

# The nominal system of Guébie (Kru) in typological perspective

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## 1 Introduction

### Goals:

1. Describe the nominal system of Guébie (Kru, Niger-Congo) [Côte d'Ivoire].
2. Discuss the typological rarity of agreement within Guébie noun phrases.
3. Compare noun phrases across the Kru language family.

### Background on Guébie:

- Guébie is an Eastern Kru language spoken in 7 villages between Gagnoa and Lakota in the southwest of Côte d'Ivoire.
- Previously, Guébie has been called a dialect of Bété-Gagnoa (btg, Lewis et al. 2013) or an alternate name for Dida-Lakota (dic, Lewis et al. 2013).
- Based on previous work in Gnagbodougnoa, a Guébie speaking village, I believe Guébie to be a Dida language, closely related to but not mutually intelligible with Dida-Lakota (Sande, 2014).
- The data here comes from personal elicitation with one speaker in the US between September 2013 and May 2014, plus a summer of fieldwork in Gnagbodougnoa, Côte d'Ivoire in 2014.

## 2 Word order

- Word order within a basic Guébie noun phrase is Noun-Def Adj Num.

### (1) Nominal template in Guébie

Noun » -PL » -Def » Adjective » Numeral

### (2) Noun phrase order

- a. bit-i-wa<sup>2.3.3</sup> lel-i<sup>1.2</sup> jal-i<sup>1.1</sup> so<sup>4</sup>  
house-PL-DEF new-PL red-PL two  
'The two new red houses'

- The noun always surfaces first within a noun phrase.

- The definite marker /-wa/ is an enclitic on the noun.

(3) **Definite markers**

- ju<sup>4</sup>  
boy  
'(a) boy'
- ju-wa<sup>4.3</sup>  
boy-the  
'the boy'
- ju-wa<sup>4.3</sup> kadε<sup>4.2</sup>  
boy-the big  
'the big boy'

- Numerals follow the noun they modify.

(4) **Nouns and number**

- fiti<sup>2.3</sup> so<sup>4</sup>  
house.PL two  
'two houses'
- gbolo<sup>2.2</sup> so<sup>4</sup> ta<sup>3</sup> mona<sup>4.2</sup> ηmgbe<sup>3</sup>  
one two three four five  
'one two three four five'

- In general, Guébie uses predicative modifiers as opposed to adjectives directly modifying the noun.

(5) **Predicate modifiers**

- ɔ<sup>3</sup> trɔkɔ<sup>3.4</sup>  
he be.tall.IMPF  
'he is tall'
- ɔ<sup>3</sup> trɔkɔ<sup>4.4</sup>  
he be.tall.PFV  
'he was tall'
- e<sup>4</sup> tεmε<sup>2.3</sup>  
I be.strong.IMPF  
'I am strong.'
- e<sup>4</sup> tεmε<sup>3.3</sup>  
I be.strong.PFV  
'I was strong.'

- There is also a class of emotion modifiers that are nominal in Guébie.

(6) **Nominal modifiers**

- a. ɲgajɛ<sup>3.1</sup> bɔlɔ-ɔ<sup>2.2.2</sup>  
sadness hit.PFV-3.SG.OBJ  
'He is/was sad.'
- b. mana<sup>4.4</sup> bɔlɔ-ɔ<sup>2.2.2</sup>  
happiness hit.PFV-3.SG.OBJ  
'He is/was happy.'
- c. mana<sup>4.4</sup> bɔlɔ-wa<sup>2.2.2</sup>  
happiness hit.PFV-3.PL.OBJ  
'They are/were happy.'

- However, there is a small number of adjectives that can surface inside the noun phrase, directly modifying the noun.
  - These include 'big, small, new, red, black, white.'
  - All six of these nouns can be used within a noun phrase, or predicatively.

(7) **Adjectives in the noun phrase**

- a. ʃitə<sup>2.3</sup> lelə<sup>1.2</sup>  
house new  
'a/the new house'
- b. ʃitə<sup>2.3</sup> kadɛ<sup>4.2</sup> lelə<sup>1.2</sup>  
house big new  
'a new big house'
- c. a<sup>3</sup> ji<sup>3</sup> [ʃitə-wa<sup>2.3.2</sup> kadɛ<sup>4.2</sup> lelə<sup>1.2</sup>] niji<sup>4.3</sup>  
1.PL will [house-def big new] see  
'We will see the new big house'

- Adjectives and numerals always follow the noun, with adjectives preceding numerals.

(8) **Adjective Numeral order**

ʃiti<sup>2.3</sup> leli<sup>1.2</sup> so<sup>4</sup>  
house.PL new.PL.I two  
'Two new houses'

- Nouns can be inflected for number with a plural suffix /-i/ or /-wa/.
- Often this plural suffix undergoes vowel coalescence with the final vowel of the noun.

(9) **Plurals with /-wa/**

- a. ɲokpo<sup>2.2</sup> 'person' ɲokpo-wa<sup>2.2.2</sup> 'people'  
b. ʃɛ<sup>3</sup> 'thing' ʃwa<sup>3</sup> 'things'

(10) **Plurals with /-i/**

- a. lo<sup>3</sup> 'song' li<sup>3</sup> 'songs'  
b. bitə<sup>2.3</sup> 'house' biti<sup>2.3</sup> 'houses'

- Some nouns have a default general or plural reading, and they must take a singular suffix to refer to a single entity.

(11) **Singular suffix**

- a. ja<sup>31</sup> ‘coconuts’ ja-bə<sup>3.1</sup> ‘coconut’  
 b. g<sup>w</sup>ε<sup>32</sup> ‘colanuts’ g<sup>w</sup>ε-lε<sup>3.2</sup> ‘colanut’

- Relative clauses follow the head noun, with a clause-final marker /(a)ne/.

(12) **Relative clause marker**

- a. e<sup>4</sup> ni<sup>4</sup> ɲəkɔ<sup>3.3</sup> [ɔ<sup>3</sup> li<sup>3</sup> ja<sup>2</sup> ne<sup>2</sup>] ji<sup>3</sup>  
 I see.PFV man [3.SG eat.IMPF already REL] see  
 ‘I saw the man who was already eating.’  
 b. [ju<sup>4</sup> e<sup>4</sup> ji(sa)<sup>2.3</sup> ne<sup>2</sup>] ɔ<sup>3</sup> li<sup>2</sup> ja<sup>31</sup>  
 [boy I know REL] 3.SG eat.IMPF coconuts  
 ‘The boy that I know eats coconuts.’

- There are no demonstratives in Guébie, which is typologically quite rare.
- What were demonstratives in other Kru languages seem to have grammaticalized into the definite marker and the relative pronoun in Guébie (cf. section 4).
- Pronouns in Guébie agree with their nominal antecedents.
  - Human pronouns agree in Person, Number
  - Non-human pronouns agree *phonologically* (cf. section 3).

(13) **Personal pronouns**

	Human		Non-human	
	Singular	Plural	Singular	Plural
1st	e <sup>4</sup>	a <sup>3</sup>	1st	–
2nd	e <sup>2</sup>	a <sup>2</sup>	2nd	–
3rd	ɔ <sup>3</sup>	wa <sup>3</sup>	3rd	e <sup>3</sup> ,ə <sup>3</sup> ,u <sup>3</sup> i <sup>3</sup> ,wa <sup>3</sup>

### 3 Agreement in the noun phrase

#### 3.1 Phonological agreement between pronouns and antecedents

- Human third person pronouns take the form /ɔ<sup>3</sup>/, singular, and /wa<sup>3</sup>/, plural.
- Non-human third person pronouns agree with their nominal antecedent not in semantic class, but in *phonological features*.
  - The final vowel of the noun stem determines the vowel of the pronoun.

(14) **Mapping of Guébie root-final vowels to pronoun vowels**

Final vowel		3.SG pronoun vowel	Plural suffix		3.PL pronoun vowel
i, ɪ, e, ε	→	e	-i	→	i
ə, a	→	ə	-a	→	wa
u, ʊ, o, ɔ	→	u			

- Non-human pronouns are always phonologically determined by their antecedents.

(15) **Phonological agreement of pronouns with antecedents**

Noun	Gloss	Object	Gloss	Subject	Gloss
a. $\text{ji}\underline{\text{e}}^{2.2}$	‘a prison’	$\text{e}^{-4} \text{ni}^{-4} \underline{\text{e}}^2 \text{ji}^3$	‘I see it (prison)’	$\underline{\text{e}}^{-3} \text{kad}\epsilon^{3.2}$	‘It (prison) is big.’
b. $\text{k}^{\text{w}}\underline{\text{a}}\underline{\text{a}}^{4.2}$	‘a farm’	$\text{e}^{-4} \text{ni}^{-4} \underline{\text{a}}^2 \text{ji}^3$	‘I saw it (farm)’	$\underline{\text{a}}^{-3} \text{kad}\epsilon^{3.2}$	‘It (farm) is big.’
c. $\text{to}^3$	‘battle’	$\text{e}^{-4} \text{ni}^{-4} \underline{\text{u}}^2 \text{ji}^3$	‘I saw it (battle)’	$\underline{\text{u}}^{-3} \text{kad}\epsilon^{3.2}$	‘It (battle) is big.’

- This process is completely productive and without exception.

– It holds in loan words and nonce words.

(16) **Phonological agreement in loan words from English/French**

- a.  $\text{sukulu}^{1.1.3} \text{k}\text{ɔ}\text{d}\text{a}^{3.21} \text{e}^{-4} \text{ni}^{-4} \underline{\text{u}}^2 \text{ji}^3$   
 school exist. I see it(school).OBJ see  
 ‘There is a school. I saw it(the school).’
- b.  $\text{bara}\underline{\text{z}}\epsilon^{2.3.2} \text{k}\text{ɔ}\text{d}\text{a}^{3.21} \text{e}^{-4} \text{ni}^{-4} \underline{\text{e}}^2 \text{ji}^3$   
 dam exist. I see it(dam).OBJ see  
 ‘There is a dam. I saw it(the dam).’

(17) **Phonological agreement in nonce words**

- a.  $\text{fo}^2 \text{k}\text{ɔ}\text{d}\text{a}^{3.21} \text{e}^{-4} \text{ni}^{-4} \underline{\text{u}}^2 \text{ji}^3$   
 nonce.word exist. I see it(nonce).OBJ see  
 ‘There is a NONCEWORD. I saw it(the NONCEWORD).’
- b.  $\text{gbele}^{4.3} \text{k}\text{ɔ}\text{d}\text{a}^{3.21} \text{e}^{-4} \text{ni}^{-4} \underline{\text{e}}^2 \text{ji}^3$   
 nonce.word exist. I see it(nonce).OBJ see  
 ‘There is a NONCEWORD. I saw it(the NONCEWORD).’

- The antecedent does not have to be in the same utterance, nor nearby in the discourse for this agreement to hold.

### 3.2 Phonological agreement between nouns and modifiers

- The same kind of agreement pattern holds between nouns and the final vowel of adjectives that directly modify them (18).

(18) **Noun-modifier phonological agreement<sup>1</sup>**

- a.  $\text{bit}\underline{\text{a}}^{2.3} \text{le}\underline{\text{a}}^{1.2} \text{j}\underline{\text{e}}\underline{\text{a}}^{1.1}$  b.  $\text{f}\underline{\text{u}}^3 \text{le}\underline{\text{o}}^{1.2} \text{j}\underline{\text{e}}\underline{\text{o}}^{1.1}$   
 house new red sponge new red  
 ‘A new red house’ ‘A new red sponge’

(19) **Overt agreement on adjectives licenses ellipsis of the noun**

- a.  $\text{le}\underline{\text{a}}^{1.2} \text{j}\underline{\text{e}}\underline{\text{a}}^{1.1}$  b.  $\text{le}\underline{\text{o}}^{1.2} \text{j}\underline{\text{e}}\underline{\text{o}}^{1.1}$   
 new red new red  
 ‘A new red one’ (house) ‘A new red one’ (sponge)

<sup>1</sup>Word-internal ATR harmony influences the quality of the final vowel of the adjectives; however the backness and rounding values of the final vowel are determined by the final vowel of the noun.

## 4 Comparing the Guébie noun phrase with other Kru languages

### 4.1 Demonstratives

- In many Kru languages, Demonstratives exist, following Adjectives but preceding Numerals: Noun»Adj»Dem»Num, (20).

(20) **Demonstratives in Godié**(Adapted from Marchese 1979)

- |    |            |                         |                  |  |    |           |                         |                    |
|----|------------|-------------------------|------------------|--|----|-----------|-------------------------|--------------------|
| a. | ɲɔkpɔ kadɔ | no <sup>2.2-3.2-2</sup> | ‘this big man’   |  | c. | male kade | ne <sup>2.2-3.2-2</sup> | ‘this big animal’  |
| b. | futu kado  | no <sup>1.2-3.2-2</sup> | ‘this big house’ |  | d. | fiti kadi | ni <sup>1.2-3.2-2</sup> | ‘these big houses’ |

- In Guébie, however, there are no longer Demonstratives in the synchronic system.
- Demonstratives in other Kru languages have been reanalyzed as clause-final relative clause markers in Guébie; no new Demonstratives have taken their place.

(21) **Demonstratives reanalyzed as relative clause markers in Guébie**

- |    |  |                      |                        |
|----|--|----------------------|------------------------|
| a. | [ju <sup>4</sup> e <sup>4</sup> ji(sa) <sup>2.3</sup> ne <sup>2</sup> ] ɔ <sup>3</sup>         | li <sup>2</sup>      | ja <sup>31</sup>       |
|    | boy I know   | REL                  | 3.SG eat.IMPF coconuts |
|    | ‘The boy I know eats coconuts.’  |                      |                        |
| b. | [ɲɔkpɔ <sup>3.3</sup> bəri <sup>2.2</sup> gita <sup>3.3</sup> ne <sup>2</sup> ] ɔ <sup>3</sup> | trɔkɔ <sup>2.3</sup> |                        |
|    | man  | play guitar          | REL 3.SG tall          |
|    | ‘The man who plays the guitar is tall.’  |                      |                        |

As far as I know, Guébie is the only recorded language other than Ju|’hoan that lacks nominal Demonstratives (Dixon, 2003).

### 4.2 Phonological agreement

- Outside of Kru, phonologically determined agreement systems are quite rare (perhaps limited to only Bainuk (Atlantic) (Sauvageot, 1967; Dimitriadis, 1997; Dobrin, 1995), Abuq (Arapesh, Toricelli) (Dobrin, 1995), and possibly also bɛna (Adamawa) (Van de Velde and Idiatov (2015).
- Within Kru, however, phonologically determined agreement is well attested: Grebo (Innes, 1966), Vata (Kaye, 1981), Krahn (Bing, 1987), and Godié (Marchese, 1979, 1989; Corbett, 1991), and described here in Guébie.

(22) **Phonological agreement across Kru**

	Guébie	Krahn	Godié	Vata
<b>Number of Agreeing Vowels</b>	3	3	3	5
<b>(Non-human) Pronoun-Noun</b>	Yes	Yes	Yes	Yes
<b>Adjective-Noun</b>	Yes	No	Yes	No
<b>Demonstrative-Noun</b>	N/A	No	Yes	No
<b>Definite-Noun</b>	No	No	Yes	No
<b>Relative Pronoun-Noun</b>	No	No	No	Yes

## 5 Conclusions

- Here I describe the nominal system of Guébie.
- In two particular dimensions, the Guébie nominal system is typologically informative.
  1. Guébie is only the second attested language without demonstratives.
  2. Guébie (and other Kru languages) have phonologically determined agreement systems, which are quite rare typologically.
    - \* Further documentation of such systems will lead to better understanding of this phenomenon.

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