turn to the Nuba mountains.

(2) As is well know, verb-to-verb derivational suffixes (“extensions”) marking causative, applicative, etc. are found throughout Africa (cf. Creissels et al 2008, Dimmendaal 2011, Hyman 2007, 2014)

“Verbal derivational extensions (in short: verb extensions) are a salient typological characteristic of Africa.... they are found in all four language phyla and in all major regions of the continent, they exhibit a range of grammatical functions which is to some extent similar across languages, and they are overwhelmingly encoded as verbal suffixes, irrespective of the particular basic word order of the languages concerned.” (König & Heine 2004:11)

However, the amount of research and our understanding of their properties vary considerably from group to group.

(3) Verb extensions (VEs) are perhaps best known from Bantu, where they have been successfully reconstructed at the Proto-Bantu stage (Meeussen 1967, Schadeberg 2003)

a. generally productive extensions:

*-i-	‘causative’	*-Id-	‘applicative’	[-il-]	*-(iC)-U-	‘passive’	[-ib-w-]
*-Ic-i-	‘causative’	[-is-]	*-an-	‘reciprocal’	*-Ik-	‘neuter/stative’	

b. generally unproductive extensions often restricted to post-root position or specific combinations

*-Ik-	‘impositive’	*-am-	‘positional’	*-ud-/*-uk-	‘separative’ (reversive tr/intr)
*-a(n)g-	‘repetitive’	*-ad-	‘extensive’	*-at-	‘tentive’ (contactive)

c. frozen, mostly semantically unidentifiable formal extensions

\*-u-, \*-im-, \*un-, \*ing-, \*-ang-, \*-ab-, \*-ag-, \*-ak-, \*-ut- and \*-Im-, \*-om-, \*-ong- (after CV roots)

(4) In descriptive, typological and historical studies of VEs we have to determine

- their form, i.e. segmental phonology, syllable shape (CV, VC, C, V), allomorphy, tonal properties
- their grammatical, semantic, and pragmatic functions
- their co-occurrence restrictions and linear ordering with respect to each other
- their syntactic restrictions and interaction with other morphosyntactic properties, e.g. inflection
- their ability to cooccur with a marker on the dependent which they license or to which they refer

(5) Several reasons why the study of Niger-Congo VEs has lagged behind the study of noun classes

- VEs are less unique to Niger-Congo, or even to Africa, as “head-marking” on verbs is a common strategy for licensing an argument or adjunct within a clause (Nichols 1986)
- VEs are harder to recognize, elicited in isolated words, greater need to know the grammar, e.g. in the Nuba Mountains the realization of VEs is often dependent on stem type, TAM, or the verb itself
- VEs are semantically and grammatically slippery, their functions overlapping, ever changing, e.g. Koalib *yì-ccí* (drink-BENEFACTIVE) ‘give s.o. (sth.) to drink’ is more causative-like (Quint 2010:303)
- it’s often hard to tell what’s cognate

(5) To illustrate, Voeltz (1977:59) proposes the following reflexes of his Proto-Niger-Congo applicative \*de

Igbo (WBC)	-rV	benefactive	Ndunga (Ubangi)	-la	stative
Mbui (Bantoid)	-l	frequentative	Fula (Atlantic)	-ir-	instrumental/locative
Tikar (Bantoid)	-l	causative	Temne (Atlantic)	-ər	directional
Grebo (Kru)	-di	instrumental	Banda (Ubangi)	-nde	?
Dagara (Gur)	-l	causative	Dongo (Ubangi)	-ni	?

- (6) On the one hand there are situations like (Narrow) Bantu where the extension system is stable, both in terms of the individual VEs as well as their linear ordering; default template: C-A-R-P (Hyman 2003)

	<i>Causative</i>	<i>Applicative</i>	<i>Reciprocal</i>	<i>Passive</i>	
Proto-Bantu	-ic-	-id-	-an-	-u-	(NB. APPL = *-id- or *-il-)
Shona	-is-	-il-	-an-	-w-	
Makua	-ih-	-il-	-an-	-iw-	(< *-IC-U-)
Chichewa	-its-	-il-	-an-	-idw-	(< *-id-U-)

- (7) On the other hand the “Atlantic” languages, which are likely not a single subgroup of Niger-Congo, show extraordinary variation, as seen from the following table, based on Becher’s (2000: 31)

	CAUS <sub>1</sub>	CAUS <sub>2</sub>	DATIVE	CIRCUM	ASSOC	RECIPROCAL	REVERS	INTENS	DISTAL	VENTIVE	ITIVE
Fula	(i)n	(i)n, d	an, in	ir, or, d	(o/i/u)d	indir, o <sup>n</sup> dir, ootir, tir	it, ut	it, ut, VVin	oy, ow		
Sereer	and	in, an, il, it	an, in, al	(i/o)r, it, an, od'	ir, or, od	or, od, andor	it			(i)d	(i)k
Wolof	al, *in	al	al, wal	e, al	and-	oo, ante	i, anti, arbi, arñi	VVi		si	i, ji
Palor	al, el, id'	id'	id'	a?		ante, antox	is	(k)is			
Ndut	il	id'	id'	a?		anta?	is	is			i <sup>d</sup>
Noon	id', *l	id', d'	id'	oh		oh	(is)	(i)s	nee	d	
Diola	en, a	en, a	um	um		or	ul		ulo	ulo	ul
Balante	n	n	ed, Vd	(i)r, i	*d	ndi, ir	et, at				
Basari	ʌn	ʌn, l	i, l-i	al, r	dʌr, dʌ	ʌr, r	ʌt	el	ʌx	u	
Bedik		ʌn	ʌn	al	ʌd	ʌr	ʌt		ʌd, (gu)		
Kisi	i	i	(u)l		i	i-ŋ, (i/a)ndo	i	i			
Temne	(a)s, a, ar	(a)t, a	na, a, ar	(n)a, e, (i/a)r	as	(a)ne	i, e	(a)s~t, V-V	ne		

Note: (i) as many/more extensions than in Bantu; (ii) almost all consonants are coronal: t, d, f, l, r, s, n; (iii) some syncretism of causative and dative; (iv) occurrence of ventive & itive (as in Chadic, Nilo-Saharan, Nuba mtns.); (v) Atlantic also has middle voice, comitative, and other extensions and is the most like Kordofanian languages.

- (8) As Bender (2000:63) points out, a problem inherent in establishing cognates is that “grammatical morphemes tend to be small so that similar forms recur even in unrelated phyla”, e.g. the following look-alikes between Cushitic Alaaba (Schneider-Blum 2004) and the indicated unrelated languages

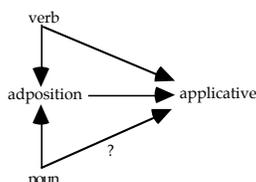
causative	-s/-is/-iis/-ees	cf.	pan-Bantu	-is	causative	(but [s] is found everywhere!)
passive	-am	cf.	Bantu zone C	-am	passive	(other Bantu = ‘positional’)
middle voice	-ak’/-’	cf.	Dagik (Talodi)	-ak:	middle voice	(Venderelst 2012)
			Tima, Katla (Katla)	-ak	antipassive	(Alamin 2012, Hellwig 2013)
			Ama (Nyimang)	-ag	antipassive	(Stevenson 1957; Norton, p.c.)
			Temein	-k	antipassive	(Stevenson 1957)
			Bijogo (Atlantic)	-k	middle voice	(Seeger 2002)
			P.Sudanic (NiloSah)	-ak <sup>h</sup>	intransitive	(Ehret 2001)

It is thus hard to distinguish between resemblances due to genetic relatedness, borrowing, or chance

- (9) Besides the potential for borrowing, verb extensions are subject to renewal. Although Igbo has a productive, reconstructable applicative extension \*-li (often realized -rV dialectally), a more recent applicative extension has been grammaticalized from the verb *nyé* ‘give’ (Mbah & Mbah 2012:110-2)

<i>main verb</i>	<i>‘give’</i>	<i>gloss</i>	<i>fast speech</i>	<i>Oba dialect</i>	<i>original *-li</i>
‘cut’	bè + nyé →	bè-nyé ‘cut for’	bè-í	bì-í	bè-re ‘cut for’
‘buy’	gó + nyé →	gó-nyé ‘buy for’	gó-í	gù-í	gù-ru ‘buy for’
‘send’	dú + nyé →	dù-nyé ‘send to’	dù-í	dù-í	dù-ru ‘send to’
‘pour’	tá + nyé →	tà-nyé ‘pour into’	tà-í	tù-í	tà-ra ‘pour into’

(10) Peterson (1999:104) provides the following illustration of the sources of applicatives



(11) Bijogo (“Atlantic”) extensions and their possible prepositional sources (Segerer 2002)

instrumental	-at	cf. ta-	‘with, from’	ventive	-a	cf. a-	‘on’
recip/assoc.	-an	cf. na-	‘and, with’	itive	-am	cf. am-	‘at’
benefactive	-an	cf. an-	‘towards’			cf. ma-	‘in order to’

(12) “Verbal attraction” (Heine & Reh 1984:50; cf. Givón 1971, Voeltz 1977, Lord 1993)

“[Dholuo (Nilotic)] has a verb attraction rule applying to case marking prepositions: once the noun phrase governed by the relevant preposition is topicalized to the pre-verbal position the preposition is removed from the adverbial phrase and attached to the verb as a suffix.” (Okoth-Okombo p.c. to Heine & Reh 1984:51)

- a. jon nego diel ne juma ‘John is killing a goat for Juma’  
 John is.killing goat for Juma
- b. juma jon nego-ne diel ‘John is killing a goat for JUMA’  
 Juma John kill-for goat
- c. juma jon i-nego-ne diel ‘a goat is being killed for JUMA’  
 Juma John PASS-kill-for goat

(13) This raises the question of how to determine if an extension is old vs. a relatively recent creation

<i>if relatively young, we expect an extension to ...</i>	<i>if relatively old, we expect an extension to ...</i>
have a transparent source in a verb or preposition	have an opaque or no source in a verb or preposition
have no cognates or only in closely related languages	have cognate forms in distantly related languages
be functionally/semantically transparent	have multiple, unpredictable functions
occur only where corresponding roots exists	have frozen forms without any corresponding verb root
be further out from the root than other suffixes	be closer to the root than other suffixes
be syntactically dependent (cf. (12))	be syntactically independent
be CV, easily segmentable from other forms	be V(C), more fully integrated with other forms
not have allomorphs	have allomorphs
have its own contrastive tone (like enclitics)	receive its tone from the verb or inflectional features

Note that the above are violable “expectations” which assume that creation of extensions come into being first by concatenation and only secondarily (later) as “fusion” with the verb base. I also ignore borrowing as a source.

(14) As an example, consider the distributive (pluractional) and dual suffixes in Ama (Norton 2012:91)

	distributive /-íḍ/*	dual /-ēn/	
applicative /-n/	tàl-íḍ-ìn	tàl-ìn-ēn	‘ate with’
directional /-èg/	nìf-íḍ-èg	nìf-èg-ēn	‘fell down’
imperfective mirative /-ar/	sàṅ-íḍ-ār	sàṅ-ār-ēn	‘is unexpectedly searching’

Other “intervening suffixes” include the perfective theme vowel /-i/, the imperfective past /-áw/, the perfective passive /-áj/, the perfective middle /-éj/, and the perfective ventive /-í / . \*Note cognate pluractional -ṭ in the area.

(15) Norton (2012:92) compares the distributive and dual suffixes in the following (and other) ways

distributive /-íḍ/	dual /-ēn/
marked by suppletion or by up to 2 suffixes	marked by suffix only
suffix before the theme vowel & other suffixes	suffix after the theme vowel and other suffixes
allomorphs phonologically conditioned	allomorphs phonologically & morphologically conditioned

- (16) Concerning linear ordering, if the Bantu Caus-Appl-Recip-Passive template in (6) represents oldest to youngest as per Good (2005), causative *-is-* should come first throughout Niger-Congo; but *cf.* Moore

	<i>Moore</i>	<i>Proto-Bantu</i>	(Canu 1976)
causative	-s	* <i>-ic-i-</i>	causative ( <i>-is-</i> in most Bantu languages)
be in a state	-b	* <i>-ib-u-</i>	passive
intensive	-b		
cause to be in a state	-d	* <i>-ud-</i>	reversive transitive (cognate?)
locative	-d	* <i>-id-</i>	applicative
put into a state	-g	* <i>-ik-</i>	impositive
repeated action, intensive	-g	* <i>-a(n)g-</i>	repetitive
inversive	-g	* <i>-uk-</i>	reversive intransitive
amplitude, certitude	-l		
positionnal	-m	* <i>-am-</i>	stative (positional)
discontinuous (frequentative?)	-s		

- (17) However, Moore *-s* comes almost last when it combines with other extensions (followed only by *-g*)

+ VE <sub>2</sub> :	-b	-d	-g	-l	-m	-s	
VE <sub>1</sub> : -b	x		x	x		x	<i>i.e.</i> only <i>-s</i> can follow all other extensions ( <i>cf.</i> productivity)
-d		x				x	
-g				x	x	x	
-l		x			x	x	
-m						x	
-s		x					

- (18) Linear ordering can be conflicting even in closely related languages, *e.g.* Moro vs. Tira

Moro *distrib/anti-pass/recip loc-appl caus ben-appl pass/refl* (Rose 2013:50)  
-əð -aɬ -i -əɬ -ən

However, Tira, the closest related language to Moro, has the reverse order passive *-in-* + applicative *-t-*: *-in-t-o* (definite & indefinite), *-in-t-ε* (dependent) (Stevenson 2009:83)

- (19) Similarly, related languages can differ in their co-occurrence restrictions (different BEN-APPL forms)

Moro: “The locative applicative [-aɬ] and the benefactive applicative [-əɬ] do not co-occur.” (Rose 2013:48)

Lumun: “The combination of the benefactive (*i*)*nε* and the locative applicative *t* is realized as (*i*)*n-tεt*, not \*(*i*)*nεt*.” (Smits 2013:219)

- (20) What can Kordofanian verb extensions say about Niger-Congo? As elsewhere, there is some on-going creation of new extensions, *e.g.* Tima benefactive *-ii* and instrumental *-aa* (= suffixes with a pronoun)

“The benefactive meaning in Tima is expressed morphologically by the clitic *-ii/-ii*, which is attached directly to verb root in order to introduce a new NP.” (Alamin 2012:108) [*cf.* Moro OM + =ja (Rose 2013:52; Ackerman 2013:100-1)]

a. bÁrh ìṭì ‘wash the clothes’      b. bÁrh-íí-dà ìṭì ‘wash-for-me the clothes’

- (21) Examples with full nouns show however that the benefactive is still a prefix (Alamin 2012:110)

éŋ-k-áhiyá-dà      yànhòwán      ì-Hámìd      ‘I gave the money to Hamid’  
 PAST:1sg-EP-give-1sg      money      BEN-Hamid      (EP = epenthetic element)

- (22) On the other hand, the following is hopeful. Let us look at the table (p.6) and see what we (you) can see!

“... at least some of the verbal extensions appear to be extremely old in Niger-Congo, given their presence in geographically disparate and historically distant subgroups such as Bantu, Atlantic and Niger-Congo languages such as Tima in the Nuba Mountains... The impositive marker *\*-ik* already appears to have been unproductive at the Proto-Bantu stage (Meeussen 1967:92). The latter corresponds to a productive causative marker *-ik* in languages like Tima and Katla and thus most likely was the original causative marker for the common ancestor of the Katla cluster and Bantu. Proto-Bantu had a productive causative marker *\*-i*, corresponding to the high transitivity marker (telicity) *-i/-i* in Tima (Alamin 2009 [2012]).” (Dimmendaal 2011: 297)

## References

- Ackerman, Ferrell & John Moore. 2013. Objects in Moro. In Schadeberg & Blench, 83-104.
- Alamin, Suzan. 2012. *The nominal and verb morphology of Tima*. Köln: Rüdiger Köppe Verlag.
- Alamin, Suzan. 2013. Verbs in Laggori. In Schadeberg & Blench, 451-462.
- Becher, Jutta. 2000. Verbalextensionen in den Atlantischen Sprachen. *Hamburger Afrikanistische Arbeitspapiere* 1.1-36.
- Bender, Lionel M. 2000. Nilo-Saharan. In Heine & Nurse, 43-73.
- Canu, Gaston. 1976. *La langue mò:rè*. Paris: SELAF.
- Creissels, Denis, Gerrit J. Dimmendaal, Zygmunt Frajzyngier, & Christa König. 2008. Africa as a morphosyntactic area. In Heine & Nurse, 86-150.
- Dimmendaal, Gerrit. 1981. On verbal derivation in Nilotic: the case of Turkana. In Thilo C. Schadeberg & M. Lionel Bender (eds), *Nilo-Saharan: Proceedings of the First Nilo-Saharan Linguistics Colloquium*. Dordrecht: Foris.
- Dimmendaal, Gerrit. 2000. Morphology. In Heine & Nurse, 161-192.
- Dimmendaal, Gerrit J. 2011. *Historical linguistics and the comparative study of African languages*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Ehret, Christopher. 2001. *A historical-comparative reconstruction of Nilo-Saharan*. Köln: Rüdiger Köppe Verlag.
- Ehret, Christopher. 2008. The internal and comparative reconstruction of verb extensions in early Chadic and Afroasiatic. In Zygmunt Frajzyngier & Erin Shay (eds), *Interaction of morphology and syntax: Case studies in Afroasiatic*, 41-59. Amsterdam/Philadelphia: John Benjamins.
- Givón, Talmy. 1971. On the verbal origin of the Bantu verb suffixes. *Studies in African Linguistics* 2.145-163.
- Good, Jeff. 2005. Reconstructing morpheme order in Bantu: the case of causativization and applicativization. *Diachronica* 22: 3-57.
- Heine, Bernd & Derek Nurse (eds). 2000. *African languages: an introduction*. Cambridge University Press.
- Heine, Bernd & Derek Nurse (eds). 2008. *A linguistic geography of Africa*. Cambridge University Press.
- Heine, Bernd & Mechthild Reh. 1984. *Grammaticalization and reanalysis in African languages*. Helmut Buske Verlag.
- Hellwig, Birgit. 2013. Verbal morphology in Katla. In Schadeberg & Blench, 237-250.
- Hyman, Larry M. 2003. Suffix ordering in Bantu: a morphocentric approach. *Yearbook of Morphology* 2002, 245-281.
- Hyman, Larry M. 2007. Niger-Congo verb extensions: overview and discussion. In *Selected Proceedings of the 37th Annual Conference on African Linguistics*, Doris L. Payne and Jaime Peña (eds), 149-163. Somerville: Cascadilla.
- Hyman, Larry M. 2014. Reconstructing the Niger-Congo verb extension paradigm: What's cognate, copied, or renewed? In Martine Robbeets & Walter Bisang (eds), *Paradigm Change in the Transeurasian languages and beyond*, 103-125. Amsterdam: John Benjamins.
- Jakobi, Angelika. 2006. Rekonstruktion von Verbalextension im Nubischen. Paper presented at the Afrikanistentag, München, Feb. 11-13, 2006. Ms. Universität Bayreuth.
- König, Christa & Bernd Heine. 2004. Verb extensions in !Xun (W2 dialect). *Annual Publications in Afr. Ling.* 2.11-30.
- Lord, Carol. 1993. *Historical change in serial verb constructions*. Amsterdam: John Benjamins.
- Mba, Gabriel & Blasius Chiatoh. 2003. Verbal extensions in Kom. In Daniel Franck Idiata & Gabriel Mba (eds), *Studies on voice through verbal extensions in nine Bantu languages spoken in Cameroon, Gabon, DRC and Rwanda*, 81-112. LINCOM.
- Meeussen, A. E. 1967. Bantu grammatical reconstructions. *Annales du Musée Royal de l'Afrique Centrale, Série 8, Sciences Humaines*, 61.81-121. Tervuren.
- Nichols, Johanna. 1986. Head marking and dependent marking. *Language* 62: 56-119.
- Norton, Russell. 2012. Number in Ama verbs. *Occasional Papers in the study of Sudanese Languages* 10.75-93.
- Peterson, David August. 1999. Discourse-functional, historical, and typological aspects of applicative constructions. Doctoral dissertation, University of California, Berkeley.
- Quint, Nicolas. 2010. Benefactive and malefactive verb extensions in the Koalib verb system. In Fernando Zúñiga & Seppo Kittilä (eds), *Benefactives and malefactives: Typological perspectives and case studies*, 295-315. Benjamins.
- Reh, Mechthild. 1985. *Die Krongo-Sprache*. Berlin: Dietrich Reimer Verlag.
- Rose, Sharon. 2013. The morphological structure of the Moro verb. In Blench & Schadeberg, 83-104.
- Schadeberg, Thilo C. 1989. Kordofanian. In John Bendor-Samuel (ed.), *The Niger-Congo languages*, 67-80. Lanham, MD: University Press of America.
- Schadeberg, Thilo C. 2003. Derivation. In *The Bantu languages*, Derek Nurse & Gérard Philippson (eds), 71-89. London: Routledge.
- Schadeberg, Thilo C. & Roger M. Blench (eds). 2013. *Nuba mountain language studies*. Köln: Rüdiger Köppe Verlag.
- Schneider-Blum, Gertud. 2004. Verbal extensions in Alaaba. *Annual Publication in African Linguistics* 2: 47-66. Köln: Rüdiger Köppe Verlag.
- Segerer, Guillaume. 2002. *La langue bijogo de Bubaque*. Louvain-Paris: Peeters.
- Stevenson, Roland C. 1957. A survey of the phonetics and grammatical structure of the Nuba Mountain languages, with particular reference to Otoro, Kathca, and Nyimang. *Afrika und Übersee* 41.27-65, 117-52, 171-196.
- Stevenson, Roland C. 2009 [1942, 1943]. *Tira and Otoro: Two Kordofanian grammars by Roland C. Stevenson*. Edited by Thilo C. Schadeberg. Köln: Rüdiger Köppe Verlag.
- Stevenson, R.C., F. Rottland & A. Jakobi. 1992. The verb in Nyimang and Dinik. *Afrikanistische Arbeitspapiere* 32.5-64.
- Vanderelst, John. 2012. Some aspects of verbal morphology in Dagik (Kordofanian, Talodi). Paper presented at WOCAL 7, University of Buea, August 20-24, 2012.
- Voeltz, Erhard. 1977. Proto-Niger-Congo extensions. PhD dissertation, University of California, Los Angeles.
- Vossen, Rainer. 1997. *Die Khoe-Sprachen: ein Beitrag zur Erforschung der Sprachgeschichte Afrikas*. Köln: Köppe.