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Nicolas Quint, Paulette Roulon-Doko, Loïc-Michel Perrin

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# #02

Jun 2016



# ILLA

Linguistique  
et Langues  
Africaines



- \_ Additive Coordination, Comitative Adjunction, and Associative Plural in Tswana
- \_ The Locative System in Cuwabo and Makuwa
- \_ Question Formation in ||Gana
- \_ La liaison tonale en shingazidja septentrional
- \_ Comptes-rendus / Book Reviews



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## #02

Juin 2016

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## **Additive coordination, comitative adjunction, and associative plural in Tswana**

Denis CREISSELS<sup>1</sup>

### **Abstract**

This paper discusses the contribution of Tswana (Bantu, S31) to the typology of coordination, in particular additive coordination, with an emphasis on the relationship between additive coordination, the expression of comitativity, and plural marking. Tswana has a strict distinction between the additive coordination of NPs, attributive adjectives, and clauses, but uses the same proclitic *le ū-* as an additive coordinator for NPs ('and'), as an additive particle ('also'), and as a comitative marker ('with'). None of the constructions expressing the additive coordination of clauses lends itself to mechanisms of ellipsis comparable to those found in European languages. Inclusive additive coordination is of particular interest, since Tswana has a cross-linguistically rare type of inclusive additive coordination with the associative plural form of an individual name as the first coordinand, and the analysis of this construction suggests a possible etymology for the Tswana prefix of class 2a.

### **Keywords**

Bantu, coordination, additive coordination, comitative adjunction, associative plural

### **Résumé**

Cet article discute la contribution du Tswana (bantou, S31) à la typologie de la coordination, notamment de la coordination additive, avec une attention particulière à la relation entre la coordination additive, l'expression de la comitativité et le marquage du pluriel. Le tswana a une distinction stricte entre la coordination additive des groupes nominaux, des adjectifs épithètes et des phrases, mais utilise le même proclitique *le ū-*

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comme marque de la coordination additive de groupes nominaux ('et'), comme particule additive ('aussi') et comme marqueur comitatif ('avec'). Aucune des constructions exprimant la coordination additive de phrases ne se prête à des mécanismes d'ellipse comparable à ceux rencontrés dans les langues d'Europe. La coordination additive inclusive présente un intérêt particulier, du fait que le tswana a un type rare de coordination additive inclusive avec le pluriel associatif d'un nom individuel comme premier terme de la construction. En outre, l'analyse de cette construction suggère une étymologie possible du préfixe tswana de classe 2a.

### Mots clés

bantou, coordination, coordination additive, comitatif, pluriel associatif

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## 1. Introduction<sup>2</sup>

The term *coordination* refers to syntactic constructions in which two or more units of the same type are combined into a larger unit and still have the same semantic relations with other surrounding elements... All languages appear to possess coordination constructions (or *coordinate constructions*) of some kind, but there is a lot of cross-linguistic variation. (Haspelmath 2007: 1)

Sub-Saharan languages have much to contribute to a general typology of coordination constructions, and to the debate on the universality or non-universality of coordination. More generally, the accumulation of cross-linguistic data on the constructions that meet the broad definition quoted above is essential for a better understanding of coordination as a general and abstract concept underlying the constructions in question.

In this perspective, the present paper describes the constructions expressing additive coordination in Tswana (Bantu, S31), with an emphasis on their relationship with the expression of comitativity and plural marking, a question on which Tswana data are particularly suggestive.

The paper is organized as follows. Section 2 aims at clarifying some basic aspects of the general notion of coordination directly relevant to the topic of this paper. Section 3 provides the necessary background information on Tswana morphosyntax. Section 4 describes the use of *le Iú-* as an additive coordinator. Section 5 describes the other uses of this morpheme. Section 6 and 7 deal with additive coordination of attributive adjectives and clauses, respectively. Section 8 describes an inclusory additive coordination construction involving an associative plural marker, and Section 9 discusses a possible etymology for this associative plural marker

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2. I am grateful to the following colleagues for comments that contributed to improve the article: Michael Daniel, Tom Güldemann, Lutz Marten, Mark Van de Velde, and the two LLA reviewers.

based on its involvement in the construction described in Section 8. Section 10 summarizes the main conclusions.

## 2. A succinct typology of coordination

Cross-linguistically, *additive* coordination (marked in English by *and*) is by far the most frequently occurring type of coordinate construction. Other semantic types of coordination commonly mentioned in grammars include *disjunctive* coordination (English *or*), *adversative* coordination (English *but*),<sup>3</sup> and *causal* coordination (English *for*). *Implicational* coordination (English *let alone*) is not commonly mentioned, but it is clearly grammaticalized for example in Manding languages and in Soninke.

Additive coordination is more commonly designated as ‘conjunctive coordination’ or ‘conjunction’, but I avoid these terms because of their potential ambiguity with other uses of ‘conjunction’ in linguistics: in many grammatical traditions, coordinators are classified as ‘conjunctions’, whatever type of semantic relationship they may encode, and subordinators are equally classified as ‘conjunctions’. Moreover, the correspondence between ‘conjunction’ as this term is used in classical logic and additive coordination is only partial, since ‘conjunction’ in classical logic refers only to the additive coordination of clauses. This means that, for example, cases of additive coordination of NPs that cannot be explained as the reduction of a sequence of coordinated clauses have nothing in common with logical ‘conjunction’.

Linguistically, there is an obvious asymmetry between additive coordination and the other semantic types of coordination. As a rule, reference grammars describe additive coordination in detail, but devote much less attention to non-additive types of coordination, which often are simply not mentioned at all. The obvious reason is that additive coordination as it is commonly delimited by linguists encodes not only relationships between events (like other types of coordination), but also the relationship between individual parts of plural individuals.<sup>4</sup> The point is that, semantically, whatever the commonalities that may underlie the use of the same grammatical word or clitic to encode both operations in some languages, there is no possibility of deriving the formation of plural individuals from an operation on events, or vice-versa. By contrast, nothing similar exists for other semantic types of constructions identified by linguists as coordinate constructions.

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3. Subtypes of adversative coordination must be recognized in some languages: *plain adversative* coordination vs. *rectificative* coordination (Spanish *pero* vs. *sino*, German *aber* vs. *sondern*), or *concessive* coordination vs. *oppositive* coordination (Russian *a* vs. *no*).

4. The notion of plural individual defined as the sum of its individual parts, crucial for a proper understanding of the semantics of plural NPs and NP additive coordination, was introduced by Link (1983). See Bach (1989: 69-84) for a discussion of this notion couched in terms more accessible to linguists.

Some decades ago, early generative grammar adopted the extreme view that all non-clausal coordination involves ellipsis, and that the corresponding non-elliptical structures all involve clausal coordination. I am aware of no decisive proof that this view would be incorrect for non-additive coordination.<sup>5</sup> In other words, the reduction of all cases of non-additive coordination to clausal coordination (non-additive coordination of phrases being derived from clausal coordination via ellipsis) is a matter of taste, or of theoretical assumptions. By contrast, it is not difficult to convince oneself that derivation from clausal coordination via ellipsis cannot account for all cases of additive coordination of NPs, as illustrated by English sentences such as *John and Mary met* (\**John met and Mary met*), *John and Peter are similar* (\**John is similar and Peter is similar*), or *Mix the oil and the vinegar* (\**Mix the oil and mix the vinegar*).<sup>6</sup> Similarly, derivation from clausal coordination via ellipsis does not provide a simple and satisfactory account of cases of additive coordination of VPs such as *Many people like nature and live in town*.

Another clear asymmetry between additive coordination and other semantic types of coordination concerns the use of different coordinators for clausal and non-clausal coordination. It is widely recognized that languages may require different coordinators depending on the syntactic types of the coordinands, but the equally important fact that this applies only to additive coordination, not to the other semantic types of coordination, is largely ignored in the general literature on coordination.

These asymmetries between additive and non-additive coordination are consistent with the fact that the semantic specificity of the additive coordination of NPs has no equivalent with other semantic types of coordination. Non-additive coordination basically encodes relationships between events. Consequently, it is normal that non-additive coordinators are basically interclausal linkers, and that non-additive coordination of other categories, when it is possible (which is by no means universal), is encoded by the same linkers, since it can always be analyzed as resulting from the reduction of a coordination of clauses.

It is also interesting to observe that English and some other languages have constructions commonly (but misleadingly) designated simply as *emphatic coordination* (both ... and) and *emphatic negative coordination*

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5. As observed by one of the LLA reviewers, sentences like *I didn't buy fruit or vegetables* can be viewed as problematic for this assumption, since this sentence cannot be analyzed as *I didn't buy fruit or I didn't buy vegetables*. However, as rightly observed by this reviewer, a clausal coordination analysis can be rescued by deriving this sentence from NEG[*I bought fruit or I bought vegetables*], whereas no similar analysis can be imagined for the cases of additive coordination of NPs quoted at the end of this paragraph.

6. Note that the ungrammaticality of such sentences is not absolute: uttered in the right context and with the right intonation, *Mix the oil, and mix the vinegar* may be acceptable, with however a meaning different from *Mix the oil and the vinegar*.

(*neither ... nor*). The point is that such constructions do not simply add some emphatic flavor to additive coordination. Crucially, they cannot be used in cases of additive coordination of NPs that cannot be paraphrased by a coordination of clauses, as shown by the agrammaticality of *\*Both John and Peter greeted each other* or *\*Neither John nor Peter greeted each other*.

To summarize, semantically, the notion of coordination as used by linguists encompasses a precise and well-defined operation on the referents of NPs (the construction of a plural individual having the referents of the coordinated NPs as its individual parts) and a fuzzy set of inter-clausal relationships that for some reason tend to be encoded by constructions that do not show (or show only partially) the characteristics of subordinate constructions, and often lend themselves to reduction via ellipsis. There is important cross-linguistic variation on (at least) the following three points:

1. the extension of the use of the grammatical word or clitic expressing the relationship between individual parts of a plural individual to the expression of other semantic types of relationships,
2. the reduction of coordinate constructions involving clauses to monoclausal constructions in which the same coordinator links constituents of various categories (as in English [*Do you want fish*], or [*do you want meat*]? > *Do you want [fish] or [meat]?*),
3. the reduction of coordinate constructions involving clauses to constructions in which one of the coordinands only is a regular syntactic constituent (as in English [*John played the piano*] and [*Peter the violin*],<sup>7</sup> *I sent [a letter to John] and [a postcard to Peter]*, or [*John adores*] but [*Peter hates*] *Chinese food*).<sup>8</sup>

On these three points, the dominant tendencies in Sub-Saharan languages contrast with those observed in European languages and other languages best represented in the general linguistic literature:

- among Sub-Saharan languages, the use of the same grammatical word or clitic for the additive coordination of NPs and for the additive coordination of clauses is not common,
- the grammatical word or clitic used for the additive coordination of NPs tends to be used also as a comitative adposition,<sup>9</sup>
- coordinate constructions analyzable as involving ellipsis mechanisms of the type mentioned in (b) above are less common than in European languages,

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7. This particular type of ellipsis in coordinate constructions is known in the literature as *gapping*.

8. This particular type of ellipsis in coordinate constructions is known in the literature as *right periphery ellipsis* or *right node raising*.

9. For a survey of this typological parameter in the languages of the world, see Stassen (2000).

- coordination constructions analyzable as involving ellipsis mechanisms of the type mentioned in (c) above are quite uncommon.<sup>10</sup>

### 3. Some basic information about Tswana

Tswana (aka Setswana) is a southern Bantu language spoken in Botswana and South Africa by more than 5 million speakers.<sup>11</sup> Its closest relatives are Pedi and Southern Sotho.<sup>12</sup> Typologically, Tswana is in almost every respect a typical Bantu language.<sup>13</sup>

#### 3.1 Noun classes

Tswana has 12 noun classes. As a rule, noun forms that have the same agreement properties share a prefix characteristic of the class in question, but the correlation between noun prefixes and agreement classes is not perfect.

Number marking is an important function of noun classes. Some classes include singular forms, others include plural forms, and nominal lexemes can be grouped into genders on the basis of correspondences such as *mosadi* **mò-sádí** (cl. 1) ‘woman’ / *basadi* **bà-sádí** (cl. 2) ‘women’. *Mosadi* ‘woman’ as a singular form belongs to class 1, but *mosadi* is also the quotation form of a nominal lexeme belonging to gender 1–2. The major genders in Tswana are 1–2 (*mosadi* **mò-sádí** ‘woman’ pl. *basadi* **bà-sádí**), 3–4 (*motse* **mò-tsì** ‘village’ pl. *metse* **mì-tsì**), 5–6 (*lee* **lì-í** ‘egg’ pl. *mae* **mà-í**), 7–8/10 (*selepe* **sì-lépé** ‘axe’ pl. *dilepe* **dì-lépé**),<sup>14</sup> 9–8/10 (*podì* **pódí** ‘goat’ pl. *dipodì* **dì-pódí**), 11–6 (*losea* **lò-síá** ‘baby’ pl. *masea* **mà-síá**), 11–8/10 (*loso* **lò-sò** ‘spoon’ pl. *dintsho* **dì-ñts<sup>h</sup>ò**), and 14–6 (*bothata* **bò-t<sup>h</sup>átá** ‘problem’ pl. *mathata* **mà-t<sup>h</sup>átá**).

#### 3.2 The structure of Tswana NPs

As illustrated by ex. (1), in which a head noun combines with two adjectives, a relative clause and a demonstrative, Tswana NPs have two very

10. One of the LLA reviewers signals that such constructions are acceptable for many Zulu speakers, and that they have been found to be acceptable in various Eastern Bantu languages. On the basis of my own experience of working on spontaneous texts in many Sub-Saharan languages belonging to different families, and of similar observations made by colleagues with whom I had the opportunity to discuss this question, I am inclined to think that such acceptability judgments are the result of a recent influence of European languages.

11. In Botswana, ethnic Batswana constitute 80% of the population, estimated at 2,1 million. In South Africa, Tswana is dominant in the Northwest Province and in some districts of the Free State Province, and the number of its speakers is estimated at 4 million.

12. In fact, these three languages, with a total number of approximately 16 million speakers, are so close to each other that, from a strictly linguistic point of view, they should be considered as three varieties of a single language. Pedi is commonly designated as Northern Sotho, but this term is ambiguous, since it is also used with reference to lects (Lobedu, Tswapong, etc.) that, linguistically, are better considered languages distinct from Sotho-Tswana proper.

13. For an overall presentation of Tswana, see Cole 1955, Creissels 2003.

14. Tswana has conflated the reflexes of the Proto-Bantu classes 8 and 10.

general characteristics: noun dependents follow their head, and express class agreement with their head.<sup>15</sup>

- (1a) *mosadi yo moleele yo montsho yo o opelang yole*  
 ‘that tall woman with dark complexion who is singing’  
**mò-sádi jò mò-léélé ʔjò mó-̀nts<sup>h</sup>ù**  
 CL1-woman CL1.ATTR C L1-tall CL1.ATTR CL1-black  
**jò ʔú-̀spélà-̀ŋ ʔjò-lé**  
 CL1.ATTR CL1-sing:PRS-REL DEM.CL1-DIST
- (1b) *lekau le lelele le lentsho le le opelang lele*  
 ‘that tall boy with dark complexion who is singing’  
**̀káu lé ̀léélé ʔlé lí-̀nts<sup>h</sup>ù**  
 CL5-boy CL5.ATTR CL5-tall CL5.ATTR CL5-black  
**lé ʔlí-̀spélà-̀ŋ ʔlé-lé**  
 CL5.ATTR CL5-sing:PRS-REL DEM.CL5-DIST

In Tswana NPs, the *head-dependent* order is not absolutely obligatory, but noun dependents preceding their head are extremely rare in spontaneous texts.<sup>16</sup> By contrast, the rule according to which noun dependents express agreement with their head suffers no exception. Noun dependents can be classified according to the particular sets of agreement markers by means of which they express agreement.

### 3.3 Canonical verbal predication

The basic constituent order in Tswana is *Subject-Verb-Objects-Obliques*. There is no flagging of NPs in core syntactic roles, but the indexation of arguments by means of verbal prefixes provides a firm basis for recognizing a syntactic function ‘subject’ grouping together the single core argument of intransitive verbs and the agent of prototypical transitive verbs, contrasting with a syntactic function ‘object’ including the patient of prototypical transitive verbs.

Verb forms heading independent assertive or interrogative clauses include an obligatory prefix representing the single core argument of intransitive verbs and the agent of prototypical transitive verbs, designated as *subject index*.<sup>17</sup>

If a co-referent NP is present, the subject index expresses class agreement with it. In the absence of a co-referent NP, subject indexes that do not belong to 1st or 2nd person are interpreted anaphorically, triggering

15. In the presentation of the examples, the first line is the transcription in current Tswana orthography, which may unfortunately be quite misleading in a linguistic analysis of this language, since it distinguishes only 5 vowels and does not note tones at all, whereas Tswana has 9 vowel phonemes, and tones are crucial for morphological analyses. Moreover, many morphemes that are unquestionably prefixes (in particular, subject indexes and object indexes) are written as if they were separate words. The correct word division is given in the phonetic transcription (third line).

16. The anteposition of noun dependents adds emphasis, but never modifies the denotative meaning. Anteposition is equally possible (and equally rare) with all types of noun dependents.

17. On Tswana verb morphology, see Creissels & al. (1997), Creissels (2006, Forthcoming 2016).

the identification of the argument they represent to a contextually salient referent compatible with the class expressed by the subject index, ex. (2).

- (2a) *Ngwana o thubile mae.* <sup>1</sup>  
 ‘The child broke the eggs.’  
**ŋ<sup>w</sup>-àná**      **ú-t<sup>h</sup>úbílé**      **mà:-í**  
 CL1-child      CL1-break:PRF:CJ      CL6-egg
- (2b) *Ngwana o tsile.*  
 ‘The child came.’  
**ŋ<sup>w</sup>-àná**      **\*ú-tsí:lè**  
 CL1-child      CL1-come:PRF:DJ
- (2c) *O thubile mae.*  
 ‘He/She broke the eggs.’  
**ú-t<sup>h</sup>úbílé**      **mà:-í**  
 CL1-break:PRF:CJ      CL6-egg
- (2d) *O tsile.*  
 ‘He/she came.’  
**ú-tsí:lè**  
 CL1-come:PRF:DJ
- (2e) \**Ngwana thubile mae.*
- (2f) \**Ngwana tsile.*

As illustrated by ex. (2a, 2c), the object of transitive verbs is not obligatorily indexed on the verb form, but topical objects whose precise description is considered superfluous by the speaker are represented by object indexes prefixed to verbs. Object indexes immediately precede the verb stem and may be separated from subject indexes by TAM or negation markers – ex. (3a-b).

- (3a) *Ngwana o a thubile.*  
 ‘The child broke them (the eggs).’  
**ŋ<sup>w</sup>-àná**      **ú-à-t<sup>h</sup>úbí:lè**  
 CL1-child      CL1-CL6-break:PRF:DJ
- (3b) *Ngwana o tlaa a thuba.*  
 ‘The child will break them (the eggs).’  
**ŋ<sup>w</sup>-àná**      **\*ú-tláà-á-t<sup>h</sup>ú:bà**  
 CL1-child      CL1-FUT-CL6-break:DJ

Tswana has multiple-object constructions in which the hierarchy between the objects is minimal: each object can be converted into the subject of a passive construction, or represented by an object marker. Non-derived verbs may have two non-coordinated objects, and valency-increasing derivations (causative and applicative) may result in constructions with three objects, as in ex. (4).

(4a) *Ngwana o nole maši.*

‘The child drank milk’

**ŋ<sup>w</sup>-àná**            **ʼú-nólé**            **mâ:-fî**  
 CL1-child        CL1-drink:PFT:CJ    CL6-milk

(4b) *Ke nositse ngwana maši.*

‘I made the child drink milk’

**kî-nósítsé**            **ŋ<sup>w</sup>-àná**            **mâ:-fî**  
 1SG-drink:CAUS:PFT:CJ    CL1-child        CL6-milk

(4c) *Ke noseditse Dimpho ngwana maši.*

‘I made the child drink milk in Dimpho’s place’

**kî-nósedítsé**            **dím̀p<sup>b</sup>ʼ**            **ŋ<sup>w</sup>-àná**            **mâ:-fî**  
 1SG-drink:CAUS:APPL:PFT:CJ    (CL1)Dimpho    CL1-child        CL6-milk

As in other Southern Bantu language (and in contrast to the situation observed in Central Bantu languages), locative phrases do not have access to the subject function. They have the internal structure of noun phrases, from which they differ only in that (a) they are headed by a locative, i.e. a nominal form to which the locative prefix *go* **χú-** or the locative suffix *-ng -ŋ* has been added, and (b) they optionally combine with one of the three locative prepositions *ko* **kó** (relative remoteness), *fa fá* (relative proximity), or *mo* **mó** (interiority, contact). The choice between the locative prefix *go* **χú-** and the locative suffix *-ng -ŋ* is entirely determined by the grammatical nature of the head of the locative-marked noun phrase. Toponyms and a handful of common nouns are used as locatives without locative marking. Neither locative affixes nor locative prepositions specify the distinction between static location, source of movement, or direction of movement.

Tswana has three non-locative prepositions: *le* **lí-** (comitative), *ka* **ká** (instrumental, also used for manner and time adjuncts), and *ke* **kí** (used exclusively for obliques representing the demoted subject in passive constructions). The uses of *le* **lí-** constitute the topic of Sections 4 and 5. For more details on the other prepositions and on locatives, see Creissels (2011, 2013).

#### 4. The additive coordinator *le lí*

In Tswana, the additive coordination of NPs cannot be expressed by mere juxtaposition, and requires the use of *le lí-*, which in its role of coordinator will be glossed ‘and’. Other possible uses of *le lí-* will be described in Section 5, but its use as a coordinator is strictly limited to the additive coordination of the following types of units:

- noun phrases,
- adpositional phrases,
- adverbs syntactically equivalent to adpositional phrases,
- infinitival phrases,

– complement clauses introduced by the complementizer *gore* χòrì ‘that’.

#### 4.1 Additive coordination of two noun phrases

Ex. (5) illustrates the additive coordination of two NPs. In (5b-d-f), *Kitso le Mpho kítsó lí-m̀p̀h̄́* ‘Kitso and Mpho’ refers to a plural individual whose individual parts *Kitso* and *Mpho* share the semantic roles assigned to the singular individual *Kitso* in (5a-c-e). Crucially, when such an NP occurs in subject function – as in (5b) –, it must be resumed in the verb form by a plural index: the subject index in (5b) (*ba bá-*) belongs to class 2, which in the noun class system of Tswana constitutes the regular plural of the class to which individual names such as *Kitso* or *Mpho* belong (class 1, expressed in (5a) by the subject index *o ó-*).

(5a) *Kitso o tsile maabane.*

‘Kitso came yesterday.’

**kítsó**                    **ó-tsilé**                    **máàbà:nì**  
(CL1)Kitso    CL1-come:PFT:CJ yesterday

(5b) *Kitso le Mpho ba tsile maabane.*

‘Kitso and Mpho came yesterday.’

**kítsó**                    **lí-m̀p̀h̄́**                    **bá-tsilé**                    **máàbà:nì**  
(CL1)Kitso    with-(CL1)Mpho    CL2-come:PFT:CJ    yesterday

(5c) *Ke laleditse Kitso.*

‘I invited Kitso.’

**k̀-̀lálédítsé**                    **ʔkítsó**  
1SG-invite:PFT:CJ    (CL1)Kitso

(5d) *Ke laleditse Kitso le Mpho.*

‘I invited Kitso and Mpho.’

**k̀-̀lálédítsé**                    **ʔkítsó**                    **lí-m̀:p̀h̄́**  
1SG-invite:PFT:CJ    (CL1)Kitso    with-(CL1)Mpho

(5e) *Ke apeetse Kitso dijo.*

‘I did the cooking for Kitso.’

**k̀-̀àpéétsí**                    **ʔkítsó**                    **dì:dǔ**  
1SG-cook:APPL:PFT:CJ    (CL1)Kitso    CL8/10-food

(5f) *Ke apeetse Kitso le Mpho dijo.*

‘I did the cooking for Kitso and Mpho.’

**k̀-̀àpéétsí**                    **ʔkítsó**                    **lí-m̀:p̀h̄́**                    **dì:dǔ**  
1SG-cook:APPL:PFT:CJ    (CL1)Kitso    with-(CL1)Mpho    CL8/10-food

Note that, although written as a separate word in the current orthography, the coordinator *le lí-* is a proclitic that attaches to the second co-ordinand. In Tswana, the rules of tonal sandhi ensure a clear-cut distinction between word-internal boundaries and boundaries between adjacent words, and the tonal properties of *le lí-* unambiguously identify it as a proclitic – for more precisions on this point, see Creissels & al. (1997 : 15-26).

#### 4.2 Additive coordination of prepositional phrases

Ex. (6) illustrates the possibility of using *le lí-* to coordinate prepositional phrases. The preposition in Ex. (6) is the instrumental preposition *ka ká*, also used to flag adjuncts encoding the localization of an event in time. Note that *le lí-* in coordinator function precedes the instrumental preposition *ka ká*, and *ka ká* is repeated. The same construction is possible with the other prepositions, and with locative phrases.

- (6a) *Ke tlaa tla gape ka Laboraro.*  
 ‘I’ll come again on Wednesday.’  
**kù-tlâà-tlâ      χápé      ká      lábòrà:rù**  
 1SG-FUT-come:CJ again      with      Wednesday
- (6b) *Ke tlaa tla gape ka Labotlhano.*  
 ‘I’ll come again on Friday.’  
**kù-tlâà-tlâ      χápé      ká      lábòtì<sup>h</sup>â:nù**  
 1SG-FUT-come:CJ again      with      Friday
- (6c) *Ke tlaa tla gape ka Laboraro le ka Labotlhano.*  
 ‘I’ll come again on Wednesday and Friday.’  
**kù-tlâà-tlâ      χápé      ká      lábòràró      \*lí-ká      lábòtì<sup>h</sup>â:nù**  
 1SG-FUT-come:CJ      again      with      Wednesday      and-with      Friday

#### 4.3 Additive coordination of infinitival phrases and complement clauses

In Ex. (7), *le lí-* operates on clausal constituents: infinitival phrases (7a) and finite clauses introduced by the complementizer *gore χùrì* ‘that’. The coordination of infinitival phrases by means of *le lí-* (as in 7a) is not surprising, since Tswana infinitives are basically nominal forms including the class 15 prefix *go χù-*, although they have some verbal properties (for example, they can have objects exactly like finite verb forms).<sup>18</sup> The use of *le lí-* to coordinate complement clauses (as in 7b) is not surprising either, since etymologically, the complementizer *gore χùrì* ‘that’ is the infinitive of the quotative verb *re -rì* ‘say’.

- (7a) *Ke itse go bua Setswana le go se kwala.*  
 ‘I can speak and write Tswana’  
 lit. ‘I can speak Tswana and write it.’  
**kù-ítsí      χù-búá      sì-ts<sup>w</sup>áná      lí-χù-sí-k<sup>w</sup>â:là**  
 1SG-know:CJ      INF-speak:CJ      CL7-Tswana      and-INF-CL7-write:DJ
- (7b) *Ke itse gore o bua maaka le gore o a utswa.*  
 ‘I know that he lies and steals.’  
 lit. ‘I know that he lies and that he steals.’  
**kù-ítsí      χùrì      ú-búá      má-àkà      lí-χùrì      ú-à-ù:ts<sup>w</sup>à**  
 1SG-know:CJ      that      CL1-tell:CJ      CL6-lie      and-that      CL1-DJ-steal

18. See Creissels and Godard (2005) for a description and analysis of the mixing of nominal and verbal properties that characterizes Tswana infinitives.

Note incidentally that, in Tswana, it is absolutely impossible to reduce such constructions in the same way as their English equivalents: \**Ke itse go bua le go kwala Setswana* or \**Ke itse gore o bua maaka le o a utswa* would be completely agrammatical.

#### 4.4 Multiple additive coordination

Ex. (8) illustrates the additive coordination of NPs with more than two coordinands. In this construction, *le* **lí-** must be repeated before each non-initial coordinand.

- (8) *Re bonye ditau le dinare le ditlou.*  
 ‘We saw lions, buffaloes, and elephants.’  
**rù-bópi dí-tàú lí-dì-nárá \*lí-dí-tlô:ù**  
 1PL-see:PRF:CJCL8/10-lion and-CL8/10-buffalo and-CL8/10-elephant

#### 4.5 The behavior of *NP1 le NP2* phrases in class agreement

Since in Tswana, pronouns, subject indexes and object indexes express noun class distinctions, it is important to make explicit not only the agreement behaviour of *NP1 le NP2* phrases including pronouns referring to the speech act participants – Ex. (9a-b), but also the noun class assigned to phrases in which *NP1* and *NP2* are ordinary NPs – Ex. (9c-d).

- (9a) *Nna le Kitso re tlaa sala mono.*  
 ‘Kitso and I will stay here.’  
**ñná \*lí-kítsó rí-tlāà-sálà mômò**  
 1SG with-(CL1)Kitso 1PL-FUT-stay:CJ here
- (9b) *Wena le Lorato lo tlaa apaya dijo.*  
 ‘Lorato and you will do the cooking.’  
**wená lí-lòrátó \*lú-tlāá-àpàjà dì-dzó**  
 2SG with-(CL1)Lorato 2PL-FUT-cook:CJ CL8/10-food
- (9c) *Leburu le Lekula ba tsamaile mmogo.*  
 ‘The Afrikaner and the Indian left together.’  
**lì-búrú lí-lì-kúlá bá-tsámáílé mômò:χò**  
 CL5-Afrikaner and-CL5-Indian CL2-leave:PRF:CJ together
- (Both *Leburu* and *Lekula* belong to class 5 in the singular and to class 6 in the plural, but *Leburu le Lekula* governs class 2 agreement.)
- (9d) *Mmidi le mabele di jelwe.*  
 ‘The maize and the millet have been eaten.’  
**m-mídí \*lí-má-bèlé dí-dzù:l\*é**  
 CL3-maize and-6-millet CL8/10-eat:PRF:DJ

(*mmidi* belongs to class 3 in the singular and to class 4 in the plural, *mabele* belongs to class 6, but *mmidi le mabele* governs class 8/10 agreement.)

As can be expected, if one of the coordinands is a 1st person pronoun, *NP1 le NP2* triggers 1st person plural agreement, irrespective of the na-

ture of the second coordinand.<sup>19</sup> If one of the coordinands is a 2nd person pronoun, and the other is not a 1st person pronoun, *NP1 le NP2* invariably triggers 2nd person plural agreement.

The question of gender resolution in constructions with coordinated NPs in subject or object function occupies the major part of the literature on coordination in Bantu languages – see among others Marten (2000) on Swahili, Marten & Ramadhani (2001) on Luguru, De Vos & Mitchley (2012) on Southern Sotho. In Tswana, if none of the coordinands is a 1st or 2nd person pronouns, it is always possible to apply the following gender resolution rule (Cole 1955: 429):

- if both coordinands have human referents, *NP1 le NP2* governs class 2 agreement – Ex. (9c);
- if both coordinands have non-human referents, *NP1 le NP2* governs class 8/10 agreement – Ex. (9d).

The semantic basis of this rule is obvious, since the generic term for ‘human’ (*motho m̀-̀t̀h̀̀* pl. *batho b̀-̀t̀h̀̀*) belongs to gender 1–2, and the generic term for ‘thing’ (*selo s̀-̀l̀̀* pl. *dilo d̀-̀l̀̀*) belongs to gender 7–8/10.

According to Cole (1955), an alternative strategy is possible when the coordinands belong to the same class in the plural. In that case, the class in question can be selected instead of class 2 or class 8/10. According to my own observations, this is possible, but speakers tend to prefer the rule according to which the class assigned to *NP1 le NP2* phrases is selected on a purely semantic basis, regardless of the gender of the coordinands. Interestingly, in Tswana, this is the only case in which, within the limits of the clause, semantic agreement takes precedence over morphological agreement.

The resolution rule just formulated raises the following question: what could be the agreement properties of *NP1 le NP2* phrases with one of the coordinands human, and the other non-human? In fact, Tswana speakers simply avoid such constructions, and when asked to give a Tswana equivalent of English sentences such as ‘The hunter and his dog got lost in the bush’, they suggest translations in which the second coordinand in the English sentence is rendered as a comitative adjunct (‘The hunter got lost with his dog in the bush’).

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19. Note that, in Tswana coordinate constructions involving 1st or 2nd person pronouns, the linear order must respect the following hierarchy: 1 > 2 > 3.

## 5. Other uses of *le lí-*

### 5.1 *Le lí-* as an additive particle

In addition to its use as a coordinator, *le lí-* is used as an adnominal additive particle that can be rendered in English as *also*, *too*, or *even* – Ex. (10).<sup>20</sup>

- (10a) *Le Mpho o tsile maabane.*  
 ‘Mpho too came yesterday.’  
**lí-m̀pʰó**                      **ú-tsìlé**                      **máàbâ:nì**  
 also-(CL1)Mpho    CL1-come:PRF:CJ yesterday
- (10b) *Ke laleditse le Mpho.*  
 ‘I invited Mpho too.’  
**k̀-̀lálédítsè**                      **lí-m̀:pʰó**  
 1SG-invite:PRF:CJ    also-(CL1)Mpho
- (10c) *Ke apeetse le Mpho dijo.*  
 ‘I did the cooking for Mpho too.’  
**k̀-̀àpéétsì**                      **lí-m̀pʰó**                      **dì:dʒó**  
 1SG-invite:APPL:PRF:CJ    also-(CL1)Mpho    CL8/10-food

In this use, *le lí-* expresses semantic role sharing in the same way as in its use as a coordinator. The difference is that the involvement of another participant with the same role in a similar event is presupposed. The use of the same grammatical word or clitic as an additive coordinator and as an additive particle is not rare in the languages of the world. The same situation is found for example in Slavic languages, and among Sub-Saharan languages, in Maba (Maban), Sar (Central Sudanic), and Sereer (Atlantic) – Creissels (2015).

### 5.2 *Le lí-* as a comitative marker

*Le lí-* can also be used as a comitative marker introducing adjuncts which semantically differ from the second coordinand in the construction described in Section 4 in that they do not necessarily share a semantic role with another term of the construction, but rather fulfill the role of companion.<sup>21</sup>

- (11a) *Kitso o tsile maabane le Mpho.*  
 ‘Kitso came yesterday with Mpho.’  
**kítsó**                      **ú-tsìlé**                      **máàbání**                      **lí-m̀:pʰó**  
 (CL1)Kitso    CL1-come:PRF:CJ    yesterday    with-(CL1)Mpho
- (11b) *Kitso o opela le Mpho.*  
 ‘Kitso sings / is singing with Mpho.’  
**kítsó**                      **\*ú-̀pélà**                      **lí-m̀:pʰó**  
 (CL1)Kitso    CL1-sing:PRS:CJ    with-(CL1)Mpho

20. Note however that, contrary to English *also*, *too*, or *even*, Tswana *le lí-* cannot be used as an additive particle with scope over the predicate (as in English *We also danced*).

21. On the specificity of the role of companion, and more generally on the typology of comitative constructions, see Arkhipov (2009a, 2009b) and Stolz & al. (2006).

Given that the notion of companion includes the notion of semantic role sharing as a particular case, the use of the same marker for comitative adjuncts and for the second coordinand in the additive coordination of NPs raises the following question: is it really justified to recognize a coordinate construction in which *le* **li-** serves as a coordinator, and a distinct construction in which the same marker is used to flag comitative adjuncts? In fact, we might have just one construction in which the NP introduced by *le* **li-** does not occupy a fixed position, and its interpretation is simply context-dependent.

Among Sub-Saharan languages, Manding languages (Mande) illustrate a situation in which it is not possible to recognize a construction expressing specifically that a semantic role is shared by the referents of two NPs. For example, in Mandinka, as discussed in more detail in Creissels (2016), there is nothing that could justify positing two distinct constructions in (12a) and (12b), in spite of the obvious fact that the two NPs in the *NP1* **nij** *NP2* sequence must be interpreted as sharing the same semantic role in (12a), but do not lend themselves to such an interpretation in (12b). Crucially, Mandinka does not have the agreement mechanisms that help to distinguish additive coordination from comitative adjunction in many other languages, and the Mandinka marker **nij** that assigns the role of companion (in a very broad sense) to the NP it precedes, must obligatorily follow the other NP involved in the comitative relationship.

Mandinka (Creissels 2016)

- (12a) I futa-ta [Fúládúu nij Kaabú] naanéw-o to.  
 3PL reach-CPL Fuladuu with Kaabu border-D LOC  
 ‘They reached the border between Fuladuu and Kaabu.’
- (12b) [Súnkút-òo nij kumbóo] naa-ta.  
 girl-D with crying.D come-CPL  
 ‘The girl came in tears.’  
 lit. ‘The girl with crying came.’

In this respect, Tswana illustrates the situation most commonly found among Sub-Saharan languages, in which a construction that specifically expresses the additive coordination of NPs can be distinguished from uses of the same marker that do not imply semantic role sharing between the referents of two NPs, and must rather be analyzed in terms of comitative adjunction.

In Tswana, the distinction between additive coordination of NPs and comitative adjunction is particularly clear in pairs of sentences such as (13b/e). In a *NI V le N2* sequence such as (13b), the verb expresses agreement with a subject of class 1 exactly in the same way as in (13a),

and a plural subject index would be ungrammatical.<sup>22</sup> By contrast, in a *NI le N2 V* sequence such as (13d), the verb cannot express agreement with *NI* only, and a plural subject index is obligatory, which shows that the subject function is now fulfilled by the complex NP *Kitso le Mpho*.

(13a) *Kitso o tsile.*

‘Kitso came.’

**kítsó**            **\*ú-tsí:lè**  
(CL1)Kitso    CL1-come:PRF:DJ

(13b) *Kitso o tsile le Mpho.*

‘Kitso came with Mpho.’

**kítsó**            **ú-tsilé**            **lí-m̀:phó**  
(CL1)Kitso    CL1-come:PRF:CJ    with-(CL1)Mpho

(13c) \**Kitso ba tsile le Mpho.*

(With a subject index of class 2, the sentence becomes agrammatical.)

(13d) *Kitso le Mpho ba tsile.*

‘Kitso came with Mpho.’

**kítsó**            **lí-m̀phó**            **\*bá-tsí:lè**  
(CL1)Kitso    with-(CL1)Mpho    CL2-come:PRF:DJ

(13e) \**Kitso le Mpho o tsile.*

(With a subject index of class 1, the sentence becomes agrammatical.)

Moreover, constructions similar to that illustrated in (12b) for Mandinka, in which the semantic nature of *NP2* in a sequence *NPI le NP2 V* would preclude semantic role sharing with *NPI*, are not possible in Tswana.

Consequently, in *NPI le NP2 V* sequences, *NPI le NP2* can only be analyzed as a complex NP resulting from additive coordination and occupying the subject function. It would not be possible to analyze *le NP2* as a comitative adjunct that has moved from postverbal to preverbal position.

Once this distinction has been established, the following dissymmetry can be observed between *le NP* as the second coordinand in an additive coordination of NPs, and *le NP* as a comitative adjunct. A comitative adjunct can only be converted into the second coordinand of an additive coordination if its meaning is compatible with semantic role sharing. For example, ‘Kitso brought the money’ is commonly expressed in Tswana as ‘Kitso came with the money’, but contrary to Mandinka, a construction in which ‘come’ would take a constituent ‘Kitso and/with the money’ as its subject is not possible. By contrast, it seems to be always possible to

22. Note that this observation is by no means trivial, since in some languages, for example Joola-Fooñi (Atlantic), a singular subject is compatible with a verb expressing plural agreement, if the verb is followed by a comitative adjunct interpretable as sharing the semantic role assigned to the subject (author’s field notes). In other words, the transposition of the agrammatical Tswana sentence (13c) in Joola-Fooñi would give a perfectly correct sentence.

convert the second coordinand of an additive coordination into a comitative adjunct, even when the meaning of the verb implies that the role assigned to the subject can only be assigned to a plural individual, as in Ex. (14b-c), where the verb is marked as reciprocal.<sup>23</sup>

(14a) *Kitso o rata Lorato.*

‘Kitso loves Lorato.’

**kítsó**            **ʼú-rátá**            **lòrà:tò**  
(CL1)Kitso    CL1-love:PRS:CJ    (CL1)Lorato

(14b) *Kitso le Lorato ba a ratana.*

‘Kitso and Lorato love each other.’

**kítsó**            **lí-lòrà:tó**            **bá-à-rátâ:nà**  
(CL1)Kitso    and-(CL1)Mpho    CL2-DJ-love:RECIP:PRS

(14c) *Kitso o ratana le Lorato.*

‘Kitso and Lorato love each other.’

lit. ‘Kitso loves each other with Lorato.’

**kítsó**            **ʼú-rátánà**            **lí-lòrà:tò**  
(CL1)Kitso    CL1love:RECIP:PRS:CJ    with-(CL1)Lorato

### 5.3 Potential ambiguities between the different uses of *le lí-*

When a *le NP* sequence occurs in preverbal position, its interpretation suffers no ambiguity: if no NP precedes the *le NP* sequence, *le lí-* can only be interpreted as an additive particle (‘also’), whereas *le lí-* immediately preceded by another NP can only be interpreted as a coordinator. By contrast, in postverbal position, *le lí-* immediately preceded by an NP can be interpreted as expressing additive coordination, comitative adjunction to the preceding noun, or comitative adjunction to the subject, and the choice between the three possible interpretations can only be guided by semantic considerations.

There is another case of potential ambiguity, when *le lí-* followed by a pronoun occurs in clause-final position and the pronoun can be interpreted as resuming the subject. The point is that clauses with *le lí-* as an additive particle attached to the subject, as in (15a), have an alternative construction in which *le lí-* attaches to a resumptive pronoun in clause-final position, as in (15b). In this position, *le lí-* can also be interpreted as introducing a comitative adjunct, if the pronoun is interpreted as referentially distinct from the subject of the clause, as in (15c). However, in so far as *le lí-* immediately follows the verb and the clause is headed by a verb form expressing the *conjoint vs. disjoint* distinction, the ambiguity is avoided by the choice of a conjoint or disjoint verb form: the conjoint form is selected if *le lí-* introduces a comitative adjunct expressed as a pronoun referentially distinct from the subject, whereas *le lí-* as

23. For a detailed analysis of these two possible constructions of reciprocal verbs in Zimbabwean Ndebele (a Bantu S40 language whose behavior in this respect is quite similar to that of Tswana), see Khumalo (2014).

an additive particle followed by a pronoun resuming the subject triggers the selection of the disjoint form. In Ex. (15), this distinction is expressed tonally (and consequently is not apparent in the current orthography): **tsílè** in (15a-b) is the disjoint form of the perfect of ‘come’, whereas **tsilé** in (15c) is the conjoint form of the perfect of the same verb.<sup>24</sup>

- (15a) Le Kitso o tsile.  
 ‘Kitso too came.’  
**lí-kítsó**                    **ʉ-tsí:lè**  
 also-(CL1)Kitso    CL1-come:PRF:DJ
- (15b) Kitso<sub>i</sub> o tsile le ene<sub>i</sub>.  
 ‘Kitso too came.’  
 lit. ‘Kitso came he too.’  
**kítsó**                    **ʉ-tsí:lè**                    **lí-è:né**  
 (CL1)Kitso    CL1-come:PRF:DJ also-CL1
- (15c) Kitso<sub>i</sub> o tsile le ene<sub>j</sub>.  
 ‘Kitso came with him/her.’  
**kítsó**                    **ʉ-tsilé**                    **lí-è:né**  
 (CL1)Kitso    CL1-come:PRF:CJ with-CL1

## 6. The additive coordination of attributive adjectives

In Tswana, attributive adjectives are obligatorily introduced by an attributive linker (ATTR, also used with relative clauses, expressing class agreement with the head noun). Neither *ATTR1 ADJ1 le ATTR2 ADJ2* nor *ATTR ADJ1 le ADJ2* are possible ways of expressing the additive coordination of adjectives. Two strategies are available:

- if the two adjectives refer to mutually compatible characteristics of the referent of the head, the adjectives are simply juxtaposed, as in (16c); note that the attributive linker is obligatorily repeated;
- if the two adjectives refer to mutually exclusive characteristics of the referent of the head noun, *le lí-* is used, as in (17c), but the construction cannot be analyzed as a coordination construction, since the form introduced by *le lí-* is not an adjective agreeing with the head noun: it is an abstract noun (characterized by the prefix of class 14) whose function can only be analyzed as that of a comitative adjunct.

- (16a) *monna yo moleele*  
 ‘a tall man’  
**mò-ńnà**    **jó**                    **mò-lé:lé**  
 CL1-man    CL1.ATTR    CL1-tall

24. The distinctive property of conjoint verb forms is that they cannot occur in clause-final position, whereas disjoint verb forms can be found both in clause-final and clause-internal position. For more details on the function of the *conjoint* vs. *disjoint* distinction in Tswana, see Creissels (1996). On the role of tone in the expression of this distinction, see Creissels (Forthcoming 2016).

(16b) *monna yo mokima*

‘a stout man’

**mò-ń̀nà** **jó** **mó-kimà**  
 CL1-man CL1.ATTR CL1-stout

(16c) *monna yo moleele yo mokima*

‘a tall stout man’

**mò-ń̀nà** **jó** **mò-léèlé** **jó** **mó-kimà**  
 CL1-man CL1.ATTR CL1-tall CL1.ATTR CL1-stout

(17a) *kobo e tshweu*

‘a white blanket’

**kòb̀b̀** **é** **ts<sup>hw</sup>èú**  
 (CL9)blanket CL9.ATTR (CL9)white

(17b) *kobo e khibidu*

‘a red blanket’

**kòb̀b̀** **é** **\*k<sup>h</sup>íbidú**  
 (CL9)blanket CL9.ATTR (CL9)red

(17c) *kobo e tshweu le bohividu*

‘a red and white blanket’

lit. ‘a white blanket with redness’

**kòb̀b̀** **é** **ts<sup>hw</sup>èú** **lí-b̀-ń̀híbidú**  
 (CL9)blanket CL9.ATTR (CL9)white with-CL14-red

Interestingly, it is possible to find nouns followed by two adjectives with *le lí-* inserted between the two adjectives, but in such a sequence, as shown in (18), *le lí-* can only be interpreted as expressing the coordination of two NPs, in which the first coordinand is a noun modified by an attributive adjective, and the second coordinand is a headless NP whose unexpressed head is interpreted as lexically identical to the head of the first coordinand.

(18a) [*monna yo moleele*] *le* [– *yo mokima*]

‘a tall man and a stout one’

**mò-ń̀nà** **jó** **mò-léèlé** **\*lí-jó** **mó-kimà**  
 CL1-man CL1.ATTR CL1-tall with-CL1.ATTR CL1-stout

(18b) [*kobo e tshweu*] *le* [– *e khibidu*]

‘a white blanket and a red one’

**kòb̀b̀** **é** **ts<sup>hw</sup>èú** **lí-é** **\*k<sup>h</sup>íbidú**  
 (CL9)blanket CL9.ATTR (CL9)white with-CL9.ATTR (CL9)red

## 7. The additive coordination of clauses

### 7.1 Introductory remarks

In the general literature on coordination and in descriptions of individual languages, the notion of additive coordination of clauses is sometimes restricted to combinations of clauses consisting of formally independent clauses to which one or more linking elements are added. However, the

definition of coordination quoted at the very beginning of this article does not imply such a restriction. According to this definition, there is no reason to exclude the constructions commonly described as clause chaining constructions from coordination, since in the constructions in question, the fact that all clauses but one (either the first or the last one) are syntactically dependent does not imply a semantic hierarchy.

As already mentioned above, the additive coordination of verbs, VPs, or clauses cannot be expressed in Tswana by means of the same operator *le lí-* as the additive coordination of NPs.<sup>25</sup> Tswana sentences equivalent to English sentences involving *and*-coordination of two verbs, VPs, or clauses obligatorily consist of two clauses, with three possibilities: the two clauses may be simply juxtaposed, they may be linked by a coordinator, or their relationship may be marked by the use of special verb forms in the second clause.

## 7.2 Interclausal linkers expressing additive coordination

The additive coordination of clauses can be expressed by means of *e bile íbilé*, whose precise meaning can be rendered as ‘and in addition to that’. Ex. (19) illustrates the complementary distribution between *le lí-*, used to coordinate NPs but not clauses, and *e bile íbilé*, used to coordinate clauses, but not NPs.

(19a) *Ke bua Setswana e bile ke a se kwala.*

‘I speak Tswana and in addition I write it.’

**kì-búá                      sì-tsʷáná                      íbilé                      kí-à-sí-kʷà:là**  
1SG-speak:PRS:CJ CL7-Tswana    and\_in\_addition    1SG-DJ-CL7-write:PRS

(19b) \**Ke bua Setswana le ke a se kwala.*

(19c) *Ke rekile diaparo e bile ke rekile ditlhako.*

‘I bought clothes and in addition I bought shoes’

**kì-rékílé                      dí-àpàrò                      íbilé                      kì-rékílé**  
1SG-buy:PRF:CJ    CL8/10-cloth                      and\_in\_addition                      1SG-buy:PRF:CJ  
**dí-tʰà:kú**  
CL8/10-shoe

(19d) \**Ke rekile diaparo e bile ditlhako.*

Etymologically, *e bile íbilé* can be glossed as ‘this having been’. It is cognate with an auxiliary whose original meaning can be reconstructed as ‘be’.

Tswana has another interclausal linker frequently used as the equivalent of English *and*: *mme ñmí*, but contrary to *e bile íbilé*, which is

25. As already commented in Section 4.3, *le lí-* can coordinate infinitives or complement clauses introduced by *gore ǰòrì* ‘that’, but this is consistent with the hybrid nature of infinitives (which include the noun prefix of class 15/17 *go ǰò-* and can occupy typically nominal syntactic positions in which they govern class 15/17 agreement), and with the fact that, etymologically, the complementizer *gore ǰòrì* ‘that’ is the infinitive of ‘say’.

incompatible with an adversative reading, *mme n̄m̄m̄i* blurs the distinction between additive and adversative coordination. As illustrated by Ex. (20), *mme n̄m̄m̄i* can be found in contexts in which it unambiguously corresponds to English *and*, but also in contexts in which an adversative reading is more natural, and these two possible uses of *mme n̄m̄m̄i* are equally common in spontaneous texts.

(20a) *Koloi e thudile tonki mme go na le yo o golafetseng.*

‘The car collided with a donkey and there is an injured person.’

<b>kólóí</b>	<b>ʼí-tʰúdílé</b>	<b>ʼtšǎkí</b>	
(CL9)car	CL9-collide:PRF:CJ	(CL9)donkey	
<b>n̄m̄m̄i</b>	<b>ǎú-nà</b>	<b>lí-jó</b>	<b>ʼú-ǎǎláfetsè-ǎ</b>
and/but	CL17-be	with-CL1.ATTR	CL1-be_injured:PRF-REL

(20b) *Ke rata mosetsana yo, mme o a nkgana.*

‘I love this girl but she does not like me.’

<b>k̄i-rátá</b>	<b>m̄o-sítsánà</b>	<b>jó</b>	<b>n̄m̄m̄i</b>	<b>ú-à-ǎ-qʰá:nà.</b>
1SG-love:PRS:CJ	CL1-girl	CL1.DEM	and/but	CL17-DJ-1SG-
				refuse:PRS

It is absolutely impossible to reduce the clause sequences in which *e bile íbilé* or *mme n̄m̄m̄i* are involved, whatever elements the clauses in such sequences may have in common. This property sharply distinguishes *e bile íbilé* and *mme n̄m̄m̄i* from the linkers used for the additive coordination of clauses in European languages.

### 7.3 Dependent verb forms expressing the additive coordination of clauses

In Tswana, the use of special verb forms is another possible strategy to encode interclausal relationships comparable to those expressed by additive coordinators in other languages:<sup>26</sup>

- clause sequences in which the first clause is the only one headed by an independent verb form, and the following ones include *sequential* verb forms, as in (21c), are a common strategy to describe successive events without further specifying their relationships;
- biclausal constructions in which the second clause is headed by a *circumstantial* verb form, as in (21d), are a common strategy to describe simultaneous events without further specifying their relationships.<sup>27</sup>

26. For a detailed description of the morphological distinction between independent indicative verb forms, sequential verb forms, and circumstantial verb forms in Tswana, see Creissels & al. (1997).

27. I use the label ‘circumstantial verb forms’ for dependent verb forms that are typically used in adverbial subordination, but show no morphological evidence of non-finiteness (they combine with subjects, express agreement with their subject and inflect for TAM exactly like independent verb forms). In the South-African Bantu grammars that follow the terminological tradition initiated by Doke, they are called ‘participles’, but this term is misleading, since in the traditional grammars of European languages, participles are non-finite forms typically used as noun modifiers, whereas the circumstantial forms of Tswana verbs have subjects exactly like independent verb forms, and by themselves (i.e. in the absence of additional morphological material) cannot be used as noun modifiers, but only as temporal adjuncts.

(21a) *Lorato o tlaa opela.*

‘Lorato will sing.’

**lò-rátš**            **ʼú-tláá-špê:là**  
(CL1)Lorato    CL1-FUT-sing:DJ

(21b) *Kitso o tlaa letsa katara.*

‘Kitso will play the guitar.’

**kítsš**            **ʼú-tláá-lítsà**            **kàtâ:rà**  
(CL1)Kitso    CL1-FUT-play:CJ    (CL9)guitar

(21c) *Lorato o tlaa opela Kitso a letse katara.*

‘Lorato will sing, and then Kitso will play the guitar.’

**lò-rátš**            **ʼú-tláá-špélá**            **ʼkítsš**            **á-lítsí**            **kàtâ:rà**  
(CL1)Lorato    CL1-FUT-sing:DJ (CL1)Kitso CL1-play:SEQ:CJ (CL9)guitar

(In the second clause, the future form *o tlaa letsa ʼú-tláá-lítsà* is replaced by the sequential form *a letse á-lítsí*.)

(21d) *Lorato o tlaa opela Kitso a letsa katara.*

‘Lorato will sing, and at the same time Kitso will play the guitar.’

**lò-rátš**            **ʼú-tláá-špélá**            **ʼkítsš**            **ʼá-lítsá**            **kàtâ:rà**  
(CL1)Lorato    CL1-FUT-sing:DJ (CL1)Kitso    CL1-play:CIRC (CL9)guitar

(In the second clause, the future form *o tlaa letsa ʼú-tláá-lítsà* is replaced by the circumstantial form *a letsa á-lítsá*.)

Here again, as illustrated by Ex. (22), whatever elements the clauses involved in such constructions may have in common, the Tswana constructions lend themselves to no mechanism of ellipsis, contrary to the corresponding constructions in European languages.<sup>28</sup>

(22) *Kitso o nwa mofine Mpho aa nwa biri.*

‘Kitso is drinking wine, and Mpho, beer.’

lit. ‘Kitso drinks wine Mpho drinking beer.’

**kítsš**            **ʼú-nʷá**            **mù-fíné**            **m̀pʰš**  
(CL1)Kitso    CL1-drink:PRS:CJ    CL3-wine    (CL1)Mpho

**áà-nʷá**            **ʼbiri**  
CL1-drink:CIRC (CL9)beer

## 8. Inclusive additive coordination

In Tswana, when the coordinands are individual names, the construction expressing the additive coordination of nouns *NP1 le NP2* has the two optional variants *bo-NP1 le NP2* and *ba/tsa ga NP1 le NP2*.

### 8.1 The *bo-NP1 le NP2* construction

In the first variant of the additive coordination construction *NP1 le NP2*, illustrated in (23c), *bo-* **bó-** is the prefix designated as the prefix of class

28. To the best of my knowledge, disjunctive coordination is in Tswana the only type of construction in which the same linkers (*kgotsa qʰòtsà, kana kànà*) can operate at NP level and at clause level, making it possible to analyze the disjunctive coordination of NPs as originating from the disjunctive coordination of clauses via ellipsis.

2a in the Bantuist tradition: it is used as a plural prefix for the nouns that govern class 1 agreement but show no overt prefix – Ex. (23a), including proper names of persons, in combination with which this prefix expresses associative plural – Ex. (23b). Noun forms including this prefix govern class 2 agreement exactly like those including the regular class 2 prefix *ba- bǎ-*.

(23a) *phiri* / *bophiri*  
 ‘a hyena’ ‘hyenas’  
**p<sup>h</sup>írí** / **bó-p<sup>h</sup>írí**  
 (CL1)hyena CL2a-hyena

(23b) *boKitso*  
 ‘Kitso and his companion(s)’  
**bó-kítsó**  
 CL2a-Kitso

(23c) *boKitso le Mpho*  
 ‘Kitso and Mpho’  
**bó-kítsó** **lí-m̀p<sup>h</sup>ó**  
 CL2a-Kitso with-(CL1)Mpho

‘Kitso and Mpho’ is not the only possible interpretation of (23c). Given that *boKitso* alone is interpreted as ‘Kitso and its companions’, another possible reading of (23c) is ‘Kitso and its companions, plus Mpho’. But in addition to this compositional meaning, (23c) has a non-compositional interpretation in which the plural marker *bo- bó-* seems to make no contribution to the meaning of the construction.

A question that arises at this point is whether *bo-NP1 le NP2* in its non-compositional reading is absolutely equivalent to the ordinary additive coordination construction *NP1 le NP2*. An obvious observation is that *bo-NP1 le NP2* is not very frequent in texts, and presumably implies some degree of emphasis. Apart from that, no hypothesis about a possible semantic contrast emerges from my observations on texts or from the comments of my consultants.

## 8.2 The *ba ga NP1 le NP2* construction

In the *ba ga NP1 le NP2* variant of the additive coordination of individual names, the first coordinand combines with a sequence of two prefixes (written in Tswana orthography as if they were distinct words).

The first prefix *ba bá-* is the genitival linker of class 2. This prefix basically expresses agreement of the genitival modifier to which it attaches with a head noun of class 2, but it can also be used by itself to express ‘the people of ...’, as in *ba kgosi bá-q<sup>h</sup>ósí* ‘the king’s people’ (servants, warriors, etc.).<sup>29</sup>

29. Note that its H tone distinguishes the genitival linker of class 2 **bá-** from the nominal prefix of class 2 **bǎ-**.



(*Kitso, Podi*) as one of its individual parts', and the second coordinand *N2* restricts this potential denotation by making explicit the individual part(s) of the referent of *N1* & *N2* not mentioned explicitly in the first coordinand (*Mpho, Lengau*).

Cross-linguistically, inclusory additive coordination is not rare. Constructions of this type can be found among others in Russian (for example *my s tobój* lit. 'we with you' > 'you and me') and in some French varieties (for example *nous deux ma sœur* lit. 'we two my sister' > 'my sister and I').<sup>31</sup> However, all the examples of inclusory additive coordination I have been able to find in the literature include a pronoun as the first coordinand, and the use of pronouns is posited as a general property of inclusory additive coordination in the definition put forward by Bhat (2004: 89-90):

There is a construction called 'inclusory conjunction', occurring in several languages, that involves either (i) the conjunction of a personal pronoun with another nominal (in the form of a noun phrase) or (ii) the use of a personal pronoun along with a comitative argument, with the two occurring in different phrases... There are several languages that require the personal pronouns occurring in constructions of the type (1a) [*I and John went to the market*] and (1b) [*I went to the market with John*] to be used in their 'dual' or 'plural' form, in spite of the fact that they do not by themselves express a dual or plural meaning. That is, the languages appear to indicate the number of the whole phrase through those pronouns rather than the number of their own referent(s).

Ex. (23c), (24), and (25) show that Tswana illustrates an apparently rare variety of inclusory additive coordination, that has so far passed unnoticed in general discussions of coordination,<sup>32</sup> and necessitates broadening the definitions of inclusory coordination found in the literature. In this subtype of inclusory additive coordination, the first coordinand is either the associative plural of an individual name, or a form that transparently means 'the people of X's place'.

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31. Interestingly, the Khoisan languages of Southern Africa, which are not genetically related to Tswana but are spoken in the same area, are among the languages in which inclusory coordination is common (Tom Güldemann, p.c.).

32. The only languages with this particular type of inclusory additive coordination I am aware of are Margi (Chadic), Alaskan Eskimo Yu'pik, and Koalib (Kordofanian). The first two are mentioned in Moravcsik's article on associative plural (Moravcsik 2003: 494-495). I am grateful to Nicolas Quint for calling my attention to the case of Koalib and providing the following example :

*Kwókkò-ńá*      *Kwómmè-k-ê*

Kwókkò-APL      Kwómmè-CL-COM

lit. 'Kwókkò\_and\_others with Kwómmè', but commonly used for 'Kwókkò and Kwómmè'.

## 9. Additive coordination of NPs and associative plural

### 9.1 Introductory remarks

Creissels (1991: 157) mentions observations on Sara languages (Central Sudanic, Nilo-Saharan) and Basque suggesting the possibility that plural markers result from the grammaticalization of additive coordinators, and this question is addressed again in Creissels (2015). Tswana illustrates another possible type of interference between additive coordination and plural marking. Moreover, as developed in this section, the inclusory additive coordination constructions presented in Section 8 provide evidence for a possible etymology of the nominal prefix of class 2a – a question that has puzzled generations of Bantuists. However, before developing the hypothesis I am putting forward, I must refute the objections raised by one of the two LLA reviewers against very basic aspects of my analysis of the Tswana nominal prefix of class 2a *bo b6-*.

### 9.2 The nominal prefix of class 2a *bo- b6-*: answer to a reviewer

One of the two LLA reviewers makes suggestions about the analysis of the Tswana nominal prefix of class 2a *bo b6-* that are in total contradiction with my data on the phonological and morphological properties of this morpheme. I have no idea of where the data evoked by this reviewer may come from, but their suggestions most probably rely on confusions that I will try to correct in this section.

The situation is certainly different in some other Bantu languages,<sup>33</sup> but in Tswana, at least in the two varieties for which I have detailed and precise phonetic data coming from my own field work (Ngwaketse and Ngwato), *bo b6-* is unquestionably a prefix. There is absolutely nothing that could suggest analyzing it as less tightly bound to the noun stem than the other class prefixes of nouns: it cannot be followed by a downstep, and its H tone can spread to two successive syllables, which means that the tonal properties of the boundary between *bo b6-* and the noun stem are typically those of a boundary between two formatives of the same word (Creissels & al. 1997: 20-23).

Moreover, the reviewer's remark that "the vowel quality and the high tone of the prefix *bo* patterns with properties seen in other proclitics and in locative prefixes *mo-* and *go-* which take a prefixed noun as a complement" makes no sense, and just reveals very serious confusions.

Synchronically, Tswana does not have the locative prefix of class 18 *mo- m6-*, but only frozen vestiges thereof. Tswana does have the locative prefix of class 17 *go- x6-* (as in *x6-l6* 'place'), but like all the other class

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33. In particular, the parallelism suggested by this reviewer with the locative prefixes of Shona has no value, since Shona has the locative system typical for Central Bantu languages, whereas Tswana is among the Southern Bantu languages whose locative system has been radically reorganized, as briefly explained in Section 3.3 above – for more details, see Creissels (2011).

prefixes of nouns that are obvious reflexes of Proto-Bantu noun prefixes, it has the low tone and the vowel **o** expected from the regular correspondences between Proto-Bantu and Tswana. Moreover, the locative prefix *go- χù-* does not “take a prefixed noun as a complement”, but directly attaches to the noun stem, like all class prefixes.

In fact, rather than the locative class prefixes *mo mù-* and *go χù-*, the reviewer probably has in mind *fá fá*, *ko kó*, and *mo mó*. However, synchronically, as demonstrated in Creissels (2011), *fá fá*, *ko kó*, and *mo mó* are prepositions completely devoid of the properties that could justify analyzing them as prefixes, and they have no possible involvement in class agreement. The tonal processes operating at their boundary with the noun that follows them are typically those operating at the junction between words (they can be followed by a downstep, and their H tone cannot spread to more than one syllable). Diachronically, they are not the reflexes of Proto-Bantu prefixes, but former demonstratives of locative classes that have grammaticalized as prepositions.

There is also a possible confusion with the locative marker *go- χó-*, which marks locative phrases in complementarity with the locative suffix *-ng -ŋ* (and like *-ng -ŋ*, is not involved in class agreement). Like *bo bó-* (and contrary to *fá fá*, *ko kó*, and *mo mó*), *go- χó-* has the tonal properties typical for affixes, and it has a H tone, but its vowel is different, and it probably originates from the grammaticalization of a dependent form of the copula – Grégoire (1975).

Suggestions relying on such confusions cannot have any value, and I will not consider them in the analysis that follows.

### 9.3 Inclusory additive coordination and the origin of the nominal prefix of class 2a *bo- bó-*

It is widely acknowledged that it is not possible to reconstruct a class 2a marker in Proto-Bantu, and the question of the possible origins of the class 2a markers found across Bantu languages remains an unsolved problem.

Van de Velde (2006) tackles the question of the origin of the marker commonly designated as class 2a prefix with reference to Eton (A71). The analysis I propose here, although different, does not contradict Van de Velde’s analysis. The point is that there are important differences between the Eton and Tswana data. In particular, in Eton, the class 2a marker is not a prefix, whereas in Tswana, as mentioned in Section 9.2, its behavior as concerns the tone sandhi rules is unambiguously that of a prefix. Consequently, it seems reasonable to posit that the class 2a prefixes found across the Bantu family do not result from a grammaticalization path shared by all Bantu languages, but rather from different grammaticalization paths whose only common point is that their input included some marker or pronoun belonging to class 2.

The analysis put forward in the remainder of this section implies absolutely no claim about the possible extension of the etymology I propose for the Tswana prefix of class 2a to a greater or lesser proportion of Bantu languages.

The only obvious thing about the Tswana prefix of class 2a *bo- bó-* (and the same can be said about the class 2a markers of many other Bantu languages) is that it cannot be the reflex of a reconstructed Bantu prefix. Its high tone is not normal, and its vowel is problematic too, since no Proto-Bantu vowel has [o] as its regular reflex in Tswana.<sup>34</sup> As discussed in Creissels (2005), in present-day Tswana, /o/ is a phoneme distinct from both /u/ and /ɔ/, and /e/ is a phoneme distinct from both /i/ and /ɛ/, but the vowels [o] and [e] emerged in the history of Tswana as the result of various processes, and cannot be straightforwardly identified as the reflexes of Proto-Bantu vowels in certain contexts.

However, the fact that the Tswana prefix of class 2a *bo- bó-* occurs in one of the two variants of inclusory additive coordination, the other variant being etymologically transparent, suggests a possible grammaticalization scenario.

The hypothesis I propose to explore is that both variants of inclusory additive coordination in Tswana have ‘the people at X’s place with Y’ as their etymology, and consequently, the original meaning of the class 2a prefix is ‘the people at X’s place’. Semantically, there is no difficulty in imagining a grammaticalization path by which an expression whose original meaning was ‘the people at X’s place’ grammaticalized first as an associative plural marker with individual names and kinship terms, and the use of the associative plural marker was subsequently extended to other nouns as a plain plural marker.

According to this hypothesis, in the *ba ga X le Y* variant of the inclusory additive coordination construction, the element carrying the meaning ‘the people of’ and the locative element have remained distinct and can be identified without any problem, whereas in the *bo-X le Y* variant, they have fused into a synchronically unanalyzable morpheme. And precisely, it is not difficult to find a locative marker whose fusion with the genitival linker of class 2 *ba bá-* may have given the class 2a prefix *bo- bó-*. Tswana has a locative prefix *go χó-* used in particular with individual names. The forms resulting from the prefixation of the genitival linker of class 17 *ga χá-* and of the locative marker *go χó-* to individual names are not entirely synonymous, but both of them basically encode that the person referred to fulfills the function of ground in a

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34. In the remainder of this section, square brackets are systematically used in order to emphasize that *e* and *o* must not be understood with their value in the current orthography of Tswana, but with their precise IPA value [e] (not [ɪ] or [ɛ]) and [o] (not [ɔ] or [ɔ]). Slashes are used when it is important to emphasize their phonemic status. This precision is crucial for a proper evaluation of the hypothesis I am putting forward.

spatial relationship with another entity in the role of figure.

Consequently, there is no difficulty (either from the phonetic or semantic point of view) in imagining that the prefix of class 2a *bo- bó-*, still used with individual names as an associative plural marker, may have resulted from the contraction of a sequence *\*ba go bá-χú-* (genitival linker of class 2 + locative marker) whose etymological meaning ('the persons at X's place') was not very different from that of the sequence *ba ga bá-χà-*, which in present-day Tswana is interchangeable with *bo bó-* in inclusory additive coordination.

Table 1. Tswana demonstratives (classes other than 1 and 15/17)

	DEM
class 2	[ba]
class 3	[o]
class 4	[e]
class 5	[le]
class 6	[a]
class 7	[le]
class 8/10	[tse]
class 9	[e]
class 11	[lo]
class 14	[dʒo]

This analysis is further supported by the fact that, in Tswana historical phonology, the contraction of originally dissyllabic sequences is a major source of [o] and [e]. For example, Tswana demonstratives in their simplest form are monosyllabic. However, they result from the fusion of a class prefix with another formative, and with the exception of classes 1 and 15/17, which are problematic in several respects,<sup>35</sup> they can be straightforwardly described as having a vowel [a], [e], or [o], depending on the vowel normally found in the prefixes characteristic of each class (see Table 1): in the classes which in other contexts are expressed by prefixes including an [a], the vowel of the demonstrative is [a], it is [e] in

35. The demonstrative of class 1 *yo* [jó] shows an initial [j] that has no obvious explanation. The variants of the demonstrative of class 15/17, namely *fa* [fá], *ko ~ kwa* [kó ~ kwá], and *mo* [mó] are vestiges of the former distinction between three distinct locative classes, which has been lost in Tswana – see Creissels (2011).

the classes normally expressed by prefixes including an [ɩ] or an [i], and finally, it is [o] in the classes whose prefixes normally include an [o].

The reasonable hypothesis is therefore that, in the demonstratives, [e] and [o] resulted from the contraction of sequences that initially included a close vowel and an [a], which makes very plausible the explanation proposed above about the origin of the nominal prefix of class 2a.

## 10. Conclusion

In this paper, I have tried to show how the additive coordination constructions found in Tswana can contribute to a general typology of coordination. Tswana has a strict distinction between the additive coordination of NPs, attributive adjectives, and clauses, but uses the same proclitic *le* **li-** as an additive coordinator for NPs ('and'), as an additive particle ('also'), and as a comitative marker ('with'). None of the constructions expressing additive coordination in Tswana lends itself to mechanisms of ellipsis comparable to those found in European languages. Inclusive additive coordination is of particular interest, since Tswana has a cross-linguistically rare type of inclusive additive coordination, with the associative plural form of an individual name as the first coordinand. Moreover, the comparison of the two variants of inclusive additive coordination suggests that the nominal prefix of class 2a *bo-* **bó-**, used in particular with individual names as an associative plural marker, may result from the contraction of the sequence *\*ba go bá-χú-* (genital linker of class 2 + locative marker).

## Abbreviations

APL: associative plural, APPL: applicative, ATTR: attributive linker, CAUS: causative, CIRC: circumstantial, CJ: conjoint, CL: noun class, COM: comitative, CPL: completive, D: definite, DEM: demonstrative, DIST: distal, DJ: disjoint, FUT: future, GEN: genitive, INF: infinitive, LOC: locative, PL: plural, PRF: perfect, PRS: present, RECIP: reciprocal, REL: relative, SEQ: sequential, SG: singular.

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## **The locative system in Cuwabo and Makhuwa (P30 Bantu languages)**

Rozenn GUÉROIS

### **Abstract**

This article presents the locative morphosyntax of Cuwabo and Makhuwa (Bantu, North Mozambique), in a comparative perspective with a sample of other Bantu languages. The analysis is based on a number of parameters assessing the existence of the three historical locative affixes (classes 16 to 18) in both nominal and verbal morphology, the question of agreement in modified locative phrases, the existence of locative inversion constructions, the development of an expletive subject marker, etc. Through this comparative analysis, this paper has two main aims: first it provides evidence of morphosyntactic micro-variation among Cuwabo and Makhuwa, which are genetically related; second it shows how the two languages relate to the wider panorama of Bantu languages, by locating them along the continuum between typical locative systems (e.g. in Bemba, Kagulu) and reorganized locative systems (e.g. in Swati).

### **Keywords**

locative system, marking and agreement, parametric and comparative approach, Cuwabo, Makhuwa, Bantu

### **Résumé**

Cet article présente le système locatif du cuwabo et du makhuwa (bantou, Mozambique du Nord), dans une perspective comparative et sur la base d'un échantillon de langues bantoues. Les analyses proposées sont fondées sur divers paramètres prenant notamment en compte l'existence des trois affixes locatifs historiques (classes 16 à 18) au sein de la morphologie nominale et verbale, la question des paradigmes d'accord commandés par les noms locatifs dans le syntagme nominal, l'existence de

constructions locatives inversées, le développement d'une marque de sujet explétif, etc. Au travers de cette étude comparative, cet article répond à deux objectifs principaux : il met tout d'abord en évidence la micro-variation morphosyntaxique existant entre le cuwabo et le makhuwa, deux langues génétiquement apparentées ; par ailleurs, il montre comment ces deux langues s'inscrivent dans le cadre plus large des langues bantoues, notamment en les situant sur le continuum qui existe entre des systèmes locatifs typiques (p. ex. en bemba et en kagulu) et des systèmes locatifs restructurés (p. ex. en swati).

### **Mots clés**

système locatif, marquage et accord, approche paramétrique et comparative, cuwabo, makhuwa, bantou

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### **Introduction**

Cuwabo and Makhuwa are two major Bantu languages spoken in North Mozambique by 834,073 and 5,279,818 speakers, respectively (*Instituto Nacional de Estadísticas* 2007). Under Guthrie's classification of Bantu (1948), followed by Maho (2009), the two languages belong to the P30 Makhuwa group. Although Guthrie's classification draws primarily on geography rather than on history or genetics, the two languages do share a number of innovations, such as the denasalization of the Proto-Bantu prenasalized clusters \*mb, \*nd, and \*ng, which support the hypothesis of common ancestry. In this paper, I present and compare the locative morphosyntax of the two languages. The analysis is based on several parameters, such as the existence of the three historical locative affixes in both nominal and verbal morphology, the question of agreement in modified locative phrases, the existence of locative inversion constructions, the development of an expletive subject marker, etc. Through this comparative analysis, this paper aims to provide evidence of morphosyntactic variation among these two genetically related languages. It will be shown

that, despite some common backgrounds, the locative systems of the two P30 languages have evolved in different ways. In parallel, I will also try to show how Cuwabo and Makhuwa relate to the wider Bantu system, and try to locate them along the continuum between typical locative systems (e.g. in Bemba, Kagulu) and reorganized locative systems (e.g. in Swati).

This paper is organized in sections which present different aspects of the locative system in Bantu. Locative nominal morphology is first treated in Section 1; in Section 2, the question of agreement of dependent nominals within the noun phrase is assessed; section 3 explores locative marking on verbs; Section 4 and Section 5 describe two syntactic constructions involving the locative system, locative relatives and locative inversion, respectively. A summary is presented in Section 6. For each section, before discussing Cuwabo and Makhuwa data, I start by framing the main different patterns found in Bantu. My purpose is not to present an exhaustive inventory, but rather to highlight the existing variation among Bantu locative systems, so as to better understand the position of P30 languages within Bantu.<sup>1</sup>

The Cuwabo data presented here stem from Guérois (2014, 2015), which is based on fieldwork conducted around Quelimane. Makhuwa data are extracted from van der Wal's descriptive work (2009) on Makhuwa-Enahara, mainly spoken on the Ilha de Mozambique. Since a systematic annotation of these references would be too cumbersome, I chose not to indicate them in the core of this paper. With respect to the Bantu picture, I recurrently resorted to Marten's works (2006, 2010, 2012), who depicted the locative system, or at least certain aspects of it, in Herero, Ganda, Bemba and Swati.

## 1. Locative nominal morphology

### 1.1 Variation in Bantu locative marking

Locative systems constitute an interesting case of cross-linguistic variation within the Bantu domain. The most common pattern involves the three reconstructed locative prefixes from class 16 \***pà-**, class 17 \***ku-**, and class 18 \***mù-**, which precede either the original noun class prefix, as illustrated in Kagulu (1), Bemba (2), and Ngangela (3), or the

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1. The following abbreviations are used (numbers in glosses refer to agreement classes, and high tones are represented with an acute accent, whereas low tones are unmarked): APPL applicative AUG augment CAUS causative CE counterexpectational CJ conjoint CL class COM comitative CON connective COP copula DEM demonstrative DJ disjoint EFF effective EXT extension FOC focus FUT future FV final vowel H high tone H1D first high tone deletion HAB habitual HYP hypothetical IDEO ideophone INF infinitive INTER interjection IPFV imperfective LOC locative NAR narrative NEG negative OM object marker PASS passive PB Proto-Bantu PERS persistent PFV perfective p.c. personal communication PL plural PLUR pluractional POSS possessive PRO pronoun PROG progressive PRS present PTG Portuguese REC.PST recent past REF referential REFL reflexive REL relative REM.FUT remote future SBJ subjunctive SG singular SIT situative SM subject marker

augment, if still attested in the language, as in Herero (4). The use of the three historical classes is the only option for locative marking in these languages.

- |     |  |                            |
|-----|--|----------------------------|
| (1) | Kagulu (G12, Tanzania)   | (Petzell 2008: 34)         |
|     | <b>ha</b> -mu-gunda <b>ku</b> -mu-gunda <b>mu</b> -mu-gunda          |                            |
|     | <b>16</b> -3-farm <b>17</b> -3-farm <b>18</b> -3-farm                |                            |
|     | ‘by the farm’      ‘to(wards) the farm’      ‘in/on the farm’        |                            |
| (2) | Bemba (M42, Zambia)  | (Marten 2012: 433)         |
|     | <b>pà</b> -n-gándá <b>kú</b> -n-gándá <b>mù</b> -n-gándá             |                            |
|     | <b>16</b> -9-house <b>17</b> -9-house <b>18</b> -9-house             |                            |
|     | ‘at a/the house’      ‘to(wards) a/the house’      ‘in a/the house’  |                            |
| (3) | Ngangela (K12b, Angola)  | (Maniacky 2003: 32)        |
|     | <b>ha</b> -ci-táánta <b>kú</b> -n-jivo <b>mu</b> -mu-θééngje         |                            |
|     | <b>16</b> -7-market <b>17</b> -9-house <b>18</b> -3-forest           |                            |
|     | ‘by the farm’      ‘to(wards) the house’      ‘in the forest’        |                            |
| (4) | Herero (R30, Namibia)  | (Möhlig & Kavari 2008: 89) |
|     | pondjúwó      kondjúwó      mondjúwó                                 |                            |
|     | <b>pu</b> -o-n-djúwó <b>ku</b> -o-n-djúwó <b>mu</b> -o-n-djúwó       |                            |
|     | <b>16</b> -AUG-9-house <b>17</b> -AUG-9-house <b>18</b> -AUG-9-house |                            |
|     | ‘at a/the house’      ‘to(wards) a/the house’      ‘in a/the house’  |                            |

Another prefix with the shape **e-** (class 25) has a locative meaning in Bantu. This pattern, mostly attested in JE10 Nyoro-Ganda languages, S40 Nguni languages, and certain Northwestern languages from zones A, B, and C (Grégoire 1975: 170-184), does not necessarily constitute the sole strategy for locative marking in these languages. For instance, in Ganda (5), class 25 prefix **e-** (conventionally glossed as ‘LOC’ through this chapter) co-exists with class 17 prefix **ku-**, whereas classes 16 and 18 are no longer attested.

- |     |   |                    |
|-----|---|--------------------|
| (5) | Ganda (JE15, Uganda)                        | (Marten 2012: 434) |
| a.  | <b>e</b> -Kampala      b. <b>ku</b> -ky-alo |                    |
|     | LOC-Kampala <b>17</b> -7-village            |                    |
|     | ‘in Kampala’      ‘at the village’          |                    |

Marten (2010: 254) reports the same morphological co-existence of class 25 prefix **e-** and class 17 noun prefix **ku-** in Swati, with e.g. **e-sitolo** ‘at the shop’ and **ku-bafana** ‘to/at the boys’, respectively. However, in this case it is likely that the prefix **ku-** in Swati is not a direct reflex of Proto-Bantu class 17 noun prefix \***kù-**, but rather the reflex of **kúdí** ‘où est’ (lit. ‘where is’), as argued by Grégoire (1975: 98), not only for Swati, but for Southern Bantu in general. This reflex **ku-** (or **χú-** in Tswana), endowed with an underlying H tone, was originally<sup>2</sup> used as a substitute

2. Synchronically, this prefix acquired a wider range of uses. For instance, it applies to noun modifiers which are in a position to receive locative marking, as can be seen with the demonstrative forms in (74) for Swati and (75) for Zulu.

to class 17 noun prefix when applied to augmentless nouns, and consequently to prefixless nouns in classes 1a/2a, in order to express ‘next to, at’ (French ‘chez’). This explains why this prefix in S languages is mostly attested in front of class 1a/2a nouns (e.g. Swati **kumake** ‘at my mother’s place’, Grégoire 1975: 97), and by extension in front of class 1/2 nouns, as seen above in Swati with **ku-bafana** ‘to/at the boys’. Another strong support to Grégoire’s analysis comes from Creissels (2011, this volume), who claims that the locative prefix **χó-** in Tswana cannot be associated with Proto-Bantu class 17 **\*kù-**, on account of their tonal divergence. Tswana tonology has the advantage of being very consistent with Bantu tonal reconstructions. High-toned **χó-** can thus confidently be interpreted as the reflex of the form **kúdí** mentioned above. Tone association rules are not as straightforward in Nguni languages (Swati and Zulu) as in Tswana, and underlying H tones are subject to tone shift processes. As a result, the underlying H locative prefix **ku-** does not bear a H tone on the surface, which leads to its being commonly confused with the historical class 17 noun prefix. Hence Swati example **ku-bafana** ‘to/at the boys’ should probably be glossed as a locative prefix as in (6b), rather than as a class 17 noun prefix, as in Ganda (5b). Unfortunately, to the best of my knowledge, this question has never been discussed in the literature on Nguni tonology.

- (6) Swati (S43, Swaziland) (Marten 2010: 254, my glosses)
- |                    |                      |
|--------------------|----------------------|
| a. <b>e-sitolo</b> | b. <b>ku-ba-fana</b> |
| LOC-shop           | LOC-2-boy            |
| ‘at the shop’      | ‘to/at the boys’     |

Note however that a reflex of Proto-Bantu class 17 noun prefix **\*kù-** is observable as a residual form in a few Swati nouns shown in (7b), which evolved to adverbial functions. The same is true with class 16 (7a) and class 18 (7c) noun prefixes, which have also lexicalized.

- (7) Lexicalized locative class prefixes in Swati (Grégoire 1975: 96-99)
- |   |                     |
|---|---------------------|
| a. from PB class 16 noun prefix <b>*pà-</b> |                     |
| phandle                                     | ‘outside’           |
| phansi, phasi                               | ‘on the ground’     |
| b. from PB class 17 noun prefix <b>*kù-</b> |                     |
| kusihlwa                                    | ‘in the evening’    |
| kudze                                       | ‘far’               |
| kudvute                                     | ‘near’              |
| c. from PB class 18 noun prefix <b>*mù-</b> |                     |
| msheya                                      | ‘on the other side’ |
| m(u)shiya loyi/lowa                         | ‘on this/that side’ |

Another pattern involves the locative suffix **-(i)ni** (or a related form), excluding any locative prefixation. The origin of this suffix is obscure, although Samson and Schadeberg (1994) consider it to be the gramma-

ticalized form of **\*-ini** ‘liver’. It is widespread in Eastern Bantu languages (8), where it is assumed to have originated, but is also well attested in Southern Bantu (9). See Grégoire (1975: 185-204) for a survey of this suffix across Bantu, and Güldemann (1999: 51-52) for an analysis of its semantic development.

- (8) Swahili (G40, Tanzania, Kenya) (Grégoire 1975: 192)  
 nyumba-**ni**  
 house-LOC  
 ‘at/to/in the house’
- Kikuyu (E51, Kenya) (Mugane 1997: 33)  
 mū-twe-**inĩ**  
 3-head-LOC  
 ‘by/on the head’
- (9) Tswana (S30, Botswana, South Africa) (Creissels 2011: 37)  
 nòké-**ṅ**  
 9.river-LOC  
 ‘at/to/in the river’
- Swati (Marten 2010: 254)  
 e-n-dl-**ini** (< indlu ‘house’)  
 LOC-9-house-LOC  
 ‘at/to/in the house’

Note that the locative suffix **-ini** in Swati often appears in addition to the locative prefix **e-** seen above in (6b), but its distribution seems unpredictable. This contrasts with Tswana locative **-ṅ**, whose suffixation systematically occurs on nouns from every class except 1a/2a,<sup>3</sup> in which case the locative prefix **χó-** is used, as in (10). As a result, the locative prefix **χó-** and the locative suffix **-ṅ** have a complementary distribution in Tswana.

- (10) Tswana (Creissels 2011: 37)  
 kù-tsw-à                    **χó**-màlómè  
 SM1SG-come-FV        LOC-(CL1)uncle.1SG  
 ‘I am coming from my uncle’s’

The innovated suffix **-(i)ni** is normally complementary to the historical locative prefixes, i.e. a language does in principle not exhibit both markers on a same lexical item. As a result, Eastern and Southern Bantu languages are overall divided into two sets as far as locative marking is concerned: in the first set, locative phrases are formed by (extra-)prefixation (**\*pa-**, **\*ku-**, **\*mu-**), as shown from (1) to (4) above; in the second set, the suffix **-(i)ni** (or variant) functions as the only locative marker, as seen in (8) and (9),<sup>4</sup> except for Swati, which in this context

3. Unless the class 1a (singular) noun refers to a non-human entity (see Creissels 2011).

4. In S languages, this is true for nouns other than those selecting a reflex of **\*kúdí** as their locative marker, as seen e.g. in (10).

requires the locative prefix **e-**.

Finally, in many North-western Bantu languages, there is no productive locative marking, and prepositions are used instead. For instance, in Mongo (11), the preposition **ndá** preceding a noun is normally used to express location in general terms.

- (11) Mongo (C60, Dem. Rep. of Congo) (Hulstaert 1966: 178)
- |            |        |                  |
|------------|--------|------------------|
| <b>nd'</b> | étáfe  | 'on the branch'  |
| <b>ndá</b> | loulú  | 'in the bedroom' |
| <b>ndá</b> | ntsína | 'at the basis'   |

In Bafia (12), **bí** 'on, in' and **á** 'at, to' constitute the two main locative prepositions.

- (12) Bafia (A50, Cameroon) (Guarisma 2000: 49, 106, 94)
- a. à-dĩṅì      **bí**      'c-ó?
- SM1-enter in      7-forest
- 'he enters in the forest'
- b. à-tà?      tàṁ      **bí**      ñ-tó
- SM1-wear      1a.hat      on      3-head
- 'he wears/is wearing a hat on the head'
- c. bì-á-kè-í      **á**      fy-ēē
- SM1PL-REC.PST-go-EFF      to      13-market
- 'we went to the market'

In Duala, there is only one preposition **o** to express the different locative (and temporal) meanings, as seen in (13). Although Gaskin treats **o** as a preposition, it looks like a reflex of the historical class 17, synchronically used as a default locative marker.

- (13) Duala (A24, Cameroon) (Gaskin 1927: 27-30, my glosses)
- a. na-ma-sele      dá,      to      na-ma-la      **ó**      mu-ndi
- SM1SG-PRS-begin      eat      then      SM1SG-PRS-go      LOC      3-town
- 'I eat first, then go to town'
- b. **o**      bu-lu      ba      kiele      na-ta      **o**
- LOC      14-night      14.CON      yesterday      SM1SG-was      LOC
- n-dab'am      na      mu-kala      mo
- 9-house.POSS.1SG      with      1-white.man      ?
- 'last night I was in my house with a white man'
- c. di-ta      di-senga      mu-mban      **o'**      bo-ko
- SM1PL-was      SM1PL-hear      3-noise      LOC      14-outside
- 'we heard a movement outside'

### 1.2 Double marking in P30

As already seen above, a very productive way of forming locative expressions in Bantu languages is by prefixing a locative noun class to already existing nouns. This is the case in both Cuwabo and Makhuwa, which have retained the 3 historical locative prefixes in classes 16, 17 and 18.

Table 1. Locative prefixes in Cuwabo and Makuwa

Class	PB	Cuwabo	Makuwa
16	* <b>pa</b>	<b>va-</b>	<b>va- / wa-</b>
17	* <b>ku</b>	<b>o-</b>	<b>o-</b>
18	* <b>mu</b>	<b>mu-</b> <sup>5</sup>	<b>ŋ-</b> <sup>6</sup>

Each locative prefix is commonly associated with a general locative meaning, which is normally expressed through prepositional phrases in English. Class 16 **va-** indicates nearness, adjacency, or a specific place, and can often be translated by the preposition ‘at’, as in (14). Class 17 **o-** designates remoteness or an unspecific place. It is much attested with the motion verbs **ódhowá** ‘go’ and **ódha** ‘come’, as illustrated in (15). Class 18 **mu-** denotes withinness, interiority, or an enclosed place, as in (16).

- (14) Class 16, Cuwabo  
a-hi-fíy-á                      **va-pambánó-ni**  
SM2-PFV.DJ-arrive-FV    **16-9a**.crossroads-LOC  
‘they arrived at a crossroads’
- (15) Class 17, Cuwabo  
míyó      ddi-ní-dhów-á                      **o-Mokúba**  
1SG.PRO   SM1SG-IPFV.CJ-go-FV    **17-Mocuba**  
ddi-ní-dh-á = na                              **o-Cuwábó**  
SM1SG-IPFV.CJ-come-FV=COM    **17-Quelimane**  
‘I am going to Mocuba, I come from Quelimane’
- (16) Class 18, Cuwabo  
o-hi-mótt-él-a                      **mu-má-ánjé-ní**      kíbííí  
SM1-PFV.DJ-fall-APPL-FV    **18-6**-water-LOC    IDEO  
‘she fell into the water “splash!”’

The pre-prefix position of the locative marker in Cuwabo and Makuwa can be observed in (17), where they attach to nouns which already bear a lexical class prefix. However, it is to note that the prefix of class 9/10 (**e-**) is omitted in Makuwa, as seen in the locative expression **wakisírwa**, from **e-kisírwa** ‘9-island’.

- (17) Cuwabo  
**va-mú-rí-ni**                      **o-mu-síka**                      **ŋ-bíyâ-ni**  
**16-3**-tree-LOC    **17-3**-market                      **18-9a**.stove-LOC  
‘at the tree’                      ‘to the market’                      ‘in the stove’

5. In Cuwabo, the prefix for class 18 is realized **mw-** in prevocalic position, but it is very often reduced to **m-** before bilabial or labio-dental consonants.

6. In Makuwa, the prefix for class 18 is also realized **mw-** in prevocalic position, but it becomes a homorganic moraic nasal (indicated here as **ŋ**) when followed by any consonant.

Makhuwa		
<b>wa-kisírwa</b>	<b>o-ṅ-tékó-ni</b>	<b>m-ma-átsí-ni</b>
<b>16-island</b>	<b>17-3-work-LOC</b>	<b>18-6-water-LOC</b>
‘on the island’	‘at work’	‘in the water’

In Cuwabo, noun class prefix deletion in case of locative prefixation is much more exceptional and seems restricted to a few words in class 9 –compare (18a) and (18b)–, and in class 5 –compare (19a) and (19b).

## (18) Class 9

a. <b>é-lôbo</b> ‘thing’	b. <b>e-lábo</b> ‘country’
→ <b>ó-lôbo</b>	→ <b>mu-e-lábô-ni</b> (mwiiIábôni)
17-thing	18-9-country-LOC
‘to the thing’	‘in the country’ (in society)

## (19) Class 5

a. <b>ṅ-ttólo</b> ‘well’	/	<b>ṅ-céla</b> ‘well’	b. <b>ṅ-ttúku</b> ‘(tree) stump’
→ <b>va-ttólô-ni</b>		→ <b>va-célâ-ni</b>	→ <b>o-ṅ-ttúkû-ni</b>
16-old.well-LOC		16-well-LOC	17-5-stump-LOC
‘at the old/dry well’		‘at the well’	‘to the (tree) stump’

So far, we only have examined the left-periphery of the locative derivational process, which involves the prefixation of either **va-**, **o-** or **mu-**. However, a second aspect of locative derivation must be taken into account in both Cuwabo and Makhuwa, namely the suffixation of the locative suffix **-ni**. In Section 1.1, it was argued that, for a given lexical item, locative prefixation (with classes 16, 17 or 18) and locative suffixation (with **-(i)ni** or a variant form) were mutually exclusive. Interestingly, Cuwabo and Makhuwa constitute an exception to this complementary distribution, since both a locative prefix and a locative suffix do co-occur in most locative expressions, as evidenced in the different examples provided so far, and further illustrated in (20).

(20) Cuwabo	<b>o-ma-básá-ni</b>	Makhuwa	<b>o-ṅ-tékô-ni</b>
	<b>17-6-work-LOC</b>		<b>17-3-work-LOC</b>
	‘at work’		‘at work’

From a comparative perspective, this double locative marking, a feature shared by all P30 languages, is very unusual in Bantu.<sup>7</sup> The uniqueness of this double-marking presumably results from a contact situation. Whereas the three historical locative classes may be regarded as an inherited feature among P30,<sup>8</sup> the addition of the locative suffix must have occurred under the influence of Swahili, for which suffixation is the only available locative pattern. Three factors support this hypothesis:

7. This double locative marking is however reminiscent of Swati, where certain locative nouns systematically appear with the locative suffix **-ni** in addition to the locative prefix (in class 25).

8. The three historical locative classes are also attested in the neighbouring languages, i.e. the P20 Yao group, the N30 Cewa-Nyanja group, and the N40 Senga-Sena group, but in all these groups, the locative classes are the only devices used to mark locative.

first, the existence of lexicalized expressions involving one of the three locative noun class morphemes (and no locative suffix), as illustrated in (21), attests that locative prefixes have long been present in Cuwabo and Makhuwa.<sup>9</sup>

(21)	Cuwabo		Makhuwa
	<b>v</b> atí	‘down, on the ground’	<b>v</b> athí ‘down, on the ground’
	<b>v</b> ákûvi	‘near’	<b>o</b> tulú ‘heaven, sky, above’
	<b>o</b> váno	‘nw’	<b>ó</b> ta ‘outside’
	<b>m</b> waári	‘inside, into’	<b>m</b> pááni ‘inside’

Second, the fact that the suffix **-ni** is not systematically added to all nouns (including Portuguese loans) in both Cuwabo (22) and Makhuwa (23) suggests that locative suffixation occurred at a later stage. The absence of **-ni** for names of towns or countries furthers points toward the locative suffix not being entirely generalized (yet).

(22) Cuwabo

with *-ni*

<b>va-ó-sálú-ni</b>	16-14-thread-LOC	‘on the thread’
<b>va-mú-rí-ni</b>	16-3-tree-LOC	‘on the tree’
<b>m̄-baárúku-ni</b>	18-9a.boat-LOC	‘in the boat’ (< ptg <i>barco</i> )
<b>o-mu-yérê-ni</b>	17-3-tree.sp-LOC	‘to the tree’
<b>o-ṅ-ttúkû-ni</b>	17-5-stump-LOC	‘on the stump’
<b>o-ma-básâ-ni</b>	17-6-work-LOC	‘at work’
<b>m̄-má-ánjé-ni</b>	18-6-water-LOC	‘in the water’
<b>mu-kásháwú-ni</b>	18-9a.box-LOC	‘in the box’ (< ptg <i>caixa/caixão</i> )
<b>mu-e-lábô-ni</b>	18-9-society-LOC	‘in the society’
<b>mu-dhi-ójâ-ni</b>	18-10-food-LOC	‘in the food’
<b>mu-o-éddâ-ni</b>	18-14-path-LOC	‘on the path’
<b>m̄-mú-rúdda-ni</b>	18-3-village-LOC	‘in the village’

without *-ni*

9. The locative suffix **-ni** appears nevertheless in the two following frozen locative expressions: **owáâni** ‘at home (birth place)’ in Cuwabo, and **vakhaani-vakhaani** ‘slowly’ in Makhuwa.

<b>va-takúlu</b>	16-9a.home	‘at home’
<b>ó-má-ttíyu</b>	16-6-night	‘at night’
<b>o-mú-ndda</b>	17-3-field	‘to the field’
<b>o-íko/mu-íko</b>	17-river	‘to the river’
<b>o-kobéla</b>	17-9a.bank	‘to the bank’
<b>ó-lóbo</b>	17-thing	‘to the thing’
<b>m̄-bára</b>	18-9a.sea	‘in the sea’
<b>mu-ttémba</b>	18-9a.village	‘in the village’
<b>mu-díla</b>	18-9a.way	‘on the way’
<i>Place names:</i>		
<b>o-Cuwábo</b>	17-Quelimane	‘to Quelimane’ (city name)
<b>o-Mokúba</b>	17-Mocuba	‘to Mocuba’ (id.)
<b>m̄-Makúzi</b>	18-Macuse	‘in Macuse’ (id.)

## (23) Makuwa

with *-ni*

<b>wa-sufáá-ni</b>	16-couch-LOC	‘on the sofa’ (< ptg <i>sofá</i> )
<b>wa-rattá-ni</b>	16-lagoon-LOC	‘at the lagoon’
<b>mwi-ŋ-rúpâ-ni</b>	18-3-bag-LOC	‘in the bag’
<b>wa-ŋ-thálf-ni</b>	16-3-tree-LOC	‘to the tree’
<b>wa-khaámâ-ni</b>	16-bed-LOC	‘to bed’ (< ptg <i>cama</i> )
<b>wa-fééshta-ni</b>	16-party-LOC	‘at the party’ (< ptg <i>feira</i> )
<b>o-ŋ-tékô-ni</b>	17-3-work-LOC	‘at work’
<b>m̄-phírô-ni</b>	18-path-LOC	‘on the path’
<b>m̄-paráákha-ni</b>	18-booth-LOC	‘in the booth’ (< ptg <i>barraca</i> )
<b>m̄-ma-átsi-ni</b>	18-6-water-LOC	‘in the water’
<b>ŋ-kaláwá-ni</b>	18-boat-LOC	‘in the boat’
<b>ŋ-karáfâ-ni</b>	18-jar-LOC	‘in the bottle’ (< ptg <i>garrafa</i> )

without *-ni*

<b>wa-kisírwa</b>	16-island	‘on the island’
<b>wa-nkhóra</b>	16-door	‘at the door’
<b>o-puúsu</b>	17-well	‘to the well’ (< ptg <i>poço</i> )
<b>o-patsári</b>	17-market	‘at the market’
<b>o-sitáti</b>	17-city	‘in town’ (< ptg <i>cidade</i> )
<b>o-khattéya</b>	17-prison	‘in jail’ (< ptg <i>cadeia</i> )
<b>m̄-piróthi</b>	18-veranda	‘in the veranda’
<b>m̄-parása</b>	18-fortress	‘in the fortress’ (< ptg <i>praça</i> )
<b>ŋ-kwaártu</b>	18-room	‘in the room’ (< ptg <i>quarto</i> )
<b>ŋ-loóca</b>	18-shop	‘in the shop’ (< ptg <i>loja</i> )

*Place names:*

<b>wa-Ámpúla</b>	16-Nampula	‘in Nampula’
<b>o-Nakhála</b>	17-Nacala	‘to Nacala’
<b>o-Maláwi</b>	17-Malawi	‘to Malawi’

Third, no noun in P30 languages can bear the locative suffix without any locative prefix. This means that Cuwabo or Makhuwa borrowed the (productive) suffix. This pattern is different from other North Mozambican languages like Koti (24) and Makwe (25), which have in their lexicon a few nouns with a non-productive suffix **-ni**.

- (24) Koti (P311, N.Mozambique) (Schadeberg & Mucanheia 2000: 44)
- |            |           |               |                        |
|------------|-----------|---------------|------------------------|
| kaxikázini | ‘north’   | (cf. kaxikázi | ‘wind from the north’) |
| kusini     | ‘south’   | (cf. kuusi    | ‘wind from the south’) |
| pephoni    | ‘heaven’  | (cf. peepho   | ‘good deeds’)          |
| pinkuni    | ‘heaven’  | (cf. pinku    | ‘sky’)                 |
| motthoni   | ‘hell’    | (cf. moottho  | ‘fire’)                |
| phwaani    | ‘seaside’ | (cf. ovwa     | ‘to ebb’)              |
- (25) Makwe (G402, North Mozambique) (Devos 2008: 68)
- |                    |                       |
|--------------------|-----------------------|
| luwááni (cl.11)    | ‘courtyard’           |
| coóoni (cl.7)      | ‘toilet’              |
| mwáani (cl.9)      | ‘coast’               |
| sokóoni (cl.9/10a) | ‘market’              |
| kilimáani (cl.7)   | ‘higher part of town’ |
| pepóoni (cl.9)     | ‘sky’                 |

Whilst locative nouns in Koti are prefixless, in Makwe, the addition of a locative prefix is possible with several of the nouns listed above. It is very likely that Makwe and Koti borrowed (probably from Swahili) the word as a whole, not the suffix, hence its lack of productivity. In Cuwabo and Makhuwa, in addition to locative prefixation, **-ni** suffixation has become obligatory with certain nouns, while in a few cases, it remains optional. This is seen in Cuwabo with the noun **pápóoro** ‘boat’ (from Portuguese *vapor*), for which both locative forms (with or without **-ni**) are attested, as shown in (26). The same happens with the Makhuwa noun **mátta** ‘field’, as illustrated in (27).

- (26) Cuwabo
- |                      |            |    |                        |                   |
|----------------------|------------|----|------------------------|-------------------|
| <b>mu-papóoro-ni</b> | múpúle     | OR | múpúle                 | <b>mu-pápóoro</b> |
| 18-1a.boat-LOC       | 18.DEM.III |    | 18.DEM.III             | 18-1a.boat        |
| ‘into that boat’     |            |    | ‘in there in the boat’ |                   |
- (27) Makhuwa
- |                   |    |                |
|-------------------|----|----------------|
| <b>m-máttá-ni</b> | OR | <b>m-mátta</b> |
| 18-field-LOC      |    | 18-field       |
| ‘in the field’    |    | ‘in the field’ |

The conditioning for this apparent variability is difficult to account for. The semantic load of the derived words may play a role in determining the addition of the locative suffix: a word inherently locative may not be required to carry more locative information, and vice versa. Another lead would consist in tracking the different pragmatic situations in which the locative phrases occur, so that some dynamic considerations may also possibly be taken into account. These are research directions to be further explored.

## 2. Agreement of dependent nominals

In addition to the locative morphology of nouns, the question of agreement with locative nouns is also very interesting from a cross-linguistic point of view. The question that arises then is whether dependent nominals such as possessives, demonstratives, connectives, etc., show agreement with the original noun class, the locative noun class, or both.

### 2.1 In Bantu

In many Bantu languages, locative nouns are analyzed as being part of the noun class system, in which case locative morphology is projected on the dependent constituents, as illustrated in Bemba (28) and in Chewa (29).

(28) Bemba (Kula 2012: 436 and p.c.)

- a. **pà-mù-shí** **pà-lyá**  
16-3-village 16-DEM  
'at that village'
- b. **kú-mù-shí** **kù-lyá**  
17-3-village 17-DEM  
'to that village'
- c. **mù-mù-shí** **mù-lyá**  
18-3-village 18-DEM  
'in that village'

(29) Chewa (N31, Malawi/Zambia/Mozambique) (Mchombo 2004: 5-7)

- a. **pa-m-pando** **pa-ánga**  
16-3-chair 16-POSS1SG  
'on my chair'
- b. **ku-mu-dzi** **kw-ánu**  
17-3-village 17-POSS.2SG  
'at your village'

This agreement may be referred to as 'outer' agreement (Marten 2012), as it takes place with the added locative prefix and not with the inherent noun class prefix. In the languages which have lost the three historical locative class prefixes in nominal morphology and use instead the suffix -(i)ni, the three-way distinction may still be obtained on modifiers. This is usually the case in languages from zone G (Grégoire 1975: 69), such as Bondei, as illustrated in (30).

(30) Bondei (G24, North-East Tanzania) (Grégoire 1975: 69)

- a. **nyumba-ni** **ha-ngu**  
9.house-LOC 16-POSS.1SG  
'at my house'
- b. **nyumba-ni** **kwa-ngu**  
9.house-LOC 17-POSS.1SG  
'to my house'

- c. nyumba-**ni**            **mwa**-ngu  
 9.house-LOC        **18**-POSS.1SG  
 ‘in my house’

In contrast, in Swati, locative nouns have been analyzed as being no longer part of the noun class system, but rather as heading prepositional phrases (Marten 2010). As a result, the modifier does not display locative agreement, but ‘inner’ agreement with the inherent noun class prefix.

- (31) Swati (Marten 2010: 257)
- |           |            |   |                     |            |
|-----------|------------|---|---------------------|------------|
| ba-fana   | b-ami      | → | ku- <b>ba</b> -fana | b-ami      |
| 2-boy     | 2-POSS.1SG |   | LOC-2-boy           | 2-POSS.1SG |
| ‘my boys’ |            |   | ‘at my boys’        |            |

Between these two edges of the spectrum, there are intermediate systems which allow both outer and inner agreement on the modifiers. It is the case in Ganda, as illustrated in (32) with possessive modifiers. These two different patterns in Ganda are analyzed by Marten (2012) through two different syntactic configurations, in which “inner agreement signals a local relationship with the head of the noun phrase, while outer agreement signals a local relationship with the head of the locative phrase” (Marten 2012: 439). Thus in (32b) the possessive is restricted to the noun **kyalo** ‘village’, whereas in (32a), it applies to the entire locative phrase. This variation seems to lead to slightly interpretative differences, seemingly associated with emphasis (see Marten 2012 for further details).

- (32) Ganda (Grégoire 1975: 82)
- |                                      |                                    |
|--------------------------------------|------------------------------------|
| a. Outer agreement                   | b. Inner agreement                 |
| <b>ku</b> -bbalaza <b>kw</b> -ange   | ku- <b>ky</b> -alo <b>ky</b> -ange |
| <b>17</b> -9.courtyard <b>17</b> -my | 17-7-village    7-my               |
| ‘on my courtyard’                    | ‘at my village’                    |

Kagulu is another language in which modifiers can take either the locative agreement (33a) or the inherent noun class prefixes (33b).

- (33) Kagulu (Petzell 2008: 75)
- |  |  |
|--|--|
| a. <b>mu</b> -ḡ-keka <b>mu</b> -dodogi | <b>mu</b> -kaya    u- <b>mw</b> -ako           |
| <b>18</b> -3-mat <b>18</b> -small      | <b>18</b> -9.house    AUG- <b>18</b> -POSS.2SG |
| ‘on the small mat’                     | ‘in your house’                                |
| b. mu-ḡ-gunda    u-no                  | mu-kaya    y-ako                               |
| 18-3-farm    3-DEM                     | 18-9.house    9-POSS.2SG                       |
| ‘on this farm’                         | ‘in your house’                                |

In Ngangela connective constructions headed by a locative expression, agreement may be either outer (34a) or in class 5<sup>10</sup> (34b).

10. More research is needed on this unexpected use of class 5, e.g. does the language recur to class 5 only in the case of non-locative agreement with a locative noun?

- (34) Ngangela (Maniacky 2003: 171, my glosses)
- |                    |   |
|--------------------|---|
| a. Outer agreement | b. Class 5 agreement                                      |
| <b>ku-mu-kúlo</b>  | <b>wá-njivo</b> <b>ku-lú-twe</b> <b>lyá-njivo</b>         |
| <b>17-3-side</b>   | <b>17.CON-house</b> <b>17-11-front</b> <b>5.CON-house</b> |
| ‘along the house’  | ‘in front of the house’                                   |

The two possible patterns found in Kagulu and Ngangela above, seem to occur without any apparent conditioning for their distribution, although further research on this question would be desirable for comparative purposes with Ganda (32).

## 2.2 In P30

Regarding Cuwabo and Makhuwa, in most cases, the modifier agrees with the locative noun class, and not the inherent class of the noun. This outer agreement is illustrated with the possessives (35-36), the demonstratives (37-38), and the adjectives (39).

- (35) Cuwabo
- |                                       |
|---------------------------------------|
| a. <b>va-tákúlu</b> <b>vá-awa</b>     |
| <b>16-9a.house</b> <b>16-POSS.3PL</b> |
| ‘at their home’                       |
| b. <b>o-sogólró</b> <b>o-aye</b>      |
| <b>17-front</b> <b>17-POSS.3SG</b>    |
| ‘in front of her’                     |
| c. <b>m̄-má-tákulu</b> <b>mú-áwa</b>  |
| <b>18-6-home</b> <b>18-POSS.3PL</b>   |
| ‘in their houses’                     |
- (36) Makhuwa
- |   |
|---|
| a. <b>wa-peétó</b> <b>w-áwe</b>           |
| <b>16-chest</b> <b>16-POSS.3SG</b>        |
| ‘towards his chest’                       |
| b. <b>wa-puwá-ní</b> <b>w-áú</b>          |
| <b>16-compound-LOC</b> <b>16-POSS.2SG</b> |
| ‘in your garden’                          |
| c. <b>o-wány’</b> <b>áka</b>              |
| <b>17-home</b> <b>17.POSS.1SG</b>         |
| ‘at my home’                              |
- (37) Cuwabo
- |                                     |
|-------------------------------------|
| a. <b>va-tákúlu</b> <b>á-pa</b>     |
| <b>16-9a.house</b> <b>16-DEM.I</b>  |
| ‘at this house’                     |
| b. <b>o-ttolo-ni</b> <b>ó-kó</b>    |
| <b>17-well=LOC</b> <b>17-DEM.II</b> |
| ‘at that well’                      |

## (38) Makhuwa

- a. **wa-ŋ-tháli-ní**      **vá**  
**16-3-tree-LOC**      **16.DEM.I**  
 ‘at this tree’
- b. **o-Nghípiti**      **ŋno**  
**17-Ilha**      **17.DEM.I**  
 ‘on (this) Ilha<sup>11</sup>’
- c. **ŋ-karáfá-ni**      **mwe**  
**18-jar-LOC**      **18.DEM.III**  
 ‘in that jar’

(39) Cuwabo<sup>12</sup>

- a. **o-láb-a**      **vógó**      **va-déréétú**  
 INF-work-FV      **16.place**      **16-good**  
 ‘work in a good place’
- b. ... [**a-á-lígi**      **va-déréétú**]<sub>REL</sub>  
 SM2-PST.IPFV-be.HAB      **16-good**  
 ‘...who were in a comfortable place’ (lit. ‘[in] somewhere-nice’)

In all these cases, the locative morpheme functions as the head of the locative phrase in terms of agreement.

Regarding locative nouns embedded in connective constructions, Makhuwa also respects outer agreement, as shown in (40).

## (40) Makhuwa

- a. **wa-ŋ-khórá-ní**      **wa**      **e-núpa**  
**16-3-door-LOC**      **16.CON**      **9-house**  
 ‘at the door of the house’
- b. **m̄-ma-parara-ni**      **ma**      **e-sikatta**  
**18-6-side-LOC**      **18.CON**      **9-stairs**  
 ‘on the side of the stairs’

However, the situation is a bit more complex in Cuwabo, where the distinction is made between unique agreement and inner agreement. Unique<sup>13</sup> locative agreement on connectives occurs when the locative form of the head noun carries inherently the locative prefix, i.e. in the case of primary or underived locative nouns, which have no counterpart in another noun class, as in (41).

## (41) Cuwabo

- a. **vaárí**      **va**      **e-íkó**  
**16.middle**      **16.CON**      **9-river**  
 ‘at the middle of the river’

11. *Ilha* is the name of an island in Mozambique.

12. No similar example was found in Makhuwa-Enahara.

13. In (39), the locative agreement with connectives cannot really be referred to as outer locative agreement as there is no inner prefix to agree with.

- b. **odhúlú wa mu-yére**  
**17.top 17.CON 3-tree.sp**  
 ‘to the top of the *muyére* tree’
- c. **mwaárí mwa má-ttádda**  
**18.inside 18.CON 6-lake**  
 ‘inside the lakes’ (elic.)
- d. **ṛbá mwa ṛ-mááni**  
**18.home 18.CON 1-my.mother**  
 ‘into my mother’s house’

However, in connective constructions headed by derivational locative phrases, i.e. made of a locative pre-prefix, a noun class prefix and a stem, the connective relator does not agree with the locative class, but with the inherent noun class of the head constituent (42).

(42) Cuwabo

- a. **o-mí-zéréré-ni dha ddímíngu**  
**17-4-ceremony-LOC 4.CON 9a.Sunday**  
 ‘at Sunday’s ceremony’
- b. **mu-sidádi ya o-Maputo**  
**18-9a.city 9.CON 17-Maputo**  
 ‘in the city of Maputo’

In these examples, the locative markers can be reanalyzed as prepositions (or prepositional proclitics). This unusual behaviour is reminiscent of Ganda (32) and Kagulu (33), which display outer as well as inner agreement, but with no apparent morphological conditioning as in Cuwabo. It is also similar to Swati (31), except that in Swati, such a reanalysis is systematic.

Note that **vatákúlu** ‘at home’ constitutes an exception to examples in (42). Since this noun phrase is built upon class 9a **tákúlu**, an inner agreement in class 9 is expected. But instead, it functions as an inherent locative noun, thus implying locative agreement, as shown in (43).

(43) Cuwabo

- va-tákúlu va á-báabe**  
**16-9a.house 16.CON 2-parent**  
 ‘at the parents’ house’

This may indicate that **vatákúlu** has achieved the final step of locative derivation, and must synchronically be considered as an inherent locative noun, rather than a derived locative noun. The fact that the basic stem **tákúlu** ‘home, household’ is rarely attested in my data would support this hypothesis.

### 3. Locative verbal marking

Locative morphology is not only found in the nominal domain: it also occurs in the verbal domain, through both subject and object agreement morphology.

#### 3.1 In Bantu

Bantu languages which are characterized by the historical three-way distinction of their locative nominal morphology normally have corresponding locative marking on their verb forms. Examples from Kagulu, Chewa and Ngangela are provided below.

- (44) Kagulu (Petzell 2008: 75)  
**ku-m-lomo ku-fimb-a ku-gati**  
 17-3-mouth SM17-swell-FV 17-inside  
 ‘the mouth has swollen inside’

- (45) Chewa (Mchombo 2004: 5)  
**ku-mu-dzi kw-ánu kú-ma-sangaláts-á a-lěndo**  
 17-3-village 17-POSS2SG SM17-HAB-please-FV 2-visitor  
 ‘your village pleases visitors’

- (46) Ngangela (Maniacky 2003: 35, my glosses)
- ho nji-liku-koθ-á ha-túmbal-a**  
 16.place 1SG-PRS.PROG-sleep-FV SM16.EFF-be.clean-FV  
 ‘the place where I sleep is clean’
  - kwinti lyá-njivó kwa-túmbal-a**  
 17.ground 5.CON-9-house SM17.EFF-be.clean-FV  
 ‘the ground of the house is clean’
  - mwilú mu-liku-ðivál-a**  
 18.sky SM18-PRS.PROG-darken-FV  
 ‘the sky gets darkened’

In languages which have lost one or two of the three locative prefixes in the nominal domain, the corresponding agreement morphology on the verb tends to be reduced to the actual number of locative prefixes still attested with nouns. Kikuyu, which productively forms locative nouns by the suffixation of **-ini** (see section 1.1), also has one nominal stem **-ndũ** ‘place’ which takes class 16 prefix when it is a specific place, and class 17 prefix for a more general place, e.g. a locality or a district (Barlow 1960: 26). Both these nouns trigger locative agreement in classes 16 and 17 on every depending constituent, including subject marking on verbs, as illustrated in (47).

- (47) Kikuyu (E51, Kenya) (Githiora, p.c.)
- ha-ndũ ha-aha ha-rend-a kũ-rĩm-w-o**  
 16-place 16-DEM.I SM16-want-FV 15-cultivate-PASS-FV  
 ‘this (specific) place wants/needs to be cultivated’

- b. **kū-ndū**      **gū-ūkū**      **kū-rend-a**      **kū-rīm-w-o**  
 17-place      17-DEM.I      SM17-want-FV      15-cultivate-PASS-FV  
 ‘this (general) place wants/needs to be cultivated’

Finally, Southern Bantu languages have an invariable subject marker of class 17 **ku-**, which is used in most cases as the default or expletive subject marker<sup>14</sup>. This is first illustrated with Swati. In (48a), the preverbal locative noun **endlini** combines a double locative marking **e...-ini**. In (48b), the preverbal locative noun **phandle** is built upon a class 16 prefix which has since then lexicalized. Unlike Kagulu, Chewa and Ngangela illustrated above, the preverbal position of these locative noun phrases does not confer them the status of grammatical subjects: in no case does the verb show agreement with the head noun, i.e. in class 25 and in class 16, respectively. Instead, an expletive class 17 subject prefix is used, suggesting that these constructions are better analyzed as impersonal constructions in the same way as (48c). The preverbal locative assumes the function of a frame setting adjunct. It is thus syntactically peripheral.

(48) Swati (Marten 2010: 255-256, 262)

- a. **e-n-dl-ini**      **ku-ya-shish-a**  
 LOC(25)-9-house-LOC      SM17-PRS-be.hot-FV  
 ‘in the house it is hot’
- b. **phandle**      **ku-ya-bandz-a**  
 16.outside      SM17-PRS-be.cold-FV  
 ‘outside it is cold’
- c. **ku-ne-kudla**      **e-dladla-ini**  
 SM17-POSS.COP-food      LOC-kitchen-LOC  
 ‘there is food in the kitchen’

The expletive use of class 17 is widely attested in Southern Bantu. Other examples are provided for Tswana (49) and for Southern Sotho (50).

(49) Tswana (Creissels 2011: 49/42)

- a. Mo mafatsheng a mangwe go a berekwa  
 mó      mà-fátshí-ŋ      á      mà-ŋwí      χó-à-bérék-w-à  
 there<sub>3</sub>      6-country-LOC      6.CON      6-other      SM17-DJ-work-PASS-FV  
 ‘In the other countries people work’ (lit. ‘there is worked’)

14. Note that there are still a few class 17 nouns, such as χù-lò ‘place’ in Tswana, which trigger class 17 agreement on the verb, as illustrated in the two following examples (a) and (b), kindly provided by Denis Creissels (p.c.).

- a. *Golo ga go itsiwe.*  
 χù-lò      χà-χó-its-ì-w-ì  
 17-place      NEG-SM17-know-PASS-FV  
 ‘The place is not known.’
- b. *Ke a go itse.*  
 kì-à-χó-its-ì  
 SM1SG-DJ-OM17-know-FV  
 ‘I know it (the place).’

b. Go opela basadi.

χό-ópél-á      bà-sádi  
 SM17-sing-FV    2-woman  
 ‘There are women singing.’ (lit. ‘there sing women’)

(50) Southern Sotho      (Machobane 1995:122, quoted in Creissels 2011: 48)

Táfolé-ng      hó-i-pény-ets-a      fééla.  
 (9)table-LOC    SM17-REFL-shine-APPL-FV    only  
 ‘The table shines on its own.’  
 (lit. ‘On [the top of] the table shines on its own’)

Note that class 17 locative marker **ku-** is also recurrently used as an expletive marker in languages characterized by a more typical locative system, such as Bemba or Swahili (Marten 2010: 256). However, this development from locative semantics to an expletive function, analyzed as a grammaticalization path (Heine and Kuteva 2002), has reached a further stage in Southern Bantu languages, since class 17 subject prefix has lost its locative meaning and specialized toward an expletive function (Marten 2010, Buell 2012).

Verbs in typical Bantu languages may also host locative object markers, either in the form of prefixes, as in Sambia (51), Makwe (52), and Chewa (53), or enclitics, as in Haya (54).

(51) Sambia (G23, North Tanzania)      (Riedel 2007: 200)  
 ŋ-za-**ha**-chi-m-nhk-a      Stella ki-tabu    ha-ja  
 SM1SG-PFV.DJ-**OM16**-OM7-OM1-give-fv    Stella 7-book    16-DEM  
 ‘I gave Stella a book there’

(52) Makwe      (Devos 2008: 64)  
 pakayá páake| ŋnapamaáya|  
 pa-kaya      pa-ake      ni-na-**pa**-may-a  
 16-9.town    16-POSS1    SM1SG-PRS.IPFV-**OM16**-know-FV  
 ‘her/his home, I know where it is’

(53) Chewa      (Alsina & Mchombo 1993: 42)  
 a-lénje    a-ku-**pá**-lúk-ir-á      mí-kêka (pa-m-chénga)  
 2-hunter    SM2-PRS-**OM16**-weave-APPL-FV    4-mat    16-3-sand  
 ‘the hunters are weaving mats on it, the beach’

(54) Haya (JE22, North-West Tanzania)      (Rubanza 1988: 117, my glosses)  
 tu-lika-gi-mu-ba-chumb-il-il-a = **mu**<sup>15</sup>  
 SM1PL-REM.FUT-OM9-OM1-OM2-cook-APPL-APPL-FV=**LOC18**  
 ‘We will cook him in it [the pot] on their behalf.’

In Bemba, both locative prefixes (55a) and locative enclitics (55b) are possible. The second marker seems to be obligatorily required when the

15. As an anonymous reviewer observed, if OM9 **-gi-** is considered to refer to ‘the pot’ in which the food will be cooked, it could be inferred that the locative enclitic is not really an object suffix, but that it adds a locative semantic component to the sentence. At any rate, more information on the context would be needed here to fully account for the use of the locative enclitic in this example.

locative phrase (here **mungânda** ‘in the house’) is dislocated to the left-periphery. The absence of =**mó** in (55b) would lead to ungrammaticality. Also, the enclitic =**mó** cannot be substituted by the class 18 object marker **-mu-**, as shown in (55c).

(55) Bemba

- a. n-âli-pà-món-à (Marten et al. 2007: 291)  
SM1SG-PST-**OM16**-see-FV  
‘I saw it (i.e. that place there)’
- b. mu-ŋ-gânda bá-âlí-séndam-a = **mó** (ku mu-mbúulu)  
18-9-house SM2-PST-sleep-FV=**LOC18** by 3-wild.dog  
‘In the house the dog slept there.’  
(‘The house was slept in by the dog.’) (Kula & Marten 2010: 126)
- c. \*mu-n-gânda bá-âlí-**mu**-séndam-a (ku mu-mbúulu)  
18-9-house SM2-PST-**OM18**-sleep-FV by 3-wild.dog  
Intended: ‘In the house the dog slept there.’ (Nancy Kula, p.c.)

However, in a certain number of Bantu languages (*e.g.* in Lozi, Ciruri and Chasu, see Marten *et al.* 2007), the slot for object marking has been restricted to non-locative noun class constituents, thus excluding classes 16 to 18. This process of locative marking reduction obtains in Swati, whose verbal morphology only tolerates non-locative objects, as shown in example (56). In (56a), both speaker and listener are aware that a dog (**inja**, class 10) is being referred to through the class 10 object marker. The right-dislocated topic noun **inja** can thus be interpreted as an afterthought. The sentence is grammatical and makes perfect sense within a context involving the discussion of a dog. However, the equivalent construction with a locative noun phrase is ungrammatical, as shown in (56b), where **ngakubona** has no locative meaning. Instead, **-ku-**<sup>16</sup> can only be interpreted here as a second person singular object marker. The postverbal locative noun phrase **eThekwini** ‘in/at Durban’ is considered as an adjunct, and not as an afterthought.

(56) Swati

- a. ng-a-**yi**-bon-a kahle (in-ja) (Marten 2010: 261)  
SM1SG-PST-**OM10**-see-FV well 10-dog  
‘I saw it well, the dog’
- b. ng-a-**ku**-bon-a (e-Thekw-ini) (Peter Nichols, p.c.)  
i) SM1SG-PST-**\*OM17**-see-FV LOC-Durban-LOC  
Intended: ‘I saw there (Durban)’  
ii) SM1SG-PST-**OM2SG**-see-FV LOC-Durban-LOC  
‘I saw you (in Durban)’

16. For an illustration of the locative use of **ku** in Swati, see above (6) and (7).



- b. ka-**va**-gaa-j-úw-e  
 NEG-SM16-HYP-eat-PASS-PFV  
 ‘there would be no food at home’

The role of locative subject agreement markers will be further discussed in Section 4, together with relative constructions, and Section 5, which discusses locative inversion constructions.

Regarding object prefixing on the verb, in both Cuwabo and Makhuwa, it is restricted to class 1 and class 2<sup>17</sup>. This situation contrasts with typical Bantu systems, in which object agreement is possible with every noun class, including locative classes. As a result, locative object prefixes do not exist in P30 languages.

However, in Cuwabo, there are three resumptive locative enclitics, =**vo** (class 16), =**wo** (class 17), and =**mo** (class 18). These locative clitics are very frequent in the language. They can pronominalize a locative argument which has previously been mentioned, and thus function as anaphoric locative objects, as shown in (61).

- (61) o-Maputo ddi-ni-ó-zíw-a = **wo**  
 17-Maputo SM1SG-IPFV.DJ-INF-know-FV=LOC17  
 ‘Maputo, I know it’, lit.: ‘In Maputo, I know it there’

But most often, the locative enclitics assume a function of anaphoric locative adjunct, i.e. they refer to semantic locatives. For instance, in (62), the class 18 enclitic =**mo** refers to **mba** ‘inside, at home’.

- (62) o-hí-vólów-a [mba,] o-hi-fúgúl-a = **mo**<sub>i</sub>  
 SM1-PFV.DJ-enter-FV 18.inside SM1-PFV.DJ-open-FV=LOC18  
 níngá de koštúmi  
 as always  
 ‘he entered the house, he opened in there as always’

Because of this anaphoric function, the locative enclitics cannot co-occur with an in situ locative phrase (unless the locative phrase is right-dislocated and thus interpreted as an afterthought).

- (63) \*á-léddo a-hí-dh-á = **mo** mu-mú-rúdda = ni  
 2-guest SM2-PFV.DJ-come-FV=LOC18 18-3-village=LOC  
 \*‘the guests arrived into the village’

They obligatorily appear when the locative phrase is dislocated to the left-periphery, which is reminiscent of Bemba, illustrated above in (55b).

- (64) [va-ttóló = ní] ma-ánjé a-hí-ínjív-â = **vo**  
 16-well=LOC 6-water SM6-PFV.DJ-abound-FV=LOC16  
 ‘in the well, there is a lot of water (there)’

However, they are prohibited in locative inversion constructions (see Section 5 below). This is in fact expected, since the headed locative

17. These class 1/2 object prefixes are best considered agreement markers rather than pronouns.

expression assumes a subject position and thus triggers subject agreement on the verb.

- (65) \**[o-ttóló = ni ókúle] o-hi-kálá = wo fólóóri*  
 17-well=LOC 17.DEM.III SM17-PFV.DJ-be=LOC17 9a.flower  
 \*lit.: ‘at that well there is (there) a flower’

#### 4. Locative relatives

##### 4.1 In Bantu

In typical locative systems, it is expected that locative phrases are relativized in the same way as non-locative phrases. Consider for instance relative constructions in Makwe and in Kagulu. In Makwe, non-subject relatives are built upon the connective particle **-a-** in verbal pre-initial position. This connective particle is preceded by the relevant noun class prefix, which is co-indexed with the antecedent noun phrase, as can be seen in (66a). The same strategy is used to form locative relatives in (66b). In both examples, the subject always controls the agreement on the verb, and occupies a post-verbal position, when overtly expressed, as in (66b).

- (66) Makwe (Devos 2008: 394-396)

- a. *vi<sub>i</sub>-ínu | vy<sub>i</sub>-á-á-yúm-íite |*  
**8-thing 8-CON-SM1-buy-PRS.PFV.REL**  
 ‘the things that s/he has bought’
- b. *kunyéenje | kajípee | jing’úunde |*  
**ku<sub>i</sub>-nyenje ku<sub>i</sub>-a-ji<sub>k</sub>-p-a-ile ji<sub>k</sub>-ng’unde**  
**17-side 17-CON-SM10-give-FV-PRS.PFV.REL 10-bean**  
 ‘at the side where the beans grow’

Non-subject relatives in Kagulu are marked by a referential marker **-o-** preceded by an initial prefix, which also agrees with the head noun phrase. This strategy is shared by both object relatives (67a) and locative relatives (67b).

- (67) Kagulu (Petzell 2008: 189, my glosses)

- a. *isimbeyu sochikuhanda*  
*i-si<sub>i</sub>-mbeyu si<sub>i</sub>-o-chi-ku-hand-a*  
**AUG-10-seed 10-REF-SM1PL-PRS-plant-FV**  
 ‘the seeds which we are planting’
- b. *kugati no kodyekigwe*  
**ku<sub>i</sub>-gati no ku<sub>i</sub>-o-di-wek-igw-e**  
**17-there COP 17-REF-SM5-be.put-PASS-PFV**  
 ‘there where it (cl.5) was put’

Again, Swati differs from the regular patterns just discussed. Swati locative relatives are marked by an invariable relative marker **la-** prefixed to a locative formative **-pho**, considered as a derived form of class 16

marker **pa-** (Marten 2010). In addition, an optional resumptive demonstrative (here **khona** ‘there’) follows the verb. An example is provided in (68a). In contrast, in non-locative relatives, **la-** is prefixed to the verb, and the head noun is co-referred on the verb, either by the subject marker (in subject relatives) or by the object marker (in object relatives). The second configuration is illustrated in (68b).

(68) Swati (Marten 2010: 263)

- a. ku-se-khaya<sub>i</sub>      la-**pho**<sub>i</sub>      ba-fana      ba-to-nats-a  
 FOC.17-7-home    REL-LOC    2-boy      SM2-FUT-drink-FV  
 tjwala            khona<sub>i</sub>  
 14.alcohol      there  
 ‘it is at home where the boys will drink alcohol’
- b. tjwala<sub>i</sub>,              ba-fana      la-ba-to-bu<sub>i</sub>-nats-a  
 FOC.14.alcohol    2-boy      REL-SM2-FUT-OM14-drink-FV  
 ‘it is alcohol which the boys will drink’

#### 4.2 In P30

Cuwabo and Makhuwa exhibit a relativization strategy, also attested in certain North-Western Bantu languages (Nsuka Nkutsi 1982), in which there is no segmental relative marker<sup>18</sup> and the agreement on the verbal slot dedicated to subject marking is always triggered by the head noun, even in non-subject relatives. Thus, the subject markers **dhi-** in (69b) and **e-** in (70b) agree in class with their non-subject antecedent **bírińku** ‘earrings’ and **enúpá** ‘house’, respectively. Another salient property defining non-subject relatives is the postverbal position of the subject noun phrase (italicized in the examples below), and its lack of control over verb agreement mechanism.

(69) Cuwabo

- a. ddi    *íyeéne*<sub>i</sub>    [*o*<sub>i</sub>-á-on-á = vo]<sub>REL</sub>                      baáhi  
 COP1    3SG.PRO    SM1-PST.IPFV-see-FV.REL=LOC16    only  
 ‘he was the only one to see’, LIT.: ‘he was he (who) saw only’
- b. *bírińku*<sub>i</sub>,      ési              [*dhi*<sub>i</sub>-ddi-gúl-el-ile                      wéyo]<sub>REL</sub>  
 10a.earring    10.DEM.I    SM10-OM1SG-buy-APPL-PFV.REL    2SG.PRO  
 ‘these earrings you bought me’

(70) Makhuwa

- a. *ń-lopwana*<sub>i</sub>    [*o*<sub>i</sub>-ń-thikil-a]<sub>REL</sub>  
 1-man            SM1-PRS-cut-FV.REL  
 ‘the man who is cutting’
- b. *e-núpá*<sub>i</sub>    [*e*<sub>i</sub>-tek-ale              Hasaani]<sub>REL</sub>  
 9-house    SM9-build-PFV.REL    1.Hasan  
 ‘the house that Hasan has built’

18. As a consequence of the absence of a segmental relative marker, in the following examples, the relativized verb forms are glossed with the abbreviation .REL following the final suffix of the verb.



examples from Bemba (73), Herero (74), and Makwe (75), which represent regular locative systems.

(73) Bemba (Marten *et al.* 2007: 277)

- a. **kú**-mwèsù      **kwà**-lí-ìs-à      áb-èni  
 17-home.our      SM17-REC.PST-come-FV      2-guest  
 ‘Visitors have come to our home’
- b. **mw**-ì-bálá      **mù**-lè-lím-à      áb-èni  
 18-5-field SM18-PROG-cultivate-FV      2-guest  
 ‘Visitors are farming the field’

(74) Herero (Marten 2006: 113)

- a. **pò**-ndjúwó      **p**-á-rár-á      é-rúngá  
 16-9.house      SM16-PST-sleep-FV      5-thief  
 ‘A/the thief slept at the house’ (lit.: ‘at the house slept a/the thief’)
- b. **kò**-mù-tí      **kw**-á-pósé      òzó-ndjimá  
 17-3-tree      SM17-PST-make.noise      10-baboon  
 ‘The baboons made noise in the tree’  
 (lit.: ‘in the tree made noise (the) baboons’)
- c. **mò**-ndùndú      **mw**-á-váz-éw-á      ómu-àtjé  
 18-9.mountain      SM18-PST-find-PASS-FV      1-child  
 ‘A/the child was found on the mountain’  
 (lit.: ‘on the mountain was found a/the child’)

(75) Makwe (Devos 2008: 69-70)

- a. pacilóonda| paníúuma| uwííla|  
**pa**<sub>i</sub>-ci-londa      **pa**<sub>i</sub>-ni-um-a      u-wila  
 16-7-wound      SM16-PRS.PFV-come.out-FV      11-pus  
 ‘There is pus coming out of the wound.’
- b. kukáaya| kuuyá| kupatikene átáali|  
**ku**<sub>i</sub>-kaya      ku-ya      **ku**<sub>i</sub>-patiken-e      atali  
 17-9.town      17.DEM.III      SM17-occur-PRS.PFV      9.danger  
 ‘In that town something dangerous happened.’
- c. ñnyúumba| munkúingílá méedi|  
**mu**<sub>i</sub>-nyumba      **mu**<sub>i</sub>-nku-ingil-a      ma-edi  
 18-9.house      SM18-PROG-enter-FV      6-water  
 ‘There is water entering the house.’

Among Bantuist scholars, such reversed constructions are known as the locative inversion construction. Syntactically, locative nouns behave like other nouns, and function as subjects of verbs. Locative inversion is common across Bantu and has been reconstructed for Proto-Bantu. But again, Swati and other Southern languages do not conform to the typical Bantu picture. In these languages, clause initial locative noun phrases do not function as subjects, but rather as topics which set the frame. As a result, impersonal constructions are obtained, whereby the subject marker

slot is invariably filled by the default/expletive class 17 prefix, already discussed in section 3.1. The absence of locative inversion constructions is first illustrated with Swati (76) and Zulu (77). Note that in the second example, the locative prefix **ku-** attached to the demonstrative pronoun **-lezi** is syntactically neutral, i.e. it does not trigger any agreement. It is attached to any adnominal modifying a locative noun, and assumes a mere locative function in the same way as the suffix **-ini** found on nouns.

(76) Swati (Marten 2010: 262)

ku-le-ti-ndlu      ku-hlal-a      (khona)      ba-ntfu      la-ba-dzala  
 LOC-DEM-10-house      SM17-stay-FV      there      2-people      REL-2-old  
 ‘In these houses (there) live elderly people.’

(77) Zulu (Buell 2007: 113)

ku-lezi      zi-ndlu      ku-hlal-a      (khona)      aba-ntu      aba-dala  
 LOC-10these      10-house      SM17-stay-FV      there      2-people      2-old  
 ‘In these houses live old people.’

Tswana further illustrates the use of impersonal constructions in the same context. Following Creissels’ analysis (2011, this volume), **fá** in (78a), **kó** in (78b) and **mó** in (78c) are the reflexes of the Bantu demonstratives of classes 16, 17 and 18. Subject to some grammaticalization process, they evolved towards a status of prepositions, no longer involved in class agreement, hence their being glossed as ‘there<sub>1</sub>’, ‘there<sub>2</sub>’ and ‘there<sub>3</sub>’ (see Creissels 2011 for a more detailed discussion). In other words, they should be considered as locative deictic adverbs found at the left margin of locative expressions, rather than locative noun class prefixes as e.g. Demuth and Mmusi (1997) stated. Similarly to Nguni languages above, these preverbal locative noun phrases occupy a topic position at the left periphery of the clause; hence, no agreement applies.

(78) Tswana (Demuth & Mmusi 1997, tran. and glossed by Creissels 2011: 44)

a. Fa setlhareng go eme basimane.

fá      sí-t<sup>h</sup>àrí-ìj      χó-ém-í      bà-símàní  
 there<sub>1</sub>      7-tree-LOC      SM17-stand(PFV)-FV      2-boy  
 ‘By the tree stand the boys.’

b. Ko Maung go tlaa ya rona mariga.

kó      màúj      χó-tláá-j-à      róná      màríχà  
 there<sub>2</sub>      Maung      SM17-FUT-go-FV      1PL      winter  
 ‘To Maung we shall go in winter.’

c. Mo lefatsheng go fula dikgomo.

mó      ñ-fátshí-ìj      χó-fúl-á      dí-q<sup>h</sup>òmó  
 there<sub>3</sub>      5-country-LOC      SM17-graze-FV      10-cow  
 ‘In the country are grazing the cattle.’

Semantic locative inversion whereby the fronted expression denoting a place or a space does not bear any locative morphology, is attested in these three Southern languages. See Marten (2010) for Swati, Buell

(2007) for Zulu, and Demuth and Mmusi (1997) and Creissels (2011) for Tswana.

## 5.2 In P30

Unlike relative constructions, the question of locative inversion constitutes a big divide between P30 languages. Whereas this syntactic construction is fully productive in Cuwabo (79), it is considered ungrammatical in Makhuwa (80).

(79) Cuwabo<sup>19</sup>

- a. **va**<sub>i</sub>-ttóló-ní      **vâ**<sub>i</sub>-mel-ilé      foloóri  
 16-well-LOC      SM16-blossom-PFV.CJ      9a.flower.H1D  
 ‘At the well a flower blossomed.’
- b. **o**<sub>i</sub>-ttólo-ni      ó-kúle      **o**<sub>i</sub>-hi-kála      fúlóóri  
 17-well-LOC      17-DEM.III      SM17-PFV.DJ-be      9a.flower  
 ‘At that well, there is a flower.’
- c. **m̂**-púle      **mu**<sub>i</sub>-bara      **mu**<sub>i</sub>-hi-kálá      mw-áná-e-námá  
 18-DEM.III      18-9a.sea      SM18-PFV.DJ-be      1-child-9-animal  
 ‘There in the sea, there is an animal.’<sup>20</sup>

(80) Makhuwa

- a. \***wa**-kisírwá      **wa**-náá-phíy-á      a-létto  
 16-island      SM16-PRS.DJ-arrive-FV      2-guest  
 Intended: ‘on the island arrive guests’
- b. **wa**-kisírwá      **a**<sub>i</sub>-náá-phíy-á      **a**<sub>i</sub>-létto  
 16-island      SM2-PRS.DJ-arrive-FV      2-guest  
 ‘On the island, arrive guests.’

As can be seen in (80a), there is no agreement between the verb and the preposed locative adjunct, i.e. Makhuwa cannot use locative subject agreement in verb-subject constructions. Instead, the subject marker agrees with the postverbal logical subject: aletto ‘guests’ as in (80b).

The same happens in (81a), where the subject marker on the verb cannot agree with a subjectivised locative argument of a passive verb.

(81) Makhuwa

- a. \***m̂**-poótíí-ní      **n̂**-núú-hél-íy-á      e-phepéle  
 18-jar-LOC      SM18-PFV.PERS-put-PASS-FV      9-fly  
 Intended: ‘in the jar was put a fly’

19. See Guérois (2014) for a detailed analysis of locative inversion constructions in Cuwabo.

20. The literal meaning of the gloss corresponding to the name ‘animal’ is ‘child animal’. In fact, in Cuwabo, the diminutive **mwáná** ‘child’ is also used to express the fact that the following entity is a member of a given semantic class or group. In this example (extracted from a narrative), the animal referred to is a big animal, namely a dugong (i.e. a member of the species ‘dugong’, NOT a ‘baby dugong’ or a ‘small dugong’).

- b. e-phepélé      e-núú-hél-íy-á      m-poótlí-ni  
 9-fly            SM9-PFV.PERS-put-PASS-FV 18-jar-LOC  
 ‘The fly was put in the jar.’

As in the Southern languages discussed above, the locative NP preceding the verb in Makhuwa cannot be considered as a core constituent. It should rather be analyzed as a frame setting adjunct (van der Wal 2009). However, unlike Southern Bantu languages, which in this context make use of the default class 17 prefix, the subject marker on the Makhuwa verb agrees with the postverbal subject, as already shown in (80b) above, and further illustrated in the ditransitive construction in (82).

- (82) Makhuwa  
 o-patsári      aa-hí-thúm’                      e-kútté      ñ-tthu  
 17-market      SM1.PST-PFV.DJ-buy      10-bean      1-person  
 ‘Someone bought beans at the market.’

### Summary

Throughout this paper, I have tried to show the extent to which Bantu languages can vary with respect to locative morphosyntax, with special attention to P30 languages, i.e. Cuwabo and Makhuwa. Table 2 resumes each parameter under examination in this paper, and compares the two Mozambican languages with two other Bantu languages located on the opposite edges of the locative system continuum in Bantu, i.e. Bemba and Swati. Bemba, on the leftmost column presents a typical Bantu locative system, which is fully part of the noun class system. In other words, locative nouns are essentially like other nouns in terms of morphology, agreement and syntactic behaviour. On the other hand, Swati, on the rightmost column, displays a re-analyzed locative system, in which preverbal locative phrases<sup>21</sup> are no longer coded as nouns but as prepositional phrases, which function as adjuncts rather than as arguments (see Marten 2010 for a detailed analysis of this ‘great locative shift’).

Morphologically, the locative system of both Cuwabo and Makhuwa is still part of the noun class system, i.e. locatives are overall coded as nouns. This is seen in Table 2 with the presence of the three historical nominal locative prefixes (parameter 1); the locative agreement on modifiers (parameter 6), with exception of the case of the non-locative agreement on the connective in Cuwabo; and the presence of the three locative subject markers (parameter 7).

21. While this is indeed the case that preverbal locative noun phrases in Southern Bantu languages are no longer core constituents of the sentence, there are still other contexts where the same locative noun phrases occur in argument positions, e.g. as the complement of an applicative verb.

*Table 2. Locative systems in Bemba (Bem.), Cuwabo (Cuw.), Makhuwa (Mak.) and Swati (Swa.)*

	Parameters	Bem.	Cuw.	Mak.	Swa.
1	Presence of three nominal locative prefixes	yes	yes	yes	no
2	Presence of class 25 locative prefix	no	no	no	yes
3	Presence of the locative suffix <b>-ni</b>	no	yes	yes	yes
4	Presence of both LOC. prefix (cl.16-18) + suffix <b>-ni</b>	no	yes	yes	no
5	Presence of both LOC. prefix <b>e-</b> (cl.25) + suffix <b>-ni</b>	no	no	no	yes
6	Locative agreement on modifiers	yes	yes/no	yes	no
7	Presence of three locative subject prefixes	yes	yes	yes	no
8	Presence of three locative object prefixes	yes	no	no	no
9	Presence of three locative enclitics	yes	yes	no	no
10	Identical relative marking strategy for locatives	yes	yes	yes	no
11	Agreeing locative marker in relatives	yes	yes	yes	no
12	Existence of formal locative inversion	yes	yes	no	no

A feature shared by the two languages, but otherwise rarely attested in Bantu, is the double-locative marking on nouns, involving both a locative prefix (**\*pà-**, **\*kù-**, **\*mù-**) and the locative suffix **-(i)ni** (parameter 4). In addition, both languages display a quite restricted object marking on the verb, which excludes all noun classes except classes 1/2, which means that this restriction does not apply to locative marking only. However, Cuwabo differs from Makhuwa in exhibiting three locative object enclitics (class 16 = **vo**, class 17 = **wo**, and class 18 = **mo**). In this respect, Cuwabo is closer to the prototypical Bantu locative systems (parameter 9).

From a morphosyntactic point of view, Cuwabo and Makhuwa are typically Bantu as far as relative constructions are concerned: first, relative marking strategy for locatives is not different from the other classes (parameter 10), and second, locative agreement is respected (parameter 11). However, the absence (and ungrammaticality) of locative

inversion constructions in Makhuwa (parameter 12) makes it deviate heavily from Cuwabo and other Bantu languages with a regular locative system.

To conclude, Cuwabo and Makhuwa present each in their own way intermediate stages of development from the Proto-Bantu locative system. On the continuum between a purely locative noun class system (such as Bemba) and a more prepositional locative system (such as Swati), it was shown that Cuwabo has retained more features from the Proto-Bantu locative system than Makhuwa. It remains to be seen whether the differences observed between the two languages are due to a divergence process (in which case Makhuwa would be more innovative), or other factors, such as language contact. A comparative study involving the locative systems of other North-Mozambican languages would be needed to shed further light on these results.

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## **Question Formation in !Gana, a Khoesan Language**

Rose M. Letsholor

### **Abstract**

!Gana is one of Botswana's indigenous languages. It belongs to the Western branch of the Central Khoesan group of languages. Not much is known about the syntax of this language, which is now facing extinction. This paper makes a contribution towards documenting !Gana by investigating question formation in this language. It specifically aims at answering to two questions, namely (a) What are the different question words that !Gana uses to form content questions? and (b) What positions do these question words occupy in this language? Regarding question (a), I show that !Gana has two basic forms used to produce content questions: *máá* - and *nùú* and that a third form, *hi-*, is used specifically in questions where the gender of the question personed is unknown. *Máá-* is the basic form corresponding to English argument question words 'who', 'which', 'whose' and 'whom' and it is also the basic form for the adjunct questions 'where', 'how' and 'when'. *Nùú* is the basic form corresponding to 'what' and 'why'. Regarding question (b), there are three main positions that question words can occupy in !Gana: (i) sentence initial, (ii) after subject, and (iii) after a fronted object in transitive or ditransitive structures. An interesting finding is that question words never occur in sentence final position in !Gana irrespective of whether the question word is an argument of the verb (subject, direct or indirect object) or an adjunct. This suggests that, in !Gana, the sentence-final position is not a focus position given that question words are treated in the literature as focused constituents.

### **Keywords**

Khoesan, SOV, flexible word order, adjunct/argument question word, PGN markers.

## Résumé

Le !gana est une langue autochtone du Botswana qui fait partie du groupe occidental du khoïsan central. La syntaxe du !gana, une langue désormais menacée d'extinction, reste encore largement méconnue. Cet article a pour objet de faire progresser la documentation du !gana en se concentrant sur les structures interrogatives attestées dans cette langue. On s'efforcera en particulier de répondre aux deux questions suivantes : (a) Quelles sont les différents interrogatifs utilisés par le !gana dans les interrogations partielles ?, et (b) Quelle position occupent ces interrogatifs dans la phrase !gana ? En ce qui concerne la question (a), je démontre que le !gana génère la plupart de ses interrogations partielles à partir de deux formes de base, *máá* - et *núú* ; par ailleurs, il existe une troisième forme, *hi-*, qui est utilisée uniquement dans les structures interrogatives où le locuteur ignore le genre de la personne à propos de laquelle il pose une question. La forme de base *máá-* correspond aux interrogatifs anglais 'who', 'which', 'whose' et 'whom' [français (à) *qui*, *quel*], et c'est aussi cette forme qui permet de produire les interrogatifs adverbiaux correspondant aux termes anglais 'where', 'how' et 'when' [français *comment*, *où*, *quand*]. La forme de base *núú* correspond, elle, aux interrogatifs anglais 'what' et 'why' [français *quoi/que* et *pourquoi*]. En ce qui concerne la question (b), j'ai trouvé que les interrogatifs peuvent occuper trois positions distinctes en !gana, à savoir: (i) en début de phrase, (ii) à la suite du sujet, et (iii) à la suite d'un objet antéposé en début de phrase dans des constructions transitives ou ditransitives. Un autre résultat intéressant de mes recherches est le fait que, en !gana, les interrogatifs ne peuvent en aucun cas être placés en fin de phrase, et ce quelle que soit leur fonction, argumentale (sujet, objet direct or indirect) ou adverbiale. Ceci permet de supposer que, étant donné que de nombreuses études considèrent les interrogatifs comme des termes focalisés par essence, la position '*fin de phrase*' ne peut jamais faire l'objet d'un processus de focalisation dans la langue !gana.

## Mots clés

Khoïsan, SOV, ordre des mots variable, interrogatifs argumentaux / adverbiaux, marque de PGN (Personne, Genre, Nombre).

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## 1. Introduction

The purpose of this paper is to describe question formation in !Gana. !Gana is classified as a Central Khoesan language of the Western branch (Güldemann & Vossen 2000). It is spoken in the following areas in Botswana: Central Kalahari Game Reserve (CKGR), New Xade, Xere, and Kaudwane. It is closely related to |Gui, which is spoken in areas such as Ghanzi and New Xade. !Gana has not been described as extensively as other Khoesan languages and so it has no standardized orthography. Therefore the orthography adopted in this paper follows the International Phonetic Alphabet (IPA) system.

While it may be the case that !Gana is less studied than other related languages, there exist several publications devoted to various grammatical features of this language. These include Tanaka (1978) who studied the vocabulary of both !Gana and |Gui, Vossen (1997) who provides some phonological, morphological and syntactic data on !Gana. In addition, Vossen also briefly discusses possessive marking in the languages of all three members of the !Gana linguistic subgroup<sup>1</sup> as well as the overall morphology of these languages (Vossen 2013). In this last work, Vossen provides some examples illustrating how these three languages form questions. For his part, Nakagawa (2008) has done extensive work on the phonetic and phonological structure of |Gui. In his most recent work, he (Nakagawa 2013a) draws parallels between the phonological structures of various dialects of !Gana and |Gui and provides (Nakagawa 2013b) a grammatical sketch of |Gui, in which question formation is dealt with in one paragraph only, due to the concise nature of his publication. Thus, as shown by this literature survey, there really is no detailed study that focuses on question formation in !Gana and as such, this grammatical point remains largely unexplored. It is out of this realization that this paper looks at question formation in !Gana focusing on the following two questions: (a) What forms do question words (henceforth: Q-words or QW in glosses) take in !Gana? (b) Given that !Gana, like many Central Khoesan languages has flexible word order at clause level, what positions do Q-words take in the language and what are the resulting word orders in interrogative sentences? The rest of the paper is organized as follows: section 2 describes the methodology used for data collection while section 3 provides some relevant background information on !Gana. Section 4 establishes the forms of Q-words in !Gana and section 5 describes word order in content and adjunct questions. Section 6 provides the conclusion of this study.

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1. Vossen (2013) classifies !Gana, |Gui and #Haba as belonging to the same linguistic subgroup which he refers to as the !Gana subgroup since they share similar phonological, morphological, syntactic and lexical characteristics.

## 2. Methodology of data collection

The data described in this paper was collected in 2012 between the months of September and October during a field investigation visit to New Xade. The data were collected from eight language consultants: four males and four females. Six of the consultants were aged between 23 and 28 while two were aged 60+. The two older consultants speak mainly ǁGana as a first language and Shekalahari (the regional language) as a second language; they pointed out that they also can speak Setswana (the national language) although not as well as ǁGana or Shekalahari. The six younger consultants speak ǁGana, Shekalahari, Setswana and English since all six have received high school education (which is given in English in Botswana).

The method of data collection was mainly based on elicitation. Although this method has a major limitation namely that it lacks the naturalness of language in context, it nevertheless provides the investigator with an opportunity to target and obtain specific grammatical structures such as interrogative sentences. The consultants were divided into two groups of four people each; each group comprised of one of the elderly consultants. The elderly informants were needed particularly in cases where the younger ones were unsure about a structure and its use. The languages used for elicitation were mainly Setswana and English, and the younger consultants translated the structures into ǁGana for the senior consultants.

## 3. Some background information on ǁGana

Before engaging in a description of ǁGana, it is worthwhile to provide the reader with some background information on the language, as it is relevant to the topic of question formation. This information includes clausal word order and the marking of Person, Gender and Number (PGN).

### 3.1 Word order

Like other Central Khoesan languages such as Nama (Haacke 2006, den Besten 2002) and Naro (Visser 2010), the basic word order of ǁGana is S(subject) O(bject) V(erb). Consider the examples below<sup>2</sup>:

- (1a)    ǀúú<sup>h</sup>ě-bè                      dábè            ǀ'ái            ã-hã  
           ǀúú<sup>h</sup>ě-3M.SG.NOM       salt            buy        JNCT-PST  
           S                                O            V            (TM)  
           'ǀúú<sup>h</sup>ě bought salt.'

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2. Abbreviations: F = Feminine, FUT = Future, JNCT = Juncture morpheme, M = Masculine, N = Neuter, O<sub>d</sub> = direct Object, O<sub>i</sub> = indirect Object, OBL = Oblique, PGN = Person, Gender & Number marker, PL = Plural, PRS = Present Tense, PST = Past Tense, QW = Question Word, SG = Singular, TM = Time Marker.

- (1b)  $\text{dábè}$   $\text{ǃúú|}^{\text{h}}\text{ě-bè}$   $\text{ǀ'ái}$   $\text{ā-hā}$   
 salt  $\text{ǃúú|}^{\text{h}}\text{ě-3M.SG.NOM}$  buy JNCT-PST  
 O S V (TM)  
 ‘ $\text{ǃúú|}^{\text{h}}\text{ě}$  bought salt.’
- (1c)  $\text{ǀ'ái}$   $\text{ā-hā}$   $\text{ǃúú|}^{\text{h}}\text{ě-bè}$   $\text{dábè}$   
 buy JNCT-PST  $\text{ǃúú|}^{\text{h}}\text{ě-3M.SG.NOM}$  salt  
 V (TM) S O  
 ‘ $\text{ǃúú|}^{\text{h}}\text{ě}$  bought salt.’

Example (1a) displays the SOV word order which, according to the consultants, is pragmatically the dominant word order in |Gana (see Ono 2010 for a similar observation in |Gui, Visser 2010 for Naro)<sup>3</sup>. However, other word orders are possible in the language as shown in examples (1b, 1c). Indeed, |Gana, like other Central Khoesian languages *e.g.* Nama (Haacke 2006), Naro (Trail 1994, Barnard 1985) and Khwe (Kilian-Hatz 2009), has a flexible word order. However, such flexibility seems to be determined by pragmatic considerations and not the category at hand (see also Haacke (2006), Kilian-Hatz (2009) for similar observations regarding Nama and Khwe respectively). Example (1a) with a SOV word order is the most prevalent and preferred in answer to the question ‘What did  $\text{ǃúú|}^{\text{h}}\text{ě}$  buy?’; example (1b) is preferred as an answer to the question ‘What is it that  $\text{ǃúú|}^{\text{h}}\text{ě}$  bought?’, while example (1c) would be preferred in response to the question ‘What did  $\text{ǃúú|}^{\text{h}}\text{ě}$  do?’ From these three examples, we can infer that, in |Gana the sentence initial position is reserved for focused or emphasized material.

### 3.2 Person, Gender and Number (PGN) Marking

The grammatical features of gender and number play an important role in the grammar of |Gana as is the case in other Central Khoesian languages (Güldemann & Vossen 2000). This observation has also been made for other Khoesian languages such as Naro (Vossen 1986, Visser 2010), Nama (Hagman 1977), |Gui (Ono 2010) and Khwe (Kilian-Hatz & Heine (2010). |Gana makes three gender distinctions namely masculine, feminine and neuter, and nouns are usually marked for person, gender and number just like in other Khoesian languages (Kilian-Hatz & Heine 2010). This is illustrated in the examples below.

- (2a)  $\text{ǃúú|}^{\text{h}}\text{ě-bè}$   $\text{k'ú k'ú:}$   $\text{Néò-sà}$   $\text{mú}$   
 $\text{ǃúú|}^{\text{h}}\text{ě-3M.SG.NOM}$  PST yesterday Neo-3F.SG.OBL see  
 ‘ $\text{ǃúú|}^{\text{h}}\text{ě}$  saw Neo yesterday’.
- (2b)  $\text{Néò-sè}$   $\text{k'ú k'ú:}$   $\text{|ámkhwé-bà}$   $\text{mú}$   
 Neo-3F.SG.NOM PST yesterday  $\text{|ámkhwé-3M.SG.OBL}$  see  
 ‘Neo saw  $\text{|ámkhwé}$  yesterday’.

3. I have glossed the morpheme  $\text{ā}$  which occurs before the past tense marker as ‘juncture’. However, I have not investigated this phenomenon in detail. For a discussion of this phenomenon, the reader is referred to Vossen (2013).

- (2c) Néò-sè                                      kʸú Khóé-è                      mú      ágwà  
 Neo-3F.SG.NOM PST                      Person-3N                      see      there  
 ‘Neo saw a person there’.

In examples (2a) the subject noun  $\acute{h}ul^h\check{e}$  is third person singular and masculine and the PGN marker is  $b\grave{e}$  (sometimes  $-m$  in non-nominative positions) while in (2b) the PGN marker on the noun is  $s\grave{e}$  because the noun is third person singular feminine. In (2c) the person is of unknown gender and so a gender neutral PGN marker  $\grave{e}$  is used. Another thing of interest to note with regards to these examples is that (i) the PGN marker of a noun in nominative position is suffixed with  $-\grave{e}$  as observed in both (2a) and (2b) and that (ii) the PGN marker of non-nominative nouns (referred to in the literature as oblique (Witzlack-Makaravitch 2006, Haacke 1976)) is suffixed with  $-\grave{a}$  as observed in the same examples. From these examples, we can conclude that PGN markers do not just indicate the person, gender and number of a given noun or noun phrase in  $\mathbb{I}Gana$ ; they also mark a grammatical distinction between nominative and oblique case. With this short background information in place, I now turn the discussion to the topic of question formation in  $\mathbb{I}Gana$ .

#### 4. The form of Q-words in $\mathbb{I}Gana$

$\mathbb{I}Gana$  has two basic morphemes  $m\acute{a}\acute{a}$ - and  $n\grave{u}\acute{u}$  which are used to produce content questions. Although Vossen (2013) lists three interrogative words  $m\acute{a}\acute{a}$ - ‘who’  $n\grave{u}\acute{u}$  ‘what’ and  $di$  ‘which’ for  $\mathbb{I}Gana$ , the form  $di$  did not surface in the data analyzed in this paper, except as a possessive marker (see e.g. (4) below). Rather, what surfaced is  $h\acute{i}$ - a form used specifically to form Q-words in sentences in which the gender of the questioned entity is unknown but human (see below). Nakagawa reports that  $\mathbb{I}Gui$  has two basic forms for Q-words, namely  $m\acute{a}\check{a}$  ‘how/which’ and  $i\grave{x}o$  ‘what’. The basic morphemes  $m\acute{a}\acute{a}$ - and  $n\grave{u}\acute{u}$  in  $\mathbb{I}Gana$  take relevant gender markings (see Vossen 2013 for a similar observation) and sometimes specific affixes to form different content word questions as will be illustrated below. Before I illustrate the  $\mathbb{I}Gana$  Q-words, let me point out that another question presents itself here: given that word order is quite flexible in  $\mathbb{I}Gana$ , and that there are two basic Q-words,  $m\acute{a}\acute{a}$ - and  $n\grave{u}\acute{u}$ , how do native speakers know the argumental role (i.e. subject or object) of what is being questioned? The answer to this question will reveal itself in the next sub-section, in which I illustrate how  $\mathbb{I}Gana$  forms content questions from these basic forms beginning with  $m\acute{a}\acute{a}$ .

##### 4.1 $m\acute{a}\acute{a}$

$M\acute{a}\acute{a}$ - occurs in most content questions including both argument questions (that is those which question the subject, the direct object, the indirect object) and most adjunct questions, that is ‘where’, ‘when’ and ‘how’. I first look at argument questions before moving on to adjunct questions.

4.1.1 *máá* in argument questions

## 4.1.1.1 General case

- (3a) Máá-bè                      dábè ǀ'ái    ã-hã  
 QW-3M. SG.NOM salt buy JNCT.PST  
 'Who bought salt?' (the buyer is expected to be a male.)
- (3b) Máá àbā-è            ǀ<sup>h</sup>āā ts'ã    ã-hà  
 QW dog-N meat steal JNCT-PST  
 'Which dog stole the meat?'
- (4a) Máá-m                      (dǀ-s)                      ngíbǀ John-bè                      k'ú  
       ts'ã  
 QW-3M.SG.OBL POSS-3F.SG axe John-3M.SG.NOM PST  
 steal  
 'Whose axe did John steal?'
- (4b) Ngíbǀ                      máá-mdǀ John-bè                      k'ú ts'ã  
 axeQW-3M.SG.OBL POSS John-3M.SG.NOM PST steal  
 'Whose axe did John steal?'

In (3a) the subject of the sentence is questioned and the form *máá* is used to mean 'who'; as this form is gender marked with the morpheme *bè* which marks the masculine gender, the buyer is expected to be male. In (3b), although the gender of the questioned dog is not marked directly on the Q-word, it is nevertheless indicated as *è*, a gender neutral marker showing that the gender of this dog is unknown. In (3b), *máá* means 'which' while in example (4a), *máá* corresponds more closely to English 'whose'. The questioned object is in the possessive form and the gender of the possessor is masculine as indicated by the morpheme *-m*. Vossen (2013) reports that in possessive contexts, interrogatives are followed by the possessive marker *dǀ* in ǀGana as illustrated in example (5). Although it might be the case that the possessive is usually marked using the possessive marker *dǀ* in many Central Khoesan languages as noted in Vossen (2013), and as in the examples in (4) above, the data reported in this paper reveals that the possessive marker *dǀ* in ǀGana is used obligatorily only when the possessed noun occurs phrase initially in interrogative possessive syntactic structures. In fact, Vossen's example (431a) reported below as (5) confirms this. If on the other hand, the interrogative possessive determiner occurs phrase initially as in (4a), then the possessive marker *dǀ* is optional.

- (5) Kx'áó-dzè    má.xà-lù    dǀ?                      (Vossen 2013 : Ex. 431a)  
 Arrow-F.PL    who?-M.PL    POSS  
 'Whose arrows are these?'

Next, let us consider (6-7) below. In (6), *máá-* is used to question a direct object and it can be marked with a feminine PGN oblique marker *sà* (6a) or a masculine PGN oblique marker *bà* (6b). In (7) *máá-* is used

to question the indirect object (recipiendary) and it can also be marked for masculine in (7a) or feminine in (7b). In fact, examples (3) to (7) show that in I-Gana, the same PGN markers used with nouns (2a-c) can also combine with *máá*, thus distinguishing nominative from oblique case for this question word as well. Examples (6c) and (7c) are ungrammatical because the PGN marker of the Q-word which assumes the function of an object, is inflected for nominative case instead of oblique case.

- (6a) Maa-sà                    !àásá-sè                    k̄ā    mú?  
 QW-3F.SG.OBL    !àásá-3F.SG.NOM    PST    see?  
 ‘Who did Qàásá see?’
- (6b) Maa-bà                    !àásá-sè                    k̄ā    mú?  
 QW-3M.SG.OBL    !àásá-3F.SG.NOM    PST    see?  
 ‘Who did Qàásá see?’
- (6c) \*Maa-sè                    !àásá-sè                    k̄ā    mú?  
 QW-3F.SG.OBL !àásá-3F.SG.NOM    PST    see?  
 \*’Who did Qàásá see?’
- (7a) Maa-bà                    k̄yè                    k̄yú    dábè    màà    ã-hã  
 QW-3M.SG.OBL    1SG.NOM    PST    salt    give    JUNCT.PST  
 ‘Who did I give salt to?’
- (7b) Maa-sà                    k̄yè                    k̄yú    dábè    màà    ã-hã  
 QW-3F.SG.OBL    1SG.NOM    PST    salt    give    JUNCT.PST  
 ‘Who did I give salt to?’
- (7c) \*Maa-bè                    k̄yè                    k̄yú    dábè    màà    ã-hã  
 QW-3M.SG.NOM    1SG.NOM    PST    salt    give    JUNCT.PST  
 \*’Who did I give salt to?’

#### 4.1.1.2 The gender neutral suppletive form *hi*

Besides *máá*, I-Gana also has a suppletive basic form *hi*, used with a gender neutral value (*i.e.* when the gender of the questioned person is unknown) corresponding to the English interrogative ‘who’ – I-Gana *hi-r-èè* (subject) / *hi-r-àà* (oblique)– and ‘whose’ –I-Gana *hi-n*:

- (8a) Hí-r-èè                    dábè    l’ái    ã-hã  
 QW.N-who-NOM    salt    buy    JUNCT-PST  
 ‘Who bought salt?’
- (8b) \*Hí-n                    dábè    l’ái    ã-hã  
 QW.N-whose    salt    buy    JUNCT-PST  
 \*’Who bought salt?’  
 (This is unacceptable with the meaning ‘Who bought salt.’)
- (8c) Hí-r-àà                    John-bè                    k̄ā    mú?  
 QW.N-who-OBL    john-3m.sg.nom    PST    see  
 ‘Who did John see?’
- (9a) Hí-n                    àbā-sè                    |h’āā’-sa                    ts’ã    ã-hà  
 QW.N-whose    dog-3f.sg.nom    meat-3f.sg.obl    steal    JUNCT-PST  
 ‘Whose dog stole the meat?’

- (9b) \*Hí-r-èè                      àbā-sè                      |h'āā-sa                      ts'ā    ã-  
           hà  
           QW.N-who-NOM    dog-3F.SG.NOM    meat-3F.SG.OBL    steal  
           JNCT-PST  
           \*‘Whose dog stole the meat?’

From the examples above, we can see that *hi-* takes two different endings, *-r-èè/àà* to mean ‘who’ as shown in examples (8a&8c) and *-n* to mean ‘whose’ as in example (9a). The unacceptable example (8b) shows that *hi-n* cannot mean ‘who’. Conversely, the ungrammatical (9b) shows that *hi-r-èè* cannot mean ‘whose’.

#### 4.1.2 *máá* in adjunct questions (‘when’, ‘where’ and ‘how’)

*Máá* combines with different morphemes to form adjunct question words corresponding to English ‘when’, ‘where’ and ‘how’. Thus, when combined with the morpheme *-kàm* (10) *máá* corresponds to English ‘when’. When it takes the morpheme *-zà* (11), the meaning that obtains is ‘where’. *Máá* can also combine with *g'yúm* (12) to produce a question word meaning ‘how’. However, *máá* is not used to form the question word corresponding to English ‘why’, which is derived from another basic form, namely *nùú* (see below).

- (10) [Máa-kàm]    #úul<sup>hě</sup>-bè                      bée    l'ái    ã-hã  
           QW-when    #úul<sup>hě</sup>-3M.SG.NOM    cow    buy    JNCT-PST  
           ‘When did #úul<sup>hě</sup> buy a cow?’
- (11) [Máa-zà]    #úul<sup>hě</sup>-bè                      bée    l'ái    ã-hã  
           QW-where    #úul<sup>hě</sup>-3M.SG.NOM    cow    buy    JNCT-PST  
           ‘Where did #úul<sup>hě</sup> buy a cow?’
- (12) [Maa-g'yúm]    #úul<sup>hě</sup>-bè                      |h'āā    n/wà    ã-hã  
           QW-how    #úul<sup>hě</sup>-3M.SG.NOM    meat    cook    JNCT-PST  
           ‘How did #úul<sup>hě</sup> cook the meat?’

#### 4.2 *nùú*

The question word corresponding to English ‘what’ is *nùú* in ǀGana. It is always associated with the feminine gender marker *-sè* (nominative) /*sà* (oblique), independently of the expected gender (whether masculine or feminine) of the noun in the answer. Thus in example (13a) the thing that broke the calabash can be feminine or masculine. What is described here is perhaps similar to an observation made in relation to Naro by Barnard (1985), who says that in that language, the feminine PGN marker semantically becomes neutral. However, notice that if the PGN form *-sma* (13b) is used, then the questioned entity is unambiguously feminine. When the gender of the questioned entity is unknown, the question word *nùú* takes the gender neutral marking *è* as shown in (13c).

- (13a) *Nùú-sè* †ābā †ārā nà-há?  
 QW-3F.SG.NOM calabash break JNCT-PST  
 ‘What broke the calabash?’  
 (The thing that broke the calabash is either feminine or masculine.)
- (13b) *Nùú-smà* †ābā †ārā nà-há?  
 QW-3F.SG calabash break JNCT-PST  
 ‘What broke the calabash?’  
 (The thing that broke the calabash can only be feminine.)
- (13c) *Nùú-è* †ābā †ārā nà-há?  
 QW-N calabash break JNCT-PST  
 ‘What broke the calabash?’
- (13d) \**Nùú-sà* †ābā †ārā nà-há?  
 QW-3F.SG.NOM calabash break JNCT-PST  
 \*‘What broke the calabash?’  
 (The thing that broke the calabash is either feminine or masculine.)

Just like for *máá*, the PGN marker affixed on the question morpheme *nùú* distinguishes nominative and oblique cases. For example, notice that in example (13a) where the questioned element is a subject, the PGN marker takes the *-è* suffix while the *-à* suffix is disallowed as shown by the ungrammatical (13d). In examples (14-15) where *nùú* questions the direct object (14a-b) and the indirect object (15a-b) respectively, the suffix on the PGN marker is *-à* which indicates oblique case while *-è* is disallowed as shown by the ungrammatical (14c&15c).

- (14a) †úul<sup>h</sup>ě-bè *nùú-sá* l’ái ā-hā  
 †úul<sup>h</sup>ě-3M.SG.NOM QW-3F.SG.OBL buy JNCT-PST  
 ‘What did †úul<sup>h</sup>ě buy?’
- (14b) *Nùú-sá* †úul<sup>h</sup>ě-bè l’ái ā-hā  
 QW-3F.SG †úul<sup>h</sup>ě-3M.SG.NOM buy JNCT-PST  
 ‘What did †úul<sup>h</sup>ě buy?’
- (14c) \**Nùú -sè* †úul<sup>h</sup>ě-bè l’ái ā-hā  
 QW-3F.SG.NOM †úul<sup>h</sup>ě-3M.SG.NOM buy JNCT-PST  
 \*‘What did †úul<sup>h</sup>ě buy?’
- (15a) *Kyè* *nùú-sá* àbā-sá màà ā-hā  
 1SG QW-3F.SG.OBL dog-3F.SG.OBL give JNCT-PST  
 ‘What did I give to the dog?’
- (15b) *Nùú-sá* *kyè* àbā-sá màà ā-hā  
 QW-3F.SG.OBL 1SG.NOM dog-3F.SG.OBL give JNCT-PST  
 ‘What did I give to the dog?’
- (15c) \**Nùú-sè* *kyè* àbā-sá màà ā-hā  
 QW-3F.SG.OBL 1SG.NOM dog-3F.SG.OBL give JNCT-PST  
 \*‘What did I give to the dog?’

*Nùú-(sá)* also appears as the basic morpheme used to produce the †Gana question word corresponding to English ‘why’, through the addi-

tion of the morpheme *kʸè-kà* as shown in (16).

- (16) [Nùú -(sá)-kʸè-kà]    ʰúul<sup>h</sup>ě-be                    bèè    l'ái    ā-hā  
 QW                                    ʰúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST  
 'Why did ʰúul<sup>h</sup>ě buy a cow?'

It is not surprising that the basic form of the word meaning 'why' in |Gana is *nùú-(sá)* 'what' as *nùú-(sá)-kʸè-kà* 'why' is in essence a shortened form of a phrase meaning '**what** is the reason that something happened'. Bleek (1928) observed that the word for 'why' in Naro is *du:f-kwe* (a noun phrase) meaning 'for what reason'. Collins & Namaseb (2011) also note that in N|uuki (another Khoesan language) 'why' questions can be formed by moving the word *cui* 'what' to the front of the sentence. Similarly, in Ikalanga, a Bantu language, the word for 'what' and 'why' is *ini*, and it is the context that disambiguates the intended meaning (Letsholo 2011).

#### 4.3 Summary

In summary, |Gana has two basic forms used to form content questions: *máá* (humans) and *nùú* (non-humans) and a suppletive gender neutral question word *hi-* which is used only in reference to humans. As illustrated above (8-9), *hi-* can be suffixed with *-r-èè/àà* to produce a question word corresponding to English 'who' or with *-n* to produce a question word corresponding to English 'whose'. The discussion above answers the question asked at the beginning of this section, namely, 'How do native speakers know the argumental role (i.e. subject or object) of what is being questioned?' The answer lies in that not only does the PGN marker carry information about person, gender and number, it also makes a distinction between nominative and oblique case. Table 1 below is a summary of the different question words in |Gana.

Table 1. Question words in |Gana

Q-word	F	M	N
Who/whose/whom/which	máá-sà/sè	máá-bà/è/m	hí-r-èè/àà ~ hí-n= (used with humans only)
what	nùú-sè/sá/smà	nùú-sè/sá	nùú-è
when			máá-kàm
where			máá-zà
how			màà-g'úm
why			nùú-sá-kʸè-kà

## 5. The position of question words in IɔGana

The question we address in this sub-section is ‘What position(s) do question words occupy in IɔGana and what are the possible word orders in interrogative sentences?’ In order to answer these questions accurately, question words must be investigated according to the different functions they assume, i.e. subject, both direct and indirect object, and adjunct. I begin by looking at subject questions.

### 5.1 Subject question words

There are two positions that a subject question word can occupy: (i) the *in-situ* position, that is when the question word occupies the position that is usually occupied by the subject in a declarative sentence with an SOV structure (17a); (ii) the question word can also occur after a fronted object (17b). Example (17c) where the verb is fronted and the question word is in sentence final position is disallowed. Thus in terms of word order, when the question word is the subject, interrogative sentences involving transitive verbs have the word orders SOV and OSV while VOS is disallowed.

- (17a) Maa-sè                      !aasa-sa                      mu?  
 QW-3F.SG.NOM      !aasa-3F.SG.OBL      see  
 Q                                      O                                      V  
 ‘Who saw Qaasa?’ (SOV)
- (17b) !aasa-sa                      maa-sè                      mu?  
 !aasa-3F.SG.OBL      QW-3F.SG.NOM      see  
 O                                      Q                                      V  
 ‘Who saw Qaasa?’ (OSV)
- (17c) \*mu-s                      !aasa-sa                      maa-sè  
 See-3F.SG      !aasa-3F.SG.OBL      QW-3F.SG.NOM  
 V                                      O                                      Q  
 \*‘Who saw Qaasa?’ (VOS)

### 5.2 Direct object question words

Direct object question words can occur in two different places: (i) the question word can be fronted as in many languages of the world (18a) or (ii) it can stay *in-situ* as shown in (18b) in consonance with the fact that IɔGana is an SOV language. However, the question word cannot occur in a sentence final position as shown by the ungrammaticality of (18c-18d).

- (18a) Maa-sa                      !aasa-se                      ka      mu?  
 QW-3F.SG.OBL      !aasa-3F.SG.NOM      PST      see?  
 Q                                      S                                      (TM)      V  
 ‘Who did Qaasa see?’ (OSV)
- (18b) !aasa-se                      ka      maa-sa                      mu  
 !aasa-3F.SG.NOM      PST      QW-3F.SG.OBL      see  
 S                                      (TM)      Q                                      V

‘Who did Qàásá see?’ (SOV)

- (18c) \*mú-s           !àásá-sè                   kā    màà-sà  
 See-3F.SG   !àásá-3F.SG.NOM   PST   QW-3F.SG.NOM  
 V            S                                   (TM) Q

\*‘Who did Qàásá see?’ (VSO)

- (18d) \*!àásá-sè           kā    mú    màà-sà  
 !àásá-3F.SG.NOM   PST   see   QW-3F.SG.OBL  
 S                                   (TM) V    Q

\*‘Who did Qàásá see?’ (SVO)

(18d) provides compelling evidence that question words are disallowed in sentence final position in ǀGana. Indeed, if one considered the ungrammaticality of (18c) alone, one could come to the conclusion that the fronting of the verb may be what makes this example ungrammatical. However, the ungrammaticality of (18d) confirms that it is the occurrence of the Q-word in sentence final position that renders examples (18c-18d) ungrammatical.

### 5.3 Indirect object question words

The canonical word order in double object constructions in ǀGana is  $SO_iO_dV$ . This is illustrated in example (19a) below. However, because word order is rather flexible in ǀGana, it is also possible to have the direct object preceding the indirect object as shown in (19b).

- (19a) Kʸè           kʸú   !àásá-sà                   dábè   màà  
 1SG.NOM   PST   !àásá-3F.SG.OBL   salt   give  
 S                   (TM)  $O_i$                     $O_d$    V  
 ‘I gave Qàásá salt.’ ( $SO_iO_dV$ )

- (19b) Kʸè           kʸú   dábè   !àásá-sà                   màà  
 1SG.NOM   PST   salt   !àásá-3F.SG.OBL   give  
 S                   (TM)  $O_d$     $O_i$                    V  
 ‘I gave Qàásá salt.’ ( $SO_dO_iV$ )

The flexible word order observed in declarative sentences is also observed in interrogative sentences. From the examples in (20) below, we can see that, when the question word is an indirect object, it can occur sentence initially (20a) ( $Q_iSO_dV$ ), in second position following a fronted object (20b) ( $O_dQ_iSV$ ), following the subject (20c) ( $SQ_iO_dV$ ), that is *in situ*, as this is the canonical word order in declarative sentences in this language. The question word can also follow both the subject and the direct object (20d) ( $SO_dQ_iV$ ) in double object constructions. Both (20e-f) are ungrammatical and in both examples the question word is sentence final, providing further evidence for the claim that question words are disallowed in sentence final position in ǀGana (see section 5.2 above). Further evidence that the ungrammaticality of these examples is brought about by the position of the question word and not the position of the verb comes from the fact that we saw in section 3 (1c) that verbs can

occur sentence initially in this language. In addition, we also noted in section 3 that focused or emphasized elements occur sentence initially in ʘGana, a position that as we have seen, question words can occupy in this language. Question words are said to be focused in the literature (Büring 2007, Bresnan & Mchombo 1987) and the fact that they cannot occur in sentence-final position suggests that this is not a focus position in this language.

- (20a) M<sup>á</sup>á-sà            k<sup>y</sup>è            k<sup>y</sup>ú      dábè    màà  
 QW-3F.SG.OBL 1SG.NOM    PST    salt    give  
 Q<sub>i</sub>                    S                    (TM) O<sub>d</sub>      V  
 ‘Who did I give salt to?’ (Q<sub>i</sub>SO<sub>d</sub>V)
- (20b) Dábè-sà            m<sup>á</sup>á-sà                            k<sup>y</sup>è            k<sup>y</sup>ú      màà  
 salt-3F.SG.OBL QW-3F.SG.OBL    1SG.NOM    PST    give  
 O<sub>d</sub>                    Q<sub>i</sub>                                    S                    (TM)    V  
 ‘Who did I give salt to?’ (feminine) (O<sub>d</sub>Q<sub>i</sub>SV)
- (20c) K<sup>y</sup>è            k<sup>y</sup>ú      m<sup>á</sup>á-sà            dábè    màà  
 1SG.NOM    PST    QW-3F.SG.OBL salt    give  
 S                    (TM) Q<sub>i</sub>                            O<sub>d</sub>      V  
 ‘Who did I give salt to?’ (feminine) (SQ<sub>i</sub>O<sub>d</sub>V)
- (20d) K<sup>y</sup>è            k<sup>y</sup>ú      dábè    m<sup>á</sup>á-sà                            màà  
 1SG.NOM    PST    salt    QW-3F.SG.OBL    give  
 S                    (TM) O<sub>d</sub>      Q<sub>i</sub>                                    V  
 ‘Who did I give salt to?’ (feminine) (SO<sub>d</sub>Q<sub>i</sub>V)
- (20e) \*M<sup>á</sup>à k<sup>y</sup>è            k<sup>y</sup>ú      dábè      m<sup>á</sup>á-sà  
 give 1SG.NOM    PST    salt      QW-3F.SG.OBL  
 V    S                    (TM) O<sub>d</sub>      Q<sub>i</sub>  
 \*’Who did I give salt to?’ (VSO<sub>d</sub>Q<sub>i</sub>)
- (20f) \*K<sup>y</sup>è            k<sup>y</sup>ú      dábè    màà    m<sup>á</sup>á-sà  
 1SG.NOM    PST    salt    give    QW-3F.SG.OBL  
 S                    (TM) O<sub>d</sub>      V      Q<sub>i</sub>  
 ‘Who did I give salt to?’ (SO<sub>d</sub>VQ<sub>i</sub>)

The behaviour described above is applicable to all question words that is, those formed with *m<sup>á</sup>á-* as well as those formed with *nùú*. Thus, due to limitations of space, I do not discuss examples involving *nùú*.

#### 5.4 Adjunct question words

Adjunct question words, that is *nùú-sá-k<sup>y</sup>è-kà* ‘why’, *m<sup>á</sup>á-zà* ‘where’, *m<sup>á</sup>à-g<sup>y</sup>úm* ‘how’ and *m<sup>á</sup>à-kàm* ‘when’ occupy similar positions as those occupied by the subject, direct and indirect object question words. To save space, I shall not provide examples illustrating all of these positions for each of the adjunct question words but rather illustrate each position using each of these adjuncts in turn. For example, in (21a), the question word is sentence initial. In (22a) the question word occurs immediately after the subject while in (23a) the question word occurs immediately

after a fronted object. In (24a) just as in (21a), the question word occurs sentence initially. In all the (b) examples, the question word occurs sentence finally and these sentences are ungrammatical, which is consistent with the findings made in previous sections for subject, object and indirect object question words.

### Why

(21a) [Núú –sá-kʷè-kà]    ʃúul<sup>h</sup>ě-bè                      béè    l'ái    ā-hā  
 QW.why                      ʃúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST  
 Q                                      S                                      O    V                      (TM)

‘Why did ʃúul<sup>h</sup>ě buy a cow?’ (QSOV)

(21b) \* ʃúul<sup>h</sup>ě-bè                      béè    l'ái    ā-hā                      [núú-sá-kʷè-kà]  
                     ʃúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST    QW.why  
                     S                                      O    V                      (TM)                      Q

\*‘Why did ʃúul<sup>h</sup>ě buy a cow?’ (SOVQ)

### Where

(22a) ʃúul<sup>h</sup>ě-bè                      máá-zà                      béè    l'ái    ā-hā  
                     ʃúul<sup>h</sup>ě-3M.SG.NOM    QW.where    cow    buy    JNCT-PST  
                     S                                      Q                                      O    V                      (TM)

‘Where did ʃúul<sup>h</sup>ě buy a cow?’ (SQOV)

(22b) \* ʃúul<sup>h</sup>ě-bè                      béè    l'ái    ā-hā                      máá-zà  
                     ʃúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST    QW.where  
                     S                                      O    V                      (TM)                      Q

\*‘Where did ʃúul<sup>h</sup>ě buy a cow?’ (SOVQ)

### How

(23a) <sup>h</sup>āā [màà-gʷúm]    ʃúul<sup>h</sup>ě-bè    n/wà    ā-hā  
 meat    QW.how                      ʃúul<sup>h</sup>ě-3M.SG.NOM    cook    JNCT-PST  
 O    Q                                      S    V                      (TM)

‘How did ʃúul<sup>h</sup>ě cook the meat?’ (OQSV)

(23b) \* ʃúul<sup>h</sup>ě-bè                      <sup>h</sup>āā    n/wà    ā-hā                      [màà-gʷúm]  
                     ʃúul<sup>h</sup>ě-3M.SG.NOM    meat    cook    JNCT-PST    QW.how  
                     S                                      O    V                      (TM)                      Q

\*‘How did ʃúul<sup>h</sup>ě cook the meat?’ (SOVQ)

### When

(24a) [máà-kàm]    ʃúul<sup>h</sup>ě-bè    béè    l'ái    ā-hā  
 QW.when                      ʃúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST  
 Q                                      S    O    V                      (TM)

‘When did ʃúul<sup>h</sup>ě buy a cow?’ (QSOV)

(24b) \* ʃúul<sup>h</sup>ě-bè                      béè    l'ái    ā-hā                      [máà-kàm]  
                     ʃúul<sup>h</sup>ě-3M.SG.NOM    cow    buy    JNCT-PST    QW.when  
                     S                                      O    V                      (TM)                      Q

\*‘When did ʃúul<sup>h</sup>ě buy a cow?’ (SOVQ)

### 5.5 Summary

From the data above, we can conclude that the question words in IḠana mainly occupy three different positions in a sentence: (i) sentence initial (Den Besten (2002) observes that the question word targets a sentence initial position in Nama while Nakagawa (2013b) notes that in IGui question words optionally occur sentence initially), (ii) immediately after the subject of the sentence, (iii) immediately after a fronted object. In double object constructions, the indirect object question word may also occupy the positions delineated above but it can also follow both the subject and direct object. The one position that question words can clearly not occupy in IḠana is the sentence final position. Table 2 provides a summary of the different positions that question words can occupy in IḠaná.

*Table 2. Positions occupied by question words in IḠana*

Q-word	Sentence initial	Following subject	Following fronted object	Following subject & direct object <sup>4</sup>	Sentence final
máá-bè/sè 'who'	√	√ (does not apply to subject questions)	√	√	X
nùú-sè/smà 'what'	√	√	√	√	X
nùú-sá-kʷè-kà 'why'	√	√	√	N/A	X
máá-zà 'where'	√	√	√	N/A	X
màà-gʷúm 'how'	√	√	√	N/A	X
máá-kàm 'when'	√	√	√	N/A	X

### 6. Conclusion

This paper set out to describe question formation in IḠana. The paper specifically investigated two main questions, namely (a) What are the different question words that IḠana uses to form content questions? and (b) What positions do these question words occupy in this language and what are the resulting word orders in interrogative sentences?

4. Applies to indirect object question words only.

Regarding question (a), we determined that !Gana has two basic forms used to produce content questions: these are *máá* (humans) and *nùú* (non-humans). In addition, *máá*- has a suppletive form *hi-* which is used specifically with reference to humans when the gender of the questioned person is unknown. *Máá* corresponds basically to English 'who', which, 'whose' and 'whom', and it can be inflected for gender. It is also the basic form used to derive the adjunct question words 'where', 'how' and 'when'. As for *nùú* it basically corresponds to English 'what' and can also be used to produce the question word corresponding to English 'why'.

Our finding regarding question (b) is that, in basic transitive sentences, question words may occupy three main positions in !Gana: (i) sentence initially, (ii) immediately after the subject of the sentence (SQV), (iii) immediately after a fronted object (QSV). In double object constructions, when the question word is the indirect object, it can also occur sentence initially (Q<sub>i</sub>SOV), immediately after the subject (SQ<sub>i</sub>O<sub>d</sub>V), after a fronted object (O<sub>d</sub>Q<sub>i</sub>SV) and after both the subject and direct object (SO<sub>d</sub>Q<sub>i</sub>V) as well. Adjunct Q-words occur in the same positions as direct object Q-words. An interesting finding is that Q-words never occur in sentence final position in !Gana irrespective of whether the question word is an argument of the verb (subject, direct or indirect object) or an adjunct. The observation that question words are not permitted sentence finally in !Gana suggests that the sentence final position is not a focus position in this language. This claim calls for further investigation.

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## **La liaison tonale en shingazidja septentrional**

Cédric PATIN

### **Abstract**

This paper discusses a tone liaison phenomenon that occurs in the Northern dialect of Shingazidja, a Bantu language of Comoros. In this dialect, a tone appearing at the end of a Phonological Phrase spreads to the first syllable of the following Phonological Phrase. Several rules or constraints affect tone liaison, such as the fact that spreading cannot occur on a syllable that is underlyingly associated to a tone. The phenomenon under scrutiny is analyzed using the notion of ‘tonal domain’ as developed by Charles Kisseberth (Kisseberth 1994, Cassimjee & Kisseberth 1998, among others). It is shown that this concept helps to avoid some of the problems that are raised by an autosegmental treatment.

### **Keywords**

tone liaison, Shingazidja, Bantu, tone domain, tone-intonation interface

### **Résumé**

Ce travail consiste en une analyse du phénomène de liaison tonale tel qu’il se manifeste dans la variété septentrionale du shingazidja, une langue bantoue des Comores. Dans cette variété, un ton associé à la dernière syllabe d’un syntagme phonologique se propage sur la première syllabe du syntagme phonologique qui le suit. La distribution de la liaison tonale est conditionnée par plusieurs règles et contraintes, telles le fait qu’elle ne peut s’effectuer sur une syllabe associée à un ton au niveau sous-jacent. Le phénomène de la liaison tonale est ici analysé à partir de la notion de ‘domaine tonal’ telle qu’elle a été

développée par Charles Kisseberth (Kisseberth 1994, Cassimjee & Kisseberth 1998, entre autres). Il est en particulier montré que ce concept permet d'éviter certains problèmes posés par une analyse autosegmentale.

### Mots clés

liaison tonale, shingazidja, bantou, domaine tonal, interface tons-intonation.

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Le travail qui suit est consacré à un phénomène que l'on nomme *liaison tonale* (désormais LT<sup>1</sup>), qui consiste généralement en la propagation d'un ton associé à la dernière syllabe d'un mot sur la première syllabe du mot qui le suit. Plus précisément, je m'intéresserai dans cet article à la LT telle qu'elle se manifeste dans la variété septentrionale du shingazidja, une langue bantoue classée G44a dans la classification de Guthrie (1967/1971), parlée sur l'île Ngazidja (ou Grande Comore), aux Comores. Les données du shingazidja septentrional (ShS) utilisées pour ce travail ont été recueillies à Paris en juillet 2008 et mars 2009 auprès de deux informateurs<sup>2</sup> originaires du nord-est de l'île Ngazidja (l'un de la ville de Mbeni, l'autre du village de Batou).

Dans la première partie de ce travail, je présenterai brièvement la notion de liaison tonale, en m'appuyant sur deux autres langues bantoues. La seconde partie présente les éléments du système prosodique du shingazidja nécessaires à la compréhension de la LT en ShS. Le phénomène lui-même est présenté dans la troisième partie, après qu'a été brièvement présentée la variété dans laquelle il intervient. La quatrième partie, qui explique en quoi le phénomène ne doit pas être confondu avec un '*peak delay*', est consacrée à l'analyse des règles phonologiques associées à la LT. Enfin, la dernière partie de ce travail explore les conséquences théoriques de l'examen effectué ; je défendrai une analyse de la LT en ShS s'appuyant sur la notion de 'domaine' proposée par Cassimjee & Kisseberth (1998), en expliquant en quoi cette analyse permet de contourner certains problèmes associés à un traitement autosegmental du phénomène. L'article s'achève sur une brève conclusion.

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1. Voici la liste des abréviations autres que les gloses morphologiques : LT = Liaison Tonale, ODT = *Optimal Domains Theory*, PCO = Principe du Contour Obligatoire, Sh(S) = Shingazidja (Septentrional).

2. Je remercie tout particulièrement mon principal informateur, Mohamed Miraddji Lihoma.

## 1. La liaison tonale

L'expression 'liaison tonale' est potentiellement ambiguë, en ce qu'elle a été associée dans les travaux produits ces dernières années à des phénomènes de natures diverses – Weidman & Rose (2006), par exemple, désignent le ton flottant du défini en bambara par l'expression '*liaison high tone*'. Dans ce travail, je désignerai comme 'liaison tonale' la propagation post-lexicale d'un ton depuis la syllabe finale d'une unité prosodique (ex. mot prosodique) sur la (ou les) première(s) syllabe(s) de l'unité prosodique qui la suit. J'illustrerai ce phénomène en m'appuyant sur deux langues bantoues<sup>3</sup>, le nyamwezi (F22, Tanzanie) et le saghala (E74b, Kenya).

La LT telle qu'elle se manifeste en kinyamwezi (Maganga & Schadeberg 1992) consiste en ce qu'un ton apparaissant en fin de mot se propage sur la première syllabe du mot qui suit (1) :

	Nyamwezi	(Maganga & Schadeberg 1992 : 45)
(1a)	miliilhú mikilá míliilhú	'long [classe 4]' 'longues queues'
(1b)	maliilhú mapéémbé máliilhú	'long [classe 6]' 'longues cornes'

En (1), le ton final d'un nom se propage sur la première syllabe de l'adjectif 'long', basse lorsque l'adjectif est réalisé en isolation. C'est un phénomène d'autant plus remarquable que la langue ne présente, par ailleurs, pas de phénomène de propagation tonale.

Un phénomène similaire peut être observé en saghala (Patin 2009), une langue qui combine déplacement et propagation tonals locaux (2) – dans cet exemple comme dans la suite de l'article, les voyelles soulignées sont celles qui portent les tons au niveau sous-jacent :

	Saghala	(Patin 2009 : 232)
(2a)	<u>i</u> -zí                    m-búla            m-bwaa 9-DEM.PROX <sup>4</sup> 9- <i>nez</i> 9- <i>gros</i> 'ce gros nez-ci'	
(2b)	i-ly <u>a</u> m-búlá            m-bwáa 9-DEM.EL 9- <i>nez</i> 9- <i>gros</i> 'ce gros nez-là'	

Comme on peut l'observer en (2a), un ton, en saghala, se déplace sur la syllabe qui suit immédiatement la syllabe à laquelle il est

3. Parmi d'autres – voir par exemple Creissels (2013).

4. Les abréviations utilisées dans les gloses de ce travail sont les suivantes : ISG = première personne du singulier, AUG = augment, DEM = démonstratif, DEM.EL = démonstratif d'éloignement, DEM.PROX = démonstratif de proximité, MO = marque d'objet, PASS = passif, PFV = perfectif. Les chiffres renvoient aux marques de classes (ex. 9 en (2) renvoie à la classe 9).



déplace jusque sur celui-ci. On le voit, cependant : l'étendue du déplacement est conditionnée par la structure tonale sous-jacente du second terme. En (3b), le ton ne se déplace que d'une syllabe vers sa droite, car un ton haut est associé à la seconde syllabe de l'adjectif 'trois' (la forme de surface du terme est *waráru*). En (3c), en revanche, le ton du nom se déplace jusque sur l'avant-dernière syllabe de l'adjectif, car c'est la dernière syllabe de ce terme qui est lexicalement associée à un ton haut (la forme de surface de l'adjectif est *wailí*). Lorsque la syllabe qui suit immédiatement le ton haut est elle-même associée à un ton haut au niveau sous-jacent, le ton n'est pas en mesure de se déplacer, et il reste associé à sa syllabe d'origine (3d).

Quelle que soit l'étendue du déplacement tonal en (3), on voit qu'il a pour conséquence la chute du ton avec lequel il entre en contact, en application du *principe du contour obligatoire* (PCO – Odden 1986), qui veut que deux éléments identiques ne peuvent se succéder. En (3b), par exemple, le ton de l'adjectif 'trois' est supprimé (\**waleví wáraru*). Plus précisément, tous les tons 'pairs' d'une série seront conservés, comme l'on peut le voir en (4) :

(4a) ha-wono wa-lévi wa-il<sup>í</sup><sub>7</sub>  
 1.PFV-voir 2-ivrogne 2-deux  
 'Il a vu deux ivrognes.'

(4b) ha-wono mí-píra mi-<sup>í</sup>ilí  
 1.PFV-voir 4-ballons 4-deux  
 'Il a vu deux ballons.'

[Moroni]

En (4a), le déplacement du ton du verbe conduit à la chute du ton du nom ; le ton de l'adjectif, contrairement à ce que l'on pouvait observer en (3c), peut en conséquence être réalisé. En (4b), le déplacement du ton du verbe ne conduit à la chute que du premier ton du mot 'ballons' (qui en compte deux) ; le second ton du nom peut donc se déplacer à son tour, ce qui conduit à la chute, cette fois, du ton de l'adjectif.

Je l'ai dit un peu plus tôt : l'amplitude du déplacement tonal n'est pas uniquement conditionnée par la présence d'autres tons, mais également par les frontières des groupes prosodiques. En (5), le ton du premier nom devrait en principe pouvoir se déplacer sur la première syllabe du verbe, puisque celle-ci n'est pas associée à un ton au niveau sous-jacent ; toutefois, une telle configuration n'est pas observée (5b), et le déplacement du ton du nom s'arrête sur la dernière syllabe de ce dernier (5a, Figure 1) :

7. Un ton haut est généralement réalisé à une hauteur inférieure à celle du ton haut qui le précède au sein d'un groupe intonatif. Pour de plus amples détails, consulter Patin (*à paraître*).

- (5a) m-limadji | ha-rem<sup>1</sup>é paha  
 1-fermier 1.PFV-battre 5.chat  
 ‘Un fermier a battu un chat.’

- (5b) \*m-limadji há-reme páha [Moroni]

Le déplacement tonal, plus précisément, est contraint par les limites des *syntagmes phonologiques*, dont les frontières droites sont alignées en shingazidja avec les frontières droites des syntagmes syntaxiques majeurs au sens de Truckenbrodt (1999), c'est-à-dire les projections maximales d'une tête lexicale (Truckenbrodt 1999 : 233). En (6), on peut ainsi voir que le ton du verbe est en mesure de se déplacer jusqu'au dernier terme du groupe verbal, alors qu'il était bloqué à la frontière séparant le syntagme sujet du groupe verbal en (5a). Dans les pages qui suivront, les frontières des syntagmes phonologiques sont indiquées par le symbole ‘)φ’.

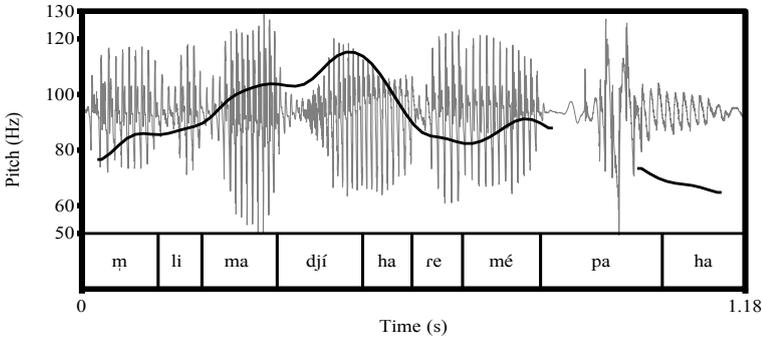


Figure 1

- (6) (tsi-nika wa-ndu má-pes<sup>1</sup>á )φ  
 1SG.PFV-donner 2-personne 6-argent  
 ‘J’ai donné de l’argent à quelqu’un.’ [Mbeni]

Deux derniers points doivent être mentionnés. D’une part, il faut noter que l’augment est associé à une frontière de syntagme phonologique, qui précèdera l’augment lorsque celui-ci se cliticisera au nom qu’il détermine (7a, registre formel), et qui le suivra lorsque l’augment sera encliticisé au terme qui le précède (7b, registre informel).

- (7a) (ha-niká )φ (ye=n-unḡu n-dz<sup>1</sup>íro)φ  
 1.PFV-donner AUG<sub>9</sub>=9-marmite 9-lourd  
 ‘Il a donné la lourde marmite (registre formel)’
- (7b) (ha-nik<sup>1</sup>=é)φ (n-unḡu n-dz<sup>1</sup>íro)φ  
 1.PFV-donner=AUG<sub>9</sub> 9-marmite 9-lourd  
 ‘Il a donné la lourde marmite (registre informel)’ [Fumbuni]

D'autre part, il faut signaler qu'un ton ne peut se déplacer sur la dernière syllabe d'un énoncé, comme on peut l'observer en (7) : le déplacement du ton du nom 'marmite' ne se fait pas sur la dernière syllabe de l'énoncé, mais sur l'avant-dernière syllabe de celui-ci, qui se trouve être la syllabe accentuée de l'énoncé (le shingazidja présente, en dehors de son système tonal, un 'accent de groupe' associé à l'avant-dernière syllabe du syntagme phonologique, proche de celui que l'on a en swahili<sup>8</sup>). Cassimjee & Kisseberth (1998) et Patin (2007) ont proposé que ce phénomène dit 'd'extraprosodicité' signale la fin du groupe intonatif en shingazidja, mais de récents travaux (O'Connor & Patin 2015, Patin à paraître) ont contesté cette idée, affirmant que les frontières des groupes intonatifs étaient en fait signalées par des intonèmes (H% à la fin des groupes intonatifs non-finaux, B% pour le dernier groupe intonatif d'un énoncé). Chaque exemple de ce travail correspondant à un unique groupe intonatif, dont les frontières sont en shingazidja alignées à celles des propositions syntaxiques, les frontières de celui-ci ne seront pas signalées.

Maintenant que ces éléments sont en place, il est possible d'examiner les cas de LT en ShS.

### 3. La liaison tonale en shingazidja septentrional : présentation

Dans cette partie, je présenterai le phénomène de LT, qui fait l'objet du présent travail, tel qu'il se manifeste en ShS (section 3.2). Auparavant, je vais brièvement présenter quelques caractéristiques de ce parler (section 3.1)

#### 3.1 Le shingazidja septentrional

Par 'shingazidja septentrional', je fais référence à la variété de shingazidja parlée au nord de l'île de Ngazidja, et plus particulièrement au sein ou autour de la préfecture de Hamahamet-Mboinkou. Cette variété ne présente que peu de différences avec les autres parlers sur les plans syntaxique, morphologique, et même sur le plan segmental, même si l'on observe çà et là quelques particularités locales (8) :

(8)	Sh. de Moroni	Sh. septentrional	
	tamáti	ntsamátsi	'tomate'
	hutezá	huŕezá	'jouer'
	iťándá	itándá	'lit'
	mŕđi	mŕri	'arbre'

Sur le plan prosodique, toutefois, ShS présente d'intéressantes spécificités (Patin à paraître). Il a par exemple conservé au présent une opposition entre racines verbales hautes et basses (ex. *ŕgwánikaó*

8. Quoique des interactions entre ton et accent, qui n'ont pas fait l'objet d'une étude approfondie (voir Patin à paraître), opacifient cette distribution.

‘ils ont donné’ vs. *ɲgwareŋgáɔ* ‘ils ont pris’), qui a disparu dans les autres variétés (on aura à Moroni *ɲgwanikáɔ* vs. *ɲgwareŋgáɔ*). On note également en ShS, en particulier du côté de Mbeni, un allongement régulier<sup>9</sup> de l’avant-dernière syllabe de l’énoncé, notamment lorsque cette syllabe porte un ton.

### 3.2 Présentation du phénomène

ShS présente par ailleurs un phénomène de LT similaire à ceux qui ont été présentés dans la première partie de ce travail. En d’autres termes, une propagation de ton haut sera dans cette variété observée à la frontière de deux groupes prosodiques (nous verrons lesquels ultérieurement). Il est important de signaler que des cas de propagation sont attestés dans toutes les variétés que j’ai pu examiner, mais qu’ils sont alors nettement moins réguliers, et apparemment conditionnés par des facteurs tels que le débit, la variation individuelle, etc.

Des exemples de LT en ShS<sup>10</sup> sont présentés en (9) :

(9a) (tsi-reŋgɛ̀)<sub>ϕ</sub> (zé=m-beɾ<sup>1</sup>é)<sub>ϕ</sub>  
 1SG.PFV-*prendre* AUG<sub>10</sub>=10-*bague*  
 ‘J’ai pris les bagues.’

(9b) (ha-wɔnó )<sub>ϕ</sub> (yé=mi-p<sup>1</sup>íra)<sub>ϕ</sub>  
 1.PFV-*voir* AUG<sub>4</sub>=4-*ballon*  
 ‘Il a vu les ballons / les matches.’

[Mbeni]

L’exemple (9a) est illustré par la figure 2. On le voit, la propagation est réalisée à une hauteur mélodique légèrement supérieure à celle qui caractérise le ton déplacé.

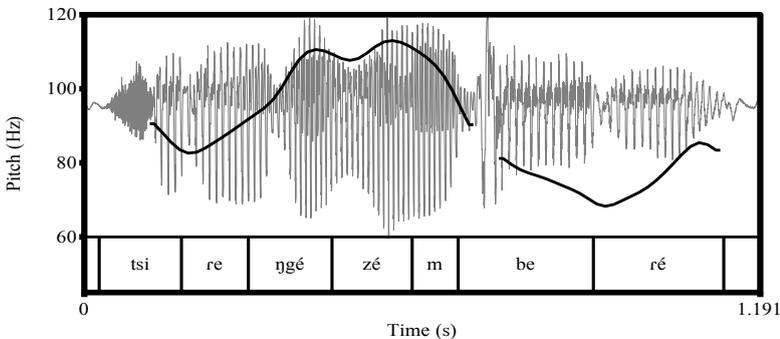


Figure 2

9. Mes données ne me permettent pas d’identifier précisément, à l’heure actuelle, les facteurs qui président à la distribution de cet allongement. Cet allongement n’étant pas pertinent pour mon propos, je ne m’attarderai pas sur cette question, et ne le noterai pas dans les exemples qui suivront.

10. J’utiliserai, pour illustrer le phénomène, des données recueillies auprès de l’informateur originaire de Mbeni.

Dans les exemples en (9), le ton du verbe n'est pas en mesure de se déplacer sur l'objet, car celui-ci est précédé de la frontière prosodique qui est associée à l'augment (\**tsireŋge ze=m-bére*). Pourtant, on observe sur l'augment dans les exemples en (9) la présence d'un ton (suite à la propagation du ton du verbe qui précède) qui n'émerge pas dans les réalisations correspondantes produites par des locuteurs d'autres variétés (10).

- (10) (tsireŋgé)<sub>φ</sub> (ze=mber<sup>1</sup>é)<sub>φ</sub>  
 'J'ai pris les bagues.' [Moroni]

La spécificité de la LT en ShS peut être mise en lumière par la comparaison de (11), illustré par la figure 3, et l'exemple correspondant réalisé par un locuteur originaire de Moroni en (5a), illustré par la figure 1.

- (11) (m<sub>li</sub>m<sub>ad</sub>ji)<sub>φ</sub> (hárem<sup>1</sup>é p<sub>ah</sub>a)<sub>φ</sub>  
 'Un fermier a battu un chat.' [Mbeni]

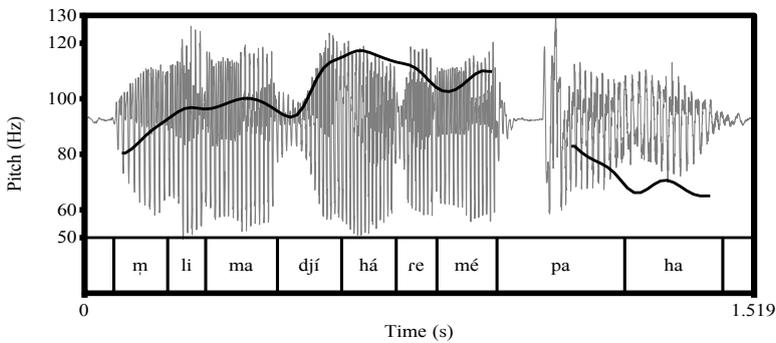


Figure 3

On note très clairement en (11) et dans la figure 3 une propagation tonale qui n'apparaît pas en (5a) et dans la figure 1.

Plus généralement, la LT en ShS intervient à la frontière de deux syntagmes phonologiques – nous verrons pourquoi dans la quatrième partie –, comme le montrent (12a-12b) :

- (12a) (p<sub>ah</sub>á)<sub>φ</sub> (ná=n-dovu)<sub>φ</sub> (z<sup>1</sup>í-dz<sub>a</sub>)<sub>φ</sub>  
 5.chat et=9-éléphant 2.PFV-venir  
 'Un chat et un éléphant sont venus.'

- (12b) (ze=m-beré)<sub>φ</sub> (tsí-zí-r<sup>1</sup>éŋge)<sub>φ</sub>  
 AUG<sub>10</sub>=10-bagues 1SG.PFV-MO<sub>10</sub>-prendre  
 'Les bagues, je les ai prises.' [Mbeni]

Une nouvelle fois, on ne trouvera généralement pas de LT dans des situations similaires dans d'autres variétés, comme on peut le constater en comparant l'exemple ShS (12a), dans lequel la propagation

traverse la frontière prosodique associée à la coordination, et l'exemple (13), réalisé par un locuteur de Moroni :

- (13) (n-ungú)<sub>ϕ</sub> (na=n-umb<sup>1</sup>á)<sub>ϕ</sub>  
 9-*marmite* et=9-*maison*  
 'une marmite et une maison' [Moroni]

#### 4. La liaison tonale n'est pas un 'peak delay'

L'examen des exemples proposés dans la section 3.2 de cet article, de même que l'observation des figures 1 et 2, pourraient laisser penser que le phénomène que je présente comme une LT correspond à ce que l'on nomme généralement '*peak delay*' ou '*delayed peak*' (voir notamment Ladd 2008 [1996], Xu 2001, Gussenhoven 2004), c'est-à-dire un décalage sur la droite du point culminant de la fréquence fondamentale. Dans cette partie, je montrerai qu'il n'en est rien, en explorant les dimensions phonologiques du phénomène.

Un premier argument allant dans ce sens est le fait que la liaison tonale fait chuter les tons de surface (14) :

- (14) (tsi-niká)<sub>ϕ</sub> (lé=paha)<sub>ϕ</sub>  
 1SG.PFV-*donner* AUG<sub>5</sub>=5.*chat*  
 'J'ai donné le chat.' [Mbeni]

Le nom 'chat', en (14), porte un ton sous-jacent sur son avant-dernière syllabe. Le phénomène d'extraprosodicité présenté dans la deuxième partie fait que le ton de l'objet aurait dû émerger sur sa syllabe d'origine, comme c'est le cas dans la variété de Moroni (15) :

- (15) (tsi-niká)<sub>ϕ</sub> (le=p<sup>1</sup>áha)<sub>ϕ</sub>  
 'J'ai donné le chat.' [Moroni]

Dans l'exemple (14), en revanche, la LT conduit à la chute du ton du nom, une nouvelle fois en application du PCO.

J'ai parlé ci-dessus de chute de 'tons de surface'. En effet, comme on peut le constater dans les exemples (11), (12b) et (16), la LT ne conduit pas à la chute d'un ton sous-jacent :

- (16) (tsi-niká)<sub>ϕ</sub> (lé=paha n-<sup>1</sup>úm<sup>1</sup>bá)<sub>ϕ</sub>  
 1SG.PFV-*donner* AUG<sub>5</sub>=5.*chat* 9-*maison*  
 'Il a donné une maison au chat.' [Mbeni]

En (16), le ton du nom 'chat', qui n'est plus le dernier mot de l'énoncé, est en mesure de se déplacer sur le nom 'maison', conduisant à la chute du ton lexical de ce dernier terme. Un tel exemple, dans lequel on voit LT s'appliquer, particulièrement lorsqu'on le compare à (15), renforce la dimension post-lexicale du phénomène de liaison tonale, qui avait déjà été mise en évidence par le fait que la LT s'effectue à travers les frontières de syntagmes phonologiques.

Cette dimension post-lexicale de la LT est soutenue par un dernier argument. En shingazidja, un groupe prosodique qui ne présente pas de ton lexical se voit attribuer un ton – ou plus probablement un intonème (Patin à *paraître*) – sur son avant-dernière syllabe (Philipsson 2005, Patin 2007, O'Connor & Patin 2015). En (17), par exemple, aucun terme ne présente de ton sous-jacent<sup>11</sup> ; un ton, pourtant, est inséré sur l'avant-dernière syllabe de l'énoncé.

- (17) (ze=n-dovu                    n-djema    n-dzíro)<sub>φ</sub>  
 AUG<sub>10</sub>=10-*éléphant*    10-*gentil*    10-*lourd*  
 'Les gentils éléphants lourds.' [Mbeni]

La LT, comme l'on pouvait s'y attendre à la lumière de l'exemple (14), prévient ce type d'insertion (18) :

- (18) (ha-wonó)<sub>φ</sub>    (yé=n-dovu)<sub>φ</sub>  
 1.PFV-*voir*    AUG<sub>9</sub>=9-*éléphant*  
 'Il a vu l'éléphant.' [Mbeni]

Ces dernières considérations rendent d'autant plus étonnante la dernière dimension que nous aborderons dans cette partie. La LT, en effet, ne peut étrangement pas s'effectuer sur une voyelle qui porte un ton au niveau sous-jacent<sup>12</sup> ! En (19), par exemple, le ton du verbe ne peut se propager sur la première syllabe du nom 'haricots' :

- (19) (tsi-limí                    η-ku:d<sup>h</sup>é)<sub>φ</sub>  
 1SG.PFV-*cultiver*    10-*haricots*  
 'J'ai cultivé des haricots.' [Mbeni]

De prime abord, il semble logique de considérer que la propagation ne peut s'effectuer en (19) en raison de l'application du PCO : la LT ne pourrait opérer en (19) parce que la propagation du ton conduirait celui-ci à entrer en contact avec le ton du nom. Cette hypothèse, toutefois, fait face à certains écueils. D'une part, nous avons vu plus tôt que la LT faisait chuter les tons de surface ; on aurait donc plutôt attendu une propagation suivie de la chute du ton du nom, plutôt que la réalisation attestée. Surtout, la LT n'opère pas sur une syllabe associée à un ton au niveau sous-jacent, même lorsqu'il n'y a aucun risque de contact avec un ton de surface, comme on peut le voir en (20), illustré par la figure 4 :

11. Je n'ai pas la place de défendre ici ce point plus en détail. Le lecteur intéressé trouvera des arguments en faveur du phénomène dans Philipsson (2005) ou Patin (2007, à *paraître*).

12. Je me dois de préciser que j'ai dans mes données quelques (très) rares contrexemples, tels (i). Je n'ai pas été jusqu'à présent capable d'identifier un paramètre pouvant expliquer ces exceptions à la généralisation proposée.

(i) (ze=n-ujgu                    m-bílí                    zi-nu)<sub>φ</sub>  
 AUG<sub>10</sub>=10-*marmite*    10-*deux*                    10-DEM  
 'ces deux marmites' [Mbeni]

- (20) (ha-wónó páha)<sub>ϕ</sub>  
 1.PFV-voir 5.chat  
 ‘Il a vu un chat.’ [Mbeni]

En (20), le ton du verbe se déplace sur la dernière syllabe de celui-ci, où il reste bloqué car la première syllabe du nom porte un ton haut au niveau lexical. Le ton du verbe, toutefois, ne se propage pas sur l’avant-dernière syllabe de l’énoncé.

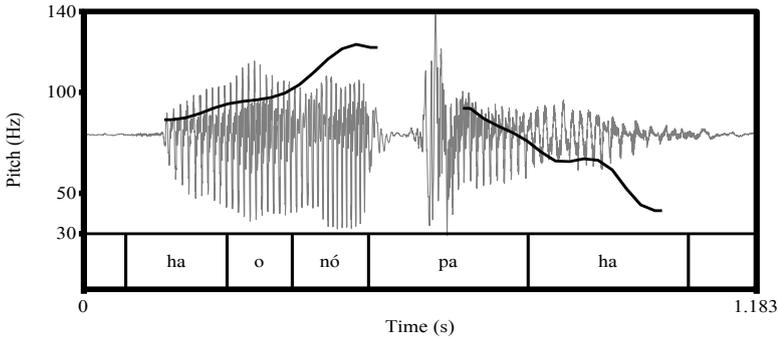


Figure 4

Puisque la LT ne peut opérer sur une syllabe qui porte un ton au niveau sous-jacent, on comprend pourquoi tous les exemples de la section 3.2 la faisaient intervenir à la frontière entre deux syntagmes phonologiques. Qu’en est-il dans ce dernier cas ? Observons l’exemple (21) :

- (21) (le=páhá)<sub>ϕ</sub> (lí-rémwa n’=’é )<sub>ϕ</sub> (m̄-lim’ádji )<sub>ϕ</sub>  
 AUG<sub>5</sub>=5.chat 5.PFV-battre.PASS avec=AUG<sub>1</sub> 1-fermier  
 ‘Le chat a été battu par le fermier.’

En (21), le déplacement du ton du nom ‘chat’ sur sa dernière syllabe conduit à la chute du ton du préfixe sujet du verbe<sup>13</sup>. Bien que les conditions nécessaires à l’application de la LT semblent remplies, le ton du verbe se déplaçant jusque sur l’augment associé au nom ‘fermier’, celle-ci n’est pas en mesure d’opérer, car le préfixe sujet du verbe porte un ton au niveau sous-jacent.

À partir de l’examen des données proposées dans cette section et de leur analyse, il est donc possible d’affirmer que la LT est un processus qui relève de la phonologie, qui est contraint par des paramètres d’ordre phonologique, et qui doit de ce fait être distingué de phénomènes tels que le *peak delay*.

Ce processus de propagation tonale est exceptionnel en ce qu’il suit un processus de déplacement tonal illimité. En effet, si d’autres cas de

13. La chute des tons au début d’un syntagme phonologique précédé d’un ton haut est optionnelle en shingazidja (Cassimjee & Kisseberth 1993).

combinaison de déplacement et propagation tonals sont attestés dans la littérature consacrée aux langues bantoues – c’est par exemple le cas du holoholo (Coupez 1955), du daβida (Odden 2001) ou du saghala (Patin 2009) –, ils associent généralement un déplacement et une propagation limités à la syllabe qui suit (ex. /babábababa/ □ babábábába).

## 5. Éléments d’analyse formelle

Pour conclure ce travail, je présenterai quelques éléments d’analyse formelle du phénomène de LT en ShS. En 5.1, j’expliquerai en quoi une analyse autosegmentale peine à rendre compte du phénomène. En 5.2 et 5.3, je montrerai en quoi la liaison tonale semble soutenir un système de représentation alternatif construit autour de la notion de ‘domaine’.

### 5.1 L’analyse autosegmentale et les problèmes qu’elle pose

Avant d’examiner le phénomène de la LT à travers sa formalisation dans le cadre autosegmental<sup>14</sup>, il est nécessaire d’expliquer comment l’on peut représenter les principales règles du système tonal du shingazidja dans ce cadre.

L’analyse la plus simple que l’on peut faire du déplacement tonal illimité que l’on observe en shingazidja consiste à adopter une analyse dérivationnelle considérant que le ton se propage dans un premier temps aussi loin qu’il le peut sur sa droite (étape 2 de la figure 5 ci-dessus). Dans un cadre autosegmental, cela se traduit par la création de nouvelles lignes d’association liant ce ton aux unités porteuses de ton qui suivent. Dans un second temps, toutes les lignes d’association à l’exception de la dernière sont supprimées (étape 4 de la figure 5).

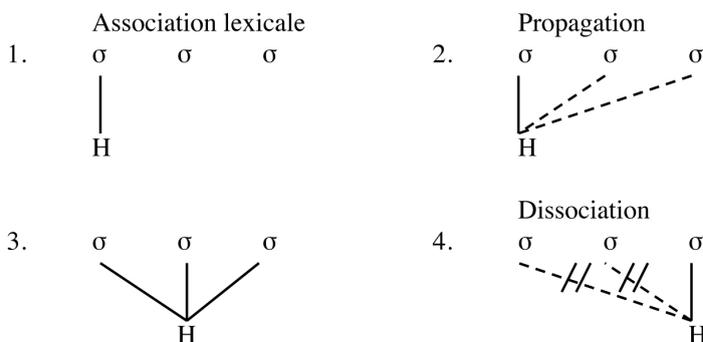


Figure 5

14. Pour ce travail, je supposerai connus les principes élémentaires du modèle autosegmental (Goldsmith 1976).

L'hypothèse d'une propagation étendue suivie d'une dissociation généralisée a été soutenue par Philippson (2005 : 216-219), à la lumière de ce qu'on peut aujourd'hui observer en shambaa, une langue bantoue (G.23) de Tanzanie qui est apparentée au shingazidja, et qui est de son côté caractérisée par un phénomène de propagation tonale illimitée (22) :

(22) Philippson (2005 : 217)

	<b>shingazidja</b>	<b>shambaa</b>
'deux bras'	mihono miil̩	mikónó mí'í
'deux barbes'	ndevu mbil̩	ndevu miil̩
'trois maisons'	ɲumbá ndraru	ɲumbá 'ntátú

Philippson (2005 : 217) indique :

[...] the resemblances are striking and it is not difficult to see how the Ngazidja system can be derived from the one obtaining in Shambaa: (1) disassociate all H tones [...] except the final one and (2) disassociate H tones entirely after a downstep [...].

En effet, les tons pairs et toutes leurs associations (pour simplifier la représentation, je n'en indique qu'une ci-dessous) doivent être dissociés dans un système autosegmental, sur le modèle de ce que l'on peut observer dans l'étape 6 de la figure 6 :

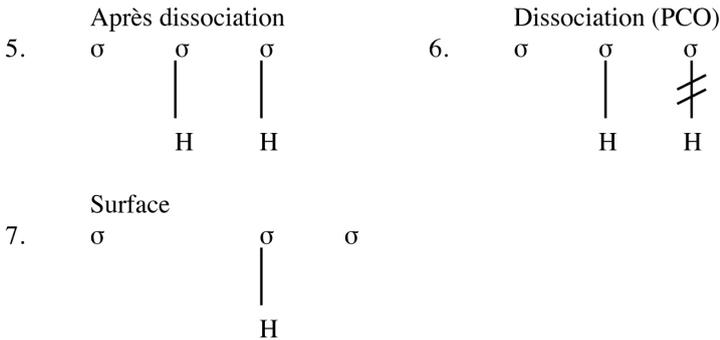


Figure 6

Comment la LT s'inscrit-elle dans un cadre d'analyse autosegmental ? Le processus en lui-même ne présente pas de difficulté majeure, puisqu'il consiste, comme toute propagation, en la création d'une ligne d'association supplémentaire liant un ton à une nouvelle unité porteuse.

Rendre compte des phénomènes présentés dans la quatrième partie de ce travail, en revanche, n'est pas aussi simple. Dans un premier temps, notons que la liaison tonale ne peut intervenir avant la dissociation des lignes du ton qui la suit linéairement. Nous avons en effet vu plus tôt que la LT conduisait à la chute des tons de surface

(15), mais qu'elle ne conduisait pas à la chute d'un ton sous-jacent (16). Or, si l'on suppose que la liaison tonale intervient avant la dissociation des tons, on ne peut rendre compte de cette distinction, comme l'illustrent les schémas de la figure 7 :

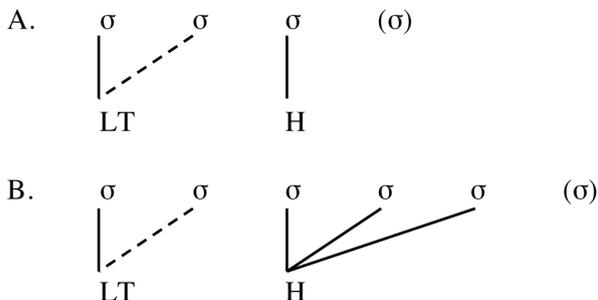


Figure 7

Le schéma A correspond à la configuration (15). Si l'on explique la chute du second ton par la propagation (ici, la LT) qui caractérise le premier, on doit supposer que le même phénomène doit s'appliquer dans le schéma B – configuration (16) –, ce qui n'est pas observé.

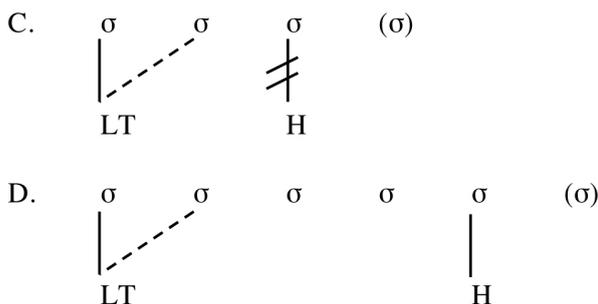


Figure 8

On doit donc supposer, ce qui est logique étant donné la dimension post-lexicale de la LT, que celle-ci intervient *après* la dissociation des lignes associées au ton qui la suit. Considérons à présent les schémas C et D qui précèdent (Figure 8), le premier correspondant à (15), et le second à (16).

Ces nouvelles représentations permettent de rendre compte de l'opposition qui existe entre les exemples (15) et (16). La chute du ton, dans le premier cas, s'explique par le fait que les deux tons entrent en contact à la suite du phénomène de LT, et l'absence de chute, dans le second, est au contraire expliquée par l'absence d'un tel contact.

Une telle analyse, toutefois, bute sur un sérieux écueil : elle ne permet en effet pas d'expliquer pourquoi la LT ne peut s'effectuer sur une syllabe qui porte un ton au niveau sous-jacent, dès lors que celle-ci, après dissociation des lignes d'association non-finales, n'est plus associée à un ton ou en contact avec une syllabe associée à un ton (comme dans le schéma D de la figure 8) !

## 5.2 La notion de domaine

Afin de rendre compte des différentes manifestations de la liaison tonale, il est donc nécessaire de se tourner vers un autre système de représentation. Je défendrai ici l'intérêt de la notion de 'domaine', telle qu'elle a été construite au milieu des années 1990 par Charles Kisseberth dans une série d'articles remarquables (Kisseberth 1994 ; Cole & Kisseberth 1994 ; Cassimjee & Kisseberth 1998). Cassimjee & Kisseberth (1998 : 38) présentent le concept comme suit :

[...] just as segments are organised into domains (syllables), so features are also organised into domains ("featural domains" or "F-domains"). Just as a segment that is not in a domain cannot be pronounced, so a feature that is not in a domain cannot be pronounced. The domain "licences" the feature so to speak. (Cassimjee & Kisseberth 1998 : 38)

On le comprend, la perspective adoptée, connue sous le nom d'*Optimal Domains Theory* (à présent ODT), est distincte de l'analyse autosegmentale. Dans une représentation telle que (23), les trois dernières syllabes sont hautes car elles sont inscrites à l'intérieur d'un *domaine*, dont les frontières sont signalées par des parenthèses.

(23) baba(bábábá)<sub>H</sub>

Il est important de noter à ce stade que, dans le modèle ODT, la syllabe qui porte un ton sous-jacent, désignée par le terme 'sponsor', possède un statut particulier. Cassimjee & Kisseberth (1998) utilisent par exemple une contrainte nommée *Uniqueness* qui dit "*there is only one sponsor of [a feature] in a domain*" (Cassimjee & Kisseberth 1998 : 43).

Une représentation telle que (23) offre certains avantages<sup>15</sup>, et elle a été adoptée sous différentes formes par plusieurs chercheurs à la suite de Charles Kisseberth, tels Creissels (1998).

## 5.3 Une analyse de la liaison tonale sous forme de domaines

Le concept de domaine nous intéresse tout particulièrement en ce qu'il a été utilisé afin de rendre compte de la tonologie du shingazidja par

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15. Notons qu'elle n'est toutefois pas en mesure de rendre compte de phénomènes qui s'expliquent très bien au moyen de la théorie autosegmentale, tels les phénomènes de *downstep* causés par un ton bas flottant. Par ailleurs, je ne connais pas d'étude ayant fourni des éléments soutenant une quelconque réalité psychologique de ce concept.

Cassimjee & Kisseberth (1998), cette analyse ayant ultérieurement été adoptée par Philippson (2005) et Patin (2007). Dans Cassimjee & Kisseberth (1998) comme dans Patin (2007), l'analyse est inscrite dans le cadre de la Théorie de l'Optimalité. Je n'évoquerai pas ce modèle ici, d'une part parce qu'il n'apporte rien en ce qui concerne le point qui nous occupe, mais surtout parce que son utilisation pour un phénomène tel que la LT se révélerait extrêmement complexe, notamment en raison de la dimension dérivationnelle et post-lexicale du phénomène.

L'analyse du déplacement tonal illimité par Cassimjee & Kisseberth (1998) est proposée en (24). L'amplitude du domaine est identique à celle qui caractérise une propagation étendue telle que celle que l'on observe en (23) – cf. la comparaison entre le shingazidja et le shambaa évoquée plus haut – mais les syllabes qui ne correspondent pas à la 'tête' du domaine tonal ne peuvent exprimer le ton haut (24). La tête d'un domaine, dans le modèle ODT, est déterminée par la direction du phénomène observé : dans le cas d'un déplacement tonal vers la droite, il s'agit de la dernière syllabe du domaine.

(24) baba(bababá)<sub>H</sub>

La chute des tons hauts pairs, de son côté, sera liée à une contrainte (ou une règle) interdisant aux domaines tonals d'entrer en contact.

Comment la notion de domaine peut-elle rendre compte des caractéristiques de la liaison tonale qui ont été présentées dans la quatrième partie ? Plusieurs analyses sont envisageables. Il est par exemple possible de considérer qu'une extension du domaine tonal d'origine intervient en fin de dérivation. Je préfère ici considérer que la propagation tonale construit un domaine différent de celui qui correspond au déplacement du ton haut, ce nouveau domaine (dont les frontières sont dans les exemples qui suivent signalées par des accolades – '{...}' ) intervenant au niveau post-lexical (au niveau du groupe intonatif, plus précisément <sup>16</sup>) – cf. (25).

(25) baba(baba{bá})<sub>H</sub><sup>17</sup> bá}ba(bababá)<sub>H</sub>

Venons-en maintenant aux points qui posaient problème à une analyse autosegmentale dans la section 5.1. Afin de rendre compte de la chute du ton de surface observée en (15) – cf. le schéma C de la figure 8 –, on considérera qu'une contrainte ou une règle liée au PCO prévient la succession de deux têtes de domaines successives (26).

16. Je ne dispose malheureusement pas de données indiquant si la liaison tonale est possible ou non à la frontière de deux groupes intonatifs. Cette question devra faire l'objet d'un futur travail.

17. Pour ne pas multiplier les parenthèses et les domaines et faciliter la lisibilité, dans cet exemple et dans les suivants, j'indique par ce symbole la frontière de syntagme phonologique.

- (26) \*baba(baba{bá)<sub>H</sub>| bá}(bá)<sub>H</sub>ba  
 → baba(baba{bá)<sub>H</sub>| bá}(ba)<sub>H</sub>ba

Dans une situation illustrée par l'exemple (16) – cf. le schéma D de la figure 8 –, en revanche, la chute du ton n'intervient pas car les têtes des différents domaines ne sont pas en contact (27).

- (27) baba(baba{bá)<sub>H</sub>| bá}(bababá)<sub>H</sub>ba

Il reste maintenant à expliquer pourquoi la liaison tonale ne peut s'effectuer sur une syllabe qui porte un ton sous-jacent. Ici encore, plusieurs solutions sont envisageables, telles celle qui consiste à dire qu'un domaine ne peut franchir la frontière gauche d'un autre domaine. Toutefois, il est plus logique, pour rendre compte de ce phénomène, de s'appuyer sur le concept de sponsor proposé par Cassimjee & Kisseberth (1998), que ce soit en reprenant la contrainte *Uniqueness* qu'ils ont proposée, ou en construisant une règle ou contrainte plus explicite interdisant l'extension d'un domaine sur un sponsor. Ces deux approches sont presque équivalentes, si ce n'est que la première implique nécessairement que le domaine de la LT possède un sponsor (qui correspondrait à la tête du domaine tonal), alors que ce n'est pas le cas pour la seconde.

## Conclusion

J'ai présenté dans ce travail une analyse du phénomène de la liaison tonale tel qu'il se présente dans la variété septentrionale du shingazidja, à savoir la propagation d'un ton intervenant en fin de syntagme phonologique sur la première syllabe du syntagme phonologique qui le suit. J'ai expliqué en quoi ce phénomène était associé à diverses règles ou contraintes phonologiques, telles le fait que la liaison tonale ne peut s'effectuer sur une syllabe associée à un ton au niveau sous-jacent, et en ai proposé une analyse préliminaire s'appuyant sur la notion de domaine tonal telle qu'elle a été proposée dans les travaux de Charles Kisseberth, et notamment dans l'application de cette notion qu'il a proposée avec sa collègue Farida Cassimjee (Cassimjee & Kisseberth 1998) pour la tonologie du shingazidja. J'espère avoir montré en quoi une telle analyse permet de contourner certaines difficultés de formalisation associées à un traitement autosegmental du phénomène.

Au-delà de l'intérêt intrinsèque du phénomène de la liaison tonale, celui-ci pose des questions sur nos outils d'analyse qui devront faire l'objet de recherches futures. Les manifestations de la liaison tonale en shingazidja septentrional interrogent en effet les liens que l'on peut construire entre tons et intonation, ainsi que les relations qui unissent les différents niveaux prosodiques, notamment à travers l'effet qu'a l'association sous-jacente d'un ton sur l'extension d'un phénomène de nature post-lexicale.

Si l'on laisse de côté les dimensions théoriques du phénomène, on notera qu'il reste beaucoup à apprendre sur la liaison tonale en shingazidja. En particulier, il serait intéressant d'appréhender les manifestations du phénomène dans les autres variétés de la langue, et d'identifier les paramètres qui conditionnent son apparition. Pour toutes les variétés du shingazidja, enfin, il serait intéressant de savoir si la liaison tonale, ou des phénomènes de nature similaire, peut intervenir aux frontières de groupes prosodiques plus étendus, tel le groupe intonatif.

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**Comptes-rendus**  
**Book reviews**

**Aliou MOHAMADOU, *Le Verbe en peul : Formes et valeurs en pulaar du Fuuta-Tooro*, 2<sup>e</sup> éd., Paris, Karthala, 2014, 252 p.**

par Viktoria APEL  
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This monograph by Aliou Mohamadou is the first exhaustive study of verb morphology in the Atlantic language Fula. In this work, based on the Fuuta-Tooro dialect spoken in Senegal, the author examines in impressive detail verb roots as well as any morphemes that may be attached to these roots. In contrast to most discussions on inflectional paradigms in Fula, the form-function relationship of verb suffixes is analysed primarily by using data from a corpus. This particular approach makes this study unique. Furthermore, the author describes constructions involving auxiliaries, thus providing a very accurate description of Fula predicates.

In the introduction Mohamadou presents his motivation for the present work, namely a thorough corpus-based description as opposed to one heavily based on elicited data. The corpus is indeed large, comprising 28,540 instances of verbs. Nevertheless, it is a pity that only written texts were taken into account, including a collection of folk tales, four novels, three short stories, an autobiographical narrative, and a collection of proverbs. The inclusion of natural spoken discourse could have increased the value of the corpus by representing actual spontaneous language use. Be that as it may, a major result of the study is that 54% of the verb suffixes could not be found in the corpus at all. Mohamadou saves this for a small comment in the final chapter, however the finding is so important to the entire *raison d'être* of the study to warrant it being mentioned in the introduction, as the rest of the paradigm was in fact elicited after all. Some clarifying comments on the methodology would have nicely rounded off the introduction.

The introduction is followed by eight chapters. The first chapter is dedicated to the morphology of verbs and complex predicates. It constitutes the basis for the following chapters by providing definitions, describing patterns, and explaining the forms and functions of inflectional suffixes. In other words, this chapter represents a comprehensive summary of the paradigms to be discussed exhaustively later on. Mohamadou starts by defining the general verb structure: root (*lexème verbal*) – derivational suffix (*dérivatif*) – inflectional suffix (*morphème verbal*) – noun class marker (*classificateur*)<sup>1</sup>. The sequence formed by the root and the derivational suffix is called “basic unit” (*unité de base*).

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1. This latter element is part of infinitives and participles. Participles are described in detail in Chapter 7 (see below).

Subsequently Mohamadou discusses finite predicates by taking into account the form and position of subject pronouns on one hand and auxiliaries on the other. Subject pronouns may be simple (*i.e.* monosyllabic and preverbal), emphatic, locative, or enclitic to the finite verb stem. The author states that emphatic pronouns may also occur post-verbally in the Fuuta-Tooro dialect, but gives no example thereof. This is rather unfortunate since this point is claimed to be unique to Fuuta-Tooro. The section devoted to pronouns is followed by a description of four auxiliaries and a summary of the paradigms that characterise the infinitive, participle, imperative, subjunctive, imperfective, and perfective categories. Under each category, the different construction types are vividly illustrated by tree diagrams and are accompanied by examples. Mohamadou goes on to define three conjugation patterns with respect to the syllable structure of the basic unit. The first two patterns include two types of monosyllabic basic units (CVC and CVCC). The third one refers to polysyllabic basic units with a CVC(C)VC structure. Despite the detailed phonetic explanations, more information would help clarify the author's decision to treat differently long vowels and geminated consonants. Whilst roots with long vowels such as *loot-* 'to wash' are listed under the CVC structure, roots with a root-final geminated consonant such as *tapp-* 'to hit' belong to CVCC. A short explanation would help the reader understand this particular way of classifying roots. Overall, the first chapter is nevertheless well-structured and provides a systematic introduction for the chapters to come. Although the inflectional suffixes are complex, they are easy to identify because the various examples provided make generally use of one and the same verb root. However, this comprehensive and clear description of Fuuta-Tooro Fula is occasionally blurred by comments on other Fula dialects (in particular as regards morphemic and prosodic variation), to the extent of being sometimes distracting. To that end, it would have been in the author's and reader's interest to clearly restrict this study to Fuuta-Tooro. More consistent and standardised glossing conventions for all examples would also have improved this otherwise imposing work.

In Chapters 2 to 6, Mohamadou discusses infinitive, imperative, subjunctive, imperfective, and perfective in that order. Each of these categories is divided into two or more paradigms which, at the beginning of each chapter, are systematically explained and illustrated by one or more examples drawn from the corpus. The examples are followed by tables displaying the conjugation pattern, the so-called "rupture marker" (*marqueur de rupture*) *-no*, object pronouns, voice, and person. The identification of the suffixes is greatly facilitated by the author's commendable decision to exemplify paradigms with the same six verb roots throughout all five chapters. However, some points require further research. Firstly, Mohamadou limits his description to singular third

person human object pronouns only. The next step would be to examine the influence of the remaining object pronouns on the verb suffixes and also to check the impact of enclitic subject/object pronoun combinations. Secondly, in the discussion of the constructions subsumed under the title “anteriority infinitive” (*infinitif d’antériorité*), the conjunction *hade* ‘before’ is followed by different pronouns according to the person — simple subject pronouns for the first person and possessive pronouns for the second and third persons. An explanation would be needed in order to shed light on this asymmetry. Thirdly, a closer look at the form of the inflectional paradigms reveals that in several cases one and the same paradigm appears in different constructions. For instance, the paradigms described under *accompli statif* (p. 151-131) are identical to those given under *accompli relatif-I* (p. 132-138). In order to avoid such form-function overlapping, one could assign numbers to the perfective and imperfective paradigms as done by Sylla (1982; 1993) for Pulaar or by Diallo (2000) for Pular (Guinea) instead of labels. The advantage of such numbers is that they dispense one from trying to coin a label that catches all functions — arguably a vain and hazardous enterprise. In the three works cited above, the paradigms are listed more or less strictly according to the form of the suffixes, whereas the functions of these only play a minor role. Another advantage of this approach is that it also reduces the number of paradigms and renders the whole description of Fula verb morphology less complex.

Chapter 7 deals with participles (*participes*). Participles are defined as verbal constituents capable of assuming the function of an adjective. They are composed of a verb root, an inflectional suffix, and a suffix reflecting one of the 21 noun classes attested in Fula. The latter are liable to influence the vowel length of the preceding inflectional suffix. By the fact that participles display a noun class suffix, they crucially differ from the suffixes discussed in the previous chapters which are not linked to the noun class system. Also, most of the inflectional suffixes that appear on participles are related to the inflectional suffixes attested in certain subordinate clauses (specifically relative clauses). With this in mind, a discussion on the morphosyntactic nature of participles would have been particularly welcomed. As a matter of fact, the participles could as well be analysed as subject relative clauses whose relative pronoun would constitute the enclitic noun class marker.

The final chapter opens with comments on the orthographic, morphological, and phonological variants of the verbal morphemes that are presented in the glossary at the very end of this chapter. These comments are followed by a short evaluation of the distribution and frequency of the suffixes within the corpus. As mentioned above, one of the main results is that 54% of the suffixes that are presented in the

paradigms were not found in the corpus at all. The glossary contains more than 760 suffixes in alphabetical order. The size gives the impression that Pulaar verb morphology is highly complex. In fact, considering that the participles are listed for each of the 21 noun classes and that inflectional suffixes followed by singular object pronouns are counted separately, it becomes obvious that these high figures are rather a reflection of the author's (maybe somewhat over-complicated) methodology than of the actual intricacy of the language. A complete description, taking into account all enclitic object pronouns (as well as all subject/object pronoun combinations) as suggested above, would inflate this number even further. The impact of the present work would have possibly been greater if the author had adopted a simpler approach to analyse the verb morphology by focussing mainly on the form of the inflectional suffixes and paradigms (independently from their functions).

In conclusion, the conceptualisation of the present study, namely a discourse-based approach to the analysis of verb morphology in Fula, is to be commended. The chapters build up on each other systematically and allow the reader to become, step by step, familiar with the Fula verb system. The suggestions for improvement made herein do not detract from the fact that this monograph constitutes an impressive study of Fula verb morphology.

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**Michka SACHNINE, *Grammaire du yorubá standard (Nigéria)*. Paris, Karthala, 2014, 288 p.**

par Nicolas AUBRY

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La *Grammaire du yorubá standard (Nigeria)* de Michka Sachnine constitue la première description complète de cette langue en français. Il s'adresse à deux grandes familles de lecteurs : les spécialistes du yorubá ou ceux qui se destinent à l'être (étudiants ou chercheurs), ainsi qu'un lectorat plus large qui cherchera des éléments plus ou moins nombreux, plus ou moins détaillés, sur le fonctionnement de cette langue (linguistes, notamment typologues, mais aussi comme le dit l'auteur « toute personne curieuse du fonctionnement des langues »).

Je commencerai par une présentation formelle détaillée de l'ouvrage, avant d'en entreprendre le compte rendu critique.

Après les *Remerciements* et une présentation exhaustive des *Abréviations*, des sources des exemples et de choix formels, un proverbe ouvre un court *Préambule* qui situe l'ouvrage par rapport à son lectorat potentiel ainsi que par rapport à d'autres ouvrages, notamment anglophones. On entre dans le vif du sujet avec une *Introduction* conséquente (11 pages) qui l'aborde d'un point de vue géographique (« l'espace yorubá »), puis présente et questionne le terme « yorubá » lui-même pour arriver finalement au yorubá en tant que *langue*. L'auteur présente alors un panorama historique des premières études et de l'orthographe du yorubá, en insistant sur sa grande différenciation dialectale et, partant, sur la problématique de la standardisation. Le yorubá est alors envisagé d'un point de vue génétique (y compris d'un point de vue interne avec une prise en compte des principales zones dialectales) puis typologique. L'introduction se termine par une présentation de l'ouvrage lui-même, qui aborde la question de ses destinataires, présente et justifie les grands choix d'organisation et annonce son plan.

La première partie, intitulée *Phonologie*, relativement courte (26 pages), comporte trois chapitres : le *Chapitre I* consiste en une description des éléments segmentaux et de l'harmonie vocalique, suivie au *Chapitre II* d'une description des éléments suprasegmentaux que sont les tons (y compris leur comportement lors de processus d'élision vocalique et un cas de neutralisation de l'opposition bas/moyen) ainsi que de leurs réalisations phonétiques. Le *Chapitre III* aborde, toujours d'un point de vue phonologique, les unités constitutives du signifiant : la syllabe, la

structure canonique des lexèmes, ainsi que des phénomènes d'assimilation et d'élosion ayant lieu au sein des / entre les unités.

La deuxième partie, intitulée *Syntaxe*, s'ouvre non sur un chapitre mais par un original *Avant-goût* qui, en quelques pages, permet au lecteur d'entrer « d'emblée dans la langue » (p. 51) par un nombre conséquent d'énoncés simples, verbaux et non verbaux, pour la compréhension desquels l'essentiel est expliqué. On retrouve ensuite l'organisation en chapitres, avec le *Chapitre IV "Les catégories nominales et verbales"*, qui établit le caractère structurant de cette distinction pour le lexique yorùbá, et décrit pour chaque catégorie les mots simples ainsi que les mots issus de procédés de dérivation ou de composition. Ce chapitre a toute sa place dans une partie consacrée à la syntaxe car, plus que les procédés formels (morphologiques) de formation des mots, ce sont les liens fonctionnels/sémantiques sous-jacents entre les éléments (dans le cas des noms issus de verbes) ou les propriétés syntaxiques des composés (dans le cas des verbes) qui sont examinés en détail ici. Vient ensuite le plus long chapitre du livre, le *Chapitre V "Les constituants d'une phrase simple"*. Ce chapitre se propose d'introduire les éléments syntaxiques nécessaires à la formation d'une phrase verbale simple. Même avec cette restriction, le nombre d'éléments traités est considérable puisque pour chaque constituant de base (syntagme nominal et syntagme verbal), en plus des éléments-« noyau[x] », l'ensemble des expansions possibles (non propositionnelles) sont décrites (déterminants au sens large pour les noms, système aspecto-temporel, adverbes et circonstants pour les verbes). Le *Chapitre VI "Les modifications d'une phrase simple"* porte sur un certain nombre d'opérations syntaxiques : la focalisation de différents éléments (sujet, objet, génitif, divers circonstants), l'interrogation (totale et partielle, directe et indirecte), le discours rapporté, ainsi que des processus très spécifiques où les actants changent de fonction sans changement sémantique. L'ouvrage se clôt alors fort logiquement par le *Chapitre VII "Les phrases complexes"*, qui traite des cas de subordination (proposition relative, propositions dépendant du verbe (p.ex. complétives), propositions dépendant de la principale (p.ex. temporelles)), de coordination (où coordination nominale et verbale sont nettement distinguées) et touche élégamment les frontières de la stylistique avec un dernier paragraphe sur la juxtaposition. Un proverbe vient alors répondre au premier.

Disons d'ores et déjà que l'ouvrage est à même de satisfaire le lectorat visé. Il y parvient en proposant de nombreuses analyses et descriptions très pointues, et souvent inédites (j'y reviendrai), tout en maintenant une certaine simplicité et une terminologie relativement athéorique.

Le principal – et insoluble – problème que rencontre tout auteur de grammaire est de faire entrer, dans le format linéaire (le livre) auquel il

est contraint, un objet qui ne se laisse pas saisir d'une manière linéaire (une langue) : il est très souvent difficile de ne pas mentionner, à un point de l'ouvrage, des éléments de grammaire « non encore vus ». C'est un problème que rencontrent aussi les enseignants de langues, et c'est sans doute pour cette raison que Michka Sachnine, fondatrice du cursus de yorùbá à l'INALCO, a si élégamment su résoudre ledit problème dans son ouvrage. Ainsi, d'une part, certains phénomènes qui se laissent facilement sérier, le sont de manière très nette : les questions de variété de langue (standard vs dialectes) et d'orthographe sont vues dès l'Introduction, puis tous les éléments nécessaires de phonologie sont traités dans la première partie qui, répétons-le, est relativement courte. De ce fait, le lecteur aborde la seconde partie, qui est le cœur de l'ouvrage, en ayant intégré ces éléments et sans qu'il n'ait plus à y revenir. Les phénomènes de syntaxe se laissent moins facilement sérier, et pourtant l'impression de progresser sans saut, sans rencontrer d'éléments inconnus, demeure tout au long de cette seconde partie. Ceci est rendu possible par un nombre bien dosé de renvois dans les notes de bas de page, par le choix de l'ordre des chapitres et des sections (cf. notre détail ci-dessus), mais aussi par le très original *Avant-goût* qui ouvre la seconde partie : le lecteur y rencontre d'emblée des énoncés complets, nominaux et verbaux, suffisamment brefs et simples pour qu'il puisse les appréhender. Notons que ce faisant, l'auteur tire intelligemment parti de certaines propriétés du yorùbá : un ordre des constituants similaire à celui du français, et l'absence de morphologie flexionnelle. En effet, un tel « avant-goût » serait plus délicat à écrire pour une langue ayant un ordre des constituants différent de celui de la langue d'exposition, et/ou présentant une morphologie flexionnelle riche. Enfin, tout au long de l'ouvrage, les points susceptibles d'être formalisés le sont systématiquement, sous forme de tableaux, tantôt au sein des sections, tantôt en tant que récapitulatifs qui servent de conclusions à certaines sections. La présence, et l'usage adéquat, de ces tableaux participent à la facilité de lecture – et de consultation postérieure – de l'ouvrage.

Voyons maintenant en quoi *Grammaire du yorùbá standard du Nigeria* présente des données et des analyses très pointues et souvent inédites. Pour ce faire, j'ai sélectionné quelques exemples :

- Le yorùbá possède plusieurs homonymes de forme *sí* : verbe défectif ('se trouver' et expression de l'existential, mais uniquement dans des énoncés négatifs), deuxième verbe dans une proposition, et préposition ('à', vers', avec mouvement). L'auteur montre (p. 173) de façon convaincante que cette homonymie est le résultat d'un processus de grammaticalisation (verbe principal > V2 > préposition) dont les étapes sont encore observables en synchronie, et propose une analyse sémantique fine, nourrie par cette hypothèse historique, des divers emplois attestés.

Une telle analyse est, à ma connaissance, inédite.

- Le yorùbá possède un grand nombre d'éléments susceptibles de s'intercaler entre le sujet et le verbe, et modifiant ce dernier. Parmi eux, certains sont très fréquents et ont clairement des valeurs aspecto-temporelles (inaccompli, futur, etc.), tandis que d'autres, plus nombreux et moins fréquents, peuvent aussi avoir des valeurs plus typiquement adverbiales. Aucun travail, à ma connaissance, n'avait entrepris de dresser une liste de ces éléments, encore moins d'en fournir une classification et une analyse globale. C'est une telle liste, et surtout une telle analyse, que propose l'auteur, en y consacrant pas moins de 32 pages (138-170). L'ensemble de ces éléments, appelés « auxiliaires verbaux », est divisé en « auxiliaires aspecto-temporels » (sous-ensemble fermé de quatre items très fréquents, dont les combinaisons sont également décrites en détail) et « aspectifs ». C'est la désignation claire de ce second sous-ensemble, et sa division interne en trois catégories sur des critères sémantico-syntaxiques, qui constitue une nouveauté majeure : l'auteur y distingue les « aspectifs modaux » (sur la base de leur interaction avec deux marques de négation ainsi que de critères sémantiques), les « aspectifs verbaux » (qui partagent des propriétés verbales, telles que le fait de pouvoir servir de base pour la dérivation dite « CíCV ») et les « aspectifs non-verbaux » (qui ne partagent pas lesdites propriétés). Le résultat est très convaincant et tout à fait inédit.

- Dans le dernier chapitre de l'ouvrage, une section est consacrée aux différents homonymes de forme *fí*, clairement issus d'un processus de grammaticalisation : il s'agit tantôt d'un verbe dépendant (premier verbe d'une série ou suivi de *sí*), tantôt d'un élément qu'on trouve devant le verbe de nombreuses propositions subordonnées. L'apport de cette section est la description sémantique fine des différents emplois de ce second *fí*, notamment dans les quelques cas où sa présence n'est pas obligatoire. Une telle synthèse des emplois de *fí* est, là encore, inédite.

Ainsi, la *Grammaire du yorùbá standard* de Michka Sachnine réalise de manière probante le programme fixé, à savoir présenter une grammaire complète du yorùbá à un large lectorat. Pour conclure, soulignons qu'en tant que tel, cet ouvrage n'a pas d'équivalent en anglais, langue pourtant absolument dominante dans les études sur le yorùbá.

**Anne STORCH, *A Grammar of Luwo: An Anthropological Approach*, Amsterdam and Philadelphia, Benjamins, 2015, 291 p.**

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Luwo is a Western Nilotic language spoken in South Sudan in and around the town of Wau by around 80,000 people. It belongs to the Lwoo branch of Western Nilotic. Only one grammar of the language, Santandrea (1946), existed hitherto. Very few more focused studies have appeared. For these reasons, this new grammar of the language, written by a renowned specialist of the language family, is a highly welcome piece of work.

This grammar book bears the secondary title “An anthropological approach”. The implicit claim is that the language of a given community reflects its culture. Indeed, when appropriate, the relation between the culture of the Luwo people and their language is presented. But the book remains essentially a grammar and not an anthropological report.

Linguistically, in accordance with the general emphasis on the culture of the people using the language, the book assumes a “language use” approach. The grammatical description therefore systematically avoids structural analyses and generalizations, providing instead maximally precise descriptions of the function of each construction in discourse. Accordingly, when the book does turn to ask why the language is structured the way it is, its answers are consistently of a diachronic nature. This reflects the functionalist view that language is extremely arbitrary synchronically, and that the real generalizations lie in the diachronic grammaticalization paths. Since the author is one of the few specialists working on Western Nilotic languages as a family, much comparative information is provided, especially –but not only– in cases where diachronic reconstruction is discussed.

The “anthropological approach” is also related to the organization of the book. Alongside chapters that are commonplace in grammars, such as “Phonology”, “Nouns” or “Verbs”, there are also chapters on “Number” (in the language in general), “Perception and Cognition” (in the culture as construed through language) and “Person and association.” This novel way of organizing a grammar is another positive aspect of this work, if only for the refreshing effect that it brings to this literary linguistic genre.

The following paragraphs will briefly discuss the contents of the book. The first chapter (pp. 1-18) introduces Luwo history and language and the “anthropological approach”. The second chapter (pp. 19-34) discusses the

phonology of the language. The consonantal and vocalic phonemes of Luwo are presented. All five vowels distinguish between breathy and non-breathy voice, and between long and short versions. Morphemes are largely monosyllabic (though see below). Monosyllabicity results in morpheme concatenation causing several changes to edge segments. Also discussed in this chapter are vowel harmony, vowel contact, constraints on syllable form, etc.

The next three chapters focus on morphology. Chapter 3 (pp. 35-56) discusses concepts like morpheme, phonological/grammatical word, closed classes such as prepositions, numerals, adjectives, as well as the intriguing open word class of ideophones. Luwo puts special emphasis on “smell words”: these are morphologically distinguishable from other nouns. In parallel, smell is central in Luwo culture. Chapter 4 (pp. 57-80) presents the lexical diversity of nouns, their syllabic shapes, their specific markings (many nouns carry vocalic prefixes or suffixes) and “state”<sup>1</sup> inflection, and derivation. A special section is devoted to “culturally specified nouns” (e.g. kinship names), whose grammatical behavior is shaped by their cultural specificity. Chapter 5 (pp. 81-100) discusses noun classifiers, and is definitely one of the most important contributions of this work. It provides a classification of the nouns of the language, whether singulative, singular or plural, on the basis of their form and denotation. This is clearly an area where the author is well-informed with respect to comparative data, analyses, diachronic reconstruction and proposed grammaticalization paths. The chapter ends with a list of some 52 noun classifiers.

Bridging between the morphological chapters and the more general discussion of verbs is chapter 6 (pp. 101-114), which briefly reports on several intriguing phenomena with respect to number in Luwo. Examples are the plural inflection on adjectives denoting shape, but not on those denoting colors, and the existence of pluractional versions of state verbs, but not of verbs denoting actions. Quantifiers, numerals and “nominal aspect” (the ability of plural number to specify what kind of entity is involved) are also briefly mentioned. The equivalent of ‘three books’ denotes three individual books, whereas that of ‘three book’ denotes three new, similar books.

The next five chapters discuss the encoding of events in a broad sense. Chapter 7 (pp. 115-146), which deals with the verbal system, is another central chapter in this work. Verbal constructions are classified with respect to event structure (transitivity, causation etc.). It is shown that

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1. Singular and plural nouns appear in an absolute and a modified form or “state”. The absolute state is used when the noun is not accompanied by any modifier (“complement”) in the noun phrase, while the modified state is used in all contexts where a noun does not stand alone, e.g. when it is part of a possessive noun phrase or a compound.

contrary to previous descriptions, aspect is the central notion in the system, while tense is largely absent. Also discussed are the two marked moods (imperative and subjunctive) and the pronominal inflection, whose prefixal or suffixal realization depends on the transitivity of the verb. Chapter 8 (pp. 147- 160) is called “Person and experience”, and further explores pronouns, comparing affixed and free forms and subject and object pronominals (the latter two being nearly identical). A short and interesting discussion presents the use of possessive nouns such as *wii=á* ‘my head’ or *cwíŋ=á* ‘my liver’ to encode emotions: the state of liver is indicative of the character and emotional state of the person, while that of the head is used to denote cognitive experiences. Comparative and superlative constructions are also discussed here. The author also develops an interesting analysis of the inclusive/exclusive 1PL distinction whose origins might as well be linked with some pragmatic considerations, rather than with the legacy of some proto-language. Chapter 9 (pp. 161-176) on “perception and cognition” discusses how the language reflects the way people experience perception and cognition. The text points to semantic affinities between concepts such as knowing and understanding and recognition and searching. Again the elaboration of smell terms is emphasized (for example, [ŋir] ‘smell of unripe beans’). Indeed, a version of ‘smell’ has come to denote the anticausative of ‘know’, i.e. ‘come to know’. Chapter 10 (pp. 177-188) surveys the linguistic association of two entities into combinations denoting possession, part-whole relationship etc. Also discussed are possessive pronouns, reflexive and reciprocal pronouns, compounding and alienability. Speakers of Luwo can control the denotation of possessed entities by inflecting them for state or avoiding doing so (though no minimal pair is provided).

Chapter 11 (pp. 189-206), the fifth chapter devoted to events, relates this topic to the following discussions on syntax and pragmatics. It examines “word order, case and pragmatics”. In it, the author puts forth and argues for a claim, namely the fact that Luwo exhibits a split-ergative case (split because animacy and certain word orders dispense with the ergative marker). Ergative case, it is claimed, is “rather discourse-based, with a case marker that is used in contexts with strong pragmatic overtones.” The emergence of this system is also discussed from a diachronic, comparative perspective.

The three following chapters discuss syntactic topics, though always from the angle of language use. Chapter 12 (pp. 207-222) on “location and spatial orientation” discusses demonstratives and their usage. It includes an interesting discussion of the interaction of special deictics and plurality. Chapter 13 (pp. 223-238) on “clause types and constituents” presents the basic clause and its different modifications, in the form of

adjuncts (temporal, benefactive, instrumental etc.), clause chaining (with no subordination) and relative clauses, etc. Chapter 14 (pp. 239-246) on “questions and negation” relates the two concepts because there seems to be a weak taboo on answering negatively in the Luwo society. Besides a nice discussion of avoidance strategies, there is little in the chapter beyond illustrations of the different possible questions and negations in Luwo.

The last two chapters establish a relationship pragmatics and socio-linguistics. Chapter 15 (pp. 248-268) on “discourse, genre and ways of speaking” comments on several sociolinguistic aspects of Luwo, including conflict concealment, riddles, songs and prayers. There is a nice discussion of gendered topics: some wild game, such as the ‘monitor lizard’, are never eaten by women, and only men use the words designating them as food. Chapter 16 (pp. 268-280) discusses multilingualism and language ideology and describes the speakers’ attitude towards their language. It is asked when exactly the entirely multilingual speakers of Luwo speak it, what they think its importance is, and what they think makes it different from other available languages.

**Critical Evaluation.** The grammar is beyond doubt a valuable piece of work, containing data on most domains of the language. It is clearly the result of very serious, meticulous work, and has the awesome merit of not confining itself to the traditional ways of writing a grammar. The usage-based and “anthropological” approaches have led the author to arrange it in a thought-provoking fashion.

The goals of a grammar like the one under review are at least three: 1) documenting the language as completely as possible; 2) documenting every phenomenon as thoroughly as possible; and 3) describing the mechanisms of the language. The first goal has clearly been achieved in this text. As for the second and third, there are still, in my opinion, some shortcomings. Many of the phenomena –especially in the realms of phonology and morphology– are discussed rather briefly and in an incomplete fashion. For instance, in the discussion of the form of nouns on page 58, it is said “the vowel may be short or long, but can also be a diphthong.” Can it be long and a diphthong at the same time? If not, this is important from a phonologist’s point of view. Similarly, in the discussion of the modified plural form on p. 65 it is reported that such nouns “(...) delete their plural suffix if any is present”. There are also unsuffixed plurals, created by lengthening or tonal alterations, but we are not told what the behavior of such nouns is in the modified form, only that “morphologically unmarked forms remain unchanged.” While there are other domains where more complete data are provided, I feel that at least for the Luwo morphology and phonology, which are quite spectacular from a typological point of view, this is considerably less so.

As for the third goal of describing the mechanisms of the language, I felt that the book left quite a bit to be desired. It is my opinion that beyond saying what is going on in a language, the linguist also has to say *why* things are the way they are. As mentioned above, in a few cases the author does provide the diachronic origins of certain markers, and suggests a grammaticalization path. But I personally would like to have seen more effort put into working out the synchronic reasons for things to be the way they are, that is, to understand what in the system imposes its shape. I am of the opinion that at least in some domains, languages have a certain logic of their own, and that this logic is structural. Everything cannot, I believe, be the simple result of grammaticalization.

One example that was mentioned above concerns prefixed and suffixed pronominals. The author reports that the prefixed pronominals appear on intransitive verbs, whereas suffixed pronominals appear on transitive verbs (pp. 148-153). The question is immediately raised as to the logic behind this positional allomorphy. Alas, this question is raised mainly in the head of the reader. As the grammar does comment on the general OVA order of objects and agents in transitive clauses (p. 193), the reader then has to make the connection and reconstruct by himself the following claim: the order of affixes parallels exactly the order of full arguments. A synthesis of the main syntactic patterns in Luwo might have been helpful here, in order to show that, in this language, there is only one preverbal slot which cannot be occupied by both object and subject, be they pronouns or full phrases. It is this type of explanatory dimension that I found largely absent from the grammar, for better or for worse.

All that should of course not be taken to belittle the achievement that a grammar like this one constitutes. The chapters on noun classifiers and verbs do present analyses, if only classificatory, which appropriately set the stage for more explanatory accounts. And too, it is enough of a feat to assemble a language into a coherent work, and this goal has certainly been obtained in the present case, and quite successfully so.

**Conclusion.** The recent grammar of Luwo by Anne Storch is a professional, informed grammar. For what it might lack in structural analysis, it makes up with its novel and refreshing anthropological approach, emphasizing the importance of usage and sociolinguistics, and with its knowledgeable comparative discussions and diachronic analyses. Like other work by this author, it definitely is an extremely valuable contribution to the field of Western Nilotic linguistics. As I hope to have further shown, some aspects of Western Nilotic languages render them important from a typological perspective; the book under review is thus a welcome contribution to general linguistics, too.

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**Wilhelm J. G. MÖHLIG, *Atlas of Kamba Dialects (Kenya Bantu E.55). Phonological and Lexical Comparison*. Cologne, Rüdiger Köppe Verlag, 2014, 373 p.**

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Aboutissement partiel d'un projet descriptif et comparatif plus vaste commencé dans les années 1960 et qui visait à inclure toutes les langues bantoues du Kenya central, l'atlas dialectal du kamba publié par W. Möhlig en 2014<sup>1</sup> fait partie de ces ouvrages de géographie linguistique que l'on souhaiterait voir paraître plus souvent. Son auteur, expert des langues de la région et grand connaisseur du terrain, nous offre un ouvrage de référence de 399 pages d'une grande qualité tant en ce qui concerne les analyses développées que sur les plans théorique et méthodologique. Les études proposées témoignent d'une grande rigueur et d'une très bonne vue d'ensemble. Elles illustrent le souci constant de vouloir rendre compte de la complexité des réalités linguistiques, culturelles et historiques, et une conception des langues en tant qu'entités fonctionnent en réseaux d'échange. L'auteur prend explicitement ses distances par rapport au type de classification « squelettique » et « désincarné » proposé pour les langues d'Afrique par Greenberg sur la base de simples ressemblances de forme et de sens.

Si la toute première partie de l'atlas (p. V-XXVI) rassemble un grand nombre d'éléments assez hétérogènes (dont deux cartes, fort regrettamment dépourvues de légendes explicatives, l'une présentant les langues bantoues du Nord-Est parlées au Kenya en général et l'autre les langues bantoues du Kenya central), le corps du travail (p. 1-367) se compose d'une solide introduction et de trois grandes parties de longueur inégale, suivies d'une liste de références bibliographiques (p. 369-373).

Dans l'introduction (chap. 1, p. 1-14), l'auteur présente d'abord les contenus et objectifs de l'ouvrage de même que la chronologie et les modalités de constitution du corpus de l'atlas (environ 36 000 items lexicaux collectés entre 1970 et 1990 dans un peu plus de 60 localités). Il y commente ensuite assez longuement ses positions théoriques et méthodologiques : 1) le poids accordé aux topolectes pour aborder de la manière la

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1. Une première partie des données a déjà été publiée en 1974. Toutefois, de nombreuses données concernant tout particulièrement les dialectes kamba ont dû attendre l'arrivée de moyens techniques adéquats pour pouvoir les traiter efficacement.

plus juste la dynamique dialectale sous-jacente ; 2) le choix d'une approche combinant méthode comparative et perspective dialectologique<sup>2</sup> (approche à laquelle l'auteur associe l'étude de la distribution géographique des traits et des formes identifiés, le classement des items lexicaux en fonction de leur champ sémantique et la prise en considération de langues avec lesquelles des contacts ont pu être entretenus à l'intérieur ou à l'extérieur de l'ensemble bantou et 3) le choix d'un modèle empiriquement fondé, appelé « *archive model* » (littéralement : « modèle de l'archive »), s'opposant au « modèle des protolangues » et qui part du principe que, si une langue est un type d'outil communicatif se transmettant verticalement d'une génération à l'autre, elle est probablement avant tout un lieu où se forment diverses strates par sédimentation au fil du temps, en situation de contact et d'échange. Les familles de langues ou de dialectes sont considérées comme conditionnées par deux facteurs fondamentaux : les régions géographiques précises où ces langues et dialectes sont parlés ou ont été parlés par plusieurs générations consécutives d'une part, et les réseaux de communication développés au fil du temps grâce à une certaine stabilité. Seule une approche comparative-dialectologique est jugée capable de distinguer entre données héritées (« verticales ») et données acquises par contact (« horizontales ») dans le contexte complexe des langues bantoues du Nord-Est (NEB = *North Eastern Bantu*). Le travail comparatif dégage de nombreuses séries diaphoniques parallèles (correspondances phoniques régulières multiples) susceptibles d'exprimer deux types de relations différents, l'un vertical par rapport à un diasystème partagé, l'autre horizontal donnant lieu à des processus d'homogénéisation.

Cette introduction permet de se familiariser avec la pensée de l'auteur et avec une terminologie technique peu usitée (cf. séries diaphoniques, diasystèmes, diaphonèmes, diaformes, etc.) à une époque où prédominent les tentatives, tout à fait légitimes en soi, d'appliquer à des corpus de données linguistiques de plus en plus vastes des modèles de calcul empruntés à la phylogénétique pour produire de nouvelles classifications.

La première grande partie (p. 16-40) comprend les chapitres 2 et 3. Si le chapitre 2 présente différents aspects de la phonologie des dialectes kamba (phonèmes avec leurs réalisations dans les divers dialectes, conventions graphiques, contraintes phonotactiques, processus morphopho-

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2. L'auteur parle du « principe dialectologique ». Il souligne l'importance d'appliquer la méthode comparative à des ensembles dialectaux dotés d'une cohérence régionale. Cette approche combinée cherche d'abord à définir les diaséries phonétiques et lexicales (correspondances régulières) pour ensuite dégager les correspondances forme-contenu irrégulières, qui s'écartent des ensembles de diasystèmes partagés définis dans un premier temps.

nologiques), le chapitre 3 donne un aperçu détaillé des recherches anciennes et récentes sur la dialectologie kamba : centres dialectaux primaires (*Masaku* dans l'ouest et *Kitui-Mumoni* dans l'est) et secondaires et régions de transition, etc., ces zones étant toutes soumises à un processus permanent d'harmonisation dialectale.

Dans la deuxième grande partie (p. 41-82), l'auteur explore en détail les relations phonologiques et lexicales entre le kamba, le bantou commun (avec des différences topologiques : bantou des Savanes oriental et bantou des Savanes septentrional) et d'autres langues non bantoues comme les langues couchitiques et le maasai (chap. 4), les relations entre le kamba et les langues bantoues du Kenya central (chap. 5) et, enfin, les relations entre cet ensemble dialectal et les langues bantoues de la côte kenyane (chap. 6). Si certaines relations sont clairement verticales, d'autres ont été introduites horizontalement au fil du temps. A chaque niveau de comparaison, l'auteur examine minutieusement le type de vocabulaire partagé et propose des scénarios d'évolution linguistique et sociétale en lien avec les réalités socioculturelles et historiques de la région.

L'auteur considère que les anciens membres de l'aire NEB (dont les Kamba) sont installés dans la région côtière et son arrière-pays depuis plus d'un millénaire. Une phase de contact prolongé et de lente homogénéisation a conféré leur structure dialectologique de base aux langues NEB, créant un système de relations régulières. Se produisent ensuite des restructurations plus ou moins importantes après l'arrivée de nouvelles populations vers 1500 apr. J.-C et l'émergence de nouveaux réseaux de commerce et d'échanges culturels à grande distance entre la côte et l'arrière-pays, deux régions où les dialectes kamba semblent avoir joué un rôle dominant. Des emprunts massifs en résultent - surtout à partir des dialectes swahili - vraisemblablement encouragés par des déplacements occasionnels des Kamba et par leur bilinguisme émergent et affectant inégalement le kamba oriental (variétés de *Mumoni* et de *Kitui*) et le kamba occidental (*Masaku*) à travers deux phases consécutives de contacts et d'échanges (la première allant du 17<sup>e</sup> au 19<sup>e</sup> siècle et limitée au pays kamba oriental, suivie, du 19<sup>e</sup> siècle à nos jours d'une seconde phase, caractérisée par un impact géographiquement plus étendu et liée aux innovations culturelles et sociales de la colonisation britannique). C'est vers la fin du 19<sup>e</sup> siècle que le dialecte de *Masaku* finit par s'imposer comme langue de la région, grâce à l'administration coloniale. Par ailleurs, le nivellement dialectal se poursuit à l'heure actuelle au sein de chacun des centres dialectaux.

La troisième et dernière grande partie de l'atlas (p. 83-367) présente les tableaux synoptiques des données lexicales de l'atlas (chap. 7) et une sélection de 100 cartogrammes annotés (et classés par ordre alphabétique)

très soignés pour les 56 localités finalement retenues (chap. 8). Les tableaux comparatifs du chapitre 7 sont organisés de manière thématique et présentent les items lexicaux du corpus classés par centre dialectal.

La lecture de l'ouvrage aurait pu être facilitée par l'adjonction de davantage de cartes et d'inventaires en début d'ouvrage qui auraient permis de situer les grands ensembles linguistiques auxquels l'atlas ne cesse de se référer, tels que le *North East Bantu*, le *Central Kenya Bantu* et le *Mountain Kenya Bantu*, et précisant la nature et la composition de ces groupes (avec inclusion de références alphanumériques (Guthrie, Maho) pour les langues concernées), par des renvois plus systématiques aux cartes présentées dans la partie préliminaire et par une utilisation moins idiosyncrasique de certains symboles phonétiques (ex. [ʌ] et [y]) ainsi qu'un mélange moins fréquent des différents types de transcriptions (chap. 2). Certains phénomènes morphophonologiques liés à la chute de voyelles préfixales sous-jacentes en position de hiatus auraient aussi gagné à être traités de façon plus régulière (chap. 2 et 3) et la notion de structure syllabique n'est pas toujours appliquée de manière cohérente (p. 23). Par ailleurs, les tableaux et cartogrammes de la partie III auraient mérité d'être présentés de façon plus détaillée. Enfin, certaines coquilles peuvent gêner, comme l'utilisation occasionnelle de « transitory » à la place de « transitional » ou celle du terme « morphemes » au lieu de « phonemes » (p. 19).

En mariant savamment d'une part des considérations linguistiques de qualité et d'autre part les faits historiques d'ordre socio-économico-politique relatifs aux populations concernées, cet atlas des dialectes kamba met en exergue les divers mécanismes (contact, développement culturel interne) qui ont influencé et façonné au fil du temps le paysage dialectal complexe du kamba et des langues bantoues qui lui sont géographiquement contiguës. L'intérêt de cet ouvrage ne réside donc pas seulement dans les analyses proposées mais aussi et surtout dans l'approche théorique et méthodologique mise en œuvre. Celle-ci pourra s'appliquer facilement à d'autres aires dialectales dont le paysage a été façonné par une homogénéisation due à des réseaux de communication de longue durée où contact, emprunt et convergence affectent les langues pour les transformer en « archives » témoignant de relations verticales, composites et stratifiées.

**Jacques RONGIER, *Dictionnaire éwé-français*. Paris, L'Harmattan, 2015, 858 p.**

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Ewe has been the subject of some of the earliest work in African linguistics, it is one of the major languages along the West African littoral zone between Senegal and Nigeria, an important regional language in Ghana, and the most widely spoken language of Togo. Jacques Rongier's monumental and comprehensive *Dictionnaire éwé-français* narrows an existing gap. The only comprehensive Ewe dictionary to-date was Westermann's *Ewe-Deutsches Wörterbuch* written in German. We can only hope that the gap will be finally closed sometime in the future with the publication of an Ewe-English dictionary.

Rongier's *Dictionnaire éwé-français* complements his *Dictionnaire français-éwé* which appeared twenty years earlier (1995). The *Dictionnaire éwé-français* is even more ambitious in scope. Any modern dictionary of Ewe will invariably be measured against the yardstick of Westermann's lexicographic masterpiece of early African linguistics, the *Wörterbuch der Ewe-Sprache*. And indeed, my first reflex upon receipt of the review copy of the *Dictionnaire éwé-français* was to pick the 1905 edition of Westermann's book from my shelf, and page through it, with great curiosity as to the differences between the two works.

Take, for example, the entry, *àtikè*, for which Rongier's work provides the translation 'médicament, remède, drogue, fard' [medicine, remedy, drug, make-up]. Westermann's translation of *àtikè* has a slightly more sinister set of translations, namely 'Arznei, Medizin, Gift, Säure' [drug, medicine, poison, acid], providing as the only example to the entry *atike wuame* 'tödliches Gift' [deadly poison]. The different senses in Rongier's and Westermann's works are, of course, a consequence of cultural change. Where a 'medicine' may have had a much wider, multidimensional range of meanings in the holistic approaches of traditional medico-spiritual practice in Westermann's times, 'medicine' in contemporary Ewe tends towards the more one-dimensional sense it has acquired through curative medical practice of today. A similar proliferation of meanings as in Ewe traditional uses of *àtikè* can be found in Latin *medicamen* 'medicine, drug, remedy' but also 'cosmetic' and 'dye' and 'substance to treat seeds or plants' (Oxford Latin Dictionary 1982), as opposed to the modern meaning of German *Medikament* or French *médicament*.

Beyond that, the differences in the lexicographic approach between Rongier's and Westermann's work could not be greater. While the latter work contents itself with a single entry on *àtikè*, Rongier's work lists altogether forty-seven entries containing *àtikè*, including among others, endocentric compounds (*àtikètùkpá* 'flacon de médicament' [medicine vial], *àtikèmámá* 'dose' [dose] and *àtikè ɲú núnya* 'pharmacologie' [pharmacology]), agent nouns (*àtikèwɔ́lá* 'médecin, guérisseur' [doctor, healer] and *àtikèdzrálá* 'pharmacien'), action nouns (*àtikèqàdà* 'préparation de médicaments' [preparation of drugs]) and place nouns (*àtikèwɔ́fé* 'laboratoire' [laboratory], *àtikèxò* 'depôt de médicaments' [drugstore]). How useful is such an exhaustive listing of compounds given the predominantly isolating and mildly agglutinative morphological type of Ewe? Or phrased differently, which of these complex expressions warrant separate headwords because they involve a certain degree of lexicalization, and which of them can be predicted via regular word formation processes, and could therefore have been omitted or treated differently in the dictionary?

The segmentation of *àtikèqàdà*, for example, reveals the following morphological structure: *àtikè* 'medicine' + *qàdà* 'preparation', which is in turn an action noun derived by reduplication from the mono-morphemic root *qà* 'prepare (by way of a process of physical transformation); cook'. For an Ewe speaker, the composite expression *àtikèqàdà* therefore has a predictable meaning and can be derived by regular word formation processes. In fact, the *Dictionnaire* already lists the action noun *qàdà* separately under the letter /Ð/. The same observation can be made with respect to a place noun like *àtikèwɔ́fé* {àtikè-wɔ́-fé} 'medicine-make-PLACE' or *àtikèwɔ́lá* {medicine-make-AGN} 'medicine-maker'. An alternative approach would have been to list *àtikèqàdà* as a subentry under the headword *qàdà*, as one among other examples of collocations involving *qàdà*.

Another aspect worthy of note is that the *Dictionnaire* only lists nominal derivations or compounds containing *àtikè* and not a single verb-noun collocation. This can be problematic because contrary to many derived or compound nouns, verb-noun combinations are often less predictable in their meaning. For example, the *Ewe Encyclopedic Dictionary of Health*, a gem compiled by an editorial team at the University of Ghana, Legon, lists *dó àtikè* {put medicine} 'inhale/insert medicine' as a subentry to *àtikè*. The meaning 'inhale' cannot be regularly derived because *dó* is one of the many generic verbs of Ewe with a vague general sense similar to 'put' in English, and which acquires more specific senses in collocations, e.g. *dó gá* {put money} 'borrow money', *dó víví* {put sweetness} 'entertain; give relief'.

Decisions about the ordering of entries of course constitute one of the major challenges of dictionary making. Such decisions also depend on the author's intended audience and I assume, although this is not explicitly stated by the author, that the *Dictionnaire* is aimed at a lay and a specialist audience alike. For the former, a strictly alphabetical order is easier to handle than one which involves prior mental parsing. User-friendliness is also likely to have motivated Rongier to choose a different path from Westermann in the ordering of entries beginning with the letter /a/. The *Ewe-Deutsches Wörterbuch* contains a mere six entries under /a/, in contrast, Rongier's *Dictionnaire* contains a whopping 250 pages of words listed under /a/, constituting a third of the book. The enormous difference between the two is due to the fact that Westermann treats the initial vowel /a/ in nouns like *àmè* 'person' as a segmentable nominal prefix discernible from the root, hence \**à-mè*. Rongier, however takes into account that the nominal "prefix" is not productive (any longer) in Ewe and is not subjected to allomorphy as in other Kwa languages. Akan, for example, features prefixal inflection for singular and plural number with nouns and adjectives, e.g. *o-nipa* 'person' *n-nipa* 'people'. The large number of entries under /a/ is, however, a bit unwieldy during look-up, and the question therefore does arise whether it might not have been useful for Rongier to follow Westermann's morphologically oriented approach instead.

Some observations are in order on the orthographic rendering of Ewe employed in the *Dictionnaire éwé-français*. The first relates to the representation of Ewe tones, a language with two phonemic tones, namely H(igh) and L(low). Ewe additionally features a phonetic M(id) tone and two phonetic contour tones (rising and falling). In his earlier work, the *Dictionnaire français-éwé*, Rongier opted for the full marking of tone on every syllable of an entry. In the *Dictionnaire éwé-français*, he opts for a shallow system of tone marking with the following orthographic conventions (i) an initial L-toned syllable of an entry remains unmarked, an initial H-toned syllable bears an acute accent; (ii) a non-initial syllable is only marked by an acute (H) or grave (L) accent when its tone differs from that of the preceding syllable. In this, Rongier follows the system employed by Westermann in his dictionary and his grammatical descriptions of Ewe (e.g. 1930), as well as the approach developed in other classical works, e.g. Christaller's *Dictionary of the Asante and Fante Language* (1881). The shallow system renders the following orthographic representations: *móẏẏẏmètétótó* [*móẏẏẏmètétótó*] 'ladder', and *yeḡótóemè* [*yèḡótóémè*] 'sunset'. Shallow and minimal systems of tone marking (or indeed no tone marking at all) are very common in African orthographies – Yoruba with its full tone-marking (M tone unmarked) as part of the regular orthography being one of the few

exceptions, e.g. *olódùmaré* [olódùmaré] ‘creator, supreme being’ (Abraham 1962). Given the scope of this work, it is regrettable that Rongier decided to shift from full tone marking in his *Dictionnaire français-éwé* to partial tone marking in the present *Dictionnaire éwé-français*. For users unfamiliar with reading tone languages, and indeed unfamiliar with Ewe, getting the tones right will constitute a challenge, since unmarked syllables can either be specified for H or L.

A second observation is that Rongier departs from the official Ewe orthography in his *Dictionnaire éwé-français* in the rendition of nasalized vowels, an approach already taken in the *Dictionnaire français-éwé*, which he justifies in the latter work with enhanced “readability”. Instead of writing the nasal tilde above the vowel as in *àtsỹ* ‘beauty’, he writes it below the vowel, i.e. *àtsŷ*. I disagree with this approach, which disregards established Ewe orthographic conventions that have been in use for decades and is equivalent to transcribing *Schönheit* ‘beauty’ in a dictionary of German as *Schõnheit* for the sake of expediency. A final note on form: in the font employed in this work, the grave accent (L tone) over the letter /i/ appears to the left of the dot on the *i*. This should not be the case if a Unicode font had been used, and it mildly tarnishes the otherwise very satisfactory typeset of the *Dictionnaire*.

These are, however, minor observations in view of the breath-taking scope of Rongier’s *Dictionnaire éwé-français*. This is a stupendous work, which is likely to serve generations of learners of Ewe and francophone linguists. The sheer coverage of the *Dictionnaire* and Rongier’s matter-of-factly presentation of the richness of this beautiful language also provide long-awaited relief from the racist pronouncements of Westermann in his introduction (see p. 16) to the first edition of his *Ewe-Deutsches Wörterbuch*, which will remain a perpetual stain on an otherwise timeless work.

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