BANTU 5

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ABSTRACTS

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WS1

Jeff Good & Jesse Lovegren

Remarks on the nasal classes in Mungbam and Naki

Mungbam and Naki are two non-Grassfields Bantoid languages spoken along the northwest frontier of the Grassfields area to the north of the Ring languages. Until recently, they were poorly described, but new data reveals them to show significant nasal noun class patterns, some of which do not appear to have been previously noted for Bantoid. The key patterns are:

1. Like many other languages of their region (see Good et al. 2011), they make productive use of a mysterious diminutive plural prefix with a form like *mu-*, with associated concords in *m*, here referred to as Class 18a (see Hyman 1980:187).
2. The five dialects of Mungbam show a level of variation in their nasal classes that one might normally expect of distinct languages.
    a. Two dialects show no evidence for nasals in Class 6. Two other dialects, Munken and Ngun, show a Class 6 prefix on nouns of form *a-* but nasal concords. In Munken Class 6, this nasal is *n*, clearly distinct from an *m* associated with 6a; in Ngun, both 6 and 6a are associated with *m* concords. The Abar dialect shows a different pattern, with Class 6 nasal concords in *m* and nasal prefixes on some Class 6 nouns.
    b. The Abar, Biya, and Ngun dialects show a Class 18a prefix with form *mN-*, rather than the more regionally common *mu-*. This reduction is presumably connected to perseveratory nasalization attested throughout the languages of the region with a diachronic pathway along the lines of *mu-* > *mũ-* > *mN-* perhaps providing a partial example for the development of Bantu Class 9/10.
3. Naki shows nasals in Classes 6a, 18a, and an apparent Class 6, which has plural semantics and pairs with plurals of words that can be associated with Classes 3 and 5. Class 6 is formally coded by either no nominal class marker or an *-ŋ* suffix (not obviously archaic or innovative) on stems ending in a vowel and has concord forms in *n*, while Classes 6a and 18a show *m*. The nasal classes are all unified, however, in showing back vowels in concord forms rather than front vowels, e.g., pronominals *nú* (Class 6) and *mú* (Class 18a) against *wí* (Class 3) and *fí* (Class 19).

Taken together, these facts, if anything, make coming to a historical understanding of the nasal classes in Bantoid even more difficult than previously thought (Hyman 1980). For instance, the fact that some Mungbam dialects show nasal concords, but non-nasal noun prefixes, runs counter to a more general pattern where mismatches involve non-nasal noun concords associated with nasal prefixes (Hyman 1980:193). Perhaps more striking is the presence of nasal Class 6 in Munken and Naki associated with *n* concords that are distinct from Class 6a concords in *m*, suggesting that the development of nasal Class 6 need not always be directly connected to a merger with Class 6a.

More generally, the data from Mungbam suggests that the Greenberg-Crabb criterion may have been based on a false historical assumption that the development of nasal classes should somehow be construed as a rare historical event. The Mungbam dialects are probably not more than two hundred years old, but, nevertheless show striking differences in the presence of nasal classes, with recent language contact being the most plausible route through which this differentiation developed (Di Carlo 2011). If contact could cause such differentiation in Mungbam *dialects*, there would seem to be little reason to believe it could not have resulted in similar effects numerous times in different languages as well.

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Les classes nominales à nasales en proto-bantu dans le contexte de Niger-Congo

Ce problème est formulé en détail dans l'appelle à communications et, précédemment, dans l'article largement connu de Larry Hyman (1980) qui écrit :

> The major questions are, I believe, the following: (a) Where does the m- in classes 1, 3 and 4 come from? (It can be safely assumed that the m- of class 6(a) is from 6a *ma-.) (b) Where does the N- in classes 9 and 10 come from? (c) Is there a relationship between (1) and (2)? (d) Why are nasal reflexes more prevalent in some class concords than in others? (e) Given the complications in Tuki, Tunen, Kenyang, Ekoid etc., what did the Proto Wide Bantu noun class system look like?

Dans cette communication, j'analyse quelques données (principalement des données des langues atlantiques nord et sud) qui peuvent présenter un intérêt pour traiter les questions posées.

Inventaire des classes nominales à nasales

Il semble admis par la majorité des chercheurs que la classe ***ma-*** (6A), qui regroupe les noms de masses et de liquides sans corrélation de nombre et des noms à sémantique duelle peut être reconstruite en proto-Niger-Congo (*main, jambe*, probablement *oreille*, *genou* ainsi que *lune*, le trait duel étant lié dans ce dernier cas à la structure à deux phases du calendrier lunaire). Ainsi, nous aborderons la question de la nasalisation des marqueurs de classes dans les classes nominales proto-bantu 1, 3, 4, 9, 10 (excepté les sous-systèmes de classes locatives).

Un des nos objectifs est, sur la base de données externes au bantu, de tenter d'élargir le groupe des classes à nasales à deux classes supplémentaires, en considérant deux autres classes possibles à un stade proto-bantu précoce.

Premièrement, la classe potentielle N (2A) du pluriel de certains termes de parenté : la langue sud-atlantique sherbro présente une opposition (qui est loin d'être unique dans des langues Niger-Congo) avec, en face de la classe plurielle standard des humains *ba-/*be-/*a- (2), une classe de pluriel N- (groupes d'humains, collectifs) incluant notamment certains termes de parenté au pluriel.

Deuxièmement, il s'agit de la classe ***mu-.*** L. Hyman fournit du matériau bantu susceptible de permettre sa reconstruction, l'appelle conventionnellement classe «18», et la définit comme une classe pl. correspondant à la classe sg. des diminutifs 19 :

> The hypothesis in (b) that only non-nasal classes existed in PB is the generally accepted one. Class 6a is the exception, since this liquid/mass class definitely had the shape *ma-. We do not know at present whether to reconstruct another class *mu-, plural of class 19, and more attention will have to be paid to this class in the future.

Le matériau externe au bantu permet de considérer qu'en proto-Niger-Congo, il a peut-être existé une classe ***mu- / Nu-*** , notamment pour les désignations du feu (probablement sans corrélation de nombre), peut-être, également pour *fumée* et *moelle* : dans une série de langues Niger-Congo, où sont conservés ses reflexes, le mot signifiant *feu* est *singularia tantum*, et dans d'autres *pluralia tantum*. En proto-bantu cette classe a probablement fusionné avec la classe 3.

En ce qui concerne le couple 9/10, les données Niger-Congo confirment clairement pour la classe 10 la reconstruction ***si-**, et ce, non seulement pour l'accord, mais également comme préfixe dans le nom lui-même.

Quelques hypothèses expliquant la nasalisation des marqueurs de classe dans les noms en proto-bantu

Les hypothèses les plus plausibles ont été détaillées par L. Hyman. Nous les examinons une nouvelle fois en apportant du matériau nouveau.

1. Influence du pronom objet 3sg. ***mù** PB. D'après L.Hyman :

We might, however, consider a related attempt, which is the analogy of nasals not from a lexical item such as 'animal', but from a grammatical element. The strongest candidate for such an analogy concerns the third person singular human (object) pronoun 'him/her' which reconstructs as *mu- in PB. Although the object pronouns take a nonnasal form in classes 3, 4, 6(a), 9 and 10 in most NB languages, the class 1 object marker (OM) is mu-. (The OM's are usually prefixes appearing before the verb stem. In most Central Bantu languages they are in turn preceded by other prefixes. In the northwest area they frequently occur as the *only* verb prefixes; i.e. they occur as the initial element on the verbal form. Since there is little evidence that they were preceded by other prefixes in PB, their initial status on verbs would be parallel to the initial status of class prefixes on nouns. Analogy would therefore be possible.) Thus, if the class 1 noun prefix was *ù-, this OM mu- would have provided a V/mV alternation that could have served as the basis for analogy in this class (and in other classes by extension). First, let us firmly establish the existence of *mu- in the proto language.

Et plus loin:

"The most striking evidence that *mu- goes beyond NB comes from Fula. <…>. Arnott (1970) indicates that the concord for the human singular class varies betxeen –o, -jo and -d'o. However, the form of the human subject and object pronoun is [mo], which also appears in interrogatives. It may not be too wild to speculate that *mu was a human pronoun 'him/her' in Proto-Niger-Congo and was independent of the noun class system. It may, in addition, have been "a fourth person" form… <…> This m- would have been dropped before all prefixes except classes 1, 3, 4 and 6 (a) – and possibly 9/10, where its presence before a stem-initial consonant would be caused its development into N-. The motivation for this distribution would be that classes 1, 3, 4 and 6 (a) had vowel prefixes and the syllabified onto this vowels to produce mu-, mi- and ma. <…> …he simplest solution: an additional prefix was added to nouns with perhaps the function of definitizing them".

Tout d'abord, apportons de nouveaux éléments pour la comparaison de ce pronom PB en Niger-Congo.

Dans les langues atlantiques il est signalé non seulement en fula, mais aussi en bijogo (**mɔ-**), également dans la fonction Objet (pour les humains), en sua (**mo**) – dans la fonction de Possessif et enfin en wolof (**mu**) – dans la fonction de Sujet. Ces données sont très fragmentées pour reconstruire ***mu** ou bien ***mo** pour 3sg. spécifique dans le proto-atlantique. Cette forme est absente dans les langues sud-atlantiques. D'après la base de données des marques personnelles dans les langues d'Afrique (Segerer, 2004-2010), la forme **mo/mu** 3sg. est largement représentée dans les langues Benue-Congo mais elle est presque introuvable dans les autres branches NC à l'exception des formes isolées dans 4 langues kwa et dans une seul langue gur :

cherepon (chrepong)	Kwa	mɔ̀	3s	P
gonja	Kwa	mò	3s	TO
nchumuru-banda	Kwa	mɔ̀	3s	TO
nchumuru-bejamso-grubi	Kwa	mɔ̰̀	3s	TOP
lyele	Gur	mɔ	3s	O

Il semble que nulle part en-dehors de bantu il ne soit possible d'identifier une corrélation entre l'existence dans le système du pronom 3sg à nasale et une structure nasale ou vocalique des réflexes des classes correspondantes. C'est-à-dire que, si l'on accepte le scenario proposé, il s'agit clairement d'une innovation bantu.

2. Hyman discute comme source alternatif les lexèmes signifiant *humain* ou *animal* :

> 3.2.2. *Analogy from existing lexemes and/or grammatical morphemes.* An alternative idea one sometimes hears expressed is that some or all of the nasals may be the result of analogy on the basis of the initial nasal consonant of some existing morpheme (either lexical or grammatical) in the proto language. Such lexical items might include 'person' and 'child' from class 1 and 'animal' from class 9. Let us consider these in turn and then consider appropriate grammatical morphemes.

Et plus loin : "According to the argument, ne- would have developed into N- and then spread to other nouns (and perhaps also to 9/10 where agentives may have belonged".

Après examen des arguments pour et contre cette hypothèse, Hyman conclut qu'elle est « difficult to support with confidence » et « seems implausible ».

Nous pensons toutefois que les arguments en faveur de cette hypothèse ne sont pas épuisés.

Premièrement, notons que dans les langues sud-atlantiques, il semble que nous ayons affaire à un cas rare où un lexème signifiant *humain* est grammaticalisé et intégré dans un système des classes à modèle d'accord spécifique. De plus, la nouvelle classe singulier pour les humains comprend bien une consonne nasale. Dans le groupe sud des langues mel (kisi, sherbro), la forme *nɔ* 'personne' est peut-être empruntée aux langues mandé sud-ouest (*nu*). C'est justement en kisi et en sherbro qu'est apparue la nouvelle classe **nɔ** pour le singulier des humains, classe qui a progressivement remplacé dans cette fonction la proto-classe ***o**.

On découvre un autre exemple intéressant en laal (une branche isolée de NC ?) dans laquelle, tout comme dans les langues sud-atlantiques, on relève le lexème **no** «homme, être humain». Pour cette langue, Pascal Boyeldieu (1982) mentionne une série d'oppositions de nombre qu'il analyse comme supplétives :

Sg.	**Pl.**	
nam / nɨm	wum	frère / soeur
namy-/nɨmy	wumañ	oncle maternel, neveu / nièce
nar / nɨr	yigər	fils / fille
na:ra	wura	homme (vir)
nɨɨnɨ	yɨnan	femme, épouse
no	muaŋ	personne
nuruŋ	mari	jeune fille

Pourtant, la segmentation morphématique de ces noms permet une autre interprétation :

Sg.	Pl.	
n-a/i-m	wu-m	frère / sœur
n-a/i-my-	*wu-my-añ	oncle maternel, neveu / nièce
n-a/i-r	yi-gə-r	fils / fille
n-a:-ra	wu-ra	homme (vir)
n-i:-ni	yi-n-an	femme, épouse
no	mu-aŋ	personne
n-u-r-uŋ	ma-ri	jeune fille

Ainsi, il est possible que dans la langue laal nous ayons affaire à une structure particulièrement intéressante, à savoir :

sg. : person + gender marker + root
pl. : class marker + root

3) Nous examinerons également une autre voie possible de nasalisation des marqueurs de classe en question dans les langues proto-bantu. Dans un certain nombre de langues atlantiques on observe l'apparition d'un morphème spécifique pour marquer les classes d'hommes et d'animaux, aussi bien au singulier qu'au pluriel. Il peut s'agir par exemple d'un ton spécifique (tout comme en proto-bantu où le ton bas des marqueurs de classes 1 et 9 peut être légitimement considéré comme une marque des classes prototypiques d'êtres vivants) ou encore d'une consonne nasale (par exemple en limba, le suffixe ***-ni** que l'on retrouve dans les noms des humains et d'animaux). On examinera entre autre l'hypothèse suivante, fondée sur une des interprétations existantes de la sémantique prototypique des classes nominales (Pozdniakov 1993). En accord avec cette interprétation, la classe 3 inclut des noms d'objets non vivants, mais « actifs », c'est-à-dire d'objets de dimension et de forme variables – tout ce qui bouge, change sa forme et ses dimension: outre les noms d'arbres généralement signalés pour cette classe, on y trouve les noms des esprits et des génies, *rivière, cheveu, cœur, queue, doigt, ombre, fumée* et une série d'autres noms porteurs du trait « actif ». Si on admet cette interprétation, il devient possible d'envisager l'hypothèse (confirmée par les données des langues atlantiques) de l'existence au stade proto-bantu précoce d'un morphème spécifique (N homorganique réalisé **m-** devant **u**, c'est-à-dire dans les classes 1, 3, 4 - et **n-** devant **i** – c'est-à-dire dans les classes 9, 10 et peut-être 2A) pratiquement dans toutes les classes à trait « actif », à l'exception de la classe 2.

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Mande evidence for nasal class prefixes

0. In modern Mande languages, no noun prefixes are observed. However, there are certain evidences in favor of the reconstruction of two nasal prefixes for Proto-Mande, *N_1- and *N_2-.

1. The evidence for *N_1-, a marker for elder kin names, is rather indirect: this prefix manifests itself mainly "negatively", through exemption of such nouns from adjoining a regular article suffix in numerous Western Mande languages: Maninka, Koranko, Susu, Soninke. Besides, in Maninka such names seem to carry a prefixed low tone which can be a trace of an archaic segmental prefix.

The nasal character of the Proto-Mande prefix can be tentatively postulated on the basis of the Southwestern Mande evidence. In three languages of this group (Mende, Loko, Bandi) elder kin names are exempt from the initial consonant alternation, otherwise quite regular phenomenon. Their initial consonant is invariably "strong" (unvoiced or voiced prensalized). With other words, a strong (unvoiced or voiced prenasalized) initial consonant appears as a result of fusion with another nasal morpheme coming back to the 3SG pronoun (easily reconstructable for the Proto-South-Western level), *$\grave{N}$. By analogy, it can be assumed that the elder kin prefix was also a homorganic nasal, *$\grave{N}$-.

2. The evidence for *N_2- is found in:

– several varieties of the Manding branch (Bamana, Mandinka, Kagoro, Wasolon, some Ivoirean dialects) and Mokole (Kakabe) have more or less numerous nouns with initial prenasalized consonants, mainly plant and animal names, insects, names for smal and/or dangerous objects, uncountable and mass nouns. The nasal element of the prenasalized consonants carries usually a low tone;

– in Southwestern Mande languages, a group of nouns is exempt from the initial consonant alternation, and their initial consonant are invariably "weak" (fricative or sonants). These nouns form semantic groups similar to those formed by the nouns with initial prenasalization in Manding; sometimes, their roots are also etymologically identical. The invariably weak initial consonants can be interpreted as an incompatibility of these nouns with the archaic article *$\grave{N}$- in the Proto-Southwestern language;

– in Susu and Soninke, this morpheme may have been reflected indirectly: there is a number of nouns whose semantics is similar to that of prenasalized Manding nouns and who are exempt from adjoining a regular article-like suffix (otherwise rather obligatory).

Both prefixes, *N_1- and *N_2-, seem to have been marked with the same low tone in the proto-language and to be in complementary distribution with an article marking all other nouns. Their interpretation as archaic noun class markers is not impossible (even if it cannot be yet regarded as sufficiently proved).

Nasal Noun Class Prefixes in Bantu: Considerations from Bantoid and Cross-River languages

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The purpose of this study is to answer the question: Is it possible that nasal noun class prefixes found in Bantu were neither inherited from Proto Niger-Congo (Miehe 1991) nor innovated within Bantu (Hyman 1980), but were instead inherited from Proto Bantoid-Cross, Proto-Bantoid, or some level within Bantoid that preceded Bantu?

To answer this question the study will first consider evidence from Bantoid languages relative to the nasal noun class prefixes, and then consider evidence from the Cross River languages. Hyman (1980) did consider evidence from some Bantoid languages outside Bantu in concluding that nasal noun prefixes were a Bantu innovation. The evidence that Hyman used will be revisited and expanded upon as much as possible.

This study will also benefit from a more elaborate understanding of Bantoid than was available thirty years ago. This understanding comes from 1) recent lexicostatistical studies regarding the internal classification of Bantoid languages (Piron 1995, 1997, and Grollemund (2012), 2) the plausible proposal that the Bantoid languages form a unit with the Cross-River languages (Williamson and Blench 2000), and 3)the implications from a study of the distribution of tense-aspect systems within Bantoid languages (Watters 2012).

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WS2

Can't express '3 days ago' anymore! Loss of P3 in Bemba

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Sharman (1956) describes Bemba as having 4 pasts and 3 future tenses as follows: P1 for an immediate past; P2 for a past of today; P3 for a recent past of within a few days ago; and P4 for a remote past. The future is almost similarly symmetrical but lacks the equivalent of P3 and instead distinguishes an F1 for immediate future, F2 for a future of today and F3 for a future after today. This paper discusses the loss of P3 within this system. The table below shows the morphological markers including conjoint and disjoint forms where relevant.

TENSE	CONJ	DISJ		CONJ/DISJ
P1	-á- -a	-áa- -a	F1	-alaa- -a
P2	-ácí- -a		F2	-lée- -a/-lee- -a
P3	-á- -ile	-álii- -a	F3	-ka- -a
P4	-a- -ile	-alí- -ile		

The Bemba tense system is currently undergoing a change that is resulting the loss of P3 which is now hardly used by speakers both in the Copperbelt and the Northern Provinces. P3 was used to refer to a past beyond today but less than a week ago i.e. a recent past beyond today. One notable fact about P3 is its similarity in morphological form with P4 with the only difference in the conjoint form being one of tone whereas the disjoint form also differs in its ending. One explanation for the loss of P3 is in this respect as the result of tonal neutralisation rendering P3 and P4 indistinct. With a high-toned verb and subject marker, for example, P3 and P4 are only distinguished by a downstep which with downdrift in P3 is further neutralised: P3: bá-á-lásh-ílé [2SM-P3-throw-P3] vs. P4: bá -á-!lásh-ílé [2SM-P4-throw-P4] for 'they threw (at)'.

Seen from the Botne (2012) cognitive perspective, the Bemba tense system can be analysed as having P1 and P2 (as well as F1 and F2) in the P-Domain with P3/P4 and F3 on different D-domains. This reasoning is motivated by the fact that P1 and P2 both refer to a past of within today, parallel with F1 and F2 referring to futures within today. The time domain of today is contrasted with time after today. For the future this coincides with one form (F3) while for the past this coincides with two forms that are minimally distinct both in terms of form and function. Thus in usage it is noted that P4 can be used for all events after today and in this sense has begun to overlap with P3 with which it is adjacent in the same domain. This then creates a parallel representation with F3 which only has one form for after today. This provides an explanation for why P3 is being lost. Furthermore the disjoint form of P3 is also being partially lost, at least its tonal aspect so that an alternative P4 (disjoint) form is now also used: -alí- -a, i.e. with an -a ending. This means that while the specific function of P3 has been lost the forms of P4 have been expanded from two to three retaining the unique ending of the lost P3. P4 is thus now expressed by -a- -ile; -alí- -ile; and -alí- -a. These changes are clearly intertwined with the now phonologized conjoint-disjoint system and this paper will demonstrate that Botne's (2012) model provides sufficient insight to capture the interaction between phonological change, paradigm uniformity and tense-aspect evolution in Bemba that explains the function merger seen between P3 and P4 with some form retention of P3. Although P1/P2 and F1/F2 reside on the same domain owing to their shared general time span (with adjacent time regions in the same domain) no merger is observed in these cases as their distribution in the model creates a parallelism between the pasts and futures.

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Ibirahim Njoya

Toward an understanding of TAM in Makaa verbal constructions

ABSTRACT

Makaa (A 83) is a Narrow Bantu language spoken in Cameroon, precisely in the upper Nyong Division of the Eastern region (Messamena, Abong-Mbang, Doume, Nguelemendouka subdivisions) and in the Center Region, in the Nyong and Mfoumou Division (Akonolinga and Endom). It counts four major dialects viz: Mbwanz, Bebend, Shikunda and Besep and it is spoken by about 110 000 people (Crystal 2010:476).

The present paper attempts an in-depth examination of TAM in Makaa verbal constructions with the aim of elucidating curiosities I came across since 2004, year I started working on the subject language.

Literature available on Makaa confined in Heath, Theresa (2003), Heath, Daniel (1991), Heath and Heath (1996, 1998, 2000); Hewson (2010) reveals that Makaa distinguishes five tenses, namely, distant past (P2) /***á*** /; recent past (P1) /***ámà/***; present (Po) /ø/; near future F1) /***é/*** and distant future (F2) /***bá***/. However, following an intuition from Ibirahim (2007) and (2009), and relying on additional data, I suggest that instead of five tenses, Makaa counts seven tenses. Three past and three future tenses nicely symmetrical in addition to a present tense. Heath's anterior aspect ***má*** is included in my list of tenses as P1. Her P1 and P2 becoming my (P2) and (P3) respectively. I propose an additional remote future (F3) /***é bá***/ **.**

Secondly, I further Teresa Heath's (2003) and Daniel Heath's (1991) analyses on Aspect and mood in Makaa. Relying on the analysis of some intriguing verbal constructions, I show that Makaa distinguishes at least seven aspects. Thus, In addition to the three-way aspectual distinction in Makaa as proposed by Heath and Heath, perfective (zero marked ø-), progressive (ŋgə̀), and habitual or iterative (dɨ̀); I propose the persistive ***ná***, the anterior ***mú,*** the inceptive ***wál/zə̀***, the completive **ʃîn**. Moreso, I show that Makaa makes use of three varieties of reduplication viz: partial reduplication, total reduplication and triplication to denote certain aspects namely: progressive and repetitive.

A study of mood in Makaa reveals that the progressive aspect and the habitual marker derive rather from the verbs ***dɨ́lá*** (to be used to) and ***ŋgə̀lá*** (to be in the process of) which context of occurrence is restricted nowadays to imperative constructions or infinitival clauses.

Temporal domains, temporal dimensionality, and narrative management in Yeyi and Nalu

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Bantu languages, and many other African languages, are characterized by the use of a specialized marker to indicate narrative sequence. Grammarians employ variant terminology that ranges from narrative, consecutive, to sequential tense to describe these verb tenses. Carlson (1992) noticed the frequent correlation of this type of narrative morphology with simultaneous adoption for 'subjunctive', 'injunctive', 'optative' etc. functions. Several attempts at explaining this have been put forward from Carlson's "reduction in finiteness" through Robert's (1992, 2010) subsumation under the concept of 'aoriste' or 'null tense' to Cover's (2010) argumentation for a modal interpretation of narrative markers in Badiaranke.

What is often not noticed is the flipside of this behavior in languages that employ this type of morphology. As an exception to this, Cover (2010:106ff) noticed that in Badiaranke, an Atlantic language of West Africa, morphology indicating perfective type semantics cannot be used in consecutive taxis. Similar phenomena were noticed in Yeyi (Bantu) and Nalu (Atlantic). In fact, relating events that are obviously in sequence with this type of morphology was perceived as incoherent. While both languages exhibit temporal encoding that seems to be much easier to deal with using Botne and Kershner's (2008) cognitive model rather than employing more traditional ways of looking at linguistic time, the fact that predicates marked by past (perfective) type morphology cannot be employed to indicate a sequence of events seems to escape ready explanation using this model.

In the case of both Nalu and Yeyi it seems that the verb tenses are adopted in a 'create and then elaborate' pattern (cf. Dinsmore 1992). A past temporal domain is first created and then 'filled in' with events. In other words, there is strong evidence that in Yeyi as well as Nalu a sequence of events is not construed as a set of clearly bounded sequential events but rather as a clearly bounded and 'dimensionalized' past temporal domain which contains events whose boundedness is left for the context to be determined.

The temporal dimensionality contained in perfective semantics as discussed by Waugh and Monville Burston (1986) can deliver a variety of textual functions indicating foregrounded, (rarely) backgrounded, and sequential events. In the case of Nalu and Yeyi it precludes consecutivity in most situations and is used in complementary distribution with narrative tenses to create narrative 'macro events' similar but not congruent to what Wolfsohn (1982) calls events. It is in this way that they provide narrative structure.

Some aspectual notions have been incorporated into Botne and Kershner's model using the concept of tenor relationships, but little is said about the structure of the temporal spaces (or domains) created in the past. This paper is an attempt at incorporating Waugh and Monville Burston's concept of temporal dimensionality into Botne and Kershner's model using examples from Yeyi and Nalu. The aim here is to make this model more adaptable for the use of analyzing both temporal referential functions as well as textual functions of tense-aspect morphology.

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Persistence and Remoteness in the Bantu tense

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Abstract

Bantu languages are well known for the robustness of their tense systems, with some languages endowed with up to ten or more tenses – each tense presumably representing a specific area on the timeline. This paper explores the manner in which Bantu tenses encode degrees of remoteness and seeks to show that certain properties associated with Bantu tenses do not directly relate to degrees of remoteness. Consider, as a starting point the expression of a past situation in Babanki. In this language there are no less than four ways of expressing the sense conveyed by the sentence in (1).

(1) Maureen closed the door

(a)	mòrín	à	yì	chí?	à-chʉ̀	à	ø-ŋgàŋ
(b)	mòrín	à	yî	chí?	à-chʉ̀	à	ø-ŋgàŋ
(c)	mòrín	à	tà	chí?	à-chʉ̀	à	ø-ŋgàŋ
(d)	mòrín	à	tâ	chí?	à-chʉ̀	à	ø-ŋgàŋ

Gloss: Maureen SM PST close c3-mouth AM c9-house

The choice between the four forms depends on (i) how far removed the event is situated from utterance time and (ii) whether at utterance time the door is (or is assumed to be) closed or is (or assumed to be) open. If the event occurred on the day of utterance then either (a) or (b) would be used. However, if the event occurred the day before utterance time then either (c) or (d) would be used. Now, if at utterance time, the door is (or is assumed to be) closed then either (a) or (c) would be used. However, if at utterance time the door is (or is assumed to be) open then either (b) or (d) would be used. Thus what look like four different tense forms only pick out two distinct temporal points, but this is coupled with assertions regarding whether or not the effects of the said events persist at the time of utterance. These differences in meaning have sometimes been mistaken to all represent different degrees of remoteness in the tense systems of Bantu languages. This paper seeks to demonstrate that the patterns observed here are widespread in Bantu: in addition to Babanki, data is drawn from Lubukusu, Limbum, ciNsenga, Chichewa, and isiXhosa. The paper also argues that there is cross-linguistic variation within Bantu with respect to (i) the precision with which temporal boundaries are marked by means of tense and (ii) the degree of flexibility in the use of the various tenses.

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WS3

Impact of Late Holocene Palaeoclimatic Changes on the Bantu Expansion: A Multidisciplinary View

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Central-African vegetation history is characterized by important changes of forest cover and composition. Global climatic changes throughout the Pleistocene and the Holocene had a major impact on flora distribution in the tropics. During cold and dry periods, such as the Pleistocene glaciations, savanna vegetation types were predominant in the Central-African landscape (Colyn *et al.* 1991; Maley 1996). Climate-induced vegetation dynamics also had an important effect on prehistoric human settlement, migration and subsistence. Central-Africa is a key region for one of the major demographic events in African prehistory (Pakendorf *et al.* 2011), i.e. the so-called 'Bantu Expansion', which started not earlier than ca. 4000-5000 BP from a homeland in the Nigerian-Cameroonian borderland (Blench 2006: 134, 136; Nurse and Philippson 2003: 164; Vansina 1995: 52).

This rapid expansion of Bantu speech communities over large parts of sub-Saharan Africa has fascinated generations of scholars from a wide variety of disciplines. Linguists, archaeologists, palynologists, molecular anthropologists and many more have debated on the driving forces behind the Bantu Expansion. Two interconnected factors that have received relatively little attention in this debate – certainly compared to agriculture and iron production – are climate change and vegetation dynamics.

As argued by Schwartz (1992, 2003), Maley (2001) and Oslisly (2001), the opening of the rain forest in the course of the first millennium BC may have given a boost to the migration of Bantu-speaking farming, pottery-making and iron-producing populations into regions that had been more difficult to access until then. The situation is probably more complex than previously thought: it is only after a first expansion of villages without much influence from ongoing palaeoclimatic changes that the climate-induced emergence of more open landscapes, i.e. forest-savanna mosaics, may have facilitated the spread of iron smelting through Central Africa (e.g. Clist 2006).

In this paper, we focus on the question whether these Late Holocene palaeoclimatic changes in western Central-Africa indeed had an impact on the Bantu Expansion, and we wish to do this from a multidisciplinary perspective. We wish to confront the results of earlier historical linguistic study on Bantu names for pioneer tree species (Bostoen *et al.* forthcoming), with evidence provided by archaeology, palynology and phytogeography.

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An abstract for WS3: New Interdisciplinary perspectives on Bantu Expansion

Cultural phylogeography of the Bantu Expansion

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There is disagreement about the routes taken by early populations speaking Bantu languages as they expanded to cover much of sub-Saharan Africa. Here I use lexical data and Bayesian phylogenetic methods to build trees showing the historical relationships between Bantu languages. We then explicitly map these trees onto geographical space in order to assess the most likely pathway of expansion and test between dispersal scenarios. The results clearly support a scenario in which groups first moved south through the rainforest from a homeland somewhere near the Nigeria-Cameroon border. Emerging the other side one branch moved south and west. Another branch moved towards the Great Lakes, eventually giving rise to the monophyletic clade of East Bantu languages that inhabit East and South-Eastern Africa. These analyses highlight the benefits that computational methods can have in making assumptions about classification schemes explicit, and providing quantitative assessments of competing ideas. I will discuss the role that these spatially-explicit phylogenies can play in testing further specific hypotheses about Bantu prehistory, as well as the general ecological processes involved in the diversification of human populations in to distinct ethnolinguistic groups.

New Bayesian Bantu phylogeny

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During the past few years, several classifications of Bantu languages have been established involving different methods and leading in part to different results. The study conducted by Bastin, Coupez and Mann (1999), based on lexicostatistics and the study of 500 languages has divided the Bantu area into four groups: Bantu Mbam-Bubi, North-Western Bantu, Bantu Central-Western and Bantu East-Southern. More recently, new sophisticated statistical methods adapted from the biological field have been used in linguistics to produce phylogenetic trees. Holden (2002), Holden and Gray (2006) and Rexová, Bastin, and Frynta (2006) have proposed classifications of Bantu languages based on phylogenetic methods (i.e. distance based methods, parsimony and Bayesian methods). However, these three classifications are all based on Bastin, Coupez and Mann's (1999) data: use of the same languages and the same cognacy judgment (based on the principle of resemblance).

The main objective of this study is to propose a new classification of Bantu languages. This work is based on the study of 200 words belonging to the basic vocabulary documented in 400 Bantu languages covering the entire Bantu-speaking area (zones A, B, C, D, E, F, G, H, J, K, L, M, N, P, R and S). In order to establish our classification, we have identified for each word the cognate sets (the cognacy judgment was made by applying the comparative method). In order to infer our tree, we have used advanced computational phylogenetic methods. We applied to our data 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 -MCMC) with a relaxed clock dating methods, which provides us with a topology and date estimates for all nodes.

The new classification will be analysed and discuss during our presentation. In addition, the results will be interpreted in relation with the Bantu migration (proposal of new migration paths).

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For WS 3

Folk taxonomic categories and noun class allocation

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The presentation discusses the categories applied in establishing folk taxonomic hierarchies in the plant kingdom and the latter's morpho-syntactic reflection in selected Bantu languages from various zones. Own research data illustrates the situation in Guthrie's G zone (e.g. Dowe, Swahili, Vidunda) as well as in zones K and R (Ndonga/Kwanyama, Kwangali, Lozi). Reference is also made to authors who contributed ethnobotanic information about categories traced in zone A, B and E. Some relevant aspects are sketched below:

From a contemporary perspective the lexical equivalent of the unique beginner 'PLANT' being the most inclusive unit in the plant kingdom exists in some Bantu languages, but it is rarely understood in this capacity. Together with other lexical items (e.g. tree, bush/shrub, grass) the term 'plant' (i.e. often meaning something which is planted) is mainly found at the life form level that is in some sample languages further specified in habitat related sub-life forms (where a monomial life form term is modified by e.g. an adnominal construction). The noun class allocation of a variety of life form terms is demonstrated with TREE being frequently identified in class 3/4. However, judging from languages like Kwangali and Vidunda, this singular/plural pairing has been replaced by alternate versions. This is also the case at the generics level which portrays, on the one hand, a noun class allocation similar to the life form term, as well as, on the other hand, much variation. In the case of TREE generics Kwangali includes class 7/8 (which has obviously become an alternative of class 3/10), 14/6, and even 1a/2a. The modifications of the noun class allocation at the life form and generics levels or the lack of the unique beginner category are important issues that need to be further studied in zones other than those covered in the presentation, as well as from a Proto-Bantu perspective.

Pither Medjo Mve

Remarques sur l'introduction du 'lexique spécialisé' dans quelques langues chasseurs-cueilleurs du domaine bantu

L'objectif de cette étude est d'examiner l'introduction du 'lexique spécialisé', dans les langues chasseurs-cueilleurs qui se situent dans la zone bantu (Afrique centrale). D'après Bahuchet (2012), aucune famille linguistique 'pygmée' n'est attestée ("No Pygmy linguistic family exists"), dans ce sens que les langues de ces derniers sont toujours reliées à d'autres langues, qui elles-mêmes sont parlées par des populations d'agriculteurs. Deux familles de langues sont concernées : la famille Niger-Congo et la famille Nilo-Saharienne. Ce scénario linguistique semble être très différent de celui des chasseurs d'Afrique orientale ou d'Afrique australe. Ainsi, des études récentes ont mis en évidence que des langues comme le hadza, le sandawe, le kwadi ou le hoan constituent des isolats linguistiques (cf. Sands & Güldemann 2008 ; Sands 2009).

La présente étude repose sur l'examen du 'lexique spécialisé' de six groupes de chasseurs-cueilleurs qui, pour la plupart, parlent des langues bantu : Koya, Bongo, Baka, Aka, Gyeli (ou Kola), Twa. Elle s'appuie sur les lexiques suivants : mammifères, oiseaux, reptiles, poissons, insectes, arbres, plantes comestibles, saisons et éléments, parenté. Les données ont été recueillies dans le cadre du projet CLHASS.

L'étude a mis en évidence la grande hétérogénéité du 'lexique spécialisé' dans les langues chasseurs-cueilleurs d'Afrique centrale. Elle montre aussi que la plupart des chasseurs-cueilleurs ont dû emprunter ces lexiques spécialisés à leurs voisins Bantu, y compris les termes de la flore et de la faune. Cependant, il n'est pas exclu que certaines langues bantu ont pu de leur côté emprunter du lexique à certains chasseurs-cueilleurs, qui eux-mêmes parlaient peut-être des langues très différentes. Par ailleurs, elle confirme le lien entre les chasseurs-cueilleurs Aka (Bantu) et Baka (Oubanguiens).

L'hétérogénéité de la nomenclature suggère néanmoins que tous ces groupes de chasseurs-cueilleurs pourraient davantage se caractériser par leur diversité plutôt que par leur unité.

Nos données linguistiques sont donc en concordance avec les données récentes obtenues aussi bien en anthropologie (Bahuchet 2012) qu'en génétique des populations (Verdu & Destro-Bisol 2012). Elles permettent de mieux cerner l'histoire du peuplement bantu.

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Oral or Poster in WorkShop 3:

Genomes of western and eastern Pygmies reveal early admixture with expanding Bantus

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Hunter-gathering Pygmies and food-producing Bantu villagers have coexisted along the central African belt for hundreds of years. Their present-day complex relationships result from long-term socio-cultural and economic exchanges. The degree at which these interactions impacted the history of admixture of each population group remains nevertheless largely unknown. To shed new light on these neglected aspects of the early African history, we genotyped one million markers in the entire genome of a large sample of 327 individuals from eight Pygmy and non-Pygmy Bantu populations of both western and eastern Africa. Population structure analyses revealed a clear isolation between Pygmies and farmers, western and eastern Pygmies, and more surprisingly, between groups of eastern Pygmies. Despite strong isolation between hunter-gatherers and farmers stemming from cultural taboos, our results clearly showed that genetic admixture has continuously occurred between the two communities. We estimated that historical gene flow started as early as 4,000 years ago, concomitant with the first Bantu expansions. Interestingly, the Pygmy populations who were first reached by expanding Bantu-speakers show today higher stature, and stronger social integration and levels of admixture with neighboring farmers, with respect to other Pygmy groups. Our study provides the first genetic evidence that farmers' expansions in Africa did not lead to the endangerment of autochthonous hunter-gatherers, but rather to the establishment of early genetic exchanges accompanying complex socio-cultural interactions.

The origin and genetic affiliation of P30 languages

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Starting from the early 80's certain considerations (mainly phonological) led various researchers to posit some sort of relationship between Makhuwa and the S30 languages of Southern Africa (Moehlig 1981; Louw & Finlayson 1991, etc.). The most forceful proposal was put forward by T. Janson (1991-92), who examines in detail the phonological correspondences between the two sets of languages (particularly the exceptional development *mb, *nd, *ŋg > p, t, k) and concludes to their genetic relationship[1].

Strangely enough, Janson does not refer to Lobedu, although some data had been published by Tucker (1932). This language is particularly interesting since it shares with S30 languages the denasalization process, but not the devoicing (*mb, *nd, *ŋg > b, ɖ, g; see also Kotzé & Zerbian (2008) on the phonological system of Lobedu).

Recent research conducted by one of us (R. Guérois) on the hitherto very poorly known Cwabo language of Mozambique has yielded a considerable amount of phonological data on the language and thus shown that beside sharing with Lobedu the denasalization-minus-devoicing evolution, it exhibits divergent reflexes of proto-Bantu items to a degree rarely encountered in other Bantu languages, apart from trade languages such as Lingala.

We will thus endeavour to set out the tabular correspondences of Cwabo with the other Bantu languages of the wider region (Guthrie's zones N, P and S) and then to propose a hypothesis about the possible presence of a "Sotho-Makhuwa" group in Southern Central Africa, its interactions with neighbouring groups and its ultimate expansion to the various locations where it is found today. The specific relationship of Cwabo with its neighbouring languages will be examined in terms of what is known of its history since the Portuguese conquest.

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[1] One could add the combination of the *-ni* locative suffix with a locative prefix (cl. 16, 17 or 18), which is unique to Makhuwa and S30 to the best of our knowledge. Cf. also *Makxoa* 'Westerners' in S30 languages.

Modelling Bantu dispersals: using spatial simulations to interpret a new radiocarbon database of early agricultural settlement in sub-Saharan Africa.

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We report a new compilation of radiocarbon dates from sites associated with the expansion of farming societies in sub-Saharan Africa. We use spatial statistics and simulation modelling to reconstruct routes and rates of spread. We derive a set of modelled population phylogenies for alternative dispersal scenarios, which can be compared to cultural and linguistic phylogenies reconstructed from other data sources. We illustrate the potential of this approach by comparing our modelled dispersal histories (estimated from radiocarbon dates) to published Bantu language phylogenies.

Tracking the Bantu migrations in time and place

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In recent work by scholars associated with the Automated Similarity Judgment Program (ASJP), methods have been developed which allow for calculating dates for proto-languages with a margin of error of some ±29% (Holman et al. 2011), as well as for generating hypotheses about homelands of proto-languages (Wichmann et al. 2010). The input for these methods are measures of lexical similarity which are calculated from 40-item word lists through a version of the Levenshtein distance

We are presently processing lexical data which will provide us with word lists of from 661of the 691 Bantoid languages listed in *Ethnologue*, to be analyzed for the presentation. Presently we have results based on 361 languages.

These preliminary data indicate a 5040 BP data for Bantoid and a 3693 BP date for Narrow Bantu. The speakers of the latter and their descendants appear to remain more-or-less in situ in the Nigeria-Cameroon border area for around a millennium after the break-up of Narrow Bantu, but then, during 2600-2000 BP, Bantu languages move rapidly and largely reach their current extent. Homelands during the period 3000-2000 BP are depicted on Fig. 1.

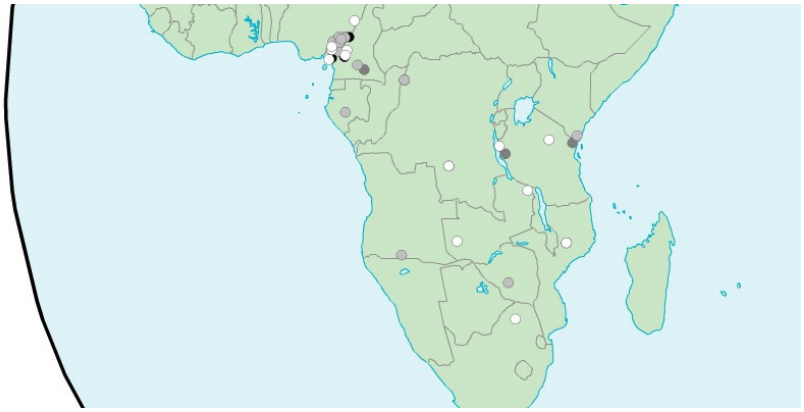

Fig. 1. Homelands of proto-languages within Bantoid during 3000-2600 BP (black), 2600-2500 BP (gray), 2500-2250 BP (silver), 2250-2000 BP (white).

According to our results, the initial migrations out of the homeland happen during 2600-2500 BP. This nicely fits current hypotheses about the triggering effect of climatic changes around 2500 BP (Maley 2001, Bostoen et al. 2012)

Our current results also indicate an initial west-to-east migration, followed by successions of migration waves from west to south. In our presentation we will add more detail to these general results and discuss them in the light of extra-linguistic evidence for the timing of language spreads within the Bantu group.

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BANTU 5

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WS4

Tumaré Abiikwabé [1]

Exchange of Wisdom and Language between the Ikoma and the Datooga

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Ikoma is a Lacustrine Bantu language (JE45) spoken in the Mara Region (Western Tanzania) by approximately 19,000 speakers.[2] Datooga is a Southern Nilotic language, spoken in Central Tanzania but also in the Mara Region close to where Ikoma is spoken.

The Ikoma and the Datooga have been in contact probably for a long time, practising exchange, intermarrying, and possibly even uniting in defending their region against other groups. In one of the Ikoma stories, the Maasai kill the son of the Datooga medicine man. The Datooga go to the Ikoma for help, and a Ikoma hero helps them to get a revenge, and, according to the story, to "finish the Maasai".

Ikoma shows several features that are not found in the other Bantu languages of the area, and thus an outside source is possible. For example, Ikoma has a complicated vowel harmony system[3] in which, for example, stem ATR features induce height harmony in noun class prefixes and verbal prefixes. On the other hand, +ATR feature is spread from +ATR suffixes to the verb stems. It is suggested already by Nurse & Rottland (1991: 175) [4] that the vowel harmony systems of E40 languages have been induced by a Southern Nilotic language, but this is not discussed in Higgins (2011).

Ikoma nominal tone system has been discovered to be more pervasive than in the other Bantu languages of the area. This specifically applies to nouns that have three or more stem syllables: These longer nouns have, in addition to the expected tone classes (i.e. toneless or a H on one of the stem syllables), a tone class in which all the stem syllables are realized as H (called the "all H" pattern). Many of the nouns showing the "all H" pattern seem to be loan words from Datooga. Also, there are more trisyllabic and longer nouns in Ikoma than in Bantu languages in general.

In this paper I will discuss the contacts between the Ikoma and the Datooga and present possible influence of Datooga language on Ikoma prosodic systems. When borrowing words from Datooga have the Ikoma imitated the tonal patterns of Datooga words to such an extent that a new tonal class has been established in Ikoma? And could Datooga influence explain some of the peculiar features of Ikoma vowel harmony?

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[1] 'Let us finish the Maasai!'

[2] Muzale, Henry R.T. and Josephat M. Rugemalira 2008. Researching and Documenting the Languages of Tanzania. *Language Documentation & Conservation* 2(1):68–108.

[3] Described in: Higgins, Holly Ann. 2011. Ikoma Vowel Harmony: Phonetics and phonology. MA thesis, Trinity Western University.

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Lexical and grammatical tone interactions in Cuwabo (P34)

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It is a well-known fact that Guthrie's "Zone P" languages generally lack contrastive lexical tone on verb radicals. Instead, grammatical tone is assigned on the basis of tense/aspect/mood to privileged positions in the stem (Kisseberth & Odden, 2003). For instance in the Enahara dialect of Makhuwa (Van der Wal, 2009), the following positions are targeted: M(acro)S(tem) 1[1], MS 2, Penult, Final and none. These sites for grammatical tone docking are generally present even in Eastern Bantu languages with lexical verbal tone contrast - apart from MS1 which would otherwise interfere with lexical tone assignment[2] (cf. Kisseberth & Odden, 2003).

The Cuwabo language (P34 in Guthrie's classification), is to the best of our knowledge the only language in zones P and N[3] to have retained a lexical contrast on verb stems, as seen already in the infinitive *olíma* < CB *-dìm- 'cultivate' / *órumá* < CB *-dúm- 'send', whereas Makhuwa has the same pattern for both: *olíma* / *orúma*.

However, alongside lexical tones, the Cuwabo verb stem also exhibits the same processes of grammatical tone assignment - including MS1 - as mentioned for Makhuwa. The interaction between these different tones gives rise to sometimes quite opaque situations. In case there is no grammatical tone on the stem, the lexical tone of the H-toned radical emerges, but on the Penult: *ɖáń#zugunuwéla* 'I was turning for (sb.)' / *ɖáń#roromeliha* 'I was promising (sb.)'. Whenever the grammatical tone docks on MS2, lexical tone contrasts are always neutralized[4]: *kaɖi#zugúnúwelile* 'I haven't turned for' / *kaɖi#rorómélihile* 'I haven't promised'. When stems with a L-toned radical appear with a H on MS1, however, the situation with H-toned radicals is much more opaque. If an OM is present, the lexical H clearly shifts to the penult, as seen above, but the syllable immediately preceding the OM is always H (doubling on the OM itself); compare L *kaɖini#múlíbelela* 'I don't swear to him/her' and H *kaɖiní#múgabuléla* 'I don't rape him/her'. But if no OM is present, a H-tone plateau extends from the H pre-stem to the penult: *kaɖiní#gábúléla* 'I don't rape'.

Now the genetic position of Cuwabo is by no means clear: its phonology, morphology and lexicon are partly Makhuwa-like and partly N40-N30-like (a case in point is 1sg. subject prefix *ɖi-* as seen above, with Makhuwa-like denasalization - but without devoicing -, applied to the 1sg. subject prefix **ndi-* found in e.g. Makonde, Shona or the N40 languages, vs. Makhuwa *ki-* < **ŋgi-*.). We will argue that a clue to the complex nature of Cuwabo tone is found in its "mixed language" status, and we will try to clarify its real genetic relationship to Makhuwa.

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[1] The macro-stem is the verb stem + the OM if there is one.

[2] Rundi (Meeussen 1959) exceptionally has a grammatical H assigned to MS1 in a few forms, almost all of which have the future marker -zóo (in case the marker is toneless -zoo-, no H appears).

[3] Guthrie's N10 has been shown by Nurse (1988) to belong with P10 ("Rufiji-Ruvuma", cf. Odden 2003) apart from N15 Tonga which belongs with N20. N20 and N40 languages are toneless, N30 languages have a lexical H/L contrast in verb radicals, which however exhibit no relationship to Common Bantu tones (Hyman & Mtenje, 1999).

[4] Note that tone doubling applies in Cuwabo, albeit with certain restrictions, detailed in our talk.

The influence of language contact on Bantu prosodic systems

Laura J. Downing (Göteborg) & Maarten Mous (Leiden)

Bantu languages have been in contact with non-Bantu (and Bantu) neighbors for centuries, and contact has clearly influenced aspects of the grammar of many Bantu languages. Theories of language contact assume a distinction between influence from a non-dominant source language in borrowing against influence from a dominant source language in situations of language shift. But this dichotomy does not make clear predictions for prosodic systems. Lexical borrowing with lexical tone can easily influence the complexity of the lexical prosodic system. For example, Salmons (1992: 56) has proposed that when tonal languages (like most Bantu languages are) come into contact with non-tonal languages, tone usually yields to stress, passing through a pitch-accent stage. This is the scenario proposed for Swahili, which is now a stress language, and was in intense contact with Omani Arabic, a stress language, at a formative stage.On the other hand, intonation is often mentioned as something we cannot switch off when speaking another language than our mother tongue.

We investigate a number of contact situations and their outcomes in terms of tone/pitch accent, among them Chimwiini. We show that its accent system has been influenced by contact with Somali, and we critique the hypothesis (Philippson 1993) that its pitch-accent system is a stage on a path to the development of a stress accent system like the one found in Swahili. We conclude with a number of research questions and a research agenda in this underresearched domain.

BANTU 5

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General Session

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Embosi: automatic alignment with segments and words & phonological mining

This contribution describes ongoing research on Mbochi, a Bantu C language spoken by more than 100000 native speakers in Congo-Brazzaville.

A first oral corpus has been collected as read speech corresponding to 3 folktales. It has been transcribed by one of the co-authors, with tones and even floating consonants (in parenthesis). This corpus will be extended to radio broadcasts. In order to align the corpus automatically into words and phonemic segments, a speech automatic system developped for French (Gauvain & al. 2005) has been adapted to the Embosi phonetic and phonological characteristics. The acoustic models have been borrowed from French. A prononciation dictionary has been created from the words transcribed in the corpora and variants have been included in order to account for phonological processes, particularly elision at word junctions. Thus a word such as o *yénga* «to search for» has the following variants : o yenga, *(o) yénga* and *oyéng(a)* in the pronunciation dictionary.

We performed an automatic study of the 584 vowel elision processes of the corpora. Vowel elisions are very frequent in Embosi, occurring almost whenever two vowels get into contact at word junctions. The accuracy of the automatic detections of the elision and of the word alignments was checked manually on the third of the corpus and reached a percentage of 92%. This type of automatic alignement improved the analysis of elisions, as it enabled a rapid tracking down of exceptions and helped defining rule application contexts on a large scale.

The duration of the resulting vowel after an elision was measured also automatically. We expected to find a longer duration when a floating consonant separated the two vowels at the word junction (ex : (b)a-kondzi + (b)á-sɛr-I "*Cl2.chiefs + Cl2.Past-say-Recent*"-> akondz**aá**sɛri "*the chiefs said*", with a long **a**). The results confirmed only partly this hypothesis as a lengthening due to the elision of a vowel in a V (C) V context was found but was smaller than expected (mean: 20ms).

Thus, this communication presents an attempt at providing a segment and word automatic alignment to a Bantu language, based on the adaptation of a system designed for French and shows how it can be used for phonetic and phonological mining, selecting elisions as a case study. Meanwhile, this automatic alignment system provides an embryo of a speech recognition system in Embosi.

Morpho-phonology and metrical structure in Nata

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This talk has two goals; first, I will provide an initial description of nominal tone in Nata, a Lacustrine Bantu language spoken in Tanzania. Second, I will relate morpho-prosodic categories below the word level to metrical units. Bantu languages have been argued to provide evidence for sublexical prosodic domains such as the prosodic stem and the prosodic root, which are constituents of the prosodic word (Inkelas, 1989). Likewise, metrical structure has been argued to play an important role in tonal phenomenon (Downing, 1990). Recent work on the phonology-syntax interface has argued that a default mapping of syntactic constituents to prosodic constituents is mediated by prosodic constraints (Selkirk, 2011). I will argue that there is a one-to-one mapping of morphological to phonological domains and that this mapping is subject to metrical constraints. I will focus on tone patterns in the nominal and verbal domains, demonstrating first that they are both sensitive to the same type of morpho-phonological boundaries and then that metrical structure interacts with tone mapping in the nominal domain.

Take as illustration the example below. In the singular (1a, d) and plural (1b, e), high tone is realized on the root initial syllable. In the diminutive singular (1c, f), we can observe that high tone is no longer aligned with the left edge of the noun root, but instead falls on the third syllable of the word.

(1) Nouns in the singular, plural and diminutive[1]

a.	o-mo-téreβi PPF-C3-ladle	‘ladle’	d.	e-ɣe-sóontʃo PPF-C7-plate	‘plate’
b.	e-me-téreβi PPF-C4-ladle	‘ladles’	e.	e-βe-sóontʃo PPF-C8-plate	‘plates’
c.	∅-rii-teréβi PPF-C5-ladle	‘small ladle’	f.	∅-rii-soontʃó PPF-C5-plate	‘small plate’

In most noun classes, the third syllable is identical to the left edge of the noun root; however, in noun classes without a preprefix (such as class 5), the third syllable does not coincide with any morphological boundary. I argue that the third syllable has no special status, but rather that in the default case it corresponds to the left edge of the root; additionally, a metrical constraint prevents high tone from being root initial when there are less than two syllables preceding the root.

The key theoretical implication is that the mapping of morphological to phonological domains is the same as the mapping between syntactic and phonological domains; importantly, both mappings are subject to prosodic constraints.

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[1] Examples are provided in IPA transcription. C# refers to the noun class, PPF the preprefix (sometimes known as augment). Class 5 contributes a diminutive interpretation to some nouns.

GS

Prosodic Phrasing in Copperbelt Bemba

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This paper investigates the structure of prosodic phrases in Copperbelt Bemba with the goal of defining the mechanisms that determine these phrases (in particular, the phonological phase) and comparing them to those motivated in closely related languages. A number of syntactic configurations are investigated including verbal complementation and nominal modification. A number of phonological rules have been found to be sensitive to phrase boundaries in Copperbelt Bemba: (i) Unbounded High Spreading (ii) Inter-word H Spreading and (iii) Inter-word H Fusion. Of these, Unbounded Spreading, is the one which most clearly diagnoses phonological phrase boundaries. Specifically, the rightmost H in a word will undergo unbounded spreading if that word is phonological phrase-final, but will undergo bounded spreading if another word follows in the same p-phrase.

Under this diagnostic, within the verbal domain a verb and its complement in V+Adv and V+Obj configurations phrase together in the same phonological phrase. However in cases where an object marker is present on the verb in V+Object, the object begins a new phonological phrase. And if the NP after the verb is not an object, but rather a post-posed subject, then they are also members of distinct p-phrases. For multiple complementation in V+Obj+Adv and V+Obj+Obj structures, the verb and following object are part of one p-phrase, but the following word begins a new one. In a Subj+Verb configuration the two words are part of different p-phrases.

In the nominal domain the nominal head plus the first following modifier phrase together and this pattern holds not only for adjectives, but also for associative phrases. However, in the case of a sequence of more that one modifier it is only the modifier immediately following the noun that phrases together with the noun. The phrasing of adjectives differs between those with and without the augment, with the former, which can also be regarded as reduced relatives, generally not phrasing with the nominal head. In cases where more than one adjective is present, the first 'regular' non-augmented adjective phrases with the noun while following adjectives, with the augment, must phrase independently. In conjunctive phrases, there is a phonological phrase break between the first NP and the conjunction, while the conjunction phrases with the following NP.

In terms of defining these phrases with respect to the syntax, we will show that, as has been claimed for a variety of other Bantu languages, phonological phrase boundaries (within both verbal and nominal constructions) are generally found at the right edges of maximal projections.

While Copperbelt Bemba is quite similar to other related languages, such as Cilungu (Bickmore 1997), in how p-phrases are formed, it has several interesting properties which are not shared. First, the phrasal spreading properties of a H on a final or penultimate syllable are distinct from those on a pre-penultimate syllable. We will show that this is due to the fact that there are word-level tonal rules which apply first (Kula & Bickmore forthcoming), which feed the phrase-level ones. Second, the other two phrase level processes mentioned above, Inter-Word Spreading and Inter-Word Fusion, are shown to operate between words of distinct p-phrases, whereas in, e.g. Cilungu, they would not. Finally, we show that the spreading properties of a H depend not only on its overall prosodic context, but also partially on its morphological status, e.g. whether it is an augment H versus a Root H.

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GS

Tense in Gyeli

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Bantu languages typically have rich tense systems (Dahl 1985, Nurse 2008). For instance, the vast majority of Bantu languages make multiple time divisions in the past tense (Nurse 2008). A second common characteristic is that Bantu languages mark tense via inflectional morphology, often with corresponding tone changes especially in northwestern Bantu languages. This talk investigates Gyeli, an exception to both these characteristics. Gyeli is a Bantu A80 language spoken by "Pygmy" hunter-gatherers in southern Cameroon and Equatorial Guinea whose tense system is remarkable for its minimality in terms of tense distinctions made and morphological material. The Gyeli system contrasts both with closely related/neighboring farmer languages, which have fuller tense systems, and with other known languages which have reduced tense systems, in that they are vehicular languages (Nurse 2008: 22).

Language Situation: Gyeli is an endangered and under-described language that is currently being documented. Data used in this paper stem mainly from my own fieldwork since previously published literature on Gyeli (Renaud 1976) is very limited and does not consider the verbal system at all. The hunting and gathering Gyeli speakers are in close contact with various groups of Bantu farmers. Due to increasing sedentarization and adoption to a farming lifestyle, the Bagyeli are currently shifting to their neighboring farmer languages.

Reduced Tense Distinctions: While the other (farmer) languages of the area usually display three distinctions for past tense and two for future, Gyeli only possesses three tenses altogether: present, past and future without any further distinctions as to temporal proximity (e.g. recent vs. far past). Also, the tense systems of neighboring languages (see Hyman (2003) for Basaa and Alexandre (1955) for Bulu) and of closely related languages (see Ngue Um (2002) for Mvoumbo, Heath (1991) for Makaa, and Beavon (1991) for Koozime) mark tense by inflectional morphemes while Gyeli expresses tense distinctions only tonally as illustrated in (1) through (3).

(1)	mɛ́	djìì	(2)	mɛ̀	djìí	(3)	mɛ́ɛ́ djíî
	1S.PRES	open.PRES		1S.PST	open.PST		1S.FUT open.FUT
	'I open'			'I opened'			'I will open'

Expression of Tense: Gyeli verb roots are either mono- or bisyllabic and are preceded by subject pronouns. The marking of tense affects the tonal pattern of both the subject pronoun and the verb root. In my analysis within the autosegmental and metrical approach, I show that in the present tense a floating H tone attaches leftwards to the underlyingly L subject pronoun if the verb stem has an initial L tone as in (1). If the stem initial tone is H, the floating H attaches rightwards and does not surface. In the past tense, the last L mora of the verb stem receives a H tone as in (2). If the last mora of a bisyllabic verb stem is already H, the H spreads leftwards. Finally, in the future tense, another mora is added to the subject pronoun as shown in (3). This second mora receives its vowel and tone specifications from the first mora. At the same time, the verb stem usually takes a HL for monosyllabic and a H L tonal pattern for bisyllabic verb roots.

Broader Outlook: While Nurse explains other reduced tense systems on the grounds that they are vehicular languages, this is not the case for Gyeli. Instead, I address the question whether 'Pygmy' languages are systematically different from farmer languages. The findings about the Gyeli tense system provide evidence in favor of this often informally made assumption and add important information to the scarce literature on this issue.

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Power Talk: from royal Kongo words to royal Kongo origins

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The history of the Kongo Kingdom is exceptionally well known from 1500 onwards, thanks to its early involvement in the Trans-Atlantic trade and its early introduction to literacy. At the same time, very little is known about the origins and early history of the Kingdom. Gaining new insights on the growth of the Kongo Kingdom through an interdisciplinary approach combing archaeology and historical linguistics is the central aim of the interuniversity KongoKing research group (UGent, ULB, RMCA; http://kongoking.org). Central in the historical linguistic research is the study of cultural vocabulary as a source for early Kongo history. In this paper we focus on Kongo words revolving around royal titles and insignia as attested in the historical sources from the 16th to the 20th century. Preliminary research on the blacksmith term and royal Kongo title *ngangula* has been especially rewarding in this respect. It not only testifies to the old Central-African symbolic association between leadership and iron working, the so-called 'smith's myth' (de Maret 1985), but also allows to reopen the debate on the origins of the Kongo Kingdom. This debate was more or less closed when Vansina (1963) argued in a short account on Kongo origins that its founders had their origin north of the Congo river in the current-day Mayombe region, and not east of the Inkisi river, as a number of scholars, such as Ravenstein (1901) and van Wing (1959), had argued before. Diachronic phonological evidence points out that the royal Kongo title *ngangula* can only have its origin in Kongo languages spoken east of the Inkisi river, giving new credibility to the earlier hypothesis that Kongo kingship originated in a region known as *Kongo dia Nlaza* between the Inkisi and Kwango rivers (Thornton 2001).

However, ever since Trier (1934) introduced the Saussurian principles of contrast and inclusion into semantics, it has been accepted that individual words only acquire meaning through contrast with other words belonging to the same semantic field. As a consequence, it is necessary to look at sets of semantically related words to understand lexical meaning, not simply at words in isolation (Lehrer 1985). That is why we study the linguistic evidence with respect to the royal title *ngangula* in relation to other 'royal Kongo vocabulary' as found in the rich body of historical evidence on the Kongo Kingdom since the 16th century.

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GS

Resultative, remoteness, and innovation in some Bantu T/A systems

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Bantu language T/A systems often present challenging analytical conundrums, as is the case, for example, with languages in zones F and S, whose systems are representative of the kinds of contrasts found across the Bantu landscape. First, as can be observed in Table 1, several F and S languages resemble one another more than they do their geographical neighbors. Hence, for example, Sibhende and Ikalanga exhibit comparable Resultative, Hodiernal, and Remote past forms that differ from those for the languages in (b) and (c), just as Kimbugwe and Isizulu resemble each other more than their neighbors. Second, the dialects and languages in (b) exhibit a puzzling reversal of forms and temporal ranges (in bold outlined box), such that the Kondoa dialect of Kilangi resembles Kinyaturu more than it does the more closely related Mondo dialect. Yet, in Xironga and Isizulu, we find only one of the forms, but not the same one, in the two languages. Third, in the Kondoa dialect and Kinyaturu we find a non-continuous "split" of the -IRE forms, reflected as well in Ikalanga RSLT and REM, counter Comrie's (1985) proposal that a possible universal of tense systems is that "time reference of each tense is a continuity".

Table 1. Tense/aspect forms in some zone F and S languages

		P4 - REM_2	P3 - REM	P2 - pre-HOD	P1 - HOD	RSLT
a.	F12 Sibhende		*-a-ká-*B-*a*		*-a-*B-*a*	*-Ø-*B-*ílé*
	S16 Ikalanga		*-á-ká-*B-*a*		*-á-*B-*a*	*-Ø-*B-*ile* ***-á-ka-*B-*a***
b.	F33 Kilangi: Bolisa	***-a-*B-*áa***		*-á-*B-*iré*	*-a-*B-*ire*	
	Mondo	***-a-*B-*áa***	*-a-*B-*á*	*-á-*B-*iré*	*-a-*B-*ire*	
	Kondoa	*-a-*B-*á*	***-a-*B-*ire***	*-a-*B-*á*	***-a-*B-*ire***	
	F32 Kinyaturu		***-a-*B-*ié***	*-á-*B-*aa*	*-á-*B-*a*	***-Ø-*B-*ie***
	F34 Kimbugwe		*-áa-*B-*á*	*-áa-*B-*íye*	*-Ø-*B-*iyé*	
c.	S54 Xironga			***-a-*B-*ile***	*-Ø-*B-*ile*	
	S42 Isizulu		***-áa-*B-*a***	*-Ø-*B-il_2*.e*		*-Ø-*B-il_1*.e*

Working within the dissociative domain temporal model proposed in Botne and Kershner (2008) and Botne (2010, 2012), I provide an explanation for why this striking variation occurs. In particular, the paper addresses several specific issues: (1) how a remote construction, such as that in Ikalanga (a), can become a resultative (a semantic path not mentioned by Bybee et al. 1994), contrasting this with the remote/resultative split in Kinyaturu (b), and why they are not counterexamples to Comrie's proposal; (2) why the similar REM *-IRE* forms in Kondoa and Kinyaturu are conceptually distinct; (3) why the identical REM_2 forms in the Bolisa and Mondo dialects are conceptually distinct; and (4) why the HOD, pre-HOD, and REM forms in Kinyaturu and Kimbugwe are reversed. The analysis presumes an original contrast between a resultative *-Ø-*B-*ILE* construction and a perfect *-A-*B-*A* construction. Innovation that has led to the peculiar differences pointed out above finds an explanation and motivation in differences in time scales, time regions, and time scope. Thus, for example, Kondoa only superficially distinguishes four tenses, a consequence of a simple linear analysis. Rather, the *-ire* forms denote a Current Time Region, the *-á* forms a Distal Time Region, the remoteness distinction deriving from an implicit difference in time scales of use, days vs. years.

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Negation and cartography in Tiriki

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In Tiriki, negation is most often expressed in a morpheme *mba* or *tawe* at the right edge of the clause (see Marlo 2012, henceforth MM). Like right-edge adverbs, *mba/tawe* permit some scopal ambiguities. This can be seen in the two interpretations available for mono-clausal example (1), and bi-clausal (2).

(1) Múúndú y-áá-ny-áánza **mba/tawe**
1person 3sgSA-ASP-1sgOA-like NEG
'Somebody doesn't like me' *OR*
'Nobody likes me' MM: (815)

(2) A-mányi Músásá a-kúlí málwa **mba/tawe**
3sgSA-know 3sgSA buy-PST 6beer NEG
'She knows that Musasa didn't buy beer' *OR*
'She doesn't know that Musasa bought beer' MM:(799)

Disambiguation is possible through the use of an optional preverbal negator *sh-*.

(3) *Sh*-a-mányí Músásá a-kúl-í málwá **mba**.
Neg-3sgSA-know 3sgSA-buy-PST 6beer NEG
'She doesn't know that John bought beer' (unamibiguous) MM:(799)

An emphatic particle *khú* can appear post-verbally in either positive or negative clauses. Curiously, a negative reading for *khú* seems available whether *mba/tawe* functions to negate the clause containing *khú* or a clause embedded under it.

(4) a. M-bool-í **khú** a-ts-ííré b. M-bool-í **khú** a-ts-ííré **mba**
1sgSA-say-PST KHU 3sgSA-go-PST 1sgSA-said KHU 3sgSA-go-PST NEG
'I really did say he went' 'I never said he didn't go' MM: (797)

The goal of this paper is to map Tiriki's negative morphemes into clausal architecture. I will argue for the following conclusions:

•*Mba/tawe* are adverbs right-adjoined at heights corresponding to their scopes.

•*Shu-* heads a functional category in the spine of the clause, but must be licensed by a c-commanding *mba/tawe* (thus hierarchy and left-right order do not have a universal mapping, contra Kayne 1994 and Cinque 1999).

•*Khú* has negative force whether it c-commands or is c-commanded by NEG. Unlike parasitic licensing (Den Dikken 2002) and secondary triggering (Horn 1996) this suggest a bi-directional feature-checking Agree relation is at work across clause boundaries (Boskovic 2007).

(5) [[$_{NegP}$ sh- [$_{TP}$ [$_{PolarityP}$ khú [$_{vP}$ SU [$_{VP}$ …]]]]] mba/tawe] *Merge locations*

Lastly, the paper compares negation in Tiriki with better-studied Indo-European languages (Haegeman 1995; Zanuttini 1997) and explores some implications.

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Non-deletion of penultimate vowels and reduplication in Zulu

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Penultimate lengthening in Zulu has been well-documented since Doke (1927), and it interacts with vowel-deletion in a range of contexts including the infinitival prefix *úku-*. In speech, the underlined vowel in *uku-* deletes in all cases except when preceding monosyllabic stems; if the second syllable of the infinitival prefix occurs in the penultimate position, the /u/ is pronounced, otherwise it deletes (underlying tone marked):

(1) a. *úku-fúnda* → *úk-fú:nda* 'to study'
b. *úku-sébenza* → *úk-sébe:nz-a* 'to work'
c. *úku-fa* → *úk**u:**-fa* 'to die'
* *uk-fa*

It is clear that the non-deletion of the *uku-* vowel in *uku-fa* is related to it occupying the penultimate position in the verb. Penultimate lengthening is assumed to be a late rule in Zulu morphophonology (Khumalo 1981), so the same should be true of the related process of vowel deletion that is shown in (1a-b). Another point arguing for vowel deletion as a late rule is that it creates consonant sequences that are not licit given Zulu phonotactics; Zulu is strictly (C)VCV, and does not permit underlying forms to contain any consonant clusters, such as the [k-f] or [k-s] that are the result of the deletion rule operating on the infinitival prefix. While it seems legitimate to classify deletion of the *uku-* vowel as a late rule just like the related process of penultimate lengthening, data from reduplication argues otherwise.

New data show that certain morphemes to the left of the stem are permitted to reduplicate, one of these being *uku-* (there is evidence that the *uku-* consists of 2 morphemes, *u-* and *-ku* though it is descriptively convenient to refer to it as a single constituent, the infinitival prefix). The reduplicant is a disyllabic constituent (CVCV) that is prefixed to the verb stem (Doke, Downing (2009)). The RED+base complex is bracketed, a '+' separates the constituents:

(2) a. *úku-fúnda* → *úku-*[*fúnda+funda*] → *úk-*[*fúnda+fu:nda*]
b. *úku-fa* → *ú-*[*ku-fá+ku-fa*] → *ú-*[*ku-fá+ku:-fa*]
* *u-*[*k-fa+ku:-fa*]

In (2b) it is important that the non-deletion of the *ku-* vowel in the reduplicant (the lefthand constituent) cannot be explained through reference to vowel perseveration as a correlate of penultimate lengthening. In non-reduplicated forms, the non-deletion of *ku-* before monosyllabic stems can be explained by taking lengthened vowels to be stressed, and consequently resistant to deletion. However, the same is not true under reduplication since the lefthand *ku-* does not undergo lengthening. In derivational analyses reduplication is classified as an early rule for a variety of reasons, including sensitivity to morphological structure.

Ordering reduplication prior to penultimate lengthening/non-deletion, *ku-* is copied to the reduplicant template before the late rules targeting the penult. This means that if the vowel in *ku-* is only preserved because of penultimate lengthening, its non-deletion in the reduplicant is unexpected. Treating reduplication as a copying operation only, the *ku-* in the reduplicant is simply a phonological string lacking any morphosyntactic status, and it is unrelated to the infinitival *ku-* whose vowel can delete in non-reduplicative contexts.

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Preverbal focus strategies in Kikongo: a preliminary typology

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As part of recently started PhD research on the expression of IS in Kikongo, dedicated fieldwork was carried out on focus strategies in a number of Kikongo varieties of the Lower Congo Province in the DRC (August-September 2012). In contrast to eastern and southern Bantu languages, where postverbal focusing strategies have been abundantly reported, Kikongo tends to focus arguments by moving them into the preverbal domain. Such is the case in other closely related western Bantu languages where preverbal focusing strategies have recently been described (Bostoen & Mundeke 2012). In this paper, we aim to provide a typology of focus positions in the preverbal domain with special attention for micro-variation in IS strategies across the Kikongo dialect continuum. Preliminary research points out that both new information and contrastive argument focus happen preverbally. However, different kinds of arguments tend to be focused in different linear positions in the clause. Objects are focused in IBV position (1).

(1) **Ncyá cìlíílì nkhóngà?** **Ngùlùngù kàlíílì** [Ciwoyo]

ncya	ci-li-ili	N-konga	N-gulungu	ka-li-ili	
What	PP7-eat-PFV	NP9.hunter	NP9.antelope	SC1-eat-PFV	
‘What did the hunter eat?’			‘He ate an antelope’		

Peripheral arguments are also focused in the preverbal domain, but not necessarily IBV (2-3):

(2) **Bwé lìsòdádì kàlìlílílì ?** **Nzácì nzácì kalìlílílì** [Ciwoyo]

bwe	li-sodadi	ka-li-il-ili?	Nzaci	nzaci	ka-li-il-ili.
how	NP5-soldier	SC1-eat-APPL-PFV	rapidly	rapidly	SC1-eat-APPL-PFV
‘How did the soldier eat?’			‘He ate rapidly.’		

(3) **Kà kyúmà àdììdíídì?** **Mù lótò àdììdíídì** [Kisolongo]

ka	ki-uma	a-di-id-idi?	mu	loto	a-di-id-idi.
with	NP7-thing	SC1-eat-APPL-PVF	NP18	spoon	SC1-eat-APPL-PVF
‘With what did the woman eat?’			‘She ate with a spoon.’		

As is illustrated in the examples above, the focalization of peripheral arguments commonly involves applicativization, as was observed in other Bantu languages (Creissels 2004; De Kind & Bostoen 2012).

Argument focus in the preverbal domain corresponds to predicate focus, where by the focalized finite verb is preceded by its infinitive (4).

(4) **Sónìkà kákà bàsónìkénì** [Kimbeko]

Ø-sonik-a	kaka	ba-sonik-idi
NP15-write-FN	only	SC2-write-PFV
‘They only wrote (a rapport).’		

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GS

Nasal prefix evolution in Kikongo between the 17th and 20th century

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Most present-day Kongo varieties have two sets of nasal prefixes, i.e. syllabic homorganic nasal prefixes of classes 1, 3, and 4 and non-syllabic homorganic nasal prefixes of classes 9/10 and 1SG. The non-syllabic nasals are reflexes of prefixes reconstructed in Proto-Bantu with a NV structure: **mò-* (1, 3) and **mì-* (4). Homorganic syllabic prefixes of classes 1 and 3 (not of class 4) also exist in certain Sabaki Bantu languages, such as Mwani, but not in Standard Swahili (Nurse & Hinnebusch 1993: 525). The syllabicity of the nasal prefix of classes 1, 3 and 4 is linked with morpho-phonological behaviour that deviates from that of the non-syllabic nasal prefixes of classes 9/10 and 1SG. Although they undergo regressive assimilation to the point of articulation of the following consonant, they do not exert progressive assimilation on it as class 9/10 and 1SG prefixes do in several ways: (a) aspiration of the following unvoiced stop, as in (1); (b) fortification of the following liquid, as in (2); and (c) triggering of the so-called 'Kongo Rule' when the following morpheme starts with a nasal, as in (3).

(1) *nkháfĩ zí ǹlúngù* (Kimbata: KongoKing fieldwork data 2012)
N-kafi zi N'-lungu
NP10-paddle PP10 NP3-pirogue
'The paddles of the pirogue.'

(2) *mèndrámbìlà lòsó* (Cilinji: KongoKing fieldwork data 2012)
Ø-me-N-lamb-il-a loso
SC1-PVF-OC1SG-cook-APPL-FV NP11.rice
'She cooked me some rice.'

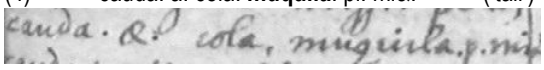
ùnlámbìlà lòsó
u-N'-lamb-il-a loso
SC1-OC1-cook-APPL-FV NP11.rice
'She cooks him some rice.'

(3) *mbwènè mpfúmù*
N-mon-ili N-fumu
SC1SG-see-PFV NP9-chief
'I've seen the chief.'

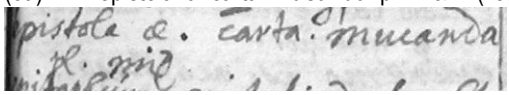
mpfùmú kìmmwénè kò
N-fumu ki-N'-mon-ili ko
NP9-chief NEG.SC1SG-OC1-see- PFV NEG
'I haven't seen the chief.' (*lit.*: 'The chief, I haven't seen him')

This reduction of prefixes with a NV structure to syllabic nasals happens to be a recent development. In the 17th century *Vocabularium congense* (Van Gheel 1652), the oldest Bantu dictionary (De Kind et al. 2012, Van Wing & Penders 1928), most Kisikongo nouns belonging to classes 1 and 3/4 still had direct reflexes of PB **mò-* and **mì-*, such as *muquila/miquila* in (4), even if some nouns were already noted with both the full and reduced prefix, such as *mucanda/m'canda* in (5). At this stage, the process of nasal reduction had only started. Moreover, the syllabic nasal prefix was not homorganic yet. A similar allomorphy is observed in the 18th century Kikongo variety as spoken in Kakongo (Bleyenberg 2012). It is only in late 19th century Kisikongo that all class 1 and 3/4 nouns have a syllabic nasal prefix, which is fully homorganic, as attested in the dictionary of Bentley (1887), cf. example (6).

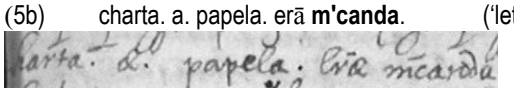
(4) cauda. a. cola. **muquila**. pl. mi&. ('tail')



(5a) epistola. a. carta. **mucanda**. pl. mi&. ('letter')



(5b) charta. a. papela. erā **m'canda**. ('letter, paper')



(6) Letter, n., **nkanda**, 4 ("book") (Bentley 1887: 128)

In this paper, we discuss the different steps of this diachronic Kikongo process of prefix reduction, which is historically documented thanks to the existence of a unique sequence of language documents between the 17th and 20th century and which is part of a wider phenomenon of prefix reduction and loss (Bittremieux 1943-44).

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Maud Devos

Lost, retained or reintroduced:nasals in Shangaci class 9 and 10 nouns

Koti and Shangaci, Bantu languages spoken in the Nampula province of Mozambique, are the result of a contact situation involving a form of Swahili and a form of Makhuwa.One of the striking phonological features of Mozambican dialects of Makhuwais the replacement ofprenasalized voiced stops by voiceless stops (Kisseberth 2003). As a consequence, initial prenasalized consonants, which are abundant in classes 9 and 10 in closely related languages, are absent in Makhuwa. In Standard Swahili classes 9 and 10 nouns typically have prenasalization before voiced stops (although loanwords tend to complicate the picture). The first question addressed in this paper is what class 9 and 10 nouns look like in languages like Koti and Shangaci that result from a contact situation involving (a form of) both these languages.

Koti shows a first possible outcome. It follows the Makhuwa example and loses all prenasalization in classes 9 and 10 (Schadeberg&Mucanheia 2000). Shangaci, on the other hand, shows a more complicated system. The language did not loseprenasalization word-internally and some words in classes 9 and 10 have a word-initial syllabic homorganic nasal. At first sight, there could be a straightforward explanation for this pattern. Nouns that arguably have a Swahili origin (as in (1)) retained the nasal sound (which became syllabic) whereas nouns for which a Makhuwa origin can be presumeddo not havea word-initial syllabic nasal. However, Makhuwa cognates with an initial syllabic nasal (2) as well as Swahili cognates with an initial syllabic nasal where Swahili does not have it (3) are puzzling.

	Swahili	Shangaci	Koti	Makhuwa	
(1)	**ngalawa**	**`ngaláawa**	**kaláwa**	**(ekaláwa)**	‘sailing boat’
(2)	**(ngwena)**	**`ngoónya**	**konya**	**ekonyá**	‘crocodile’
(3)	**pete**	**`mpeétthe**	**peétthe**	**(munela)**	‘ring’

In this paper we discuss possible explanations and try to relate them to plausible contact scenarios. Is the variation in Shangaci due to the gradual spread of loss of prenasalization in its lexicon? Was the process slowed down because of the peripheral position of Shangaci in the area of the sound change and because of intense contact with Swahili. The apparent reintroduction of the nasal in (2) could then be a retention but what about (3)? Could the occurrence of nasals where even Swahili lacks them be explained in terms of analogy or are they instances of ‘free nasalization’ (Dammann 1971). Another possibility is that we are looking at the wrong Swahili. A look at Comorian, which shows prenasalization where Standard Swahili lacks is, is revealing in this respect (Rombi 1989). The fact that Koti and Makhuwa reacted so differently shows either that their contact situation was crucially different or that even very similar contact situations involving more or less the same ingredients may have different outcomes.

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Reciprocal/antipassive polysemy in Cilubà (Bantu, L31a)

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The antipassive is a construction in which the object noun phrase of an active transitive verb becomes oblique or omitted and the verb is detransitivized through a grammatical operation (Polinsky 2008). It resembles the passive in that a core argument of a transitive verb has become implicit or oblique. The antipassive is generally associated with ergative languages treating the object of a transitive verb and the subject of an intransitive verb alike, in contrast to the subject of a transitive clause (Dixon 1994). Due to its strong association with ergative languages, the antipassive has largely gone under the radar of scholarly attention in Bantu languages. Such is the case for Cilubà (Bantu, L31a) spoken in the Kasai provinces of the DRC. In this paper, we provide evidence for the existence of constructions in Cilubà that can be considered antipassive. As shown in (1a), antipassive verbs involve the derivational suffix ***-angan-***. This verbal extension decreases the valence of the transitive base verb, ***-lwa***, by deleting its patient object, e.g. ***mulwishì*** in (1b).

(1) a **Mù-sàlaayì** **u-di** **ù-lu-angan-a** **mu** **ci-alu** **cì-à**
NP1-soldier PP1-AUX SM1-fight-ANTP-FV NP18 NP7-meeting place PP7-CONN
m-vità …
NP1-war
'The soldier who fights (someone) on the battlefield …'

b. **Mù-sàlaayì** **u-di** **ù-lu-a** **mu-lwishì**
NP1-soldier PP1-AUX SM1-fight-FV NP1-enemy
'The soldier who fights the enemy.'

The antipassive construction in Cilubà is used when the object is unknown or not important, often resulting in a general statement, and expresses a habitual aspect (Cooreman 1994). The object is still implicitly present and affected. However, the Endpoint of the action is not important but rather the action itself, which is intensified by the omission of the object.
Prototypically the ***-angan-*** suffix is used as a reciprocal extension in Ciluba, as in (2). Like the antipassive, a reciprocal verb is intransitive by the derivative function of the suffix.

(2) **M-bowà** **nè** **N-gandù** **bà-vwa** **ba-eel-èsh-àngàn- e** **m-patà**.
NP1-buffalo CONJ NP1-crocodile SM2-AUX SM2-to throw-CAUS-RECP-FV NP4-discussion
'The buffalo and the crocodile were having a discussion.' (lit. 'The buffalo and the crocodile were throwing a discussion at each other.')

In Cilubà, the reciprocal can be formed by various constructions in which the second participant is demoted from subject position to a comitative phrase (3a-b). This demotion of the non-action initiating and/or less salient participant does not necessarily affect subject agreement on the verb. The subject marker may remain plural as in (3a), thus signaling semantic agreement, or become singular as in (3b), thus expressing grammatical or mechanical agreement with the singular grammatical subject of the sentence.

(3) a. **Kàdi** **m-fùmù** **ka-bà-èna** **mù-à** **ku-lekel-angan-a** **nì**
but NP1+-chief NEG-SM2-AUX PP18-CONN NP15-leave-RECP-FV CONJ
mu-kàjì-èndà **to**.
NP1-woman-POSS1 NEG
'But the chief and his wife cannot leave each other.'
(lit. 'But the chief they cannot leave each other with his wife.')

b. **Ø-shefù** **u-a** **mu-sòkò** **ù-di** **ù-mòn-angan-a** **nè**
NP1+-chief PP1-CONN NP1-village SM1-AUX SM1-see-RECP-FV CONJ
Ø-Cyaba.
NP1+-Cyaba
'The chief of the village and Cyaba saw each other.' (lit. 'The chief of the village saw each other with Cyaba.')

The final stage in this gradual downgrading the second participant is its deletion, thus resulting in an antipassive construction. The meaning thus is antipassive derived from the reciprocal meaning through a continuum of intermediate constructions with a comitative phrase, which are characterized by a gradual decrease in reciprocity, but with maintenance of the idea of plurality of participants.

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Les consonnes implosives dans les langues bantu de l'entre Congo-Ubangi: Résultat d'une évolution ou de contact avec les langues oubanguiennes voisines ?

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Les consonnes implosives « sont produites par une expansion de la cavité bucco-pharyngale pendant l'occlusion, ce qui a pour effet de réduire la pression de l'air buccal et ainsi de compenser toute augmentation provoquée par le flux d'air traversant la glotte pendant la phase de voisement» (Clements, 2004 : 158). Et Clements et Rialland (2008 :57) indiquent que l'une des caractéristiques particulières aux langues africaines « especially ɓ and ɗ, are frequent in languages of the Sudanic belt, where they are about twelve times commoner than elsewhere in the world. Implosives occur even more frequently, it appears, in Cushitic and Omotic languages of the East zone, and are also found in Bantu languages of the South» (Clements, et al., 2008). En ce qui concerne spécialement le bantu, Madieson (Maddieson, 2003 :28) déclare que « languages of the northwest, the eastern coastal area and the southeast often have a least one implosive, most frequently a bilabial, but implosives are generally absent in the languages of the Congo bassin and southwest ». Cette affirmation nous semble excessive du fait que les langues bantu localisées au nord-ouest de la République Démocratique du Congo présentent un système phonologique particulier distinct des langues bantu du Sud (Grégoire, 2003), notamment par la présence des labiovélaires et implosives.
Notre étude consiste :
1. Nous présentons la situation pour chaque langue à partir des données de terrain, le répertoire dans une dizaine des langues bantu décrites ou non se trouvant entre Congo-Ubangi et indiquer leurs correspondances au Proto-bantu.
2. Entreprendre l'analyse des correspondances phonologiques de ces que nous regroupons en trois catégories :
- les langues sans consonnes implosives (Mosangé)
*b > b, ø
*d > d, ø

- les langues ayant des implosives /ɓ, ɗ/ fonctionnant comme allophones à leurs correspondantes explosives /b, d/ (Bolondó, Ebwela, Monyongo)
*b > b ~ɓ
*d > d ~ɗ

- les langues dont les implosives ont le statut des phonèmes et disposant des paires minimales implosives/explosives (Libóbi, Lingɔmbɛ, Pagaɓete)

*b	> b	*ɗ	> d
	> ɓ		> ɗ

Exemples :

Libóbi	*bʊd > bo-ɓóli 'briser'
	*bʊd > bo-bóli 'manquer'
Lingɔmbɛ Bobo	*beede > ma-bɛ́lɛ 'lait'
	*beede > li-ɓɛ̂ 'sein'
Pagaɓéte	*jib > yib-ɛ́ye 'voler'

*jɪb > yiɓ-ɛ́ye ‘savoir’

3. Discuter de la double hypothèse :
- les implosives sont issues de l’évolution phonologique régulière à partir du proto-bantu, peut-être suivant l’hypothèse fortis/lenis) de Stewart (1973)
- les implosives sont des innovations récentes de ces langues, une création lexicale motivée par le symbolisme des sons ;
- tout comme pour les labiovélaires dans ces langues (Bostoen& Donzo à paraître), le contact avec les langues oubanguiennes ayant les implosives et explosives dans leur système phonologique est à l’origine de l’évolution des consonnes (Janda, 2006) bantu en implosive et activant ainsi un processus de création lexicale à base d’implosives pour les nombreux mots n’étant pas d’origine proto-bantu.

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GS

On embedded questions in Tumbuka

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Karttunen (1977: 39) considers 'indirect alternative and yes/no questions and single and multiple wh-questions as belonging to the same syntactic category.' In Tumbuka (Bantu; Malawi), however, two different syntactic constructions are used to form indirect questions, a, so-called, *kuti*-construction (1a) or a relative construction (1b):

(1) a. *Mwanakazi wa-ku-zizwa kuti Mary wa-ka-cita vici mayiro.*
1.woman 1SBJ-PRES-wonder that M 1SBJ-PST-do what 6.yesterday
b. *Mwanakazi wa-ku-zizwa ico Mary wa-ka-cita mayiro.*
1.woman 1SBJ-PRES-wonder 7.REL M 1SBJ-PST-do yesterday
BOTH: 'The woman wonders what Mary did yesterday.'

The *kuti*-construction essentially embeds a root question; the relative construction is not possible with root questions. This gives an apparent mismatch between the syntax and semantics of the relative construction. In this paper, we address two research questions raised by these constructions: (i) Is there a difference in interpretation between the *kuti*-construction and the relative construction? (ii) Why can relative constructions be interpreted as embedded questions?
Semantic approaches to embedded questions predict an asymmetry in the interpretation and distribution of these two constructions. To answer (i), we investigate two semantic distinctions that could potentially set apart the two embedded question strategies of Tumbuka: Extensional vs. Intensional distinction (in the sense of Groenendijk & Stokhof 1984), and Concealed Questions (Nathan 2005, Frana 2010). We predict that: (a) if the extensional/intensional split plays a role in Tumbuka, we expect that only intensional are able to embed the *kuti*-construction, and (b) if the relative construction corresponds to a concealed question than opinion verbs, inquisitive verbs, and verbs of relevance should not be able to embed the relative construction. Consequently, we expect to find a difference between the form of embedded questions following Tumbuka verbs like *kumanya* (='to know') vs. *kuzizwa* (='to wonder'): the former should take the relative construction, while the latter should take the *kuti*-construction. These expectations are not borne out, however. Both *kumanya* and *kuzizwa* can take both relative constructions and *kuti*-constructions as embedded questions, as illustrated in (3-4) and (1a-b), respectively.

(2) a. *kuti-construction*
Musepuka wa-ka-manya kuti awo wa-ka-mu-pa vi-wangwa m-baani.
1.boy 1SBJ-PST know that 2.REL 2SBJ-PST 1OBJ-give 8-present COP-2.who
b. *relative construction*
Musepuka wa-ka-wa-manya awo wa-ka-mu-pa vi-wangwa.
1.boy 1SBJ-PST-2OBJ-know 2.REL 2SBJ-PST-1OBJ-give 8-presents
BOTH: 'The boy knew who gave him presents.'

To answer the second research question, we argue that it is the semantic selectional criteria of the embedding verb that forces a headless relative to be interpreted as an embedded question. Furthermore, we will demonstrate that the relative constructions are not headless relatives, but one with a covert pivot. The question word interpretation of this pivot is due it being in the scope of the question-embedding predicate, thereby turning the whole relative construction into an embedded question.
Cross-linguistically, we show the same strategy occurs in Igbo, the only difference being that in this language the pivot is overt (Uwalaka 1991). Also in this case, the embedded constituent is not formally marked as a question, and the question semantics comes from the matrix predicate.

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GS

A comparison of narrative verb forms in Bena, Nyakyusa, Malila and Nyiha

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Many Bantu languages have one or more narrative verb forms which may be used to describe a series of events once a time framework is established. As noted by Nurse (2008: 120), most languages have only one narrative marker, but some languages have different narrative strategies for different time references. The variety in the formal properties of these narrative verb forms is an interesting area of investigation, as is the interaction of narrative verb forms with the establishing tenses in discourse.

The research presented here compares the different narrative verb forms exhibited in four Bantu languages of south-western Tanzania: Bena (G63), Nyakyusa (M31), Malila (M24) and Nyiha (M23). Though geographically close, these languages exhibit striking differences in the formal properties of their narrative verb forms. The table below summarises the forms most commonly associated with narrating events in the near past and the far past:

	Near past	Far past
Bena	-i-…-ág-a	-i-…-ág-a
Nyakyusa	-lɨnkʉ-…-a	-lɨnkʉ-…-a
Malila	ănza -a-…-a	-kha-…-a
Nyiha	-ha-…-a	-ha-…-a

What is particularly interesting is how these verb forms compare with other formally similar, but functionally different, verb forms in the languages. The Nyakyusa form *-lɨnkʉ-…-a*, for example, can be compared with a progressive construction in Bena which consists of the copula *–li*, the class 18 locative *mu* and an infinitive verb. Thus the apparently similar underlying structure of *a-lɨnkʉ-fík-a* 3SG-NAR-arrive-FV '(and) he arrived' in Nyakyusa and *á-li mu-ku-fík-a* 3SG-be LOC18-15-arrive-FV 'he is arriving' in Bena is not reflected in a corresponding functional similarity.

After comparing the formal properties of the narrative verb forms in the four languages, the paper discusses functional and distributional criteria, with reference to a corpus of natural texts, both oral and written. One clear difference between the languages, as shown in the table above, is that Malila has a different narrative verb form for the near past as for the far past. This is one of the few differences between the TAM systems of Malila and the neighbouring language Nyiha, which are otherwise extremely similar.

When less frequently occurring narrative strategies are taken into consideration, further differences between the four languages emerge. Bena, for example, may choose not to use its usual narrative verb form to encode a particular event and instead highlight the event as a significant development in the event line by means of the conjunction *néke* plus the subjunctive verb form *-ø-…e* or *-ø-…-ag-e*.

The study shows that Bena, Nyakyusa, Malila and Nyiha differ in interesting ways in relation to a number of functional and distributional questions. For example, is the narrative verb form only used for one degree of past (e.g. far past) or is it used for other pasts, or other moods (e.g. subjunctive) or tenses (e.g. future)? Does the narrative verb form always follow a different verb form which establishes the time framework? In longer stretches of discourse, does this establishing tense need to be repeated at the start of a new episode? When a narrative verb form is not used where it might be expected, is the effect to highlight a significant event, or to express particular aspectual properties of an event? These criteria are a helpful start towards creating a typology of narrative verb forms in Bantu languages.

Peter EDELSTEN, Chiku LIJONGWA & Lutz MARTEN
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GS

Information structure constraints on Swahili word-order: A Dynamic Syntax analysis

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As in other Bantu languages (e.g. Bearth 2003, Mchombo 2004), word-order within Swahili main clauses is structurally unrestricted, all six permutations of S, V and O being possible. The different orders are, however, restricted by pragmatic and information-structure constraints, each order being associated with particular arrangements of topic and focus.

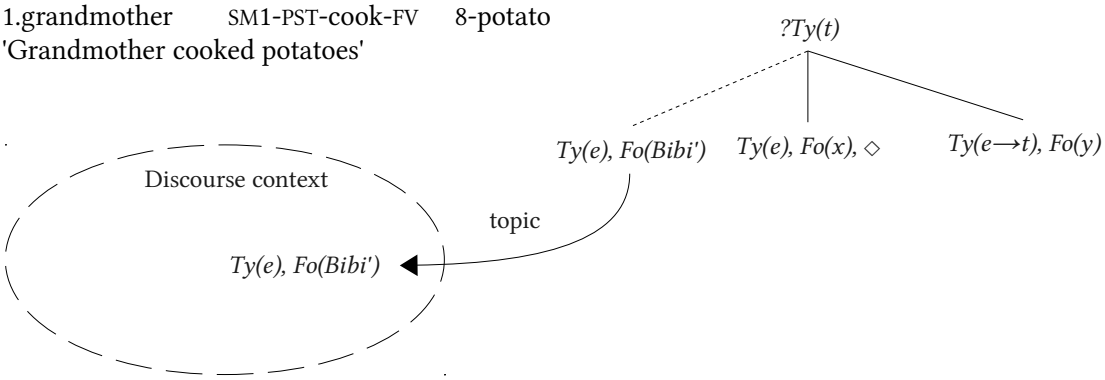
In this paper we develop an analysis of the context-dependence of Swahili word-order, based on data from question-answer pairs establishing either new information focus or contrastive focus. The analysis adopts the perspective of Dynamic Syntax (Cann et al. 2005), a theory which models the process of establishing semantic representations (modelled as semantic trees) from words in context on a left-to-right basis, and which is well suited to analysing the interaction between word-order, context and anaphoric expressions.

We develop an explicit model of (the relevant partial) context by defining a representation of the discourse context as a set of discourse topics consisting of logical expressions of arbitrary type and then show how nominal and anaphoric expressions are mapped onto this context set in an incremental, left-to-right fashion. As the input string is parsed and new components added to the semantic tree, each component is tested to see if it is linked to a discourse topic as seen in the snapshot in (1). At the end of the parse, any unlinked node represents a focused component.

(1) Snapshot of parsing *Bibi* 'grandmother' at the outset of parsing

Bibi	*a-li-pik-a*	*vi-azi*
1.grandmother	SM1-PST-cook-FV	8-potato

'Grandmother cooked potatoes'



We show how from this perspective different generalisations about word-order and information structure in Swahili appear: 1) Topics are placed at the left edge of the clause, 2) foci are placed at the right edge of the clause, and 3) clauses without discourse topics have presentational focus. We also show how prosodic marking of focus interacts with information structure constraints on word-order: Focus can be marked exclusively by prosodic prominence but only with SVO word-order, providing evidence that this is the unmarked word-order in Swahili.

We then extend the analysis to further data where information structure at least partially determines word-order: 1) the order of objects in double-object constructions, 2) noun-demonstrative order, and 3) subject inversion in relative clauses.

The paper provides a detailed demonstration of the formal properties of how word-order in Swahili is determined by contextual factors and how these factors can be explained by an explicit formalisation of available discourse topics. Through this the paper contributes to the analysis of Swahili syntax as well as to our understanding of the interaction between syntax and pragmatics.

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Georges Martial EMBANGA ABOROBONGUI

Les processus vocalique en ɛmbɔ́sí (C25): Dialecte de mbondzi

Dans le dialecte ɛmbɔ́sí (C25) parlé dans la sous préfecture de Boundji (environs 25000 locuteurs d'après la SIL-Congo) en République du Congo Brazzaville, les voyelles sont soumises à plusieurs processus phonologiques. Ces processus concernent à la fois la compatibilité desdites voyelles à apparaitre ensemble connue sous le nom **d'Harmonie vocalique** et les différentes stratégies de résolution des suites vocaliques créées par la concaténation morphologiques. Cette communication sera structurée en deux parties. La première étudie le processus d'harmonie vocalique. Je commencerai par classifier les voyelles de ce dialecte en fonction de leurs traits phonologiques. J'indiquerai ensuite les combinaisons vocaliques qui ne sont pas attestées dans une racine, avant d'aborder la question de l'harmonie proprement dite. Celle-ci cherchera à déterminer, en fonction des différentes formes réalisées, le ou les trait(s) phonologique(s) qui opère(nt) dans ce processus. Le dialecte de mbondzi étant une langue agglutinante, nous montrerons que l'harmonie vocalique entre les voyelles de la racine et les voyelles périphériques à la racine est favorisée par les traits différents selon qu'il s'agit de l'harmonie entre les voyelles de la racine avec celle du préfixe de classe nominale ou entre les voyelles de la racine avec celle du suffixe. La deuxième partie concerne l'examen des différentes stratégies de résolution de suites vocaliques créées par la concaténation morphologique. Le dialecte de mbondzi en compte trois : la **formation de glide**, l'**élision** et la **coalescence vocalique**. Nous montrerons comment chaque stratégie qui concerne un type de suite vocalique précis émerge à une frontière morphologique bien déterminée. Nous mettrons enfin un accent particulier sur un épiphénomène très régulier à la frontière de deux phonologiques : l'Allongement Compensatoire (AC). Il est en partie favorisé par l'élision de la voyelle finale du premier mot phonologique, mais sa motivation parait être « la préservation de la forme ou du poids syllabique d'origine » (De Chene & Anderson 1979 :506) à la frontière où il émerge.

GS

Automatic detection of copulatives in Northern Sotho corpora

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The copulative in Northern Sotho occurs in many different forms, Prinsloo (2002:22) regards copulatives as „probably the most complicated grammatical system to master“. Traditional grammars distinguish between so-called *identifying*, *descriptive* and *associative* copulatives, which reflect static and dynamic forms and occur in several moods and tenses. Consider the following extract from the 48 categories currently distinguished in Table (1). The task of detecting copulatives in a corpus, even in one annotated with parts of speech, cannot be called trivial.

copulative	*type*	*mood*	*tense*	*polarity*	*cl/pers/num*	*example*
Stative	Identifying	Indicative	present tense	positive	3rd pers.sg.	*(monna) ke* (*morutiši*) (man) is-3rd (teacher) ‘(the man) is (a teacher)’
Stative	Identifying	Situative	present tense	positive	3rd pers.sg.	*(ge monna)* e_{CSNEUT} le_{VCOP} (*morutiši*$_{N01}$) (as man) SUBJ-NEUT is-NEUT (teacher) ‘(as the man) is (a teacher)’
Stative	Identifying	Situative	present tense	negative	3rd pers.sg.	*(ge monna)* e_{CSNEUT} se_{VCOP_neg} (*morutiši*) (as man) is-NEUT NEG (teacher) ‘(as the man) is not (a teacher)’
Stativ	Identifying	Situative	past tense	positive	3rd pers.sg.	e_{CSNEUT} be_{VCOP} e_{CSNEUT} le_{VCOP} (*morutiši*) SUBJ-NEUT is SUBJ-NEUT is (teacher) ‘(someone) was (a teacher)’

Table (1) examples of Norhern Sotho copulatives

In our project[1], we pursue the development of electronic dictionaries (first, but not only) for the Sotho and Nguni languages of South Africa and we begin with Northern Sotho, as for this language, a ca. 5.5 million words corpus with parts of speech annotated exists (the Pretoria Sepedi Corpus (PSC, cf. De Schryver and Prinsloo (2000)) and Faaß et al (2009)).

Linguists usually provide exhaustive descriptions of the Northern Sotho copulatives, e.g. from a linguistic perspective (Taljard (1999)), or from the perspective of computational processing (Faaß (2010). Electronic knowledge bases intended for the development of such e-dictionaries attempt to capture all possible forms, too, in order to provide the required information for different target users. E-dictionaries designed for beginners on the other hand should focus on the most common copulatives and their arguments to avoid confusion, therefore, we need to know which of the copulatives to select for such user-groups. Here, frequencies of occurrence in corpora are taken as a basis for their inclusion.

However, if we attempt to extract those data from corpora with the goal of detecting their frequencies of occurrence, we need to identify the morpho-syntactic patterns that these constellations fulfill and given the extent of these linguistic units, the question arises whether it is possible to define linguistic and distributional[2] patterns that not only match all the forms appearing in a corpus, but also identify their linguistic category correctly. The problem here is that linguistic categories such as identifying, descriptive and associative copulatives were mainly described on semantic and only partially on morpho-syntactic grounds (Lombard (1985)).

In the presentation, an overview of existing linguistic descriptions of the Northern Sotho copulative will be given and we shall describe a methodology to semi-automatically extract copulatives out of the PSC. So far, we’ve developed queries that successfully identify and extract most of the identifying known copulative constellations (copula and their objects) for a further semi-automated processing. Currently, these queries are extended to other known constellations. We will present all of the distributional categories detected and the frequencies of occurrences of the copulatives found. Lastly, typical (=frequent) arguments that the copula appear with will be outlined.

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2 *Distribution* is meant here as the contextual environment in which an item appears.

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Claire HALPERT GS

Nominal licensing and nominal morphology: a Zulu case study

It has long been noted that abstract case has a complicated relationship to overt case morphology in many case-marking languages (e.g. Andrews 1982, Sigurdsson 1989, Schütze 1997, Fanselow 2000; Woolford 2006, a.o.). In this talk I address the relationship between abstract case and case morphology in the Bantu language Zulu. While Bantu languages have been argued to lack case altogether (Harford Perez 1985; Ndayiragije 1999; Alsina 2001; Baker 2003; Carstens and Diercks to appear; Diercks to appear), I argue that Zulu has *both* a system of **structural case licensing** inside vP*and* a system of **case-marking morphology**. Specifically, I propose that we can understand case morphology in Zulu, and more broadly across languages, in terms of two parameters: **[+/-intrinsic]** (which captures whether structural licensing is required) and **[+/-phi-projecting]** (which captures whether case-marked nominals are accessible for agreement). These two parameters combine to yield the range of case morphology found in languages with better-studied case systems, like Icelandic, while also giving a fourth possibility—that of a "default" case marker—exemplified in Zulu. Mapping out this system in Zulu affords us a blueprint for future investigations of structural and morphological case in Bantu languages. I further argue that we can use this case system proposed for Zulu to understand the "tonal case" patterns described in Otjiherero by Kavari et al. (2012).

Evidence for structural case in Zulu comes from the distribution of augmentlessnominals. Unlike nominals marked with an *augment* (pre-prefix) vowel (AUG), these nominals are restricted to vP-internal positions (Halpert 2012). In particular, augmentlessnominals must be the highest element inside vP, regardless of grammatical function or the way in which a nominal achieves that position, as with raising-to-object in (1b) or base-generated vP-internal subjects in (2). I argue that this distribution reflects structural case licensing in Zulu: augmentlessnominals must be case-licensed by a head that probes vP. Evidence from the *conjoint/disjoint* verbal alternation (cf. Buell 2005) independently suggests the need for such a probing head.

(1) a. *a-ngi-funi [ukuthi **muntu** **a**-cule]
NEG-1sg-want that 1person 1sjc-sing
b. à-ngí-fúní **mùntù**$_i$ [ùkùthì t_i **á-** cúlè]
NEG-1sg-want 1person that 1sjc.sing
"I don't want anyone to sing."

(2) a. à-kù-phèk-ángà **mùntù** **í**-qándà
NEG-17s-cook-NEG.PST 1person AUG-5egg
"Nobody cooked the/an/any egg."
b. *a-ku-phek-anga (u)-muntu **qanda**
NEG-17s-cook-NEG.PST (AUG)-1person 5egg

Evidence for morphological case comes from the nominal prefix system in Zulu. I argue that the *augment* vowel is an intrinsic case marker that can license any nominal independent of structural configuration. When the augment is absent, as in the constructions above, structural case is required. We find similar distinctions in Zulu's oblique prefix system: certain oblique prefixes are in complementary distribution with the augment and can license any nominal, along the lines of *inherent* case; others require an external means of licensing, like *quirky*-cased nominals (e.g. Woolford 2006). As with languages like Icelandic, Zulu exhibits a difference between oblique cases and non-oblique cases: only the non-oblique cases can co-occur with subject agreement.

Implications: In this analysis, the *augment* vowel emerges as a new type of case -- one that can inherently license nominals in any structural position (while allowing them to serve as targets for agreement). This type of case fills a natural gap in case typology, providing evidence for a 'default' licenser (contra, e.g., Schutze 2001). At the same time, while structural case in Zulu follows certain familiar cross-linguistic patterns, the *structural configuration* in which case is licensed is novel. Previous studies that have argued against case in Bantu have largely focused on the position in which *nominative* case is licensed cross-linguistically. In this talk, I show that while such a position indeed does not display case effects, vP-internal positions do. This research suggests, then, that it is worthwhile to re-examine the issue of case in other Bantu languages in terms of these novel licensing configurations. Recent work by Kavari et al. (2012) suggests that the case signature of Zulu occurs elsewhere in the Bantu family. They show that in Otjiherero, nominalsare marked with one of several "tone cases." Among these tonal patterns, they identify one ("complement case") that appears only on the highest element in vP—just like Zulu augmentlessnominals—and another ("default case") that can appear on nominals in any position—like augmented nominals in Zulu. Though Otjiherero, like Zulu, has an active augment morphology system, it appears that unlike Zulu, it does not implicate the augment in its case system and instead depends solely on tonal morphology. Comparing Zulu and Otjiherero thus not only provides additional support for the system of case proposed here, but gives us a sense of the type of variation that we will find in cases systems across the Bantu family.

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GS

Dislocation via movement in Zulu: evidence from raising-to-object

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In this talk we present novel evidence from the intersection of raising-to-object (RtO) and dislocation constructions in Zulu (Nguni; S 42) to argue that at least some dislocated CPs in Zulu originate in argument positions and dislocate via movement. This conclusion sheds light on our understanding of CP-extraposition and the nature of dislocated positions in Bantu more generally, providing counterevidence to claims that all dislocated elements in Bantu are base-generated in *v*P-external adjunct positions (cf. e.g. Bresnan and Mchombo 1987; Baker 2003).

Our argument proceeds in two parts: first, we establish, following Halpert (2012), that RtO in Zulu is A-movement to a *v*P-internal position. Second, we show that the raised DP can trigger object marking in the main clause, resulting in right dislocation of *both* the agreed-with DP *and* the CP from which it originated. In order to serve as the source for the raised argument, the CP must occupy an argument position in the main clause. We conclude that this CP must reach its dislocated position via *movement* – base generation is, in this case, not a possibility.

Raising-to-object as A-movement: Zulu has several predicates that optionally allow RtO, including *-funa* "want" and *-lindele* "expect". Raised objects precede the complementizer of the embedded CP (see (1)), a position generally unavailable to left-dislocated elements; furthermore, we show that RtO preserves idiomatic meanings, and creates new antecedents for binding – all indicators that A-movement has occurred. We also present evidence that the landing site of the raised DP is a *v*P-internal A-position: it follows the conjoint form of the verb (see e.g. Buell 2005), precedes low adverbs, and can be focused, questioned or augmentless (see Halpert 2012).

CP-dislocation as movement: Perhaps the most striking objecthood property the raised DP displays is that it can be object-marked on the main verb, as shown in (2). When the raised object triggers object marking in the main clause, it still appears between the main verb and the embedded complementizer, but all syntactic diagnostics suggest that the raised DP is in fact in a *dislocated* position: it appears with the disjoint form of the verb and can no longer be focused, questioned, or appear without an augment. Based on evidence from the conjoint/disjoint alternation, the position of adverbs, and the behavior of certain complementizers that do not permit dislocation, we then argue that a CP that follows a dislocated object-marked DP must also be in a vP-external position. From this we conclude that the CP in constructions like (2) must have *moved* from an argument position in the main clause to its dislocated position: since base-generated adjuncts are islands (Huang 1982, a.o.), a derivation in which RtO occurs from an already-dislocated CP would be ruled out. RtO must have taken place when the CP is still inside the vP; only after RtO and dislocation of the derived object is the CP moved to a position in the right clausal periphery. Our result thus provides evidence against claims that dislocated arguments are always base-generated by showing that the extraposition of CP-arguments is an instance of movement (cf. Büring & Hartmann 1997).

(1) Ngi-fún-á **ú-Sípho** [CP ukuthi á-sébénz-é é-sí-tolo sa-mi kúsasa].
1stSG-want-FV 1a-1a.Sipho that 1a.SM-work-SUBJ LOC-7-store 7.POSS-1st.SG tomorrow

(2) Ngi-ya-**m**-fún-a]VP ú-**Sípho** [CP ukuthi á-sébénz-é é-sí-tolo sa-mi kúsasa].
1stSG-DIS-1.OM-want-FV 1a-1a.Sipho that 1a.SM-work-SUBJ LOC-7-store 7.POSS-1st.SG tomorrow
'I want Sipho to work in my store tomorrow.'

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GS

Bàsàa object left-dislocation, topicalization and the syntax-phonology mapping of intonation phrases

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In this talk, we concentrate on Topicalization in Bàsàa (A43, Cameroon). We show that Bàsàa is similar to languages like Mbuun (B87, Bostoen & Mundeke 2011) or Lango (Nilotic, Noonan & Bavin Woock, 1978) in that a certain type of passive sentences are expressed through object left-dislocation. What is particularly interesting is that Bàsàa also has both passive morphology (contrary to Mbuun and Lango) and non-passive left-dislocation. We discuss the syntax, prosody and information structure of these three types of sentences.

Bàsàa is a Subject-Verb-Object language that displays the rich derivational verbal morphology typically found in Bantu languages. Passive is derived by means of suffixation of a verb extension. This is briefly illustrated in (1) and (2) (see Hyman 2003 for details).

(1) tòlò à-nʤɛ́.
mouse sm1-past1-eat
The mouse ate.

(2) tòlò à-nʤéßâ.
mouse sm1-past1-eat-pass
The mouse was eaten.

Whenever the verb displays passive morphology, the patient is realized as the subject and the agent is banned from being introduced as an oblique noun phrase. In other words, Bàsàa only displays agentless passive sentences. In order for both the agent and the patient to be expressed when the latter is the `locus of viewpoint' or `topic', one has to resort to the structure given in (3): an active sentence in which the object appears in clause-initial position and a coreferential pronoun appears in the canonical object position, i.e. object left-dislocation. The functional passive strategy illustrated in (3) is similar to a canonical sentence in that it can be associated with an all-focus interpretation.

(3) tòlò síŋgá ì-nʤé ɲɛ́.
mouse cat sm7-past1-eat it
The mouse, the cat ate it. (= The mouse was eaten by the cat)

We argue that: (i) the functional passive left-dislocation strategy is the result of a general dispreference against non-subject agents in Bàsàa and (ii) passive left-dislocated objects sit in a preverbal position within the inflectional domain of the clause, i.e. they are not `left-peripheral' topics. Additionally, we explore the possibility that what might ultimately distinguish Bàsàa from Bantu languages with passive subject/object reversal is the lack of verb movement above the position hosting the grammatical subject.

Finally, we discuss the prosody of topicalization in Bàsàa. We show that both passive and non-passive dislocated objects phrase separately from the rest of the clause. This is briefly and partially illustrated in (4) and (5). Whenever a noun phrase containing « all » (final HL in isolation) phrases together with the consituent that follows – i.e. in subject position or in ditransitives -, « all » realizes a final H and the L tone triggers downstep on a following H. The failure of this phonological process to apply in left-dislocated phrases indicates that a prosodic break separates them from the following constituent.

(4) ɓɔ̀ɔ̀ŋgɛ́-ɓɔ́-ɓásô sóɣól à-ǹtɛ́hɛ́ ɓɔ̀.
Children-them-all grand-father sm1-past1-see them
All the children, the grand-father saw them. (= all the children were seen by the grand-father)

(5) ɓɔ̀ɔ̀ŋgɛ́-ɓɔ́-ɓásô sóɣól à-jè màséé nì ɓɔ̀.
Children-them-all grand-father sm1-pres.be happy with them
All the children, the grand-father is happy with them.

We propose that a syntax-prosody mapping constraint based on the largest extended projection of the verb (Szendroi 2001) is the most straightforward way to account for the phrasing pattern observed in Bàsàa left-dislocation.

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Subject marking in Bembe (David Iorio; Newcastle University; d.e.iorio@ncl.ac.uk)

The phenomenon of subject marking in Bantu has so far defied a unified analysis, and is treated, depending on the language in question, as either pronominal agreement [2], grammatical agreement [4], or as being ambiguous between the two [1]. On the basis of the local complementary distribution between subject markers and lexical subjects, and the fact that preverbal subjects exclusively display A'-properties, I claim that subject marking in Bembe (D54) is pronominal. Consider (1) in which subject marking is grammatical with preverbal subjects in declaratives (a) and in object relatives without lexical subjects (b) but ungrammatical whenever a lexical subject is present in object relatives (c).

(1) a. (*Baana*) *b-á-yak-a* *ngyoa.*
2child 2SM-T-kill-FV 9snake
'The/(*some) children killed a snake.'
b. *Ngyoa* *ya-b-á-yak-á* (**baana*)
9snake 9REL-2SM-T-kill-FV 2child
'The snake which they killed…'
c. *Ngyoa* *ya-(*b)-a-yak-á* *baana*
9snake 9REL-2SM-T-kill-FV 2child
'The snake which the children killed…

Expanding on previous proposals by [5] and [7], I claim that the facts in (1) are explained if subject markers are analysed as deficient pronominal clitics, i.e. arguments of the verb, which are generated as XP/X° in *v*P. The interpretable φ-features of φPs are attracted by strong φ-features on C and T under *Agree* and an additional TOP/REL-feature on C [4]. Due to their defective nature, φPs are able to incorporate directly into T, thereby precluding the need for spec,TP [7]. Since they are non-referential, they receive a referential value by a lexical (or null) Aboutness-shift topic [3] in the CP-domain. Consider the derivations in (2).

(2) a. [CP (*baana*) [TP [T *b* + *á* [AspP *yak* + *a* [*v*P ~~φP~~ [*v* ~~*yak*~~ [VP ~~*yak*~~ [DP *ngyoa*]]]]]]]].

b. [CP *ngyoa* [C *ya* [TP [T *b* + *á* [AspP *yak* + *á* [*v*P ~~φP~~ [*v* ~~*yak*~~ [VP ~~*yak*~~ [DP ~~*ngyoa*~~ …

c. [CP *ngyoa* [C *ya* [TP [T *á* [AspP *yak* +*á* [*v*P *baana* [*v* ~~*yak*~~ [VP ~~*yak*~~ [DP ~~*ngyoa*~~ …

If subject markers are pronominal arguments, the local complementary distribution between subject markers and lexical subjects follows naturally. In addition, the absence of a spec,TP position, indicated by the A'-properties of preverbal subjects, correctly predicts that lexical subjects have to stay low in object relative clauses since they cannot incorporate. That other Bantu languages, in turn, allow preverbal lexical subjects in object relative clauses is explained by assuming that they feature an active spec,TP position, the presence of which is subject to parametric variation.

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The Causative-Instrumental Syncretism in Kinyarwanda

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Kinyarwanda (Rwanda) has a variety of means for encoding causation, including the morphological causative *–ish* in (1). Kimenyi (1980) notes that this causative is identical to the instrumental applicative, shown in (2).[1]

(1) Umu-gabo a-ra-ndik-*ish*-a umu-kobwa i-baruwa.
cl1-man cl1-pres-write-caus-imp cl1-girl cl9-letter
'The man is making the girl write a letter.'

(2) Umu-kobwa a-ra-ndik-*ish*-a i-baruwa i-karamu.
cl1-girl cl1-pres-write-inst-imp cl9-letter cl6-pen
'The girl is writing a letter with a pen.'

I will argue that this syncretism of causative and instrumental morphology follows from the shared semantic nature of causees and instruments, and I will treat both constructions as three-argument event schema in which there is an intermediate argument upon which the causer/agent acts. The crucial distinction of interpretation, building on a proposal in Peterson (2007), is the animacy of the intermediate argument. This contrasts with Shibatani and Pardeshi's (2001) explanation for the syncretism, which states that a syncretism between a causative and applicative should arise due to the causative's sociative meaning—i.e. the high level of involvement of the agent in the caused action.

I show that although sociative meaning can be encoded in the morphological causative, this is subsumed by a broader set of meanings that require direct causation, fitting with the typology of causative meanings proposed by Comrie (1985). This direct causative meaning follows from the fact that the *–ish* causative syntactically patterns as what is termed a "lexical" causative. I show this based on (1) the *–ish* causative's inability to undergo operations that separate the causing and caused events (2) its lack of productivity with idiomatic verbal constructions—such as *yasinze ikoti* 'hang the coat' or 'die', and (3) the fact that the *–ish* causative can block other lexical causatives in the language. I present original field data for these different syntactic tests.

This treatment of morphological causatives is problematic for theories of argument structure in the Minimalist Program (cf. Harley 1996;2008), because the theory does not provide a means for encoding morphological causatives as distinct from analytic causatives. I explicate the problems within this approach and provide a proposal in Lexical-Functional Grammar in which the morphological causative is treated as a morpholexical operation on the verb.

In sum, I show that morphological causatives pattern with lexical causatives, which loosely fits into the typology of causative meanings proposed by Comrie (1985). This is problematic for Shibatani and Pardeshi's (2001) account of the phenomena, which is centered on sociative causation. I propose instead that the causative and instrumental applicative are not separate syntactic operations, but one tri-valent argument frame. I then show that the argument structure facts of this kind of structure are problematic for the Minimalist Program's treatment of morphological causatives, and present an alternative in LFG.

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The Mental Representation of Setswana Derived Nouns: An Experimental Investigation of Class 1 and 9 nominalisations

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Setswana class 1 and 9 nominalisations differ with respect to morphological transparency: Class 9 derivations are not readily segmentable into an obvious stem and affix in contrast to Class 1 derivations, which are transparently affixed with the prefix *mo-* and suffix *-i* indicating deverbal nouns:

1. Class 1 nominalisations	Class 9 nominalisations
lèf-á → mo-lèf-ì	lèf-á → tèf-ò
pay-FV 1SG-pay-FV	pay-FV 9SG-pay-FV
'pay-FV' 'payer'	'pay' 'payment'

As (1) demonstrates, Setswana has nominal derivations with clear morphological transparency (Class 1) as well as those with a more idiosyncratic pattern (Class 9). In addition, Setswana has 'pseudo-derived nouns', which look as if they were derived from a verb, but are in fact not morphologically or semantically related to a verb. For example:

2. sál-à *→ mò-sád-ì	gàb-à	*→ kgáb-ò
stationary-FV 1SG-woman-FV	stationary-FV	9SG- large fire-FV
'stationary' 'woman'	'pull stomach in'	'large fire'

Further, there are nominal forms that have orthographic overlap with certain verbs without any morphological or semantic relationship. For example:

3. ròb-à *→ mo-rob-a	bák-à *→	lò-bàk-à
break-FV 3SG-fun-FV	break-FV	5SG-reason-FV
'break' 'fun'	'learn a lesson'	'reason'

We used psycholinguistic methods to determine whether these nominalisations are memorised as whole units or whether morphological structure plays a role on the mental representation of transparent class 1 and the non-transparent class 9 nominalisations. Earlier studies found that regular forms memorised as whole-forms show word-form frequency effects, i.e. the more frequently speakers encounter a word form, the faster they recognise it as a word (Scarborough, Cortese & Scarborough, 1977). We found frequency effects for both classes of nominalisations in a visual lexical decision experiment with 83 participants, which suggest that stored complex word forms play a role in the processing of both noun classes under investigation. In another experiment, 53 participants were primed with the two noun classes (see (1)), pseudo-derived nouns (see (2)) and orthographically related nouns (see (3)) before making a lexical decision on the presented stimuli (Sonnenstuhl, Eisenbeiss & Clahsen, 1999). Results from this experiment show that prior presentation of a morphologically related prime-form (1) showed faster recognition times for both deverbative classes. Such priming effects did not occur for pseudo derivations (2) or for forms in the orthographic condition (3). This suggests that the verb stem involved in the deverbative is only pre-activated by a morphologically related verb, not by a verb with surface similarity. Taken together, results from both experiments suggest that stored word forms may play a role in morphological processing, but that morphological structure affects the processing of complex word forms independently of pure form overlap.

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Tone in Two Elomwe Dialects in Zambezia Province (Mozambique)

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Within the broad group of speech varieties labeled "Emakhuwa", there are a number of varieties whose speakers self-identify their language as "Elomwe". Elomwe speech varieties are spoken primarily in (southeast) Malawi and Zambezia Province in Mozambique. There are no linguistic features that distinguish Elomwe varieties from Emakhuwa more generally (the only feature commonly cited, the use of affricates in place of the post-alveolar stops written as ***tt*** and ***tth***, while largely confined to Elomwe is far from universal inside Elomwe).

The present paper surveys the tone and tonal morphology of two dialects of Zambezian Elomwe: the dialect of Mugeba and the dialect of Ilê, and demonstrates that the tonal systems of these two dialects differ in the same ways that tone in Emakhuwa dialects in general differ. Furthermore, the paper will briefly examine some two dozen verb tenses and show that their segmental/tonal shapes reflect patterns found more generally in Emakhuwa.

All dialects of Emakhuwa are characterized by a lack of lexical tone in the verb stem. Instead, a H tone is assigned to a particular mora (or moras) of the stem according to the verb tense in which the stem is embedded. A prefixal element may also be specified with a H tone in certain tenses. We will call these morphologically-conditioned tones "primary" H tones. Tones are assigned to the stem according to the moraic count of the stem. Typically, a primary H tone is assigned to the first, second, third or final mora of the stem. The presence of an object prefix is relevant since in some cases it is the " macro-stem" rather than the verb stem proper that is counted. There may be difficulties with respect to the verb stem not having the required number of moras. Also, since many Emakhuwa varieties do not allow a primary H on a word-final mora, conflicts arise when the target of tone assignment is the final vowel of the word. We will illustrate all of these issues in Ilê and Mugeba.

Emakhuwa dialects can be differentiated tonally into two broad groups: non-doubling and doubling dialects. The difference is simple. In some varieties, the primary H tones "double" onto the following mora (unless blocked by general principles). These are the "doubling" dialects (though it should be noted that in some doubling dialects there may be situations in which the primary H tone does not actually surface). In non-doubling dialects, the primary H tone does not extend its influence onto a following mora under any condition. The Elomwe dialects that we have explored in Malawi are all of the non-doubling type. Our recent work in Zambezia , however, has revealed that there are both non-doubling and doubling Elomwe varieties in this province. The dialect of Ilê is non-doubling, while Mugeba is doubling.

In the case of non-doubling Emakhuwa dialects, there is not much to be said about tone beyond the issue of tone assignment mentioned above. Doubling dialects do show some diversity in how tone doubling works. In this paper we will demonstrate in detail how the Mugeba dialect fits into the larger picture of tone doubling in Emakhuwa. This picture can be summarized as follows:

With the exception of coastal dialects such as Enlai in Angoche, doubling always fails to affect a vowel at the end of the Intonational Phrase. Mugeba is an example of a dialect that obeys this constraint (e.g. **[o-lí̱ma]** 'to cultivate', but **[o-lí̱má…]** in medial position). Note that in our transcriptions, we underline the vowel bearing a primary H tone. Again, with the exception of a few dialects such as Enlai, a primary H tone on the first mora of a long vowel does not double onto the second mora when the syllable is IP-penult. Mugeba, however,. does not obey this constraint. But it differs from Enlai in that although there is doubling onto the second mora, the double on this mora has a falling character (e.g. **[o-má̱âla]** 'to be quiet', but **[o-má̱ála…]** in medial position). Interestingly, the doubling in the two "mixed" languages based on Emakhuwa, Ekoti and Ecuwabo, show the same phonetics as Mugeba. When a primary H tone is located on the antepenult mora of the IP, three results may obtain: doubling may be blocked (e.g. in Imeetto and Esaaka); doubling may occur, resulting in a level H tone on the penult mora (e.g. in Ikorovere and Enlai); doubling occurs, but the doubled H has a falling character (e.g. in Imitthupi, Emwaazha, Eeratti, as well as the mixed languages Ekoti and Ecuwabo). In Mugeba, the third option is found: **[o-ló̱vôla]** 'to carry', but **[o-ló̱vóla…]** medially). In most Emakhuwa doubling varieties, when the doubled H tone appears immediately in front of a following primary H tone, the result is a span of H tones of the same height (e.g. as in Ikorovere, Imitthupi, Imeeto, Esaaka). In Mugeba, however, there is a downstep that separates the doubled H and a following primary H tone (e.g.**[o-rú̱kún!ú̱sa]** 'to turn it over').

GS

Kirundi palatal glide strengthening: An acoustic study

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In Kirundi (Bantu), hetero-morphemic C + j clusters are subject to two processes: palatalization (coronalization) and palatal glide strengthening (Meeussen 1959), summarized in (1). The first process applies to velars, laryngeals, and /n/ regardless of the context, and to non-nasal coronals across morpheme boundaries. The output of the process involves single coronal segments, mainly sibilants. The second process applies to labials regardless of the context and to non-nasal coronals within a morpheme. The result is a complex segment or a sequence of two segments: the original (or fricated) consonant and a fricative- or stop-like palatal element that agrees with the consonant in voicing and nasality. The phonological status of the outputs of the second process is controversial, as researchers disagree whether they should be treated as complex (or secondarily articulated) segments or sequences of two segments (e.g. Broselow & Niyondagara 1990; Maddieson 2003). Further, details of the phonetic realization of the palatal element are unclear, as there is substantial variation in the transcription of the relevant data in the sources. For example, /bj/ in /j-a-ɾab-je/ 's/he looked' was transcribed as 'vᶻy', 'vdy', and 'vᶻgʸ' by Meeussen 1959, Broselow & Niyondagara 1990, and Ntihirageza 1993 respectively.

(1)

	labial			coronal						dorsal		laryngeal
input	pj	bj	mj	tj	dj	sj	zj	ɾj	n j	kj	gj	hj
output 1 (across morphemes)	fɕ	vʑ	mɲ	s	z	ʃ	ʤ	z/j	ɲ	ts	ʣ	ʃ
output 2 (within morphemes)	fɕ	vʑ	mɲ	tɕ	dʑ	sɕ	zʑ	ɾʑ	ɲ	ts	ʣ	ʃ

In this paper we present preliminary results of an acoustic study of Kirundi palatal glide strengthening in across- and within-root sequences of labials and coronals (highlighted in (1)) produced by a female speaker of Kirundi. The acoustic analysis involved an examination of spectral (centre of gravity of fricative noise or burst and F2 of the following vowel onset) and temporal characteristics of palatal elements, and their comparison to single fricatives, stops, and nasals in similar contexts. We further discuss implications of the results for formal analyses of the complex alternations in Kirundi, in the context of the typology of glide strengthening and palatalization in Bantu and cross-linguistically (Bhat 1978; Maddieson 2003; Bateman, 2010).

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GS

Demonstratives in Mozambican Ngoni

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This paper presents data on the demonstratives of a hitherto unstudied Bantu language, Mozambican Ngoni (N.10). Ngoni has a person-oriented demonstrative system (Diessel 1999) with two additional factors that are morphologically distinguished: physical contact and visibility. Hence, the distinction is fivefold: near the speaker with physical contact / general near the speaker / near the hearer / far from both, but within view / general far. Apart from these forms there is also a separate identificational proximal demonstrative, as well as emphatic forms. These forms are shortly introduced according to their semantic features, their morphological make-up and their position in the noun phrase. It is shown that while the main position of the demonstrative is phrase-finally, but remarkably, demonstratives can occur pre- and post-nominally as well, and may appear up to three times within the same noun phrase.

As for the usage in discourse, two of the five basic demonstratives, the general distal and the medial are used endophorically in texts to indicate definiteness; the distal in the case of anaphoric reference, the medial in the case of associative anaphora, establishing relative clauses and other situations of definiteness in the immediate discourse.

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GS

Domain-sensitivity in High Tone Spreading in two Xitsonga dialects

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Domain-related restrictions on H Tone Spread (HTS) in a dialect of Xitsonga that is spoken in Mozambique are described and analyzed in Kisseberth 1994 (Xitsonga I), and reanalyzed in Selkirk 2011, who argues for a modular treatment of these domain-related restrictions involving (a) a constraint-based analysis of the formation of prosodic structure and (b) a constraint-based analysis of the relation between prosodic structure and tone. Recent investigation by this paper's authors of a variety of Xitsonga spoken in Limpopo province, South Africa (= Xitsonga II) provides support for this modular treatment. Xitsonga II and Xitsonga I arguably display the same organization of sentences into phonological phrases (φ) and intonational phrases (ι). But, as will be seen in this paper, their grammars differ in the manner in which the right edge of φ restricts HTS, as specifiable in a theory of domain-sensitivity in the constraints on HTS.

In both varieties of Xitsonga, lexically headed syntactic phrases match up with surface phonological phrases (φ) due to the S-P constituency correspondence constraint Match(LexP,φ), except if the phrase contains of only a single prosodic word (ω), suggesting the ranking in Xitsonga of BinMin(φ,ω) >> Match LexP (Selkirk 2011), cf. (1ab) vs. (2ab) below. Moreover, the markedness constraint Strong Start (Selkirk 2011, Elfner 2012) forces the nonisomorphic prosodic grouping of verb and first object in (4), explainable if Match LexP >> Strong Start. Assuming this grammar of prosodic structure formation, in combination with a simple domain-sensitive phonology where HTS will be blocked when outranked by certain constraints on the tone-prosodic structure relation, provides a satisfying analysis of the distribution of HTS in Xitsonga I, as illustrated in the representations in (1-3):

(1) a. $_{CP}[\ _{V/TP}[\ _{V}[\ va^{H}\text{-a-tisa}]_{V}\ _{NP}[\ _{N}[\text{xi-hontlovila}\ ]_{N}\ ]_{NP}\ ]_{V/TP}\ ]_{CP}$

b. $_{\iota}(\ _{\varphi}(\ _{\omega}(\ \text{v-}\mathbf{a^{H}\text{-}tisa})_{\omega}\ _{\omega}(\mathbf{xi\text{-}hontlovii^{\text{-}H}}\text{la}\ )_{\omega})_{\varphi}\ )_{\iota}$

'They are bringing a giant'

(2) a. $_{CP}[_{V/TP}[\ _{V}[va^{H}\text{-a-susa}]_{V}\ _{NP}[\ _{N}[\text{n-guluve}\ [ta^{H}{}_{NP}[\ _{N}[vona^{H}]_{N}\ ]_{NP}]_{NP}\ ]_{V/TP}\ ]_{C}$

b. $_{\iota}(\ _{\varphi}(_{\omega}(\mathbf{va^{H}\text{-}a\text{-}susa^{\text{-}H}})_{\omega}\ _{\varphi}(\ _{\omega}(\text{n-guluve})_{\omega}\ _{\omega}(!\text{ta}^{H}\ \text{vo!na}^{H})_{\omega}\ )_{\varphi}\ )_{\iota}$

'They are removing their pig (= a/the pig of theirs).'

(3) a. $_{CP}[_{V/TP}[va^{H}\text{-a-xavela}]_{V}\ _{vP}[_{NP}[_{N}[\ \text{xi-phukuphuku}]\ _{NP}[_{N}[\ \text{fole}\ ]_{N}]_{NP}]_{vP}]_{V/TP}]_{CP}$

b. $_{\iota}(\ _{\varphi}(_{\varphi}(\ _{\omega}(\ \text{v}\mathbf{a^{H}\text{-}xavela})_{\omega}\ _{\omega}(\mathbf{xi\text{-}phukuphu^{\text{-}H}}\ \text{ku})_{\omega})_{\varphi}\ _{\omega}(\text{foole})_{\omega}\ )_{\varphi}\ )_{\iota}$

'They are buying tobacco for a fool'

Embodying φ-domain-edge sensitivity in constraints like NonFinality(H, ..) (Kisseberth 1994) and CrispEdgeR/L(H,..) (Ito & Mester 1999) permits a simple account of language-particular differences in HTS of the sort attested in Xitsonga I and II. CrispEdgeL(H, φ) prevents a multiply-linked H from spanning a left φ-edge in (2) in both varieties. As for NonFinality, in both there is no effect at the ω-level, as seen for Xitsonga I in the verb in (2). In Xitsonga I, NonFinality(H,φ) can block H from spreading to the last syllable of both the ι-final φ in (1) and the ι-medial φ in (3). In Xitsonga II, though, there is no NonFinality on the medial φ in (3); instead H spreads up to the very edge of φ. Nonfinality(H,ι) will ensure that H spreads to only the penult in structures like (1), but it's the φ-edge sensitive CrispEdgeR(H,φ) that must be responsible for the blocking of HTS thru the medial right φ-edge in (3) in Xitsonga II.

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Semantic Classification of the Bantu Verbs and Tense/Aspect Selections: The Case of Lexical Verbal Semantics in Kiswahili

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Abstract

Different categories of verbal semantics are offered across Bantu languages. This presentation provides a case of Kiswahili verbal semantics with regard to two previous posits: dynamism of the situation encoded by the verb (i.e. onset, nucleus and coda) and T/A formatives surrounding each verb (Kershner 2002; Botne et al. 2006; Seidel 2008). A third suggestion is offered and it surrounds the impacts on the speakers as emitted by the semantic properties of the verb in use.

Basic findings reveal three major kinds of Kiswahili verbs [with sub-categorisations] (i) Stative (states) e.g. **elewa** 'understand' and **jua** 'know', (ii) Inchoatives (achievements) e.g. **pona** 'heal', **chukia** 'hate', (iii) Activity (duratives) e.g. **kimbia** 'run' and **gonga** 'bounce'.

Further basic findings show that in Kiswahili narratives the various types of verbs select some of the T/A related expressions, marking the onset and coda of the event/situation in question: (a) **-anza** 'start, begin, commence', (b) **-endelea** 'continue, go on' and (c) **-isha** 'finish, end, complete'. It is the selections of these expressions that counts a lot in the classification of verbs per T/A. Thus, inchoatives like **fika** 'arrive' co-occur with **-isha** 'finish' but never with **-anza** 'commence' and **-endelea** 'go on' because inchoatives encode the coda of the event/situation. Durative verbs like **lima** 'cultivate' co-occur with **-anza** 'commence', **-endelea** 'go on', and **-isha** 'complete' as they encodes onset, continuation and coda of the situation.

The new proposal to the classification of verbs focuses on the impact of the individual verbs as used in the narratives. Findings reveal three kinds of verbs: psychological, physical and both (double). Usually the psychological verbs have internal impacts either to the speaker or to the hearer hence they capture Stative and Inchoative verbs and their T/A selections. Physical verbs have external impacts either to the speaker or to the hearer and mostly include activity/durative verbs and their T/A selections. Several verbs have double impacts in the sense that they have psychological effects as well as physical impacts and these are achievement and stative verbs in Kiswahili.

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GS

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Tonal Processes in the Setswana Verb

Problem: Creissels (1996 and subsequent work) offers description of the Setswana tonal system and an approach to its analysis. He correctly identifies several tonal processes in Setswana: the 2-syllable word-internal H-domain spread within words, 1-syllable annexation of a toneless syllable at the word boundary, and other processes related to H-domain formation. However, when dealing with the tonal morphology of the Setswana verb, his account runs into problems, as in some verb forms, instead of the expected word-internal 2-syllable spread, the H-tone spreads 1 syllable, 3 syllables, or fails to spread completely. Moreover, the process of H-domain merge, which Creissels posits word-internally, sometimes fails to apply, triggering H-domain retraction instead. To account for these facts, Creissels is forced to make several stipulations. The most important of these is the stipulation of empty syllables in some forms. The position of the empty syllables within the morphological structure of the verb and the actual set of forms which contain them, seem arbitrary, and their placement at times depends on tonal values of surrounding morphemes – information which should not be available prior to the vocabulary insertion.

Analysis: To avoid this and other stipulations made in Creissels' analysis, I propose that the Setswana verb has the following structure (the figure excludes Final Vowels, not all morphemes shown are compatible):

1. CONJOINT FORM: [{(NEG_1)-(**SM**-M)}-{(OM)-(**V**-ASP-**T**)}-{(NEG_2)-(~~OM)-(V-ASP~~)}-{(OBJ)})]
   DISJOINT FORM: [{(NEG_1)-(**SM**-M)}-~~(OM)-(V-ASP-~~**T**)}-{(NEG_2)-(OM)-(**V-ASP**)}]

Bold font = obligatory elements, ~~Crossed-out~~ font = unpronounced copies, [= PhPhr boundary, { = PhWd boundaries, (= MWd boundary, NEG = Negation, SM = Subject Marker, T = Tense, OM = Object Marker, V = Verb, M= Mood, ASP = aspect, OBJ = Object

Crucially, the complex Neg-SM-M-T forms a single PhWd, while the verb in the vP forms another together with its proclitics and affixes. The verb undergoes V-to-T movement in tensed clauses and may surface either adjoined to T or in its base-generated position in vP due to the Setswana condition that the vP must contain heavy phonological material (Buell, 2005). When the verb is inserted in T (the so-called "conjoint" form of the verb), it forms a single PhWd (unless it contains a OM, which is a proclitic which always has a PhWd boundary before it). When the verb is inserted in the VP (a "disjoint" form), it consists of two PhWds. The placement of the PhWd-boundary is consistent with the proposals of the Inflectional stem/Macrostem division within the Bantu verb (Myers, 1998). The PhWd-boundary is responsible for many of the violations of 2-syllable H-tone spread rule observed by Creissels within the verb. For example, while in the conjoint perfect form of a toneless verb *tsamae-* the tone of the SM spreads 2 syllables (as is a characteristic word-internal spread: *ba tsamayile*, in the disjoint perfect form, the verb is inserted in the vP and the PhWd-boundary separates the vP. The tone of the SM annexes the first oneless syllable of the following PhWd but fails to spread further: *ba tsamayile.* Using this approach we are able to account for the tonal contour of practically all Setswana verb forms.

Advantages of the analysis: The main advantage of the proposed analysis is that it allows to account for all facts which posed difficulty for Creissels, while making no special stipulations and relying solely on tonal mechanisms independently known to be active in Setswana and other closely related Bantu languages. For example, I propose that there is a Meeussen's Rule (MR) operating within the MWds in Setswana which is blocked whenever 2nd of the two adjacent tones spreads beyond the MWd-boundary. This process is directly parallel to MR in Shona, which, although active at a different level of the Prosodic Hierarchy (PhWd), is blocked under similar conditions.

Additional advantages of the analysis include the following: i) it is in line with the proposals of the Inflectional stem/Macrostem division within the Bantu verb, ii) it confirms V-to-T movement hypothesis in Bantu languages and its role in the conjoint/disjoint morphology; iii) it treats pre-stem elements (i.e. elements pro-cliticized onto the Macrostem (NEG2, OMs) in uniform manner.

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GS

Participant Reference in Eastern Bantu Narrative Texts

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Because they constitute a very large number of closely related languages, Bantu languages provide an excellent laboratory for fine-grained comparative linguistics analysis. Much comparative work has been conducted on core grammatical topics such as noun class prefixes, object marking, tense and aspect, and verbal suffixes, but there are far fewer comparative studies concerned with linguistic features of longer stretches of discourse.

This paper is concerned with the question of how participants are introduced, reactivated, and tracked throughout narrative texts in the following eleven languages: Fuliiru [flr] DJ63 (7 texts), Mulenge (dialect of Rwanda [kin]) DJ63 (18 texts), Digo [dig] E73 (7 texts), Jita [jit] EJ25 (10 texts), Kwaya [kya]) EJ251 (10 texts), Suba-Simbiti [ssc] EJ403 (8 texts), Kabwa [cwa] EJ405 (11 texts), Rangi (Langi) [lag] F33 (66 texts), Bena [bez] G63, (10 texts), Malila [mgq] M24 (14 texts), and Makonde [kde] P23 (8 texts).

Three main strategies are found for introducing participants: a) using locative inversion, b) using an existential verb plus suffixed locative clitic with a post-verbal subject, and c) using an existential verb with a post-verbal subject. One language, Bena, has a mixed strategy in which a post-verbal subject is preceded by two existential verbs: one agreeing with the subject and the other with a locative subject marker.

The languages in the survey also differ concerning how participants are referred to once they have been introduced. For example, there is significant variation in the functions of different demonstratives. In most of the languages, distal demonstratives are used when a participant is reactivated after an absence, but in Rangi distal demonstratives tend to be used to continue the active status of a major participant. There are also more subtle differences. In Makonde, distal demonstratives are markers of saliency for minor participants and props, but when referring to major participants, they mark key developments in the narrative. Similarly, in Fuliiru, distal demonstratives referring to major participants are used to indicate major developments in the narrative, but distal demonstratives in Digo refer to major participants and in particular protagonists regardless of whether there is a major development.

Referential (non-proximal) demonstratives are used to maintain reference to an active subject in Jita, Kabwa and Suba-Simbiti, but in Rangi they are used to reactivate a major participant after an absence, and in Bena they are used when the participant is inactive or has no specific role. In Digo, referential demonstratives are only found in the orientation section and occasionally in the denouement, where they refer to major participants, but in Fuliiru referential demonstratives indicate regular developments in the narrative, and therefore occur predominantly in developmental episodes.

This variation, together with cross-linguistic differences in the use of independent pronominal forms and the conditions under which other noun phrases occur, is not discernible from most grammatical descriptions and elicited data. The comparative study of narrative texts therefore opens up new avenues of comparative analysis.

Tons lexicaux et tons intonatifs en frontière intonative en kirundi : analyse de parole en situation de narration

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Jusqu'à présent, l'aspect qui a attiré l'attention des linguistes dans la description de la prosodie du kirundi est le comportement tonal au niveau du mot (Meeussen 1959, Nkanira 1984, Goldsmith & Sabimana 1986, etc.). La question centrale de notre communication est de savoir comment l'intonation s'articule avec les tons lexicaux. Ce processus d'interaction entre tons lexicaux et tons intonatifs peut être déterminé à partir de plusieurs paramètres. Nous partons de la règle dite de Meeussen pour mettre à l'épreuve les observations de cet auteur (1959), lequel a remarqué qu' « en fin de phrase non définitive (sic) un ton bas final est souvent réalisé à un niveau plus haut, sans que cette élévation ait une valeur distinctive » et qu' « en fin de phrase, un ton haut antérieur n'est réalisé que par la seule montée préparatoire de la voyelle précédente, la finale même étant (un peu plus) basse ». Ces observations suscitent en effet des questions plus profondes : quelle sera dans ces conditions la nature d'un ton lexical en finale d'énoncé lorsqu'il subit l'influence d'un ton intonatif bas final ? Ce ton peut-il être analysé comme ton haut, ton haut rabaissé ou simplement comme ton bas ?

Dans cette contribution, nous nous concentrons sur les différents aspects qui peuvent influencer la nature du ton de frontière intonative pour établir l'inventaire des tons intonatifs en kirundi et déterminer leur nature. Nous ne partons pas d'une hypothèse préétablie, mais de l'analyse des données authentiques pour découvrir des principes qui gouvernent l'articulation de ces deux types de tons. Les données de cette étude sont constituées d'extraits de narrations produites par quatre locuteurs natifs du kirundi. Après la segmentation (semi-automatique) et l'alignement du signal de parole en phonèmes, en syllabes et en mots graphiques, notre approche consiste à évaluer la hauteur de chaque syllabe par rapport à celle de la syllabe précédente (en nous inspirant du modèle de Mertens 1987 pour le français). Cette méthode permet d'appréhender aisément les différents types de variation des registres de réalisation tonale. Les premiers résultats montrent que le ton de frontière est déterminé par la localisation du ton haut (lexical) dans le mot en frontière intonative (ou en fin d'énoncé). Ce ton varie selon que (i) les deux dernières syllabes comportent ou non un ton haut, (ii) que le ton haut se trouve sur la première ou la deuxième more de la pénultième syllabe, (iii) que le ton haut se réalise en même temps sur la première more de la pénultième et la dernière syllabe ou encore (iv) que ce mot est suivi d'une pause non finale. Contrairement à ce qu'on observe en fin d'énoncé, où le ton haut est neutralisé et se réalise au niveau infra-bas, le ton lexical ne disparaît pas à la suite de l'intonation mais change sa nature : tantôt il est abaissé tantôt il est relevé. Par conséquent, nous situons l'analyse des tons sur deux plans différents – lexical et postlexical.

Enfin, notre approche permet non seulement de rendre compte de l'articulation des tons lexicaux et des tons intonatifs, mais surtout de mettre à l'épreuve les règles qui sous-tendent la variabilité et le déplacement tonal au niveau du mot. Les premières observations montrent par exemple que la règle dite de Meeussen s'applique même au niveau postlexical mais que la règle de Pullback (Goldsmith & Sabimana, 1986) n'est pas vérifiée.

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LA TRANSITIVITÉ EN ATSI, UN DIALECTE DU FANG PARLÉ AU GABON

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De façon générale, le marquage du groupe nominal objet par une marque casuelle ou une adposition est inconnu de la plupart des langues bantu, qui ont typiquement un phénomène d'indexation de l'objet sur le verbe, avec un conditionnement de la présence de l'indice objet qui varie de langue à langue (Amidu (2001), Bresnan & Moshi (1990), Creissels (2006), Duranti (1979), Hyman & Duranti (1982), Marantz (1993), van der Wal (2009), Beaudoin-L & al. : 2004).

Notre propos vise à mettre en évidence les faits dans un groupe de langues où les processus syntaxiques sont peu abordés et assez mal connus. Il porte sur la transitivité dans le parler fang-atsi du Gabon. Dans cette langue, le complément d'objet est exprimé sans marquage particulier. Les contraintes syntaxiques liées à la présence des auxiliaires verbaux (marques du temps), à l'ordre des mots, de même qu'à la valeur sémantique des objets, déterminent la notion de transitivité.

Nous tenterons de cerner la nature des différentes marques de temps qui provoquent le déplacement du pronom objet. Il s'agira de mettre en évidence les caractéristiques de codage des constructions transitives dans cette langue, où la transitivité d'un verbe n'est pas exprimée par un marqueur objet obligatoire, mais uniquement déterminée par un ordre syntaxique qui dépend de la présence d'auxiliaires verbaux, mais aussi du rôle sémantique des objets, et où la place de l'objet n'est pas influencée par la hiérarchisation ± animé, comme cela est observé dans de nombreuses langues bantu (Creissels (2006), Riedel (2009), Beaudoin-Lietz & al. (2004).

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Nominal Apposition in Shingazidja

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This paper investigates nominal apposition in Shingazidja, a Bantu language (G44a) spoken on Grande Comore (Comoros). Our paper has two main goals: (i) propose a descriptive analysis of the syntactic and prosodic properties of appositives constructions in a Bantu language – a topic that has to our knowledge never been addressed; (ii) show that these properties are similar to what has been found for other languages (O'Connor 2008 for English; Heringa 2011 for a variety of languages including German, Dutch, Romanian, etc.).

We first define the properties of *restrictive* apposition (e.g. Quirk *et al*. 1994; henceforth RA), where a restrictive nominal modifier and the noun it modifies together identify a single referent (ex: *The poet Burns was born in 1759*. (Burton-Roberts 1975: 391)). We show that RA in Shingazidja shares properties with RA in other languages, such as the fact that the two parts are not separated prosodically (Acuña-Fariña 1999; Huddleston & Pullum 2002; Quirk *et al.* 1994): in (1), the tone of the noun phrase *Djumwá* 'Juma' shifts to the restrictive appositive *mlevĺ* 'drunkard', meaning that the two elements belong to the same Phonological Phrase.

(1) (Djumwa m-lévĺ)$_{\phi}$ (ha-remé pah[a])$_{\phi}$
Juma 1-*drunkard* 1past-*hit* 5.*cat*
'Juma 'the drunkard' hit a cat'

However, Shingazidja differs from previously studied languages, where both the antecedent and the restrictive appositive must be definite (Burton-Roberts 1975; Lasersohn 1986): in (1), the modifier *mlevĺ* 'drunkard' is not associated with an augment triggering the definite reading in the language.

We then turn our attention to non-restrictive appositives (Quirk *et al*. 1994; henceforth NRA), which involve non-restrictive or extra information elements post-posed to a nominal antecedent, much like appositive relative clauses (*A man, timid and hesitant, approached the official*. (Quirk *et al.* 1994: 1295)). NRA in Shingazidja also appears to share characteristics of English NRA with respect to the (in)definiteness of both antecedent and appositive, stacking, extraposition, quantifier binding, negative scope, etc. Prosodically, non-restrictive appositives phrase separately, but do not seem to constitute independent Intonational phrases, cf. claims about Catalan (Astruc 2005; Payà 2003), English (e.g. Bolinger 1989; Dehé 2009), French (Fagyal 2002; Mertens 2004) and Portuguese (Frota 2001).

(2) (Djumwá)$_{\phi}$ (§) (ye=m-levĺ)$_{\phi}$ (§) (ɗaɓá)$_{\phi}$ (§) (ha-remé paha)
Juma A_1=1-*drunkard* 5.*idiot* 1past-*hit* 5.*cat*
'Juma, the drunkard, an idiot, hit a cat'

Our descriptive account is particularly relevant to the question of the syntactic link (or lack thereof) between a non-restrictive modifier and its host clause. Two approaches, *Orphanage* and *Integration*, are summarized, along with the arguments for each. The basic idea of Orphanage is that the appositive is syntactically generated separately from its antecedent and the two are later linked together only in discourse (radical orphanage) or in the syntax. In an Integration approach, the appositive and its antecedent are linked syntactically throughout the derivation.

For Shingazidja, as is the case for other languages, the syntactic evidence concerning the link between the antecedent and the appositive is ambiguous between an Integrationist and an Orphanage analysis. Evidence for Orphanage comes from the failure of a quantifier in the host clause to bind a variable in the appositive, the fact that negation in the main clause does not negate the appositive, and the ability to extrapose the appositive. Support for Integration derives from the fact that the NRA adopts the class agreement of the initial element and that the augment clitic can attach to the antecedent, indications of a syntactic link between the antecedent and the appositive. We use these facts to propose an Integration approach that involves coordination of the antecedent and the appositive through a functional &:P projection, along the lines proposed in deVries (2002) for appositive relatives, adapted by O'Connor (2008) for appositives.

The impact of sociolinguistic factors on the usage of the pre-prefix in some G-languages

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Kami (G36) is an under-described and endangered language in Tanzania. It is spoken by approximately 5000 people according to the Languages of Tanzania project (2009), but we believe that there are significantly fewer speakers left, and only a few hundred fluent speakers. Luguru (G35), on the other hand, is the major language in the region with slightly over 400,000 speakers (Languages of Tanzania Project 2009).

The nouns in both languages can take 2 different sets of prefixes; the obligatory nominal class prefixes and the non-obligatory pre-prefixes[1] (PPs), see examples 0 and 0. In many G-languages, the PP is disappearing, see for instance Morrison (2011) and Petzell (2008). When it does occur, the usage varies widely from language to language, cf. de Blois (1970).

1.	***ng'anda***	***íla***	***2.***	***ayo***	***imunu***
	ng'anda	i- la		a- yo	**i-** mu- nu
	house:9	9- DEM		1- DEM	**PP-** 1- person:1/2
	'that house' (Kami)			'this person' (Luguru[2])	

In Luguru, the PP is more frequently used when the noun phrase is <u>not</u> in the scope of focus, i.e. it is used for given information, and "determined by the vague concept of presupposition" (Mkude 1974:108). It is more probable that a noun carries a pre-prefix the greater its referentiality and topicality is.

In Kami, the PP is virtually non-existent, while in Luguru the usage is surprisingly enough increasing. In Luguru, the PP was used by mostly older speakers in the 1970s (Mkude 1974 and Mkude p.c.), while today (according to the authors' recent field work), young people are using the PP more and more, and in contexts where it used to be disallowed. These opposing standpoints – hardly any PP-usage in Kami vs. increasing usage in Luguru – are remarkable for such closely related languages. We propose that the wide-spread use in contemporary Luguru may have started out as some form of hypercorrection, but that the PP has now become grammaticalized as a topic marker (cf. Greenberg (1978)). The very slight usage in Kami can partly be explained by historical factors, but also the fact that there is no PP in the dominating language Swahili. In the multilingual contact situation that characterizes the area, a vulnerable language like Kami is more prone to losing area specific features than Luguru.

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[1] Also referred to as *initial vowel* or *augment*.
[2] There is no tone marking in Luguru, see for instance Mkude 1974.

Birgit RICQUIER & Odette AMBOUROUE

Congo River Crossroads Cuisine: A Blend of Western and Eastern Words

Although Stanley called it "the Heart of Darkness", the interior of Central Africa was buzzing with commercial activity long before the colonial epoch. The Congo River and its tributaries have acted as highways through the forest at least since the first Bantuphone peoples arrived in the region (Vansina 1990: 43, 52, 101-102). By the end of the nineteenth century, an exchange system between peoples specialized in specific subsistence strategies was in place (Hunt 1999: 36), long-distance trade routes travelled upstream from the western side of the continent (Vansina 1962: 381), and the east of the current DRC, including the Lokele area, was controlled by "Zanzibari" slave traders (Hunt 1999: 41-42).

Trade with neighbours and long-distance commercial partners left its marks on the culinary traditions along the Congo River. The culinary lexicon of languages like Lokele (C55), Kisoko (C52) and Songola (D24) contains clear evidence for this "melting pot". The word for rice, for instance, is in these languages respectively *ɓɔ̀ʔɔ̀ːŋgà*, *lòʔùːŋgà* and *mu.fụnga*, a noun with a widespread distribution in East-Bantu languages. However, in Mbuza (C36c), spoken only a stretch further to the west, the term *lɔ́ːsɔ̀* is used, which has a regional loanword distribution in parts of West Bantu. The word for 'winnowing basket' in Lokele and Kisoko, *lúːŋgù*, also has East-Bantu cognates. Lokele and Kisoko are West-Bantu languages and thus have many inherited West-Bantu culinary words. However, more recent loans from the west may be identified, e.g. the Kisoko word for 'peanut' *ŋgúːɓà*. Moreover, Songola, classified as East Bantu, also contains many West-Bantu words, e.g. the noun *ɟ.sángú* for 'maize' (cf. Bostoen 2006-2007). Finally, several culinary words have a wider regional distribution along the Congo River, e.g. Lokele *mútɛ̀ːkɛ́* and Kisoko *mɔ́tɛ̀ːkɛ́* meaning 'flour', and the 'cassava' nouns *ìsɔ̀ːŋgú* (Lokele), *sɔ̀ːŋgɔ̂* (Kisoko) and *mo.songú* (Songola).

The present paper will compare culinary vocabulary from languages spoken along the Congo River. The focus will be on languages for which fieldwork was carried out in 2010, especially Lokele and Kisoko, and on Songola data from the detailed culinary lexicon compiled by Ankei (1990). These data will be supplemented with words from dictionaries and glossaries concerning neighbouring and/or related languages. The comparative-linguistic analysis will lead to the identification of inherited ingredients and techniques, of routes along which culinary novelties were transported, and of local exchanges. It will be attempted to offer a chronology of culinary developments along the Congo River, and to integrate the results into the historical and linguistic context.

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Swahili coordinated infinitives

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Swahili exhibits a construction where tensed verb and an infinitival are coordinated, as in (1). This is an example of 'unbalanced' coordination, insofar as one verb is tensed and the other is not.

(1) *A-li-soma vitabu na ku-andika barua.*
SM1-PST-read 7book and INF-write 9letter
'S/he read books and wrote letters.'

(2) *Watu wanane wa-me-uwawa na zaidi ya thelathini ku-jeruhiwa*
2people 2eight SM2-PERF-kill.PASS and more 9of thirty INF-injure.PASS
'Eight people died and more than thirty were injured'

Furthermore, the licensing of the (underlined) subject in the infinitival clause in (2) problematizes Case Theory because infinitival clauses do not assign nominative case. The construction is also puzzling because although it bears some characteristics of pseudo-coordination (e.g. non- commutability of conjuncts and the coordinator plays a subordinative role) it also has properties reminiscent of true coordination (e.g. *and* can be substituted by *or*; the first verb does not play an aspectual role; the licensing of a subject in the embedded clause).

Despite the theoretical questions this raises, the construction has not been adequately addressed in the literature. We argue that the conjuncts are at least coordinated TPs dominated by AgrP which licenses case-marked subjects in both conjuncts in ways similar to the licensing of parasitic gaps. Like English, Swahili does not license subjects in infinitival clauses unless the subject is case-marked by a case-assigning head such as a preposition. In the absence of such a head, the only possibility is that the subject of the infinitival must be case-marked from *outside* the coordinated infinitival clause. We adopt the standard assumptions that &P is categorially underspecified and that the label of &P reflects the labels of the coordinated categories themselves -- in this case TP.

We conclude our discussion by comparing Swahili coordinated infinitives to similar constructions in languages like Turkish and Korean.

GS

The closest relatives of Bende-Tongwe (F.10)

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No consensus has been reached thus far regarding the genetic classification of the Bende and Tongwe [F.10] languages of western Tanzania, e.g. Nurse says that "it is not clear where they…belong" (1999: 10). The Bende-Tongwe language area lies in geographical proximity to several possibilities for genetic affiliation. To the north lie the Interlacustrine languages [Zone J], to the south the Corridor languages [M], to the east the West Tanzania languages [F], and to the west languages from the Democratic Republic of the Congo [D]. Other neighboring languages to the east whose affiliation with Bende is also unclear are the recently discovered languages Gongwe and Rwila (see Abe 2011).

Nurse claims that Bende and Tongwe "are quite different from the main West Tanzania languages in significant ways" and that "they do not belong here [West Tanzania]" (1999: 10). Nurse also treats Bende-Tongwe as peripheral to his (1988) study of the languages in southwestern Tanzania (59). Ehret (2009: 19) classifies Bende-Tongwe with Holoholo [D.28] and Buyu/Buyi [D.55], languages to the west of Bende-Tongwe in the DRC.

Firstly, I establish that indeed Bende-Tongwe does not share immediate genetic affiliation with the Corridor or West Tanzania languages on the basis of lexical or phonological evidence. Secondly, I show that Bende-Tongwe relates to the Gongwe and Rwila languages in terms of Sprachbund convergence and not genetic relationship, using Abe's (2011) research on Gongwe and personal research on Rwila. Thirdly, I evaluate Ehret's (2009) proposal and conclude that Holoholo had a superstratum influence on Bende-Tongwe. The main evidences for such a relationship are the extinction of the East Holoholo language in Tanzania, as well as phonological evidence regarding Agent Noun Spirantization typology based on research from Bostoen (2008). Fourthly, I present primarily lexical and phonological evidence that Bende-Tongwe is most closely affiliated with Sumbwa [F.23] and to some extent Ha [DJ.66]. In sum, the linguistic evidence points toward the genetic roots of Bende-Tongwe within the Interlacustrine languages [J].

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Functions of Rhetorical Questions in Rangi (F.33)

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Abstract for 5th International Bantu Language Conference at Paris, June 12-15, 2013

The study described in this paper grew out of a particular concern in a project of translation and literature development for the Rangi language. It had been observed that the project's Rangi translators, when encountering rhetorical questions (RQs) in the source text, often translated these as RQs into Rangi, claiming that RQs were both natural in Rangi and common in all contexts. To verify that claim, an investigation of RQs in the project corpus was undertaken which includes a primer, a story booklet, 71 texts collected during writer's workshops in 2005/2006, and 15 texts collected for a discourse workshop in 2010.

A survey of the literature on RQs reveals a gap that should be filled: RQs are often defined only negatively as "question[s] for which the speaker does not request an answer from the addressee" (Hackstein 2004: 167), a definition whereby various functionally quite dissimilar phenomena are joined into a single category. Most existent typologies of RQs do not seem to comprehensively differentiate RQ functions. Correspondingly, studies of RQs in Bantu languages (e.g. Zerbian 2006) also do not sufficiently distinguish the functions of RQs. This paper aims to contribute both to a functional typology of RQs and to the application of such a typology to Bantu languages.

In addition to a primary distinction between RQs with discourse functions and RQs with social functions (Hackstein 2004), all RQs in the Rangi corpus have been categorised with regard to medium, length and genre of the text in which they occur, speaker and addressee(s), and question form and question words used.

RQs are indeed not an infrequent feature in Rangi; 37 of 106 texts contain at least one RQ. However, the functional range of RQs found in the corpus is not as broad as claimed by the Rangi translators in general. The absolute majority of RQs occurring in dialogue expresses rebuke (cf. example 1) whereas most RQs occurring in monologue express uncertainty or doubt (cf. example 2).

1. sà tɕɛ́ ùlóːⁿgórîːrʲɛ̀ íbǎːⁿdɛ̀ rá:ní
   for what 2sg:burn:PRF:CAUS 5:grasshopper 5:1sg:POSS
   'Why have you burned my grasshopper?' implying: You should not have burned it.

2. kɔ̀:nì sìːᵐbà jǔːdʑìɾɛ̀ ⁿdùːsɛ́ tɕɛ́
   when 9:lion 9:come:PRF 1sg:say:SBJV what
   'When the lion comes what should I say?' implying: I don't know what to say.

Apart from showing this typologically relevant distinction between RQs in dialogue and RQs in monologue, the paper also discusses the role of the speaker (e.g. narrator versus participant) and the role of genre (narrative versus hortatory). The paper concludes with an outline of distinguishing factors for a functional typology of RQs and with a summary which of the established categories occur specifically in Rangi.

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Vowels under pressure - spirants again?

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The aim of this paper is to show that The Ndengeleko language (P10) is currently in the process of undergoing vowel reduction, simultaneously adding to its inventory of fricatives. These synchronic changes are taking place under pressure from the contact situation with Swahili. Swahili is becoming the de facto L1 for most young speakers. For the majority of children, Swahili is the only language. Within Bantu diachronic studies, a well-known historical sound change is spirantization, which typically goes hand in hand with vowel reduction from 7 > 5 (Schadeberg 1995), but not necessarily. In most affected Bantu languages spirantization has led to the addition of fricatives/affricates to the consonant inventory. Ndengeleko has also been affected by this historical sound change, but went further via *h* to ø in the relevant contexts (Hinnebusch 1981 ; Janson 2007). Compare Ndengeleko *-uu* 'ash', with Proto-Bantu **-bú* and Jita *-fu* (Downing 2007). The Ndengeleko language did not reduce its vowel system as a result of spirantization. It retains the 7 vowels which have also been reconstructed for Proto-Bantu.

My fieldwork shows that Ndengeleko speakers in their thirties tend to level out the 7 vowels to a 5-vowel system. In most cases, this leads to a lowering of the second-degree vowels /ɪ/ and /ʊ/ to /e/ and /o/, respectively. The picture is still somewhat unclear, as the following phonetic chart illustrates:

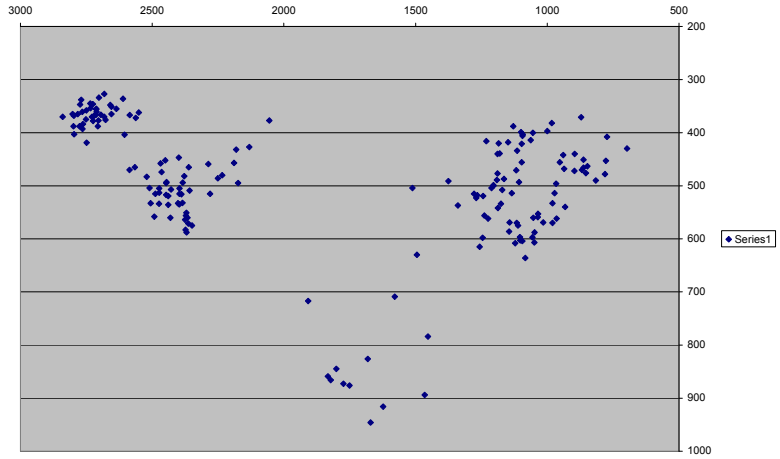

Figure 1 F1 and F2 values of vowels for a female speaker, 29 yrs, in a sample of 175 tokens (the sample focusses on the front and back vowels).

Speakers above the age of 50, however, make clear distinctions between the four high vowels. I propose that the difference between young and old speakers indicates that the vowel system of Ndengeleko is in the process of undergoing reduction to 5 vowel phonemes. Furthermore, there are lexical items in the language which have not been affected by the historical spirantization and consonant loss, but include typical spirantizing contexts, like the consonant/vowel combinations *pi* and *pu*. Presumably, these lexical items have entered the language after spirantization and consonant loss took place. It is interesting to note that there is allophonic variation [pi~fi] and [pu~fu] in such items: *lipíiŋga/lifíiŋga* 'egg' (cl.5). Moreover, for speakers who use [pi]/[pu], the stop is aspirated. In this paper I propose that a process similar to spirantization is affecting the language (again) and that this time, the vowel inventory will be reduced.

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Lolke VAN DER VEEN & Marion CHEUCLE

GS

Title: Reconstructing Proto-A80: Lexical reconstructions, Processes, Signs of contact.

Category: Oral presentation (general session) OR Poster

Topics: Historical and comparative linguistics (reconstruction, linguistic change), Bantu expansion, language contact

The A80 (MAKAA-NJEM) group forms a language cluster which seems to hold a rather special position within northwestern/Forest Bantu. Geographically, its languages are spoken in the southern part of Cameroon and in the northern part of Equatorial Guinea, in a small region in the northwesternmost part of Congo-Brazzaville, in part of the western half of the Centrafrican Republic and also in some regions situated in northern Gabon. The currently available linguistic and anthropological data strongly suggest that the history of this language group and its individual language varieties must have been complex and quite eventful (migrations, contact, shift?). According to the most recent theory concerning the northwestern Bantu expansion (Grollemund 2012), the A80 group, as a sub-branch of Forest Bantu, split off from the other languages at a fairly early stage and its (food-producing) speakers penetrated the Equatorial Forest of the above-mentioned regions, most likely following the waterways, and finally settled down in the Forest. Archeology has shown that this environment was inhabited by small groups of hunter-gatherers at the time, some of which can still be found here to date (e.g. Baka). There is solid evidence from several major studies in Cultural anthropology, Population genetics, History (e.g. Klieman 1997) and Linguistics for longstanding contact and extensive exchange of various kinds between the two types of populations that comes in addition to the presumably incessant and complex history of interactions between the Bantu-speaking populations themselves.

Some of the A80 languages have undergone rather uncommon phonological and/or morphological changes (cf. Cheucle 2012), such as glottalizations, palatalizations, labializations, prenasalization and emergence of semi-voiced stops, Umlaut, diphthongs, vowel reduction word-finally, mid tone and/or contour tones, etc. More often than usual, it proves to be difficult or even impossible to establish unambiguous links between the basic vocabulary of the various individual varieties and the currently available Proto-Bantu (PB) reconstructions. For these reasons, the reconstruction of Proto-A80 'phonology, morphology, lexicon) and the study of the linguistic and extralinguistic processes which have contributed to the emergence of the present-day A80 varieties are crucial for our understanding of the linguistic, cultural and demographic history of this part of west-central Africa (filiation as well as contact-related phenomena and events).

In this talk/poster, the authors will present the results of currently ongoing comparative research on this topic. They will briefly discuss each of the following issues:

- Proto-A80 phonological system (C, V, syllable, tone);
- Proto-A80 noun class system (and, if possible, other morphological traits);
- Concise overview of the group's newly available lexical reconstructions and their relative "depth";
- Proportion of inherited characters (plesiomorphies) from PB vs. proportion of innovative characters (i.e. apomorphies): a short overview of shared or idiosyncratic linguistic changes;
- Possible origins of the innovations : transformation of inherited traits, internal innovations, borrowing (vertical or horizontal), language shift (via situations of advanced inegalitarian multilingualism);
- The group's internal structure as based on synapomorphies (shared innovations).

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GS

Lolke VAN DER VEEN & Soraya MOKRANI

Titre : BantU, bantI, bantA : les voyelles finales dans les langues du groupe kota-kele (B20). Approche comparative et écologique de parlers linguistiquement proches en situation de contact.

Catégorie : présentation orale (session générale) OU poster

Thématiques : contact de langues, plurilinguisme, linguistique historique et comparative

Comment des parlers linguistiquement (très) similaires évoluent-ils et s'influencent-ils alors que leurs locuteurs entretiennent des relations d'échange intenses les uns avec les autres et que ces locuteurs sont amenés à les utiliser au quotidien dans un contexte de plurilinguisme généralisé ? Les auteurs de cette contribution tenteront d'apporter des éléments de réponse à cette question en s'appuyant sur une étude de cas : l'histoire complexe des voyelles finales des parlers du groupe B20. Ce dernier constitue un ensemble plutôt atypique dans le contexte du Gabon. Une étude approfondie de cet ensemble est actuellement en cours de réalisation (Mokrani, thèse de doctorat). Le B20 comprend une quinzaine de parlers structurelle-ment et génétiquement proches mais géographiquement souvent très dispersés. L'on rencontre des variétés B20 dans toutes les régions du Gabon à l'exception du sud-ouest, mais le plus grand nombre d'entre elles se trouvent concentrées dans la moitié est du pays, s'étendant du nord-est au sud. Certains voient dans cette distribution spatiale éclatée un indice de l'ancienneté de l'installation des locuteurs B20 dans la région. L'étude lexicostatistique de Bastin et Piron (1999) fait apparaître le groupe comme un ensemble flottant composé de deux sous-ensembles. D'autres travaux (Bastin et al. 1999, Alewijnse et al. 2007, Grollemund 2012) corroborent l'existence de deux, voire trois sous-groupes. L'éclatement spatial fait que les parlers se trouvent en contact permanent avec des variétés linguistiques d'autres groupes (B50 et B60 notamment). Dans plusieurs régions les locuteurs des parlers B20 entretiennent également des contacts réguliers et soutenus les uns avec les autres.

L'étude de l'évolution des voyelles finales en B20 révèle une grande variabilité. Ces évolutions sont à situer dans un contexte géolinguistique d'affaiblissement de la voyelle finale. Chaque parler B20 atteste, à des degrés variables, nombre de réalisations imprédictibles venant s'ajouter aux réflexes vocaliques réguliers. Cette situation confuse ne fait que s'amplifier du fait que des informateurs se réclamant d'une même variété mais venant de localités différentes livrent parfois des voyelles divergentes. Pris globalement, certaines variétés s'avèrent plus stables et donc moins sujettes à variation que d'autres. L'étude des réflexes vocaliques amène à distinguer entre développements internes aux parlers et développements externes. Les premiers, présents sous forme de tendances plus ou moins prononcées selon les parlers, s'expliquent notamment par des processus d'assimilation (propagation de traits vocaliques ([±arrière], etc.) et formation de diphtongues, contraintes sur les cooccurrences vocaliques, entourage consonantique, etc.). Les seconds ne peuvent s'expliquer que par des situations de contact intense et soutenu.

L'écologie actuelle des parlers semble bien fournir tous les ingrédients pour l'élaboration de scénarios permettant de comprendre la complexité des évolutions : héritage linguistique, proximité structurelle, proximité spatiale (ou pas), plurilinguisme ambiant, prestige, fréquence d'utilisation des mots, nombre de locuteurs, degré de vitalité, absence de standardisation, contact soutenu, mobilité des individus et mélange des populations, stratégies matrimoniales et résidentielles, etc. Il est donc probable que la combinaison de tous ces facteurs, internes et externes, avec la similarité des formes, le contact régulier et le plurilinguisme en toute première position, a pu engendrer la situation actuelle. La connaissance et l'utilisation de formes (très) similaires en compétition directe peuvent finir par déconcerter les locuteurs plurilingues et les « embrouiller » quant à la « bonne » forme à utiliser. Les auteurs présenteront d'abord un aperçu des types d'évolutions phonologiques que ces parlers attestent ainsi qu'un synopsis des réflexes relevés (utilisation de cartes). Ils s'intéresseront ensuite aux divers facteurs ayant pu contribuer à la situation complexe actuelle et s'interrogeront sur les implications de cette situation pour les recherches sur la classification.

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GS

Upstep in Mbugwe (F34)

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Mbugwe (classified as F34, see Maho 2009) is a tonal Bantu language, with a high (H) tone and a low (L) default tone. On the surface, however, there are more tone levels, due to phonological processes such as automatic downstep, a (super) low boundary tone, and upstep in certain contexts. Mbugwe also has H tone spread (HTS), in which a H tone spreads one mora to the right in most, but not all contexts. These phonological processes will be exemplified and the rules for when they apply will be given. Especially upstep will be investigated in detail, and an autosegmental analysis of the phenomenon will be given.

There are several different kinds of uptrends in Mbugwe. In some cases, when a H tone spreads one mora to the right, or there are two consecutive H tones, underlyingly, the second mora is realized higher than the first mora. In both these cases it could be due to peak delay, however, where the peak of the H tone is not reached until well into the next syllable or mora (see Myers 1999). In other cases, however, when there are several adjacent H tones underlyingly, the last H tone is realized higher than the preceding ones, as in (1): The first mora of the verb root is upstepped, and then the H tone spreads one mora to the right. This mora is at the same height as the upstepped H. This is a clear example of upstep, and could not be due to peak delay.

(1) vá-á-kó-↑ tómám-eyɛ[1]
SM3PL-PST-OM2PL-serve-HEST[2]
'They served us (yesterday).'

The kind of upstep found in Mbugwe is similar to other kinds of upstep, where a H is raised before a L tone, and specifically there are similarities with Hyman's 1992 analysis of Kirimi, which is classified as F32 (Maho 2009), and is quite close to Mbugwe geographically and perhaps genetically . In the paper we will investigate how this kind of upstep can be represented theoretically, foremost in an autosegmental analysis. One suggestion is a separate register tier, which may account for the upstep of certain H tones. (Hyman 1992; Snider 1990; Yip 2002). Given that upstep is rather unusual, at least compared with downstep, the presentation of new data and a suggestion for a theoretical account of the phenomenon will put the current theoretical assumptions and models to a test, and hopefully contribute to advance the field of tone studies in general and in Bantu languages specifically.

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[1] An acute accent indicates surface H tones, underlyingly H moras are underlined. Low tones are not marked. An upwards arrow marks upstep. Evidence that the first moras really are H and not L will be presented in the paper.

[2] Abbreviations used which are not from Leipzig Glossing rules: SM: subject marker, OM: object marker, HEST: hesternal tense.

"Strong Y-" as an isogloss for Southern Bantu

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Two systems of conditioned obstruent changes are well-known and widespread in Eastern Savannah Bantu — the effects of spirantizing high vowels and of preceding nasals. But another important set of sound changes affected a smaller group of languages in Southern Bantu through the impact of the class 5 nominal prefix *(di)-ɟ and the verbal prefix *jɟ- on following consonants. Hence, the difference between the reflexes of proto-Bantu *-kúmì 'ten' and the unconditioned outcomes of *k (in parentheses): N31 Cewa *khúmi* (k), P31 Makhuwa *ni-khúmi* (□), S12 Zezuru *gúmí* (k), S21 Venda *fúmí* (h), S31 Tswana *lesómé*, S42 Zulu *ishumi*, S53 Tsonga *khume*.

This general phenomenon is familiar: many of the relevant changes for individual languages are recorded in Guthrie's lists under *yɟ- clusters, and recent attention has been given to the effects in individual languages, for example the detailed papers by Creissels and Schadeberg on Tswana and Makhuwa respectively. But problems remain and the general system has apparently not been re-examined since Eiselen presented the significant data for it in 1924. We offer an updated study of the range of the change, its consequences for language subgrouping, and improved reconstructions.

First, the range of languages where these changes take place is limited to Southern Bantu (with the exception of a few distant languages which are argued to have independent changes). This grouping is both areal and probably genetic (Ehret also forms this group based on innovations in lexical morphemes). Much of the evidence for this set of changes comes from irregular and fossilized forms, e.g. Chewa béle/maéle 'breast(s)', indicators of a common antique sound change rather than of areal borrowing. Before considering the special set of sound changes mentioned above, it is argued that the regular proto-So.Bantu reflex of non-nasalized PB*j is *y (not *z as Guthrie).

Because changes to class 5 nouns are often leveled by analogy to class 6, many languages shows only vestiges of a sound change to initial consonants in those nouns. The changes are best preserved in the S10 (Shona group) and N30-40 languages (Cewa, etc), from which data the general phonological pattern of the rule can be reconstructed. Particular attention is given to the effects on the proto-Bantu voiced obstruents. Fifteen verb stems in *jɟ- are also examined, as well as some reflexives, showing the same changes as in Class 5.

The exact phonological path of the changes needs further clarification but it seems likely that, in many sandhi and word-internal contexts, *-i/ɟ- became a glide that combined with the following consonant and apparently aspirated it. Accordingly, we argue that the source of the consonant changes is not a preceding ATR+ vowel per se, as is usually described, but rather a glide resulting from diphthongization of a high front vowel. Evidence for this comes from similar changes to C_2 after a stem-internal diphthong, e.g. *bàjj- > Zezuru –*veza*, Kalanga -*bezha*, N. Sotho –*bêtla* (whereas unconditioned *j > y, □). Further evidence for a rule based on a glide rather than the ATR+ vowel comes from even a few examples with the ATR- front vowel.

The effects of what might be called "strong y-" are similar to those caused by nasals in some languages (already observed by Bleek) and this has led some to suggest that ɟ>n. But differing results from *n- and *y- in other languages argue for two different sound changes, the results of which then merged in some languages, with further leveling. This may address some of the proto-Bantu reconstruction doublets with a homorganic nasal infix, which seem to result from a preceding high front vowel.

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GS

Asymmetries and Locality in Zulu right dislocation constructions

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With respect to object marking, Zulu (Nguni, S 42) counts as a symmetrical language (cf. Bresnan & Moshi 1990): either object NP of a ditransitive verb can be doubled by an object marker. The corresponding object NP must then exit the VP. (1a) shows right dislocation of the indirect object, in (1b), the direct object is dislocated. The unmarked object remains in the VP (see Cheng & Downing 2009; Adams 2010; Zeller 2012), and the verb is realised in the conjoint form:

(1) a. U-John u-ba-nik-e i-mali]$_{VP}$ a-ba-ntwana.
AUG-1a.John 1.SM-2.OM-give-PAST AUG-9.money AUG-2-child
b. U-John u-yi-nik-e a-ba-ntwana]$_{VP}$ i-mali.
AUG-1a.John 1.SM-9.OM-give-PAST AUG-2-child AUG-9.money
'John gave the children the money.'

Curiously, however, the symmetry shown in (1) breaks down in constructions such as (2a) and (2b), which express verum focus and display the disjoint verb form:

(2) a. U-John u-ba-nik-il-e]$_{VP}$ i-mali a-ba-ntwana.
AUG-1a.John 1.SM-2.OM-give-DIS-PAST AUG-9.money AUG-2-child
'John did give the children the money.'
b. *U-John u-yi-nik-il-e]$_{VP}$ a-ba-ntwana i-mali.
AUG-1a.John 1.SM-9.OM-give-DIS-PAST AUG-2-child AUG-9.money

Adams (2010) and Zeller (2012) argue that in (2), both object NPs are dislocated. In this case, only the indirect object can be object-marked; object marking of the direct object is excluded.

In this paper I offer an analysis of "double dislocation" constructions such as (2a). I first provide additional empirical evidence from focus, NPI-licensing and word order that both NPs in these constructions are in fact dislocated, despite the occurrence of only one object marker. I then propose an analysis of the contrast between (1b) and (2b) which is based on the Probe-Goal system of Agree(ment) proposed in the Minimalist Program. In this system, Agree is constrained by Locality: a Probe always agrees with the *closest* Goal. I suggest that right-dislocation in Zulu is triggered by a VP-external low functional category F (cf. Buell 2008), which enters an Agree-relation with a potential Goal, a relation overtly expressed by object marking. I argue that potential Goals for dislocation are those NPs that have to be removed from the VP in order to allow focus to be expressed on VP-internal material (as in Cheng & Downing 2009). In simple dislocation constructions such as (1a) and (1b), only one of the VP-internal NPs counts as a potential Goal. When the direct object is a non-focus, it can therefore be dislocated across the indirect object, because the latter does not count as an intervenor in terms of Locality. In contrast, verum focus implies that both object NPs are non-focus; consequently, both objects count as potential Goals. Locality therefore dictates that the NP that first enters an Agree-relation with F must be the indirect object, which is closer to F, and dislocated first. Even though the direct object is subsequently dislocated as well, object marking is therefore always with the "superior" indirect object. My analysis provides evidence that right dislocation in Zulu is a syntactic A-bar movement process that is triggered by an "antifocus feature" (cf. Ndayiragije 1999), even though the motivation for this movement may be prosodic, and related to the information structure.

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GS

Object indexation in Bantu: the competition of parameters (the case of Swahili and Kinyarwanda)

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Object indexation in Bantu have been attracting the interest of rather many linguists (see the list of literature). The Bantu languages demonstrate different strategies of object indexation which depend on such parameters as syntactic function, pragmatic status, position of NP in the animacy hierarchy (deictic hierarchy) The occurence and the order of object indexes can be explained by the combination of these factors. In the presentation these factors are analysed for constructions with 3-valency verbs. For Swahili only one object index is possible, while in Kinyarwanda the verb can include indexes for both Patient (Theme) and Recepient. Swahili in general prefers to use the position of verbal object index for Patient/Theme, but the influence of animacy (deictic) hierarchy can be observed in some examples:

If patient/theme is animated/human the indexation is obligatory, otherwise – facultative (for *–peleka* «to send»):

*Ni-li-**m**-peleka mwanafunzi kwake.* But * *Ni-li-**Ø**-peleka mwanafunzi kwake*.

1SG-PAST-OBJ.HUM-send a student to him/her»

*Ni-li-**ki**-peleka kitabu kwake. = Ni-li-**Ø**-peleka kitabu kwake*.

1SG-PAST-OBJ.INAN-send a book to him

If both the patient/theme and the addressee/recipient are pronouns verbal index points to the patient/theme (without applicative suffix):

*A-li-**ni**-onyesha kwako*

3SG-PAST-1SG.OBJ-show to you.

However if the Recepient is 1 or 2 Sg and patient/theme is 3 Pl and is expressed by Demonstrative the indexation of Recepient is possible even without applicative suffix:

*A-li-**ni**-onyesha hao*.

3SG-PAST-1SG.OBJ-show those (people).

So, for Swahili: if the rank of Recepient is substantially higher than that of patient/theme it can be indexed in the verb even without applicative suffix; if the rank is equal patient/theme is indexed.

Hence, for Swahili: patient/theme > recipient, personal pronouns > nouns/demonstratives

For Kinyrwanda absolutely different strategy is used the influence of animacy (deictic) hierarchy being much more important. Recepient occurs closer to the stem than Patient (Theme) when the hierarchical status of actants is equal, but animacy/deictic dimesion is more important than semantic role:

A-za-**ba-ny**-ereka

3SG-FUT-3PL.Recepient-2SG.Theme –show = 3SG-FUT-3PL.Theme-2SG.Recepient –show

He will show you to them. = He will show them to you.

It is the hierarchical status of pronouns that determines the order of verbal indexes, but not the semantic role.

So, Bantu languages vary greatly in choosing strategies of object indexation for 3-valency verbs, but surface syntactic structures can not be adequately understood if to ignore the influence of animacy (deictic) hierarchy, though the degree of it is different.

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BANTU 5

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PS

Anatomie et physiologie humaine dans les langues bantu: une réflexion sémantique

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Les parties du corps sont bien connues comme étant représentatives du vocabulaire de base d'une langue, peu perméables à l'emprunt, quoique sujettes à des variations pour diverses raisons telles que les tabous. C'est également un domaine particulièrement propice aux changements sémantiques, dont certains considérés comme universaux. Nous analysons ici quelques-unes des situations rencontrées en bantu (y compris pour ce qui est du vocabulaire physiologique) et parfois qualifiées de séries *osculentes* par Guthrie.

Il existe des glissements de sens:

mbombo	cráneo	A33b Kômbè (FERNANDEZ, 1951:230)
mbombo	testa	H16 Kikongo (DA SILVA MAIA, 1994:609)
imbombo	ridge of the nose	S42 Zulu (DOKO & VILAKAZI, 1949:82)

Cela se traduit dans certains cas par une variation de l'amplitude sémantique:

lwaála	finger	F31 Nilamba (YUKAWA, 1982:2)
-yádá	fingenail	D25 Lega (BOTNE, 1994:56)

Une autre source de variation lexicale vient du procédé de déverbativisation:

-nwa	drink	M31 Nyakyusa (FELBERG, 1996:163)
akanwa	mouth	M31 Nyakyusa (FELBERG, 1996:13)
lendé	to go, to walk	A22 Bakweri (KAGAYA, 1992:117)
mmendé	leg, shin	A22 Bakweri (KAGAYA, 1992:85)

Enfin, nous rencontrons des cas de développement figuré:

ngɔndɔ	lune, menstruation	C71 ɔtɛtɛla (HAGENDORENS, 1956: 199, 211)
kwezi	lune, menstruation	L33 Kiluba (GILLIS, 1981: 308, 325)

A l'aide d'une cartographie des réflexes des différentes situations sémantiques abordées, nous proposons chaque fois un scénario diachronique.

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PS

Cross-linguistic uniformity in neutral agreement phenomena: evidence from Indo-European and Zulu

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In Indo-European languages, neuter gender has two types of uses. In Romance languages, it is only used for certain grammatical functions, a phenomenon referred to as 'neutral agreement' by Corbett (1991), while in other languages, such as Slavic and some Germanic languages, it is additionally used as a lexical gender assigned to many nouns. In these languages, the term 'neuter' is intuitive, because it stands in opposition to masculine and feminine genders, which are (to some extent) sex-based. In contrast, Bantu languages have elaborate noun class systems which are not rooted in sex, making the concept 'neuter' seem irrelevant. However, in this talk, we show that the exact same cluster of grammatical functions associated with neuter gender in Germanic and Romance is also associated with a single noun class in Zulu, namely the historically locative noun class 17. This claim is supported with data from both Zulu and a variety of European languages, especially Romance and Germanic. This concurrence of uses suggests that the set of phenomena associated with Corbett's "neutral agreement" is cross-linguistically uniform and independent of the way of the lexicon is organized. In other words, it leads us to predict that in any given language the same range of grammatical functions will be associated with a single agreement class regards of the nature and number of its noun classes.

The functions associated with neutral agreement (i.e., Indo-European neuter and Zulu class 17) can be divided into three types. First, the "generic" uses involve referents lacking any specific class properties. These include real-world objects without discourse-established names (e.g., "this" in "What do you call this?") and situations (e.g., "that" in "John didn't come. Does that surprise you?"), as well as the de-adjectival construction in (1):

(1) a. ôkû-hlé ngó-thândò [Zulu]
17-beautiful about:DET-11.love

b. het mooie aan liefde [Dutch]
DET.N beautiful about love
'what is beautiful about love'

Second are the expletive uses found in a wide range of constructions in Zulu and European languages, including clauses with 'seem'-like verbs, impersonal passives, various inversion constructions, and existential constructions. (We follow Buell (2012) in assuming that Zulu class 17 is not locative in nature.) Most surprising is the third type, which involves the subject of nominal predication. Neutral agreement can be used with a subject of nominal predication (and of no other type of predication) even when referring to a human, as shown in Zulu in (2):

(2) Ú-Sîphò kw-â-kú-ngù-ḿngànè wéthù.
DET-1Sipho 17SM-PST-17SM-COP-1friend 1our
'Sipho was our friend.'

The fact these grammatical functions cluster together cross-linguistically does not prevent the associated agreement class from also being used in additional, language-specific ways. For instance, neuter is used as a lexical class for nouns in German, but not in French, and Zulu arguably also has no class 17 nouns. Additionally, Zulu class 17 can be used as subject agreement for conjoined nouns of unlike classes, a usage unlike that of neuter in European languages.

PS

High tone spreading in four Sotho-Tswana varieties

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This paper examines contrasts in the range of high tone spreading in four Sotho-Tswana varieties: Southern Sotho – Letele (1955), Köhler (1956), Letšeng (1995), Pedi (alias Northern Sotho) – Lombard (1976), Zerbian & Barnard (2009), the Ngwaketse dialect of Tswana – Creissels (1998), Creissels & al. (2007), and the Kgatla dialect of Tswana as spoken in Mochudi (Botswana) – author's field notes.

Southern Sotho, Pedi and Ngwaketse have in common that, with just one exception (the grammatical high tone found in some verb tenses, such as the conjoint form of the perfect), they only have local tone spreading. They differ in that, in Southern Sotho and Pedi, there is no spreading at word boundaries, and local spreading never affects more than one syllable, whereas in Ngwaketse, the initial syllable of a word may be affected by the spreading of a high tone underlyingly belonging to the preceding word, and most word-internal spreading processes have a possible range of two syllables, as illustrated by the following example, in which the only underlying high tones are those associated to the first syllable of the verb stem **-kótul-** and to the second syllable of the noun stem **-bɛlɛ́**.

(Southern Sotho)	**kì-kótúl-à**	**mà-bɛ̀lɛ́**	'I am harvesting sorghum.'
(Ngwaketse)	**kì-kótúl-á**	**má-bɛ̀lɛ́**	same meaning
	1SG-harvest-FV	CL6-sorghum	

The Kgatla dialect of Tswana sharply contrasts with the other three varieties in that, in Kgatla, long-distance spreading is pervasive, as illustrated by the following example, in which the only underlying high tones are those associated to the first syllable of the verb stem **-bófʊlʊl-** and to the second syllable of the noun stem **-q^{h}omó**).

(Ngwaketse)	**kì-bófúlúl-ɛ̀l-à**	**mòt^{h}ìbì**	**dì-q^{h}òmó**	'I am untying the cows for Mothibi'
(Kgatla)	**kì-bófúlúl-ɛ́l-á**	**mút^{h}íbí**	**dí-q^{h}òmó**	same meaning
	1SG-untie-APPL-FV	Mothibi	CL10-cow	

The paper aims mainly to analyze the long-distance spreading processes of Kgatla and their possible relationship with the local spreading processes of other Sotho-Tswana varieties. The observation of some limitations to high tone spreading are particularly significant in this repect. For example, in Kgatla, in the configuration illustrated by the following example, in which the underlying high tones are those of the subject marker **bá-** and of the first syllable of **ts^{h}ímʊ**, the last syllable of the verb preceding a noun whose first syllable bears a H tone can be affected by the spreading of a preceding H tone if and only if the distance between the last syllable of the verb and the syllable to which the high tone underlyingly belongs does not exceed two syllables.

(Kgatla)	**bá-lím-á**	**ts^{h}ímʊ̀**	'They are ploughing the field.'
	CL2-plough-FV	[CL9]field	
	bá-tɬ^{h}áχól-à	**ts^{h}ímʊ̀**	'They are weeding the field.'
	CL2-weed-FV	[CL9]field	

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PS

Sepitori: A Pretoria koiné language that could help revive interest in two Bantu languages in South Africa

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Purpose:
The Dutch arrived in Pretoria (South Africa's capital city) in 1855 and started to build a city. Labour was provided by the local Setswana speakers who were later joined by speakers of a mutually intelligible language, Sepedi; the latter came from Limpopo province. Setswana and Sepedi are Bantu languages (BLs) and predominant and/or significant in six out of nine South Africa's provinces.

The purpose of this poster is to present evidence that *Sepitori* (Pretoria Sotho) – a non-standard variety (NSV) that developed over time since 1855 – is not just a koiné, but a variety that has spread beyond Pretoria, and could be used to strengthen the standard varieties (SVs) of its substrate, Setswana and superstrate, Sepedi. This is against the worrying trend that the use of BLs is declining; one contributing factor being an increasing gap between the spoken and written varieties.

Methods/Results:
Sentences from recordings of first language *Sepitori* speakers are analysed alongside Setswana and Sepedi and where warranted, against Afrikaans and English, which also influence(d) the koiné. English translations are given.

Here is an example: (more sentences will be on the poster)

Sepitori	Ka mo **itse**	dié man;	o rata	ho APARA	**setlhako** se *one.*
Setswana	Ke a mo **itse**	monna yo;	o rata	go rwala	**setlhako** se le sengwe.
Sepedi	Ke a mo tseba	monna yo;	o rata	go APARA	seeta se le tee.
English	I know	this man;	he likes	to wear	*one* shoe.

Consistent with being a koiné, *Sepitori*'s grammar reflects that of Setswana and Sepedi. Significant parts of speech are highlighted using **bold** (Setswana), underlining (Afrikaans), UPPERCASING (Sepedi) and *italics* (English). On the poster, a further detailed analysis is provided, particularly where *Sepitori* follows either Setswana or Sepedi, and where the latter two have marked differences.

The poster shows a map of South Africa with: (1) the area where the local Setswana speakers lived at before the Dutch arrived; (2) the route of the Dutch from Cape Town to Pretoria; (3) the route of Sepedi speakers from Limpopo to Pretoria; and (4) the current spread of *Sepitori.*

Conclusion:
The following are not disputed: (1) NSVs have and continue to influence SVs of BLs; and (2) the gap between the two varieties is so wide that people continue – at a worrying rate – to lose interest in studying SV of BLs. These developments have the potential to see the onset of language attrition in a few generations' time. Comparatively, the gap between the two varieties of Germanic languages – English and Afrikaans – is much narrower. This is significant because the two are well developed and remain languages of prestige. Currently, language purists oppose suggestions that NSVs could and should be used to strengthen SVs of BLs, despite evidence that the use of the former is on the increase, while the latter is on a decrease. As a possible intervention to revive interest in BLs, NSVs should be used to narrow the gap between what people ordinarily speak, and what they are taught in formal settings – like it is the case with English and Afrikaans. *Sepitori* could and should be used to revive interest in its substrate, Setswana and superstrate, Sepedi.

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PS

Modifications des courbes tonales en akwá de la chanson de Kingoli

Par

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Comme son titre l'indique, le présent travail se propose d'analyser le fonctionnement des tonèmes en akwá chanté par Kingoli.

Kingoli est un groupe tradi-moderne qui vit le jour dans les années 80. Il a la particularité d'avoir des chansons constituées d'éléments aussi bien phoniques que lexicaux de toutes les variétés dialectales de l'akwá (epéré, akwá mbangi, akwá bá ngo).

L'akwá, quant à lui, est une langue bantu de la zone C classée successivement par Guthrie [1953 :154], Obenga [1973 : 58] et Bastin [1978 : 123] dans le groupe C_{20}. Il est localisé au nord du Congo Brazzaville, dans le département de la Cuvette, précisément dans la sous-préfecture de Makoua et ses environs.

Comme la quasi-totalité des parlers du groupe C_{20} (le mboxo, le ngaré, le koyo, l'ɛmbɔsi, le likwala et le likuba), l'akwá dispose de deux tonèmes : l'un haut et l'autre bas.

Exemple :

pí "calme"/pi "sombre".

Ces tonèmes peuvent se rencontrer et créer la fusion au où ils seraient identiques ou des modulations qui peuvent être haut-bas ou bas-haut, au cas où ils seraient différents comme dans l'exemple ci-après :

ikă "rivalité"

mâ "maman".

Il arrive, cependant, qu'il y ait des perturbations de courbes tonales sous l'influence de la mélodie. C'est dans ce contexte qu'un tonème haut peut être réalisé :

- Bas (exemple : *nga* au lieu de *ngá* "moi") ; 75 occurrences
- Bas-haut (exemple : *wâ* au lieu de *wá* "lui" 22 occurrences

De même, sous l'effet de la mélodie, un tonème bas peut être réalisé :

- Haut (exemple : *móró* au lieu de *moro* "personne") 80 occurences
- Haut-bas (*otémâ* au lieu de *otéma*) 17 occurrences.

De notre corpus, il ressort le constat selon lequel lorsqu'il est perturbé, le tonème bas est, dans bien des cas, remplacé par le tonème haut.

Malgré ces différents exemples, il y a, de manière générale, très peu d'exemples de perturbations tonales confirmant ainsi les propos de Louis-Jean Calvet [1981 : 28] selon lesquels "dans la rencontre entre musique et langue que constitue la chanson, la musique ne va pas à l'encontre de la langue".

Informational Prominence in Kol

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Informational prominence in Kol, a Narrow Bantu language of eastern Cameroon, has yet to be researched. This paper will explore cleft constructions, question formation, and other focus strategies, as well as their implications from comparative and diachronic perspectives. (Interestingly, while neighboring related languages mark focus via a specific marker **ó**, the evidence for a cognate morpheme in Kol is inconclusive.)

A number of linguists since Schachter (1973) have noted that many languages exhibit similar morphosyntax in cleft constructions and relative clauses. Kol is an additional example of this cross-linguistic tendency, as can be seen by comparing the cleft in (1) with the relative clause in (2). Relative clauses in Kol are prototypically marked by a floating high (H) tone on the left boundary of the clause and the clitic *=è* on the right boundary.

(1) kwàn bɔ́ ɲ=í bwɔ̀g=è.
honey be+H he/she=PST1 harvest.honey= REL
'It's honey he collected.'

(2) bw-ân m=é jâmb bè-dób=è
2-child H+ I-PST1 prepare 8-food=REL
'The children that I prepared food for…."

Question formation offers evidence that this formal similarity has led to a reanalysis of relative clause morphology as focus morphology. Synchronically, Kol has two possibilities for questions: the question word or phrase may remain in situ as in (3) or it may appear sentence-initially as in (4). However, if it appears sentence-initially, presumably in a focus position, the question exhibits relative clause morphosyntax.

(3) w=ú bì jwó w-ô mbì ?
you=PST1 trap 9OBJ 3-which 3.type
'How did you catch it?'

(4) w-ô mbì w=ú bì jw=é ?
3-which 3.type H+you=PST1 trap 9OBJ=REL
'How did you catch it?'

A presumable further extension has made relative clause formation possible even when there is no evidence of movement of the question word as shown in (5).

(5) ncî gò nc=ê?
who PROG come=REL
'Who is coming?'

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PS

A la recherche des voyelles finales perdues en ruwund L53.

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Résumé

Cette communication montre que l'absence généralisée des voyelles finales en ruwund (ruund L53, langue bantu de la R.D.C.) ne remonte ni à l'ancêtre proche (protoruwund) ni à l'ancêtre lointain (protobantu). C'est le résultat d'une évolution de la langue originelle qui a perdu les voyelles finales comme en témoigne la langue moderne. Celle-ci se démarque tout au moins du protobantu dont les reconstructions signalent des voyelles finales. Les études antérieures ont toujours insisté sur l'absence des voyelles finales en ruwund sans jamais tenter de remonter le cours de l'histoire : Stappers, L. (1954), Vincke, J.L. (1966), N'landu, N. (1986), Nash, J.A. (1992-1994). Les évidences de voyelles finales dans la langue ruwund originelle transparaissent dans les données synchroniques à deux niveaux. Au niveau segmental, outre la voyelle **a** nettement perçue**,** des vestiges des voyelles **i** et **u** finales existent alors que **e** et **o**, parmi les cinq voyelles attestées, semblent exclues dans cette position dans la langue tant originelle que moderne. Exemples :

(1) * kúdíà (*- dia) → kúdâ ''manger'', soit le maintien de la voyelle finale originelle dans la langue moderne, après élision de **i** du radical verbal ;

(2) * ŋéndì (*- gèndì) → ŋênj ''un étranger'' (de kwend ''voyager''), soit une perte de **i** finale après palatalisation de **d**) ;

(3) * mpúkù (*- púkù-) → mpûkw ''rat'', soit une dévocalisation de **u** finale, articulée aujourd'hui comme une semi-voyelle **w**.

Au niveau suprasegmental, la récurrence d'un ton complexe descendant en syllabe finale fermée de mots est une preuve du déplacement vers la gauche d'un ton bas ayant perdu son support vocalique et récupéré sur la syllabe précédente où il fusionne avec le ton initial. Ce ton bas flottant est vestige d'une voyelle **v** finale effacée mais qu'on peut phonétiquement restaurer dans bon nombre de cas :

(4)* díítámv4 (* - támà) → díítâm '' la joue''

Une démarche à la fois diachronique, basée sur des données synchroniques internes à la langue, et dialectologique, prenant en compte des variantes dialectales de la langue, permet de vérifier cette hypothèse et d'ouvrir une nouvelle perspective dans l'approche de la chute des voyelles finales dans les langues du monde.

PS

Bantu grammatical description from an insider's point of view

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This paper aims to take a critical look at the grammatical descriptions of Bantu languages from the time when these languages were first committed to writing, with particular reference to Northern Sotho (Sesotho sa Leboa). The 19th century saw the emergence of a tradition of grammatical descriptions of the Bantu languages, mainly inaugurated by missionaries. Their groundbreaking work laid the foundation for future grammatical descriptions, but the question that needs to be answered is whether and to what extent their approaches have actually curtailed or promoted the grammatical description of these languages. There are many indications that they tried to fit these languages into the descriptive mould of the European languages. The distinction of the grammatical category 'case' can be cited here as a short-lived attempt at making sense of the different usages of nouns in the nominative, genitive, dative or accusative case. It was soon realised that the distinction of cases was insignificant for the Bantu languages, as nouns are not marked inflectionally in a similar way as, for example, in German. This conceptual grid was evidently alien to the grammatical analysis of the Bantu languages. The Eurocentric understanding of certain categories and phenomena distorted or obscured the linguistic facts of the languages. Van Wyk (1968:105) calls them "sins of projection", but he affirms that they are a universal problem in linguistic methodology and not a weakness exclusive to the study of Bantu grammar.

Over time, the Bantu languages increasingly became objects of scientific analysis and it became clear that grammatical descriptions had to be done from an insider's point of view to disperse some wrong perceptions. The paper intends to highlight some recent research findings that have led to a refinement of our understanding of certain phenomena. A case in point is the concept of pronominalisation. Pronouns are traditionally said to *substitute* nouns (or word groups). In the Bantu languages, however, pronominalisation is the result of the *deletion* of a noun (or word group) to which the pronoun refers. (Louwrens, 1981, 1985). Another example concerns the so-called 'imperfect tense morpheme', which has erroneously been linked to 'tense'. A study by Kosch (1988), however, demonstrates that it is actually a marker of discourse information, rather than a tense-marker.

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PS

NASALISATION DES VOYELLES EN MBOCHI (C25)

Résumé

Le travail de Nzete (1980) montre que les voyelles nasales sont attestées dans le parler mbochi de bokwele. On y trouve de parfaites paires minimales: asá “champs” / ãsá “cultivateurs”. Nous en avons aussi identifié dans le parler de bonyala. Notre étude se base sur un corpus de 410 mots recueillis dans 14 parlers bantu des groupes C20 et C30. Ce corpus témoigne également de l’existence des voyelles nasalisées dans le parler de bonyala : *ɔ̃kangá* “racine”, *ɔ̃beesi*, “preteur”, *ãlóngó* “sang”.

Plusieurs études ont dégagé des universaux de la nasalisation des voyelles dans les langues du monde (Crothers 1978, Rhulen 1978, Maddieson 1984, Hombert 1986...). La présente étude se propose d’analyser le comportement des voyelles dans la langue mbochi en synchronie et d’étudier leur évolution diachronique. Elle se propose de donner une explication diachronique à l’existence des voyelles nasales dans ces deux parlers. Elle met en parallèle les 14 parlers pour démontrer que les voyelles nasales observées en mbochi sont le résultat d’une chute systématique de la consonne nasale du préfixe de classe. En mbochi les préfixes sont de formes CV-. Quand le thème auquel ils sont affixés commence par une consonne, ces consonnes préfixales tombent dans certains dialectes. Le parler moi et celui de bonyala (dans une moindre mesure) sont les seuls sur cette liste à conserver cette consonne. Quand il s’agit d’une nasale (classes 1, 3, 4 et 6), après sa chute, le trait [+nasal] se reassocie à la voyelle donnant lieu aux voyelles nasalisées dans les parlers de Bokwele et de Bonyala.

Ce phénomène de réassociation ne s’applique que sur ces deux parlers. Dans le reste des parlers ces voyelles conservent leur trait [+oral]. La mise en paralèlle des mots des différents parlers nous permet de mieux observer cette évolution :

moi	bokwele	boundji	
maloìngaì	*~ ãlóngó*	*~ alóngó*	“sang”

Quand le thème commence par une voyelle, le préfixe perd plutôt sa voyelle. Dans ce cas, même quand cette consonne est nasale, sa nasalité ne se propage pas sur la voyelle du thème. Cela nous amène à prouver entre autres qu’il n’y a pas propagation du trait [+nasal], donc pas d’assimilation regressive (Hyman 1972, Chen 1975) dans cette langue, mais plutôt refixation dudit trait de la gauche vers la droite, assimilation progressive (Hombert 1986).

moi	obaa	bonyala	boundji	
m-ína ~	*m-ína*	*~ m-ína*	*~ mína*	“dents”

Guy Noël KOUARATA & Pierre Yvon NDONGO IBARA PS

Typologie de la réduplication dans des langues bantu du Congo

Abstract

La réduplication a fait l'objet de plusieurs études sur les langues bantu (Odden & Odden 1985, 1996; Kiyomi & Davis 1992; Mutaka & Hyman 1990 and Downing 1994, 1996, Laura Downing 1999 et 2001). Très peu de travaux se sont intéressés à ce phénomène dans les langues bantu du Congo.

La présente étude analyse les différents types de réduplications dans des langues bantu du Congo. Elle vise la proposition d'une ébauche de typologie des différents changements qui découlent de la réduplication. Il se base sur les dictionnaires mbochi-français (SIL-Congo 2001), beembe-français (SIL-Congo 2010), le manuscrit du dictionnaire teke-français, lingala bien d'autres manuels d'écriture et de lecture en langues congolaises.

Cette étude s'étend à la comparaison du phénomène de réduplication et ses conséquences dans les langues bantu des groupes C20, C30, H10 et B70. Elle décrit ce phénomène et ses répercussions sur le plan phonique, morphologique et sémantique.

Elle montre que dans tous les cas, la réduplication est progressive, elle se fait de la gauche vers la droite. Dans les parlers C20 et C30, le ton haut est l'élément obligatoire de la réduplication, il se réalise sur le segment réduplicué. Il s'agit là d'une contribution aux études existant sur l'implication du ton dans la réduplication (Myers & Carleton 1996, Mutaka & Hyman 1990, Walsh 1992…).

Selon les langues, les éléments réduplicables sont : la première syllabe du mot (1 et 2), le thème (7) ou de tout le mot (6). Sur le plan sémantique, la réduplication de la syllabe entraîne généralement le sens « véritable… » (Intensif), celle du thème correspond au sens « faire sans méthode… » dans les parler H10 et C30, à « qui a subit… » dans les parlers C20, celle du mot renvoie à « véritable… » en B70, à « à la manière de… » en C20 et C30 et à « plusieurs fois… » La dérivation qui en résulte se fait de nom à nom (1, 2, 3), de nom à adverbe de manière (6 et 3), de verbe à adjectif (7), de verbe à nom (5 et 8) et d'adjectif simple à adjectif intensifié (10).

1. Mbochi (C20) : moro "personne" > mó-moro "véritable personne"
2. Beembe (H10): bɔ́ɔmɔ́ "peur" > mu-bɔ́-bɔɔmɔ "véritable peureux"
3. Teke (B70) : mbuuru "personne" > mbuuru-mbuuru "véritable personne"
4. Beembe (H10): butsúku "matin" > butsúku- butsúku "matinalement"
5. Beembe (H10): kudyaata "marcher"> ma-dyaata-dyaata "fait de marcher sans méthode"
6. Mbochi (C20) : abɔ́ɔ "mains" > abɔ́ɔ- abɔ́ɔ "à l'unisson, ensemble"
7. Mbochi (C20) : idima "s'éteindre"> idimá - dima "éteint"
8. Lingala (C30) : koláta "porter" > bi-láta-láta "fait de porter sans méthode"
9. Lingala (C30) : mabé "mauvais" > mabé- mabé "très mauvais"
10. Mbochi (C20) : obé "mauvais" > obé- obé "très mauvais"

Francine MOGUO

Abstract : Arguments for a Desemanticization of Verbs into Future Tense Markers in some Bantu Langauges

According to Bybee (1994), desemanticiation theory begins with the observation that grammatical morphemes develop gradually out of lexical morphemes or combination of lexical morphemes. Thus, the source meaning of lexical morphemes determines the grammaticalization path that the grammatical morpheme will travel in its semantic development. Constructions involving movement verbs for example are found to be the sources of markers not only of future, but also of past and progressive.

In this paper, we go beyong the listing of the grammatical morphemes which the verb « go » could evolve into to argue that future markers in some Bantu languages of Cameroon evolved from constructions which signal movement towards a goal which requires that the verb stem bears appropriate tense and directional marking. We go further to demonstrate that in these languages a lexical morpheme that often occurs in an environment in which a certain inference is made can come to be associated with that inference to such an extent that the inference becomes part of the explicit meaning of the grammatical morpheme. In this light, five verbs namely the verb “to go”, “to do”, “to sleep”, “to stay/remain”, and “to last” with the evolution of the language have gradually undergone the process of desemantization; that is in addition to their lexical meaning, they have received a grammatical function and have eventually developed into a grammatical morpheme. Based on the source determination hypothesis, we advocate that the development of future markers in these languages is characterized by the dynamic coevolution of meaning and form.

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PS

L'applicatif en kikongo véhiculaire (H_{10A}) et en civili (H_{12}): constructions, fonctions discursives et variation diatopique

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Le kikongo véhiculaire est un parler classifié par Maho en H_{10A}. Il est pratiqué en République du Congo (Congo-Brazzaville), en RD Congo et en Angola respectivement selon les glossonymes suivants: kituba / munukutuba; kikongo ya léta / monokotuba et kikongo. Le civili, fiote, fiot ou kivili est une langue bantoue vernaculaire classée en H_{12} par Guthrie. Des études descriptives menées sur ces deux langues (Fehderau 1962, Lumwamu 1973), pour le kikongo véhiculaire; (Ndamba 1977), pour le civili, ont mentionné l'applicatif essentiellement comme morphème de dérivation. Le reflexe du suffixe applicatif Proto-Bantu ****-ɪd-*** (Meeussen, 1967), reconstruit en Proto-Niger-Congo (Voeltz, 1977), doit avoir plusieurs fonctions syntaxiques : bénéfactif > maléfactif > instrument > locatif > prépositionnel > directif > cause ou raison (Schadeberg 2003 : 74). En Angola, il est représenté par «-***il***-» ou «-***el***-». Mbiavanga (2008 : 337). Notre étude concerne les variantes kikongo véhiculaire de Pointe-Noire, de Boma et du Bandundu tout autant que le civili de Pointe-Noire.

Objectifs : Cette recherche vise les objectifs ci-après: 1) Déceler les différents rôles sémantiques qu'assigne l'extension à son objet. 2. Paramétrer les contextes de promotion d'un argument périphérique au statut d'objet 3) Esquisser une sous-classification et établir une répartition spatiale des différentes variantes du kikongo-véhiculaire aussi bien en fonction de la réalisation dudit morphème que de son emploi ; sachant que ****el-*** reconstruit par Schadeberg (2003: 71-89) n'est plus assez productif.

Résultats préliminaires :

Pour des raisons d'espace, nous présentons ici la construction du bénéfactif et les problématiques scientifiques soulevées.

1) Bénéfactif (en kikongo véhiculaire de Pointe-Noire « kituba » et en civili de Pointe-Noire)

(a) kituba (Pointe-Noire)

Lemvuk-a	**samu**	**na**	**munu**	
Pardonner-FV	**pour**	**de**	**moi**	
Pardonne-moi.				

(b)kituba

→ **Lemvuk-il-a**	**munu**	
→ **Pardonner-APPL-FV**	**O_1**	
→ Pardonne – moi		

(c) civili

Lémvùk-à	**mù**	**cí-bìlà**	**cí-áàmì**	
pardonner-FV	**Pour**	**7-compte**	**7-POSS**	
pardonner-FV	**pour**	**compte**	**mon**	
Pardonne-moi.				

(d)civili

→ **Ndemvukila**
→ **N-lemvuk-il-a**
→ **O_1-Pardonner-APPL-FV**
→ Pardonne-moi

(e) kituba (Pointe-Noire)

Mu-ana	**me-yidik-a**	**inzo**	**samu na**	**ndeke**	
1-enfant	**PRF-fabriquer-FV**	**9-maison**	**pour de**	**9-oiseau**	
L'enfant a fabriqué un nid pour le compte de l'oiseau					

(f)kituba

→ **Mu-ana**	**me-yidik-il-a**	**ndeke**	**inzo**
→ **1-enfant**	**PRF-fabriquer-FV**	**9-oiseau**	**9-maison**
→ L'enfant a fabriqué un nid pour l'oiseau			

(g) civili

Mú-áànà	***ù-à-váng-a***	**lí-áànzì**	**mù**	**cíbìlà**	**cínúnì**
1-enfant	**PV_1–PRF-fabriquer-FV**	**5-nid**	**pour**	**5-compte**	**5-oiseau**
L'enfant a fabriqué un nid pour l'oiseau					

(h) civili

Mú-áànà	***ù-à-váng-íl-a***	**núnì**	**lí-áànzì**
1-enfant	**PV_1–PRF-fabriquer-APPL-FV**	**$ø_{9a}$-oiseau**	**5-nid**
L'enfant a fabriqué un nid pour l'oiseau			

En 1(a+b) nous avons des énoncés à l'impératif. En kituba (1a) le pronom « munu » est relié au verbe par le biais de la locution prépositionnel « samu na », il fait fonction d'argument oblique ; alors qu'en 1b « munu » est promu au rang d'objet et, suit immédiatement le verbe (VO). Il se produit exactement la même chose en 1c où la locution prépositionnel « **mù cíbìlà**» fait le lien entre le verbe et l'argument périphérique « **cíáàmì**» qui, en 1d est promu au statut d'objet. Dans ce cas (impératif), l'accord du verbe se fait avec l'objet promu «***N-***» antéposé au verbe (1d) (OV). Les constructions à deux objets (1e+f+g+h) observent la hiérarchie entre animé « ndeke », «**núnì »** et inanimé «**lí-áànzì », « inzo »**. En 1e l'objet « inzo » suit immédiatement le verbe et l'argument oblique « ndeke » est rattaché au groupe verbal par la locution prépositionnel « samu na ». En 1g, « **mù cíbìlà »** établit le lien entre l'objet direct «**lí-áànzì »** et l'argument oblique «**núnì ».** En (1f+h), les arguments obliques « ndeke » et «**núnì »** sont élevés au rang d'objet et précèdent immédiatement le verbe au détriment des objets «**lí-áànzì »** et **« inzo »** qui sont placés après. Avec le changement des rôles syntaxiques, il se pose des problèmes également d'accords –que nous développerons lors de notre présentation. Les exemples tirés des variantes de Bandundu et de Boma seront confrontés à ceux-ci pour déterminer les variations

Résultats attendus et méthodologie

À la suite de l'identification des constructions de l'applicatif, une étude plus fine aux niveaux morphosyntaxique et discursif est utile pour paramétrer les différents usages. Ainsi, chercherons-nous à vérifier l'hypothèse suivante : « Les applicatifs […] permettent de promouvoir au statut d'objet un terme qui, en l'absence de dérivation applicative, pourrait figurer comme terme oblique » (Creissels 2006, Tome 2 : 73). Le corpus est constitué des contes que nous avons recueillis lors de nos premières missions de terrain, des transcriptions des journaux radio, de textes religieux (la bible en kituba), des conventions officielles scannées.

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Noun class frequency across text genres in Bakola. What implication from a cultural linguistics point of view?

(Emmanuel NGUE UM - University of Yaoundé I)

Noun categorization seems to be one of the most appealing features across bantu languages from a descriptivist point of view. For this reason, it has also been one of the most explored aspects, both as a grammatical and as a semantic phenomenon. Whereas the morphological features which underlie noun classification in Bantu languages are somehow a you-know-it-when-you-see-it phenomenon, and thus subject very scarcely to any reputable controversy, the semantic face of noun classification is a question yet to receive a definitive answer (Contini Morava 1997, Katamba, 2003, Amidu, 2007). Many scholarly works have sought to uncover the "real" meaning behind noun classification ever since the early works on Bantu noun classification (Richardson, 1967; Deny and Creider, 1976), most of which are mostly grounded on qualitative and historical oriented methodologies, such as induction or the recovery of an ancestral system of noun classification which would expectedly yield a transparent meaningful system (Herbert, 1985). So far, only a few research works have addressed the issue drawing from quantitative analysis. One of such attempts is Contini Morava's database of Swahili which comprises a compilation of existing dictionaries and discourse data. The purpose of this paper is to go beyond Morava's attempt, by applying a quantitative approach to noun categorization in a Bantu language whose empirical resource will be a purely discourse data. More precisely, the research will address noun class frequency across text genres in Bakola, a Bantu A language spoken by hunter-gatherers in the southern region of Cameroun. The relative frequency of noun class from one genre to another is expected, from a cultural linguistics perspective, to shed more light on how cognitive schemas and categories embedded in noun classification are related to the cultural life of the community. According to Palmer 1996, Palmer & Sharifan 2007, cultural linguistics draws on cognitive anthropology and cognitive linguistics to explore the relationship between language, culture, and conceptualization. The analysis will be based on an oral corpora collected within the framework of a documentation project. Fifteen hours of oral texts which have been transcribed phonetically will be added tagging on every single noun to allow for automatic scanning and extraction using ELAN. The statistics provided after an extraction process within a given genre will be the empirical basis for a culturally oriented analysis.

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Noun Phrase Structure in Shimwela

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This paper employs the concept of word order to analyze the structure of noun phrases in Shimwela, a Bantu language spoken in Lindi region, Tanzania. The language is classified by Guthrie (1948) as P. 22 and is also referred to as Kimwera (Nyagali, 1990), or Mwera (Johnson 1919; Guthrie, *op. cit*; LoT, 2009). Data for the paper were collected through questionnaires, focus group discussions, unstructured interviews and documentary reviews. The sample, which was deliberately selected, constituted four informants who were competent in Shimwela. The collected data were then analyzed by using a thematic analysis approach whereby major concepts of the study were obtained and described.

The findings show that several elements may be stacked in a Shimwela NP. Some of these occupy fixed positions while others are flexible. Elements which occupy fixed positions include demonstratives, distributives, possessives, intensifiers, and interrogatives. The demonstratives and the distributives strictly occur at the pre-head position, while the possessives occur immediately after the head noun. Also, the intensifiers occur after the adjectives they intensify, while the interrogatives and parts of the demonstratives occur at the end of NP. Elements which are flexible include numerals, quantifiers, adjectives, relative constructions and associative constructions. These may exchange positions in the slot between the possessive and the demonstrative particle or interrogative.

Finally, the findings reveal that there is a limit in the stacking of dependents in a Shimwela NP. The highest limit of dependents in Shimwela NP is six but in ordinary speech the normal load seems to be four, with demonstratives and possessives appearing as the most frequently occurring dependents.

PS

Parameterising Case: other evidence from Bantu

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Nouns in Bantu do not show any case marking like in German or Latin. However, having no morphological marking does not entail that Bantu languages do not have abstract Case at all. Whereas Diercks (2012) explicitly proposes that Bantu languages do not have abstract Case features, I show in this presentation that Case surprisingly does play a role in some languages, thereby supporting the thesis that Case is parameterised.

In his (2012) article 'Parameterizing Case: evidence from Bantu', Diercks shows that a uniformly applying theory of abstract Case –a fundamental component of the Principles and Parameters framework- is not supported by data from Bantu languages. He proposes that **Case is subject to parameterisation**: some languages have Case, and others do not. Specifically, "Bantu languages do not have uninterpretable Case features in their feature inventories".

Part of the evidence for this claim is found in locative inversion. When the verb agrees with a preverbal locative, like '(at) the river' in (2), the question is how the postverbal subject ('seven cows') gets Case, assuming that agreement is linked to Case. Although several analyses have been proposed (e.g. Carstens 2005), the most straightforward analysis is that there simply aren't any uninterpretable Case features to be checked.

(2) Pho muho-ni pha-tuluka ng'ombe sabaa za ku-nona.
16.DEM river-LOC 16SM.PST-emerge 10.cows seven of INF-be.fat
'From the river emerged seven fat cows.' Digo (Diercks 2012)

However, in this presentation I present clear **counterexamples** to Diercks' claim. If Case *does* play a role in the grammar, we expect verb agreement with the (nominative) subject irrespective of its position in the sentence. This is exactly the case in languages with Agreeing Subject Inversion, where the verb agrees with the post-verbal subject (3).

(3) Ju-híkití Marî:a.
1SM-arrive.PERF 1.Maria
'Maria has come' Matengo (Yoneda 2011)

Furthermore, we expect subjects of infinitival clauses to be ungrammatical, as new data in (4a) confirm. Instead, the "subject" must be object marked on the main clause verb (4b).

(4) a. * ki-m-pheela namarokolo okhuma -OM
1SG.SM-PRES.CJ-want 1.Hare INF.exit
'I want Hare to leave'

b. mwi-ni-**m**-pheela namarokolo okhuma? +OM
2PL.SM-PRES.CJ-**1OM**-want 1.Hare INF.exit
'do you want Hare to leave?' Makhuwa

After presenting evidence that abstract Case plays a role in languages with Agreeing Subject Inversion, I will discuss the consequences for this parameterisation within the Bantu languages. Building on Carstens (2005) and Baker (2008), I reassess **the interaction between agreement, Case and position,** showing that the languages with Agreeing Inversion do not form a uniform group either: agreement is linked to Case, but there is interesting parametric variation with respect to the link between agreement and movement (Makhuwa vs Matengo).

In sum, the sensitivity to Case may be unexpected from the perspective of Bantu languages Diercks describes, but postulating a Case Parameter does predict such variation.

Diercks, M. 2012. Parameterizing Case: Evidence from Bantu. Syntax 15:3.

Francis WEPNGONG

Dialectal Variations in Limbum.

Limbum as an Eastern Grass-fields Bantu language is made up of three significant dialects labeled as North, Central, and SouthLimbum. The differences between Limbum dialects are phonological. Although many languages are spoken in the area, the dialectal differences are due to influences from two neighboring languages. To the north, Limbum has been influenced by Mbembe whereas to the South, Limbum has been influenced by Lamnso. The central dialect which has been selected as the standard variety by Wimbum Literacy Association(WILA) has been more stable. In this paper, we will discuss the prosodic features that characterize the two dialects of North and the South Limbum. Special attention will be paid on the influence of Mbembe as it is a non-Bantu language. Since details of language prosody depend on phonology, it will be interesting to see that phonemically, we have switches between Mbembe and Limbum consonants and one vowel shift instead of syllable or vowel length. Since tones are on the vowels and the prosodic pitch doesn't have to obscure the tones, how the consonant changes create a prosodic effect is the question that we will attempt to answer.

In order to have a clear view of the dialectal differences between the two Limbumdialects that have resulted through the influence of neighboring languages, we will first of all show how the central and the northern dialects are phonemically similar when contrasted with the way the phonemes are realized in the South dialect. Further, we will contrast other phonemes of the three dialects in order to show the realizationMbembephonemes vis-à-vis central and south Limbum.

The influence of Lamnso on south Limbum is characterized by fricativization, palatalization, labialization, nasalization of consonants and some vowel shifts:As far as fricativization is concerned, the affricate /tʃ/ as is with the central and Northdialect is realized as a fricative /ʃ/ in the South dialectas in the following:

Central Dialect		Northern Dialect		Southern Dialect		
ncìi	/ntʃì:/	ncìi	/ntʃì:/	nshìi	/nʃì:/	beads
cu	/ tʃū/	cu	/ tʃū/	shu	/ ʃū/	sit
cɛ'	/ tʃɛ̀ʔ/	cɛ'	/ tʃɛ̀ʔ/	shɛ'	/ ʃɛ̀ʔ/	cloth
ca	/ tʃá/	ca	/ tʃá/	sha	/ ʃá/	this

It is with taking note of the fact that there is neither a tone change, stress nor any influence of the fricatives on the following vowel.

The only area where there is a remarkable change in the stress pattern is when /b/with followed by/ i/ is palatalized in Southern Limbum as can be seen in the following examples.

Central Dialect		Northern Dialect		Southern Dialect		
bii	/ bī:/	bii	/ bī:/	jwii	/ ʤwī:/	dance
rbì	/ ɾbì/	rbì	/ ɾbì/	rjwè	/ ɾʤwè/	cola nut

As seen above, the bilabial is maintained through a change from /b/ to the semi-vowel /w/. Further investigations may be needed to see if Lamnso bilabials are realized with a combination of a palatal, semi-vowels in some environments where / i/ is found. :

Another instance of palatlization can be seen in southern Limbum when the velar /g/ followed by /i/is relized as /dz/ as in the example below

Central Dialect	Northern Dialect	Southern Dialect
ŋgì' / ŋgìʔ/	ŋgì' / ŋgìʔ/	ndzɛ̀' /ndzɛ̀ʔ/ pumpkin seeds

In other instances, the /i/only triggers the insertion of the palatal fricative /z/as in:

Central Dialect	Northern Dialect	Southern Dialect	
mdip / mdīp/	mdip / mdīp/	mdzɛp / mdzɛ̄p/	water
mbii / mbī:/	mbii / mbī:/	mbzee / mbzē:/	palm nuts

It is also important to note that only the /i/in a monosyllabic word triggers this shift from velar to palatal phonemes. We can also see here that there are vowel shifts from high to low. The fricative /z/ is a loan consonant as the Northern and Central Limbum do not make use of it anywhere. All the three dialects make use /ʒ/ which is realized orthographically as 'zh'.

With labialization, northern and central Limbum semi-vowel palatal /j/is realized in southern Limbum as a semi-vowel bilabial /w/ as in the examples that follow.

Central Dialect	Northern Dialect	Southern Dialect	
fyɛp / fjɛ́p/	fyɛp / fjɛ́p/	shwɛp /ʃwɛ́p/	blow
fyɛ̀pte / fjɛ̀ptē/	fyɛ̀pte / fjɛ̀ptē/	shwɛ̀pte/ʃwɛ́ptē/	deflate
fyɛpshi/ fjɛ́pʃī/	fyɛpshi/ fjɛ́pʃī/	shwɛpsi/ʃwɛ́psī/	blow
fyèni / fjèni/	fyèni / fjèni/	shwèni /ʃwɛ̀nī/	sell

This bilabial realization of a palatal can only be seen when the palatal is preceded by labial fricative /f/. Franzen (1995) noticed that in the Southern Limbum, labialization takes place only in the case of palatalized /f/whereas in the case of palatalized /b/and /m/the palatal semi-vowel /j/is found,

With nasalization, the palatal /ɲ/ is realized in Southern Limbum as the alveola /n/ as in the following:

Central Dialect	Northern Dialect	Southern Dialect	
nyùu / ɲì:/	nyùu / ɲù:/	nùu / nɨ:/	sun
nyuu / ɲī:/	nyuu / ɲū:/	nùu / nī:/	bees

We notice here that the nasal is depalatalized in Southern Limbum whereas Northern and Central Limbum maintain the palatal nasal in all environments where it is found. The vowel shift in Northern Limbumas canbe seen here is the single vowel difference between Southern and Northern Limbum. See more examples below.

Phonemicdifferences between Northernand the Southern and Central Limbum can be seen through processes of glotalization,velarizationandlibialization. This takes place with many consonant. The only vowel shift is with the back high vowels from /ɨ/to /u/as we have observed above.

Labial /f/ can be glotalized in Northern Limbum as can be observed through the following:

Northern Dialect		Central Dialect		Southern Dialect		
ha	/há/	fa/fá/	fa/fa/	give		
àhaa	/àhá:/	àfaa/àfá:/		àfaa/afa:/		in this are

The alveolar fricative /s/can also be glotalzed as in

Northern Dialect		Central Dialect		Southern Dialect		
hò	/hɔ̀/	sò/sɔ̀/	sò/sɔ̀/	you and I		
hè'ni	/hèʔnī/	sè'ni/sèʔni/		sè'ni/sèʔni/		now
herna	/hérnā/	serna/sérna/	serna/sérna/		there	

In situations where we have the velar /ɣ/in Southern and Central Limbum, it is realized a the glottal /h/ as in the single examine below.

Northern Dialect		Central Dialect		Southern Dialect		
àho	/àhɔ̄/	àgho	/àɣɔ̄ /	àgho	/àɣɔ̄ /	with:

The realization of this glottal as seen above seems to be intervocalic. At word initial position, the velar is maintained.

Velarization takes place with Southern Limbum where labial phonemes like /v/and /w/ as used in Southern and Central Limbum are realized in Southern Limbum with the use of the velar /ɣ/ as can be seen below.

Northern Dialect		Central Dialect		Southern Dialect		
ghù	/ɣù /	vʉ̀	/vɨ̀ /	vʉ̀/vɨ̀ /	come	
ghup	/ɣūp /	vʉp	/vɪ̄p /	vʉp/vɪ̄p /		bone
ghèe	/ɣè: /	wèe	/wè: /	wèe/wè: /		you
wooghèe/wō:ɣè:/		woowèe/wō:wè:/		woowèe/wō:wè:/		them

From these examples we can also conclude that the velarization process is limited to environments whereby the velar /ɣ/is followed by /u/and /e/vowel phonemes.

Libializationin Northern Limbum takes place when the corresponding phoneme in the Southern and Central dialect is the palatal /j/as in the following:

Northern Dialect		Central Dialect		Southern Dialect		
wuu	/wu:/	yuu	/ju:/	yuu	/ju:/	thing

It is not obvious that this is the general pattern with the labialization. We may say that this can only take place if the vowel is a back vowel and its tone is mid. This is because a word like **yuu** – buy which bears a high tone will be /jú:/ in all the dialects.

Vowel difference between the Southern, Central and Northern Limbum as we have seen above can only be seen in the shift of the mid high vowel phoneme /ɨ/to high back /u/ as in.

Northern Dialect		Central Dialect		Southern Dialect	
ŋkuu	/ŋkú:/	ŋkuu/ŋkɨ́:/		ŋkuu/ŋkɨ́:/	chief
tuʾ	/tūʔ/	tuʾ/tɨ̄ʔ/	tuʾ/tɨ̄ʔ/	night	
kù	/kù/	kù	/kɨ/	kù/kɨ/	rope
ŋgup	/ŋgūp/	ŋgup/ŋgɨ̄p/		ŋgup/ŋgɨ̄p/	fowl

The vowel shift does not depend on the preceding or following consonant. Northern Limbum seems to prefer a six vowel system instead the seven vowel system of the general Limbum alphabet.

From the above, we can witness that the changes in the phonemes do not affect the tones or create a stress on the syllables. If any prosodic features are to be examined in the various dialects of Limbum, more will be seen in with Southern Limbum than with Northern Limbum which has been influenced by a non-Bantu language. This therefore suggests that studying the prosodic effects on the Northern dialect can be focused on the question of the vicinity of the vowel phonemes as well as the tones. The sounds contrasted above are merely differ from each other by one articulatory feature. Moreover, any stress pattern will be examined under phonotactics like voicing or devoicing. Though the Northern dialect is not revealing anything about consonant borrowing, there is the need to check is Mbembe from which it has derived its influence makes more use velar, palatal and glottal phonemes than labial phonemes. Southern Limbum makes use of borrowed consonants and clusters more than Northern Limbum which has borrowed from a non-phylum neighbor. This raises a question of whether the prosodic features can only be seen in the influence of a non-related language. In some one of the situations a long vowel has been seen in Southern Limbum as being realized by a semi-vowel.

BANTU 5

5th International Conference on Bantu Languages

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Plenary

Lutz MARTEN & Jenneke VAN DER WAL

A typology of Bantu subject inversion

Contemporary research in comparative Bantu has highlighted the high degree of morphosyntactic microvariation in Bantu. While early work on the topic has typically focussed on one construction type and variation between two language groups (e.g. 'symmetric' vs. 'asymmetric' Bantu languages), recent work has shown the complexity of interrelated parameters of variation, and how these are instantiated in different languages – resulting in a large range of patterns and language groups. A well-known area of variation in Bantu are locative inversion constructions (Bresnan and Kanerva 1989 and much following work), where different languages (e.g. Chichewa, Herero, Ndebele, or Sotho) show different morphosyntactic and thematic restrictions. However, we show that locative inversion constructions are just one type of inversion in Bantu: there is a **wider micro-typology of subject inversion** in Bantu which includes formal locative inversion (LI), semantic locative inversion (SLI), instrument inversion (II), subject-object reversal (SOR), default agreement inversion (DAI) and agreeing inversion (AI). The talk will develop such a typology and propose

1. a set of **descriptive parameters** which describe the similarities and differences between the construction types in detail (Table 1),
2. a **comparison of selected Bantu languages** which differ with respect to one or more of these parameters (Table 2), and
3. a set of **underlying structural properties** which account for (some of) the variation observed.

	LI	SLI	II	SOR	DAI	AI
P1 Verb-logical subject order	✓	✓	✓	✓	✓	✓
P2 Logical subject cannot be omitted	✓	✓	✓	✓	✓	✓
P3 No object marker	✓	✓	✓	✓	✓	✓
P4 Post-verbal/thetic focus	✓	✓	✓	✓	✓	✓
P5 Prosodic marking	✓	✓	✓	✓	✓	✓
P6 Locative grammatical subject	✓	×	×	×	×	×
P7 Locative subject agreement	✓	×	×	×	✓	×
P8 Referential subject agreement	✓	✓	✓	✓	×	×
P9 Thematic restrictions on topic	✓ (LOC)	✓ (LOC)	✓ (INS)	✓ (TH)	×	×

Table 1: Parameters P1 to P9 for Bantu inversion constructions

	LI	SLI	II	SOR	DAI	AI
Dzamba (C32)	✓	?	?	✓	?	?
Kagulu (G11)	✓	?	?	✓	✓	✓
Swahili (G42)	✓	✓	?	✓	✓	✓
Luyia (JE32)	✓	✓	?	?	?	?
Chichewa (N31)	✓	×	?	×	?	×
Kimatuumbi (P13)	×	×	×	×	×	✓
Herero (R31)	✓	×	?	×	✓	×
Tswana (S40)	×	×	?	×	✓	×
Zulu (S42)	×	✓	✓	×	✓	×

Table 2: Inversion constructions in nine Bantu languages

The results from the comparison show the complex and detailed variation between different Bantu languages, but also highlight the problem that for many languages, complete data are not easily available (cf. '?' in Table 2). However, based on our research so far, we propose that the variation encountered results from three underlying domains of differences related to nominal morphosyntax, verbal-functional morphosyntax, and verbal-thematic restrictions. In particular, variation results from: 1) The status of locative phrases as nominal or prepositional, 2) restrictions on the verbal licensing of arguments related to agreement and case, and 3) thematic restrictions on the predicates available in the inversion constructions. We will show that P1 to P5 characterise the constructions as inversion constructions (in distinction to, for example, passives), P6 reflects the status of locative phrases, P7-8 are related to different properties of subject licensing, and P9 reflects thematic restrictions. Overall, the talk shows how the interaction of underlying structural differences results in complex surface variation and in a **fine-grained typology of different Bantu languages**.

Bresnan, Joan, and Jonni M. Kanerva. 1989. Chichewa locative inversion: a case study of factorization in grammar. *Linguistic Inquiry* 20 (1):1-50.