Chapter 5

Common Bantoid verb extensions

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In this paper I survey verb extensions within different Bantoid languages and subgroups, comparing them to Cameroonian Bantu zone A. Extending my survey of Niger-Congo extensions (Hyman 2007), I show that there is a band of contiguous languages in the Grassfields area where a number of contrastive verb extensions have relative productivity (cf. the studies in Idiata & Mba 2003). Interestingly, the languages in question belong to several subgroups: Limbum (NE Eastern Grassfields Bantu), Noni (Beboid), Kom and Babanki (Ring Western Grassfields Bantu), Bafut and Mankon (Ngemba Eastern Grassfields Bantu). Other languages in these same subgroups are not in this geographical band and have very few extensions. The above-mentioned languages allow a possible reconstruction of *CV extensions with *s, *t, *n, *l, *k, and *m. A major property of Bantoid extensions is the relative frequency of aspectual-type extensions, especially marking different types of pluractionality (iterative, frequentative, distributive, repetitive), diminutive (attenuation of action), and intensive (augmentation of action) semantics. In many languages the same suffix form covers two or more of these functions. The hypothesis is that the original system was more like Proto-Bantu, with extensions being more valence-related, but over time these very same extensions became reinterpreted as aspectual. However, the great variety of extensions in and outside of Bantoid suggests that there may have been more extensions at a pre-Proto-Bantu stage.

1 Introduction

While the presence and identity of Proto-Bantu verb extensions has long been established, with relatively little controversy (Meeussen 1967; Schadeberg 2003), we do not have a clear sense of the verb extension system(s) that existed at pre-Proto-Bantu stages.[1] My goal in this paper is to consider some of the issues aris-

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[1]This paper was first presented at the Workshop on Bantu and its Closest Relatives, Berlin Bantu Conference (B4ntu), April 6-9, 2011.
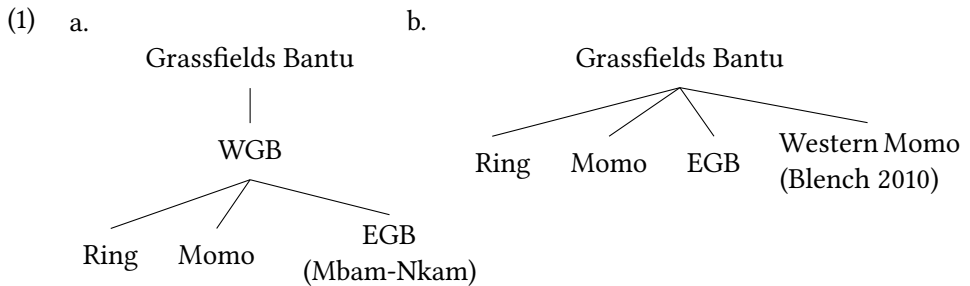
ing in NW Bantu, Grassfields Bantu, and some of their closest Bantoid relatives. The questions I shall be concerned with are:

(i) What are Bantoid verb extensions like?

(ii) What can be reconstructed at a Bantoid Pre-Proto-Bantu level?

(iii) What, if anything, do they tell us about Proto-Bantu?

My goal in this chapter is to evaluate our current knowledge to determine what the Common Bantoid verb extensions are that might be considered for such reconstruction.[2]

2 Grassfields Bantu

It is often remarked that the comparative study of Bantu (and Niger-Congo) verb extensions has been neglected in favor of noun classes. The same has been true in Bantoid studies. As a case in point, let us consider Grassfields Bantu. In (1) I present two subclassifications of what we might identify as "Narrow Grassfields Bantu", i.e. ignoring Ndemli (cf. Stallcup 1980a; Watters & Leroy 1989; Piron 1995; Watters 2003):

(1) a.

Grassfields Bantu
|
WGB
Ring   Momo   EGB (Mbam-Nkam)

b.

Grassfields Bantu
Ring   Momo   EGB   Western Momo (Blench 2010)

As seen, the older subclassification in (1a) recognizes a binary split between Western vs. Eastern Grassfields Bantu (WGB, EGB), while (1b) presents all of the subbranches as coordinate. Identification of some of the languages are as follows (Hyman & Voorhoeve 1980; Watters 2003):

(2) a. Ring: Aghem, Isu, Weh, Bum, Bafmeng, Kom, Oku, Babanki, Lamnso', Babungo, Babessi

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[2]For a recent overview of the languages considered to be Bantoid, see Blench (2015).

b. Momo: Moghamo, Metta, Menemo, Ngembu, Ngamambo, Ngie, Oshie, Ngwo, Mundani, Njen
c. EGB: Ngemba (e.g. Mankon, Bafut), Bamileke (e.g. Yemba, Ghomala, Medumba, Fe'fe'), Nun (e.g. Bamun, Bali), North (e.g. Limbum, Adere)

Early on, the Grassfields Bantu Working Group discovered significant differences which seemed to motivate the division between EGB and WGB. As seen in Table 1a-g, most of the criteria for such a split concerned noun class marking (Stallcup 1980a: 55).

Table 1: Criteria for distinguishing Eastern from Western Grassfields

		Eastern Grassfields Bantu	Western Grassfields Bantu
	a.	nasal prefix in class 1 and class 3 nouns	absence of the nasal
	b.	no distinction between class 6 and class 6a	distinction between class 6 a- and class 6a *mə-*
	c.	nasal prefix on all 9/10 nouns	nasal prefix only on some 9/10 nouns
	d.	absence of classes 4 and 13; class 19 rare	presence of classes 4 and 13; class 19 frequent
	e.	noun prefixes all carry a /L/ tone	most noun prefixes carry a /H/ tone
	f.	no noun suffixes	many noun suffixes, e.g. plural *-tí, -sí*
	g.	class 2 or 6a generalizes to mark plural	class 10 or 13 generalizes to mark plural
	h.	innovation of *síŋɔ́* 'bird', *-kìɔ́* 'water'	maintenance of **-nɔ̀ní* 'bird', **-díbá* 'water'
	i.	maintenance of **-úmà* 'thing'	**-úmà* is lost, other roots come in
Plus:		maintenance of inherited 3rd person pronouns	introduction of new 3rd person pronouns (Hyman 2018b [this volume])

A major question we continue to face is the extent to which Proto-Bantu (PB) is representative of pre-PB, e.g. "Proto-Bantoid", which includes Proto-Grassfields Bantu. It is commonly assumed that PB is conservative, preserving many fea-

tures of Proto-Niger-Congo (PNC). Concerning the criteria in (1a-c), it was once generally accepted that Narrow Bantu innovated nasals in the noun prefixes for classes 1, 3, 4, 6, 9 and 10. However Miehe (1991) argued that the nasals are archaic, which Williamson (1993: 43-44) accepts, but which is still somewhat unsettled.[3] All this to say that attention has largely been on noun classes, which have often served not only as the major criterion for inclusion within Niger-Congo, but also subgrouping.

Concerning verb extensions, the PB system has been reconstructed as in (3), where it is useful to distinguish three sets (Meeussen 1967; Schadeberg 2003):

(3) a. productive extensions
   i. *-i-* 'causative' iv. *-ɪk-* 'neuter/stative'
   ii. *-ɪc-i-* [-ɪs-] 'causative' v. *-an-* 'reciprocal/associative'
   iii. *-ɪd-* [-ɪl-] 'applicative' vi. *(-ɪC)-ʊ-* 'passive' (*-ɪbw-, -ɪgw-*)

   b. unproductive extensions often restricted to post-radical position or specific combinations
   i. *-ɪk-* 'impositive' iv. *-ad-* (*-al-*) 'extensive'
   ii. *-am-* 'positional' v. *-at-* 'tentive' (contactive)
   iii. *-a(n)g-* 'repetitive' vi. *-ʊk-/*-ʊd-* (*-ʊl-*) 'reversive/separative' (intr./trans.)

   c. frozen, mostly unidentifiable -VC- expansions
   i. *-u-, *-im-, *-un-, *-ing-* iii. *-ɪm-, *-ɔm-, *-ɔng-* (but only after CV-)
   ii. *-ang-, *-ab-, *-ag-, *-ak-* iv. *-ʊt-*

Attempts to reconstruct extensions in PNC and certain other branches of NC have been few, but typically produce forms resembling PB (Table 2).

It is however possible that PB may have lost (merged) earlier distinctions. When one compares Bantu with some of the Atlantic languages, for instance, one observes that the latter often distinguish more than one applicative extension where Bantu typically has only *-ɪd-* (Hyman 2007: 157).[4]

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[3]Cf. the recent workshop "Nasal Noun Class Prefixes in Bantu: Innovated or Inherited?" which I co-organized with Gudrun Miehe at the Paris Bantu Conference (Bantu5) on June 12, 2013. See Hyman (2018a [this volume]).

[4]Nuba mountain languages also typically distinguish benefactive vs. locative applicatives, in addition to other extensions not distinguished in Bantu. An overview of Nuba mountain verb extensions (Hyman 2014) is available upon request.

Table 2: Proposed reconstructions of verb extensions

		Proto-Niger-Congo (Voeltz 1977)	Proto-Bantu (Schadeberg 2003)	Proto-Atlantic (Doneux 1975)
a.	applicative	*-de	*-ɪd-	*-ed
b.	causative	*-ci, *-ti	*-ic-i-	(*-an)
c.	contactive	*-ta	*-at-	
d.	passive	*-o	*-ɪb-ʊ-	*-V [+back]
e.	reciprocal	*-na	*-an-	*-ad
f.	reversive (tr.)	*-to	*-ʊd-	*-t
g.	reversive (intr.)	*-ko	*-ʊk-	
h.	stative/neuter	*-ke	*-ɪk-	
i.	stative/positional	*-ma	*-am-	

Table 3: Comparing Chichewa (Bantu) with two Atlantic languages

	Chichewa (Hyman & Mchombo 1992)	Temne (Wilson 1961; Kanu 2004)	Fula (Arnott 1970)
causative	-is-	-s	-n-
allative	-ir-	-r	-r- ?
locative	-ir-	-r	-r-
recipient	-ir-	-r	-an-
benefactive	-ir-	-a̧	-an-
circumstance	-ir-	-a̧	-an-
manner	-ir-	-a̧	-r-
instrument	-ir-	-a̧-nɛ	-r-

However, Grassfields Bantu and even Bantu zone A may diverge from PB, as seen in Table 4 (Hyman 2007: 160):[5]

Table 4: Comparing Bantu Zone A (Mokpe & Gunu) with Grassfields (Mankon & Bafut)

Mokpe A22 (Connell 1997; Henson 2001)		Gunu A62 (Orwig 1989)		Mankon (EGB) (Leroy 1982)	Bafut (EGB) (Tamanji & Mba 2003)
-an-ɛ	reciprocal	*-anIn* réciproque		*-nə* réciproque	*-nə* reciprocal
-an-a	instrumental	*-an*	pluriel, iteratif	*-nə* stative, réfl	*-nə* stative/intr
-o-a	reversive	*-Ug* *-Ig*	réversif intr. intensif	*-kə* intransitif *-kə* itératif	*-kə* stative/intr *-kə* iterative
-is-ɛ	causative	*-i* *-Id*	causatif diminutif	*-sə* causatif *-tə* diminutif	*-sə* causative *-tə* attenuative/ iterative
-e-a, -ɛl-ɛ applicative		*-In*	applicatif		*-lə* random
-am-a	positional	*-Im*	statif		
-av-ɛ	passive	*=VlÚ*	passif		
á- ... -ɛ	reflexive	*bá-*	réfléchi		

Within NW Bantu it is not uncommon for certain notions to be expressed by a sequence of verb suffixes, sometimes with a specific final vowel (FV). This is especially the case with the reciprocal and the instrumental, the latter not having a distinct form in most Bantu.[6] Note that the *-an-* of the 'instrumental' might better be identified as 'associative' which, in its reciprocal use, is found in the sequence *-ang-an-* sporadically throughout the Bantu zone. See also Bostoen & Nzang-Bie (2010) for the development of such "double suffixes" in A70. Thus, in addition to the above, Kwasio (A81) distinguishes *-al-a* 'recip.' vs. *-ɛl-ɛ* 'instr.' (Ngue Um 2002: (< *-an-a, *-an-ɛ*), while Mpompon (A86c) has instrumental *-él-ɛ̀* vs. reciprocal *tí-...-là* (Ngantcho Lebika 2003: 38). In addition, the *-ɪd* and *-tə* diminutive extensions in zone A and Bantoid do not have an obvious cognate in what I will refer to as a central or canonical Bantu (CB). They are, for instance, not obviously related to the unproductive tentive or extensive extensions in (3b).

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[5]The capitals I and U indicate harmonizing vowels in Gunu.

[6]As seen in Table 3, some Bantu languages use the applicative suffix for instruments; others may use the causative extension, while still others require a preposition to express an instrument.

In fact, once we move out into Bantu's closest relatives, we run into a number of problems:

(i) Many Bantoid languages have few extensions, often limited to one per verb root. In addition, although Bantu languages typically allow more than one extension in sequence, many of the Bantoid languages allow only one extension per verb root.

(ii) The forms or functions of the extensions may not correspond to those in Narrow Bantu, as I have already noted concerning the diminutive extension.

(iii) The forms may be polysemous, the semantics difficult to characterize, and the functions contradictory. I will give several examples of this below.

(iv) The roots of "formally" extended verbs often do not occur unextended. While this is sometimes the case even with productive extensions in CB, the problem is exacerbated in Bantoid, where the extensions are less productive (and their function harder to characterize).

(v) Such "formal extensions" pose problems of segmentation. It is often hard, if not impossible to tell if a *CVte* verb stem should be segmented as *CV-te* or *CVt-e*.

(vi) There is considerable, rather impressive variation vs. the relative stability of CB extensions.

These problems will become further evident from the data presented in the following section.

3 Survey of Bantoid verb extensions with focus on Grassfields

As a result of all of the above, Blench (2011: 1) quite accurately appraises our current understanding: "In contrast to Bantu, verbal extensions in Bantoid languages remain very poorly known." For the purpose of attempting a reconstruction, I therefore had to first conduct a reasonably comprehensive survey of Bantoid verb extensions based on available literature. I present the forms that were found in the following composite table—which should be considered a "first pass", with some amalgamations (Table 5).

Table 5: Survey of Bantoid verb extensions

		PLUR	DIM	INTENS	CAUS	APPL	REC	ASSOC	SEP	INTR	PASS	STAT
Kenyang	Btd	*ti, ka*		*ka*	*si, ti*							*ε*
Mbe	Btd							*li,ri*	*li*			
Tikar	Btd	*k/ga'*			*si, li*				*li*			
Vute	Btd				*tɨ, hɨ, lɨ*	*na*	*an*		*lɨ*			
Kemezung	Btd				*sə*		*nə*					
Noni	Btd	*yε kεn*	*cε*		*se, ke*		*εn, nεn, sεn, yεn*		*tEn*			*m*
Babanki	Ring	*tə, kə, lə, m´*	*tə, nə*		*sə*			*(nə)*		*(mə)*		
Kom	Ring	*tə, lə, nə*	*tə, lə*		*sə*		*nə*					
Lamnso'[a]	Ring	*kir, ti(n), ri*	*ti*	*si(n), ti(n)*	*si, ir*		*nen*			*in*		*(im)*
Babungo	Ring				*sə, (tə)*		*nə*		*nə*	*nə*		
Isu	Ring	*i, lə*		*i, lə*	*i*							
Meta	Mo	*ri, ni*	*ri, ni*		*ri, ni*	*ri*	*ri, ni*	*ri*	*ri*			
Mundani	Mo	*t*	*t*							*t*		
Baba I	Nun	*tə*										
Limbum	NE	*ni, shi, se, te, nger*	*ri*		*si*		*ni*		*ni*	*ti, té*		

PLUR = pluractional (multiplicity), iterative, repetitive, frequentative; Dim = diminutive, attenuative; Intens = intensive, quantity, effort, completely; Caus = causative, transitive; Appl = applicative, benefactive; Assoc = associative (together) with, manner or instrumental, simultaneity; Sep = separative, ablative, reversive, bifurcative; Intr = detransitivizing, spontaneous ('by itself'), Pass = Passive; Stat = stative, positional. Btd = Bantoid, Mo = Momo, NE = NE Grassfields, Ng = Ngemba (EGB), Bk = Bamileke (EGB), Ada = Adamawa.

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[a]For a slightly different, fuller identification of the Lamnso' verb extensions along with examples, see Blench (2016).

		PLUR	DIM	INTENS	CAUS	APPL	REC	ASSOC	SEP	INTR	PASS	STAT
Yamba	NE				sə							
Bafut	Ng	tə, kə	tə	kə	sə		nə	nə		nə, kə		
Mankon	Ng	kə	tə		sə		nə			kə		nə
Ngombale	Bk	té										e
Ngwe	Bk	te					(ŋe)					
Yemba	Bk	ti			ni		ni			ti		ni
Ngiemboon	Bk	tɛ					tɛ					e?
Bangwa	Bk	sə										
Shingu	Bk	sə			ni		ni			ti		ni
Balong	A10				il	il				il		
Mokpe	A20				isɛ	ea, ɛlɛ	anɛ	ana	oa		avE	ama
Bakoko	A40					le	lán	lán			bE$, lE$	
Basaa[a]	A40				¨s, ¨ha	¨l, nɛ	na				¨(b)a	í
Tunen	A40		Vl	In, on	i, si	In	Inan		Un			Im
Nomaante	A40		It, ItIt	ak	i, si	In	an		Vl			Im
Bafia	A50	tɨ, kə		tɨ	sɨ		Cɛn					ɨ, ɛn
Gunu	A60	an	Id	Ig	i	In	Inan		Ug		VlU	Im
Tuki	A60				iy	en	an				érí	
	A70			lá	(l)a		(a)ni				ba	
	A80				gù		àlà	na, ElE			a	
	A80			ug, ula	al		la, ya				ow	ya
	A80				ɔzɔ̀	éà	ɔ̀là		bà?		ówà	
Mpompon	A80				sɛ̀l		là				ì...yâ	
Kako	A90				s, iɗy		in			in		

[a]The umlaut in the Basaa extensions indicate that the given suffix causes vowel height to rise.

From the above we can make the following observations:

(i) Verb extensions are most widespread in a contiguous area including Limbum (EGB), Noni (Beboid), Central Ring (WGB), and Ngemba (EGB), indicated by the ellipse I have drawn over the following map.

(ii) Areas outside the oval area on the map have undergone considerable reduction in their extensions, sometimes dramatically. Ejagham, for example, only has a stative suffix *-am* and a few frozen relics of causative *-i,* e.g. Western Ejagham *-ríg* 'to be burn', *-ríg-i* 'to burn something' (Watters 1981: 444, fn. 1).

(iii) Related Grassfields languages outside the oval have fewer extensions, e.g. Western Ring (Kiessling 2004), Momo, and Bamileke—often few forms with considerable polysemy and unpredictability.

One language which shows a wide range of verb extensions is Babanki (Kejom). Out of 434 verbs, 324 from Jisa (1977) and 122 from Akumbu (2008), I have counted the following number of entries for each of six extensions, whose meanings are also identified (Table 6).

Table 6: Babanki (Kejom) verb extension

	-tə	*-sə*	*-mə*	*-lə*	*-kə*	*-nə*
Total number	203	142	56	37	33	19
independent root	150	100	30	22	24	8
"formal"	53	42	26	15	9	11
Primary meaning	attenuative 'a little'	causative 'cause to V'	associative 'with, together'	augmentative 'a lot'	repetitive 'time and again'	(varies)

I have also separately indicated those entries for which an independent root exists vs. those which are "formal" extensions without a corresponding independent root. As seen, attenuative *-tə* is the most attested, followed by causative *-sə*.[7] Bila (1986: 39-44) identifies the following extensions in Bafut (EGB) which occur with independent roots, often with different, overlapping meanings (Table 7).[8]

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[7] *-tə* has another common meaning: iterative 'one after another'.

[8] Bila uses the term "spontaneous" to refer to what I have identified as "middle" (voice), which he says "indicates that the action suggested by the verb is capable of going on without the assistance of an external agentive force." (p.42)
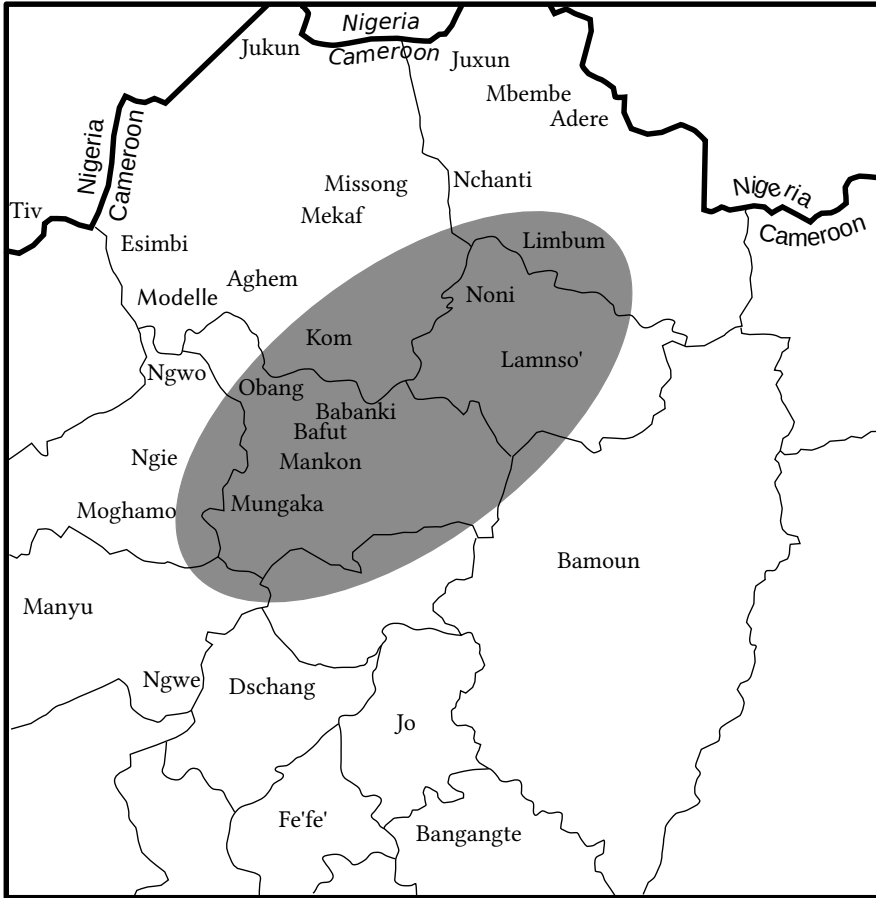
Figure 1: Map adapted from Jean-Marie Hombert from Hyman (1979: xii)

Table 7: Bafut verb extensions

-kə	*-tə*	*-nə*	*-sə*	*-lə*
388	338	171	117	112
distributive (320)	diminutive (314)	reciprocal (52)	causative	randomness (66)
repetitive (28)	repetitive (16)	simultaneous (72)		roughness (22)
middle (16)	distributive (8)	middle (47)		on several parts (7)
quantitative (20)				

Another extension that Bila mentions is perfective *-mə*, which being inflectional can occur on all 600 verbs in his corpus. Even ignoring this suffix, the comparison between Bafut and Babanki in Table 8 shows that the lexical frequency of the extensions can vary considerably in different languages.

Table 8: Lexical frequency of extensions in Bafut and Babanki

Bafut	n=600	*mə*	>	*kə*	>	*tə*	>	*nə*	>	*sə*	>	*lə*
		(600)		(388)		(338)		(171)		(117)		(112)
Babanki	n=434	*tə*	>	*sə*	>	*mə*	>	*lə*	>	*kə*	>	*nə*
		(203)		(142)		(56)		(37)		(33)		(19)

Returning to Babanki, the examples in (4a) are representative of the 80+ verbs found to have a very clear causative meaning:

(4) a. *vì* 'come' *vì-sə̀* 'bring near

   fə́n 'be black' *fə́n-sə́* 'make black'

   dhú 'go' *dhú-sə́* 'carry away'

   zhɨ́ 'eat' *zhɨ́-sə́* 'feed'

   búŋ 'melt' *búŋ-sə́* 'cause to melt'

   lyɔ́m 'hurt self' *lyɔ́m-sə́* 'hurt s.o.'

  b. *vì* 'come' *vì-nə̀* 'come with'

   tsí 'spend night' *tsí-nə́* '… with a woman'

  c. *cò* 'pass' *cò-mə̀* 'meet and pass'

   kwὲʔὲ 'think' *kwὲʔ-mə̀* 'think together'

   gὲ 'share' *gὲ-mə̀* 'share equally'

   táŋ 'count' *táŋ-mə́* 'quarrel'

   shɨ̀ʔ 'measure' *shɨ̀ʔ-mə̀* 'compare measures'

From (4a) there is no question, then, that Babanki *-sə* is related to PB *-*ɪc-i-*. Of the 19 verb roots which take *-nə* only the two examples in (4b) show a clear comitative meaning, suggesting cognacy with PB *-*an-*. Finally, (4c) illustrates the

'associative' meaning of *-mə*, which may ultimately be related to PB positional *-am-*, which has a passive function in zone C (cf. the stative function of Gunu *-Im-* in Table 4).

While the above and other specific meanings can be identified for individual extensions, any of the six suffixes can be used with varying pluractional meanings:

(5)   a.   *-tə* (23)

         bɛ́n 'dance'   *bɛ́n-tə́* 'dance time and again'

         bɔ́ŋ 'pick up'   *bɔ́ŋ-tə́* 'pick up many things one by one'

         bwìɛ̀ʔɛ̀ 'carry'   *bwìɛ̀ʔ-tə̀* 'carry (lots of people, lots of things)'

         cɔ́ʔ 'borrow, lend'   *cɔ́ʔtə́* 'lend continuously to lots of people, borrow from lots of sources'

         gè 'share'   *gè-tə̀* 'share one by one'

         shù 'stab'   *shù-tə̀* 'stab lots of things one by one or one thing many times'

     b.   *-lə* (12)

         zhwí 'kill'   *zhwí-lə́* 'kill one after the other, lots of people'

         mì 'swallow'   *mì-lə̀* 'swallow fast, gulping, too much in mouth'

         té 'abuse'   *té-lə́* 'abuse lots of people or abuse one person with lots of abuse'

         bwìʔì 'hit'   *bwìʔ-lə̀* 'give blows a lot'

     c.   *-kə* (7)

         dì 'cry'   *dì-kə̀* 'cry time and again'

         fʌ́ŋ 'fall'   *fʌ́ŋ-kə́* 'fall time and again'

         pfɨ́ 'die'   *pfɨ́-kə́* 'die one after the other'

         tsɔ́ʔɔ́ 'jump'   *tsɔ́ʔ-kə́* 'jump time and again'

     d.   *-mə* (4)

         lám 'marry'   *lám-mə́* 'marry a lot'

         shwíé 'sink'   *shwíé-mə́* 'sink & surface and sink & surface'

         tsɔ́ʔɔ́ 'jump'   *tsɔ́ʔ-mə́* 'jump time and again'

   e. *-sə* (2)

      bvù 'grind'   *bvù-sə̀* 'grind & mix lots of things'

      gè 'divide, share'   *gè-sə̀* 'separate into more parts'

   f. *-nə*

      lém 'bite'   *lém-nə́* 'bite and leave and bite another spot'
                                        (= the only example)

Several verbs have two or three different pluractional forms:

(6)   a. *tsɔ́ʔɔ́* 'jump'   *tsɔ́ʔ-mə́* 'jump one after the other'

                         tsɔ́ʔ-kə́ 'jump time and again'

                         tsɔ́ʔ-lə́ 'jump across things'

     cf.   *tsɔ́ʔ-tə́* 'jump gently' (= attenuative—see below)

    b. *dì* 'cry, cackle'   *dì-mə̀* 'lots of children crying'

                         dì-kə̀ 'cry time and again'

                         dì-lə̀ 'lots of chickens cackling'

    c. *zhwí* 'kill'   *zhwí-tə́* 'kill one by one, bit by bit'

                         zhwí-lə́ 'kill lots of people, one after the other'

    d. *sù* 'stab'   *sù-tə̀* 'stab lots of things one by one, or one thing many times'

                         sù-lə̀ 'stab with lots of things at one time'

For an understanding of the possible meanings, compare Wood's (2007) distinction between "event-internal" vs. "event-external" pluractionality, e.g. in Yurok:

> …the Repetitive (event-internal) prefix refers to repetitions which are closely-spaced in time on a single occasion, which may indicate plurality of a transitive object or an intransitive subject… and which commonly have an implied completion or result. The Iterative (event-external) pluractional, in contrast, can refer to repetition on one or more occasions, including habitual repetition, and can indicate distributive plurality of any argument. An interesting

additional property of the Iterative is that it has an apparent intensification meaning in certain cases. I have suggested that such uses be analysed as instances in which a standard of comparison or lower bound of a gradable predicate is pluralised by the pluraction, rather than an event argument. (Wood 2007: 255)

In Babanki also there is thus a relatedness and potential overlap of the different notions of pluractionality (many participants, many actions, over and over, one after the other, bit by bit, etc.). These meanings spill over into others. Pluractionality may straightforwardly lead to augmentative or intensive interpretations, e.g. with *-lə*:

(7)   a. *sáʔá* 'spring forward'   *sáʔ-lɔ́* 'spring, jump for joy'

  b. *sù* 'stab'   *sù-lɔ̀* 'stab with lots of things at one time'

  c. *fósé* 'force'   *fó-lɔ́* 'be too tight (space), crowded, congested'

  d. *gàʔà* 'speak'   *gàʔ-lɔ̀* 'talk as if crazy'

  e. *mì* 'swallow'   *mì-lɔ̀* 'swallow fast, gulping, too much in mouth'

There also is a potential relatedness between pluractionality and attenuation ("diminutivizing"), e.g. with *-tə*:[9]

(8)   a. *cíʔ* 'close, shut'   *cíʔ-tɔ́* 'shut, close lots of things one after the other or a bit'

  b. *ló* 'lick'   *ló-tɔ́* 'lick time and again or little by little, slowly'

  c. *tyɛ́f* 'advise'   *tyɛ́f-tɔ́* 'advise one by one or a little'

  d. *shừ* 'wash'   *shừ-tɔ̀* 'wash lots of things or a little, part(s) of body'

  e. *kwíʔ* 'tie'   *kwíʔ-tɔ́* 'tie in different bundles or gently'

  f. *nyừ* 'drink'   *nyừ-tɔ́* 'drink bit by bit or a little bit'

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[9]Some of these meanings are reminiscent of Bantu frequentative/distributive verb stem reduplication which typically has the meaning 'do something a little here and there'.

g. *ghɔ́ʔ* 'become fat'   *ghɔ́ʔ-tɔ́* 'get fat little by little'

h. *fwìè* 'rot (intr.)'   *fwìè-tɔ̀* 'rot in bits' *vs.* fwìè-kè 'rot time and again'

Such semantic relatedness may lead to massive conflation/merger, as in Meta (in the Momo subgroup), which has two different extensions, /-dɨ/ (→ -rɨ) and /-nɨ/. The following examples drawn from the 262 verbs from Ngum (2004) show the realizations of the two extensions (attenuatives are given where possible):

(9)   a.   *kwí* 'grow'   *kwí-rɨ* 'grow a bit'

       sob 'cut'   *sob-rɨ* 'cut small'

       mèd 'swallow'   *me-rɨ* 'swallow in small quantities' (d → Ø / __r)

       mìg 'measure'   *mìg-rɨ* 'measure with, comparatively'

       kɔʔ 'climb'   *kɔʔ-rɨ* 'climb a bit'

       b.   *nyɔ̀m* 'push down'   *nyɔ̀m-bɨ* 'press down gently' (d → b / m __)

       tàn 'delay'   *tàn-dɨ* 'delay a bit'

       fàŋ 'be fat'   *fàŋ-gɨ* 'be a bit fat' (d → g / ŋ __)

       c.   *cɔ̀b* 'pinch'   *cɔ̀p-ɨ* 'pinch a bit'

       ghàd 'pour'   *ghàt-ɨ* 'pour a bit'

       jɨ́g 'eat'   *jɨ́k-ɨ* 'eat a bit'

       d.   *wà* 'be rough'   *wàà-nɨ* 'be a bit rough'

       cɔʔ 'borrow'   *cɔʔ-nɨ* 'borrow from'

       wèm 'tie'   *wèm-nɨ* 'tie loosely'

       bin 'dance'   *bi-nɨ* 'dance a bit' (n → Ø / __ n)

       màŋ 'seize'   *màŋ-nɨ* 'seize several objects'

From the above examples it appears that there are two different attenuative extensions, each with two allomorphs whose distribution can be predicted. This is confirmed in the following distributions of Meta extensions, where T = a voiceless stop, D = a voiced stop or glottal stop, and N = a nasal consonant).

Table 9: Distribution of Meta extensions and their functions based on Ngum (2004)

	CV(D)-*rɨ*	CVN-*Dɨ*	CVT-*ɨ*	CV(N)-*nɨ*	totals
attenuative	12	10	6	3	31
repetitive/completely	10	10	6	1	27
random/roughly	0	1	0	5	6
reciprocal/reflexive	5	2	2	4	13
associative	6	2	1	2	11
instrumental	2	3	1	1	7
ablative/separative	4	5	1	1	11
causative	4	6	1	7	18
applicative ('to, for')	4	1	1	0	6
totals	47	40	19	24	

The first two columns show that -*rɨ* appears after CV and /CVD/ roots, while -*Dɨ* appears after /CVN/ roots. We can assume underlying /-*rɨ*/ with a rule that converts the /r/ into a homorganic voiced stop after a nasal. The third and fourth columns show that -*ɨ* appears after /CVD/ roots (whose D becomes devoiced), while -*nɨ* appears after /CV/ and /CVN/ roots. Assuming /-*nɨ*/, we would have to say that /b, d, g/ → p, t, k and the nasal drops out. (Perhaps the language once had geminate stops which devoiced and then degeminated.) In any case this odd allomorphy likely results from an earlier stage where there were more extensions, e.g. *-*tɨ*, **-*dɨ*, **-*nɨ*, **-*sɨ* etc., as in Babanki and Bafut.

4 Significance of Grassfields extensions for Bantoid and Bantu

At this point I would like to raise two questions. First, what does the above mean for Proto-Bantoid? In response I would venture the following: (i) Given the rather large set of suffixes in Limbum, Ring, and Ngemba, it is likely that we can reconstruct at least six extensions at the Proto-Grassfields level, e.g. *-*s*, **-*t*, **-*n*, **-*l*, **-*k*, and **-*m*. (ii) Noni and Vute suggest that most or all of these existed at an earlier Bantoid stage as well. (iii) The functions that clearly can be reconstructed are *-*s* 'causative' and *-*n* 'reciprocal/associative'. (iv) Pluractional meanings are extremely widespread, hence tempting to reconstruct, but they have clearly spread areally throughout the Nigeria-Cameroon area, including Chadic (Newman 1990).

(v) The attenuative/diminutive function is quite widespread, even spilling over into A40 and A60!

The second question is: What is the relation of these reconstructions to PB? It is tempting to reconstruct parallel functions and forms of each of the PB extensions in (3) above. However, I have been able to document the applicative only in two languages (Meta and Vute). In Meta I have found only six examples of *-rɨ* having various applicative-like functions (recipient, circumstance, directional):

(10)   *ghàb* 'share'   *ghàb-rɨ* 'share to'

       wí 'refund'   *wíí-rɨ* 'reply, refund to'

       cob 'donate'   *cob-rɨ* 'donate for'

       wub 'crave'   *wub-rɨ* 'crave for'

       sòm 'cut'   *sòm-bɨ* 'cut into'

       dìì 'pity'   *dìì-rɨ* 'pity for'

Since *-rɨ* has other functions, it is not clear if this suffix is cognate with PB applicative **-ɪd-*. The situation is much less ambiguous in Vute, where applicative *-nà* is innovative:

> *-nà* is added to a verb to indicate that there is an indirect object or benefactive NP present in the clause. Its function is similar to a Bantu applicative extension in this way. *-nà* is derived from the verb *nà-nɨ* 'to give'. (Thwing 2006: 8)

5 The shift from valence to aspectual extensions

It cannot have escaped notice that most of the extensions which have (possibly lexicalized) aspectual meanings such as pluractional, attenuative/diminutive etc., resemble the valence extensions of Bantu (and other Niger-Congo). Thus consider the following examples from Bangwa (Bamileke) which show that the repetitive suffix *-sɨ*, clearly cognate with the causative extension found throughout Bantu, marks "une action ou une situation qui se répète plusieurs fois" in this language (Nguendjio 1989: 243):

(11)   *ghɛ̀* 'partager'   →   *ghɛ̀-sə̀* 'partager plusieurs fois'
       sò 'laver'   →   *sò-sə̀* 'laver plusieurs fois'
       cí- 'casser'   →   *cí-sə́* 'casser plusieurs fois'

>   *fák* 'tourner'   → *fák-sɔ́* 'tourner plusieurs fois'
>   *yàʔ* 'couper'   → *yàʔ-sɔ̀* 'couper plusieurs fois'

The same could be seen from *-sə* in closely related Shingu (Ndawouo 1990: 88) and *-si* in Fe'fe' (Ngangoum 1970) and the phenomenon extends into Bantu and other Benue-Congo languages in Nigeria. As Gerhardt (1988: 5) puts it, "What is remarkable about these [verb extensions in Jarawan Bantu] is that those with syntactic functions have been lost, while aspect-like VEs are still present." I would differ only in not assuming that the current meanings are proto. Instead, I would like to propose that valence extensions, i.e. those that have to do with argument structure, generally become pluractional, attenuative etc. by a three-stage process:

(12)   *Stage I*   *Stage II*   *Stage III*
         valence ⊃ aspect   >   aspect ⊃ valence   >   aspect

First, valence marking affixes start to acquire aspectual meanings, which have spread areally. Then the aspectual meanings become primary, with gradually lexicalized, residual valence functions. The final stage is for the extensions to have only an aspectual function. According to this model, PB is at stage I, zone A Bantu is somewhere between stage I and stage II, and Bantoid is somewhere between stage II and stage III.

The evidence for such a valence > aspect realignment is considerable. First, there is the phonetic similarity already alluded to. Second, aspectual extensions may correlate with valence: In Bafut the iterative/repetitive extension *-kə* is used with intransitives, while the "contextual variant" *-tə* is used with transitives (Tamanji & Mba 2003: 22; Bila 1986: 99). This is strikingly reminiscent of the PB reversive ("separative") suffixes **-ʊk-* (intr.) vs. **-ʊd-* (tr.). Other forms also suggest that transitivizing extensions tend to be coronal, while detransitivizing ones tend to be velar (cf. PB applicative **-ɪd-* vs. stative **-ɪk-*). Finally, there are natural semantic pathways for these developments, e.g. causative > intentional/intensive (Kiessling 2004).

The final question is: Why does this happen? The reason can be seen in the fact that the change of valence to aspect suffixes correlates with phonological, morphological and syntactic changes within Bantoid. In Table 10 I contrast the situation in Canonical Bantu vs. Bantoid.

If we assume that Proto-Bantoid was also head-marking in the sense of Nichols (1986), where valence operations are indicated by verb suffixes, the driving force behind the change likely was phonological: While CB languages have no upper

Table 10: Canonical Bantu contrasted with Bantoid

	Canonical Bantu	Bantoid
phonology	minimum word = 2 syllables	maximum stem = 2 or 3 syllables
morphology	highly synthetic, agglutinative	less so, gradual move towards analyticity
unmarked objects	multiple	one per verb
marked objects	head marking on verb	prepositions, serial verbs

limit on word size (in fact, many require words to have at least two syllables), many NW Bantu and Bantoid languages place an upper limit on the number of syllables that a word (and especially a verb stem) can have. By so doing, this limits the availability of suffixes, since a verb that already has exhausted, say, a three-syllable maximum size will not be able to take a causative or applicative extension. Instead, some other, specifically analytical marking will be required: a periphrastic causative ('make that S'), prepositions 'for' and 'with'. and so forth. The newly introduced mechanisms then come to be the preferred structures. We already see some of this happening in languages that still have some valence-related extensions, e.g. a causative. While the causative can also be added to transitive and ditransitive verbs in Canonical Bantu, what happens in many Bantoid languages is that *s is mostly restricted to intransitive verbs. That is, while it can make an intransitive transitive, it cannot make a transitive verb ditransitive. Those relatively few transitive verbs that can take a causative extension restructure their arguments, as in the following Babungo (Ring) and Bafut (Ngemba) examples.

(13) a. Babungo
          ŋwá fèe zɔ̀   'he was afraid of (i.e. feared) a snake' (Schaub 1985: 211)

          mə̀ fè-sə̀ ŋwá (nə̀ zɔ̀)   'I frightened him (with a snake)'

      b. Bafut
          má shwìʔì ŋki   'I am pouring water'

          má shwìʔì-sə̀ ŋkì   'I am making water to pour' (Bila 1986: 102)

A causativized transitive verb cannot take two objects. Thus, after pointing out that the causative adds a valence to intransitive verbs, Bila (1986: 102) notes: "This suffix however does not add to the valency of the [transitive] verb but it rather modifies the meaning of the verb by adding the causative meaning to the basic meaning of the verb."

6 Summary and conclusion

In the preceding sections we have seen the following:

(i) Proto-Bantoid definitely had multiple verb extensions, probably at least *-s, *-t, *-n, *-l, *-k, *-m.*

(ii) Languages within the "oval" on the map provided above show the greatest number of contrasts.

(iii) Bantoid languages outside the oval have simplified the situation considerably.

(iv) There is an unmistakable tendency for valence-related extensions to become aspectual.

(v) Contributing factors to the change and loss of extensions (and their ability to combine) are phonological (maximal size constraints), morphological (drift towards analyticity) and syntactic (change from head- to dependent-marking of arguments).

I conclude with some final observations and speculations:

(i) Most of the Bantoid languages restrict verbs to one extension, mostly of the shape *-CV.

(ii) -CVC shapes such as Noni *-kɛn, -nɛn, -sɛn, -yɛn* and Lamnso' *-sin, -tin, -kir* suggest that these were originally two extensions which fused.

(iii) Such a process is particularly common in Bantu when PB reciprocal *-an-* is involved (see Bostoen & Nzang-Bie 2010 for documentation in A70).

(iv) Interestingly, different shapes of *-(C)ɛn* can mark reciprocals in Noni (Hyman 1981: 39-40), suggesting *-C-ɛn-* (cf. Guarisma 2000: 62ff re *-Cɛn* in Bafia (A53)).

(v) Many Bantoid languages have productive aspectual suffixes not mentioned above, e.g. perfective *-mV*, probably related to PB **-mad* 'finish', realized with various vowels in Grassfields Bantu.

The most puzzling question to me is where diminutive/attenuative **t* is from, especially the *-It-*/*-Id-* in A40 and A60. This has no obvious source in PB or cognates in CB and can therefore be an areal innovation. The phonetic similarity to plural diminutive noun class 13 *ti-* is intriguing, as it becomes suffixal *-tí* in some WGB. About this class in the Momo languages, Stallcup (1980b: 209) notes: "19/13 was originally a diminutive gender.... This gender also contains a number of items [in Moghamo] which occur generally in profusion — 'star, fly, bird' etc." Here again we have the relation between plural and diminutive! While nominalization often results in a verb extension appearing on a noun, the reverse has not been established. Could sound symbolism be involved somehow? Cf. Basaa (A43) *títígí* 'small'.

I opened this paper by posing three questions of which I have addressed the first two:

(i) What are Bantoid verb extensions like?

(ii) What can be reconstructed at the Proto-Bantoid level?

(iii) What, if anything, do they tell us about Proto-Bantu?

The third question presents a more different problem of interpretation. As we have seen, there is a considerable number of cognate extensions between the two and, indeed, further out at least within Benue-Congo and Gur. It is thus likely that some of what has been hypothesized for Proto-Bantoid is considerably older, as Voeltz (1977) originally supposed. Unfortunately, because of the kinds of the functional changes, mergers, and losses that have occurred within Bantoid, we can only speculate as to what the system looked like at the earliest stages. The great variety of extensions that we see outside of Bantu does, however, raise the possibility that Bantu itself may have lost earlier contrasts (e.g. between different types of applicatives which merged to **-ɪd-*), not just that Proto-Bantu is conservative from the point of view of Niger-Congo.

Acknowledgement

References

Akumbu, Pius Wuchu. 2008. *Kejom (Babanki) - English lexicon (Kay Williamson Educational Foundation)*. Bamenda: Ga'a Kejom Development Committee.

Arnott, D. W. 1970. *The nominal and verbal systems of Fula*. Oxford: Clarendon Press.

Bila, Emmanuel Neba. 1986. *A semantic-syntactic study of the Bafut verb*. University of Yaounde Dissertation, Post-Graduate Diploma in Linguistics.

Blench, Roger M. 2010. *Revised subclassification of Benue-Congo languages*. Email, 13 October 2010.

Blench, Roger M. 2011. *Ngiemboon verbal extensions: A new analysis*. Ms. Kay Williamson Educational Foundation.

Blench, Roger M. 2015. *The Bantoid languages* (Oxford Handbooks Online). Oxford: Oxford University Press. http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199935345.001.0001/oxfordhb-9780199935345-e-17?rskey=MiYuUo&result=1.

Blench, Roger M. 2016. *Lamnso' verb extensions*. Cambridge. University of Cambridge Manuscript.

Bostoen, Koen & Yolande Nzang-Bie. 2010. On how "middle" plus "associative/reciprocal" became "passive" in the Bantu A70 languages. *Linguistics* 48. 1255–1307.

Connell, Bruce. 1997. *Mòkpè (Bakweri)-English dictionary/materials collected by Edwin Ardener*. Köln: Rüdiger Köppe Verlag.

Doneux, Jean L. 1975. Hypothèses pour la comparative des langues atlantiques. *Africana Linguistica* 6. 41–129.

Gerhardt, Ludwig. 1988. Note on verb extensions in Jarawan Bantu. *Journal of West African Languages* 18. 3–8.

Guarisma, Gladys. 2000. *Complexité morphologique, simplicité syntaxique: Le cas du bafia, langue bantoue périphérique* (SELAF A 50). Paris: Peeters.

Henson, Bonnie. 2001. *The -an- extension and diachronic language change in Mòkpè*. Paper presented at the Workshop on Comparative Benue-Congo, Berkeley, CA, March 26-27, 2001.

Hyman, Larry M. (ed.). 1979. *Aghem grammatical structure: With special reference to noun classes, tense-aspect and focus marking* (Southern California Occasional Papers in Linguistics 7). Los Angeles: University of Southern California Department of Linguistics. http://gsil.sc-ling.org/pubs/SCOPILS_6_7_8_9/Aghem_grammatical_structure.pdf.

Hyman, Larry M. 1981. *Noni grammatical structure: With special reference to verb morphology* (Southern California Occasional Papers in Linguistics 9). Los Angeles: University of Southern California Department of Linguistics. http://gsil.sc-ling.org/pubs/SCOPILS_6_7_8_9/Noni_grammatical_structure.pdf.

Hyman, Larry M. 2007. Niger-Congo verb extensions: Overview and discussion. In Doris L. Payne & Jaime Peña (eds.), *Selected Proceedings of the 37th Annual Conference on African Linguistic*, 149–163. Sommerville, MA: Cascadilla Proceedings Project.

Hyman, Larry M. 2014. *Nuba mountain verb extensions in African perspective.* Paper presented at the 2nd Nuba Mountain Languages Conference, Paris, August 28-30, 2014. Handout + table of Nuba Mountain extensions.

Hyman, Larry M. 2018a. More reflections on the nasal classes in Bantu. In John R. Watters (ed.), *East Benue-Congo: Nouns, pronouns, and verbs*, 223–236. Berlin: Language Science Press.   DOI:10.5281/zenodo.1314331

Hyman, Larry M. 2018b. Third person pronouns in Grassfields Bantu. In John R. Watters (ed.), *East Benue-Congo: Nouns, pronouns, and verbs*, 199–221. Berlin: Language Science Press.   DOI:10.5281/zenodo.1314329

Hyman, Larry M. & Sam A. Mchombo. 1992. Morphotactic constraints in the Chichewa verb stem. In Laura Buszard-Welcher, Lionel Wee & William Weigel (eds.), *Proceedings of the Eighteenth Meeting of the Berkeley Linguistics Society, General Session and Parassession*, 350–363. Berkeley: Berkeley Linguistics Society.

Stallcup, Kenneth L. 1980a. La géographie linguistique des Grassfields. In Larry M. Hyman & Jan Voorhoeve (eds.), *L'expansion bantoue: Actes du colloque international du CNRS, Viviers (France) 4–16 avril 1977. Volume I: Les classes nominales dans le bantou des Grassfields*, 43–57. Paris: SELAF.

Hyman, Larry M. & Jan Voorhoeve (eds.). 1980. *L'expansion bantoue: Actes du colloque international du CNRS, Viviers (France) 4–16 avril 1977. Volume I: Les classes nominales dans le bantou des Grassfields.* Paris: SELAF.

Stallcup, Kenneth L. 1980b. The Momo languages. In Larry M. Hyman & Jan Voorhoeve (eds.), *L'expansion bantoue: Actes du colloque international du CNRS, Viviers (France) 4–16 avril 1977. Volume I: Les classes nominales dans le bantou des Grassfields*, 193–224. Paris: SELAF.

Idiata, Daniel Franck & Gabriel Mba (eds.). 2003. *Studies on voice through verbal extensions in nine Bantu languages spoken in Cameroon, Gabon, DRC, and Rwanda.* Munich: Lincom.

Jisa, Harriet. 1977. *Filecards of Babanki verbs.* Those with extensions digitized by LMH in Filemaker Pro™.

Kanu, Sullay Mohamed. 2004. *Verbal morphology of Temne*. University of Tromsø MA thesis.

Kiessling, Roland. 2004. Kausation, Wille und Wiederholung in der verbalen Derivation der westlichen Ring-Sprachen (Weh, Isu). In Raimund Kastenholz & Anne Storch (eds.), *Sprache und Wissen in Afrika*, 159–181. Köln: Rüdiger Köppe Verlag.

Leroy, Jacqueline. 1982. Extensions en mankon. In Gabriel Nissim Gladys Guarisma & Jan Voorhoeve (eds.), *Le verbe bantou*, 125–138. Paris: LACITO.

Meeussen, A. E. 1967. Bantu grammatical reconstructions. *Africana Linguistica* 3. 79–121.

Miehe, Gudrun. 1991. *Die Präfixnasale im Benue-Congo und im Kwa: Versuch einer Widerlegung der Hypothese von der Nasalinnovation des Bantu*. Berlin: Reimer.

Ndawouo, Martine. 1990. *Esquisse phonologique du Shingu*. University of Yaounde Mémoire for the Maitrise en Linguistique.

Newman, Paul. 1990. *Nominal and verbal plurality in Chadic*. Dordrecht: Foris.

Ngangoum, R. P., Bernard. 1970. *Le bamileke des fe'fe': grammaire descriptive usuelle*. Saint-Léger-Vauban: Abbaye Sainte-Marie de la Pierre-Qui-Vire.

Ngantcho Lebika, Francine. 2003. *Verb morphology and the structure of Mpumpuŋ*. University of Yaounde I. MA thesis.

Ngue Um, Emmanuel. 2002. *Morphologie verbale du Mvùmbɔ*. University of Yaounde I. Mémoire de Matrise.

Nguendjio, Emile-Gille. 1989. *Morphologie nominale et verbale de la langue baŋgwa*. Université de Yaounde Thèse de Doctorat de Troisième Cycle en Linguistique.

Ngum, Comfort Che. 2004. *Verbal extensions in Meta'*. University of Yaounde I Dissertation, Maîtrise in Linguistics.

Nichols, Johanna. 1986. Head-marking and dependent-marking grammar. *Language* 62. 56–119.

Orwig, Carol. 1989. Les extensions verbales en nugunu. In Daniel Barreteau & Robert Hedinger (eds.), *Descriptions de langues camerounaises*, 283–314. Paris: ORSTOM.

Piron, Pascale. 1995. Identification lexicostatistique des groupes bantoïdes stables. *JWAL* 25. 3–30.

Schadeberg, Thilo C. 2003. Derivation. In Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, 71–89. London: Routledge.

Schaub, Willi. 1985. *Babungo* (Croom Helm Descriptive Grammars). Beckenham, England: Croom Helm.

Tamanji, Pius & Gabriel Mba. 2003. A morphological study of verbal extension in Bafut. In Daniel Franck Idiata & Gabriel Mba (eds.), 15–38.

Thwing, Rhonda Ann. 2006. *Verb extensions in Vute*. Unpublished manuscript.

Voeltz, Erhard. 1977. *Proto Niger-Congo extensions*. University of California, Los Angeles dissertation.

Watters, John R. 1981. *A phonology and morphology of Ejagham – with notes on dialect variation*. Los Angeles: University of California at Los Angeles Doctoral dissertation.

Watters, John R. 2003. Grassfields Bantu. In Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, 225–256. London: Routledge.

Watters, John R. & Jacqueline Leroy. 1989. Southern Bantoid. In John Bendor-Samuel (ed.), *The Niger-Congo languages*, 430–449. Lanham, MD: University Press of America.

Williamson, Kay. 1993. The noun prefixes of Benue-Congo. *Journal of African Languages & Linguistics* 14. 29–45.

Wilson, W. A. A. 1961. *An outline of the Temne language*. London: School of Oriental & African Studies.

Wood, Esther Jane. 2007. *The semantic typology of pluractionality*. University of California, Berkeley dissertation. http://linguistics.berkeley.edu/~survey/resources/dissertations/wood-2007.pdf.