## The Noun Phrase in Gyeli

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## 1 Preliminaries

Note that transcriptions are based on IPA and not on common Bantu orthography.

# 1.1 Location of the "Gyeli noun phrase" within the dissertation— A description of Gyeli

## + Preliminary structure of the thesis

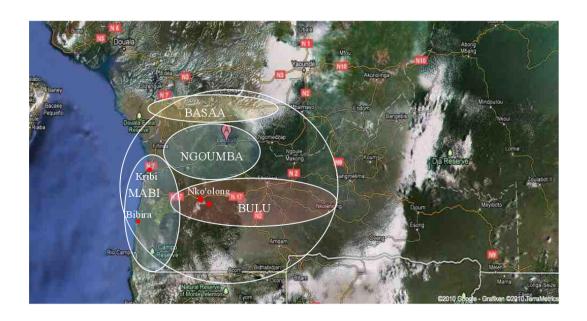
- 1. Introduction
- 2. Phonology and tonology
- 3. Nouns and the noun phrase
- 4. Verbs and the verb phrase
- 5. TAM
- 6. Clause types
- 7. Texts
- 8. Lexicon

## + The project

DoBeS, the project, the team, distribution of work, the first year

# 1.2 Basic information on Gyeli





- ISO 639-3: gyi
- "Pygmy" hunter-gatherers in southern Cameroon and Equatorial Guinea (4000-5000 speakers scattered in a vast area)
- Bantu A80 (Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Northwest, A, Makaa-Njem (A.80))

- controversial status: language (Ethnologue) vs. dialect (Bahuchet in prep.) Gyeli also known under the names Bagyeli, Bakola, Bajelli, Bako, Bogyel, Likoya, Babinga...
- contact with farming communities of other Bantu languages (Basaa, Kwasio, Bulu, Fang, Ewondo, Bakoko, Yasa)
- different varieties of Gyeli depending on contact language
- endangered language because of change of subsistence
- variety of my dissertation spoken in the Bulu region
- data: mostly own fieldwork, previous work by Renaud (1976) concentrates on variety in contact with Mvoumbo speakers and on phonology + morphology; there are significant differences between the two varieties/descriptions in terms of lexicon, phonology and morphology

## 1.3 Basic phonology

## + Consonant inventory

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal
Nasal	m		n	n	ŋ	
Plosive	p, b		t, d		k, g	3
Implosives	[6 > b]		[d > d]			
Prenasalized stops	(mp), mb		nt, nd		ŋk, ŋg	
Prenasalized fricatives			(ns), nz			
Fricatives	$[\beta > b]$	f, v	s, z		[y > g]	
Affricates	pf, bv		t∫, dʒ			
Trill			[r > d]			
Lateral approximants			1			
Semi-vowels	W			j		

Table 1: Gyeli phoneme inventory

- in [x > y] brackets: x is supposedly allophone of y
- in ( ) brackets: unclear status as to phonemic status or consonant cluster
- labialized consonants: kw, gw, fw
- palatalized consonants: p<sup>j</sup>, b<sup>j</sup>, d<sup>j</sup>, k<sup>j</sup>, g<sup>j</sup>, m<sup>j</sup>, n<sup>j</sup>, nd<sup>j</sup>, ηg<sup>j</sup>

#### + Vowel inventory

- 7 vowels: Ngué Um (2011) reports 7 vowels /i, u, e, o, ε, ɔ, a/ for the Basaa variety and Renaud the same for the Myoumbo variety, but there might be even 9 including /i, υ/
- nasal counterparts for each oral vowel, supposedly because of loss of nasal coda
- vowel length: long vowels attested for at least /iz, uz, oz, ez, oz, az/, but not (yet) for /iz, uz, ez/; long vowels seem at least sometimes to be the result of the omission of intervocalic

#### consonants

- no vowel harmony attested so far

#### + Tone

- two level tones L and H dù oven vs. dú lie
- a rising HL and a falling LH tone sâ thing; lè-wă twin
- lexical tone, grammatical tone expected in TAM system
- tonal processes: H tone spreading and downstep

## + Syllable structure (of nouns)

- most frequent in nouns are bisyllabic roots, then monosyllabic ones, nouns with 3 syllables occur sometimes, those with 4 or 5 are very rare and constitute reduplications and/or borrowings
- mostly open syllables
- consonant clusters or labialized/palatalized consonants as onset
- only nasal coda

## + Open questions

- Are there really implosives? If so, are they phonemic or variants?
- How to analyze prenasalized/labialized/palatalized consonants? Are they phonemic?
- How to analyze the vowel system? 7 or 9 vowels? Vowel harmony?

## 2 The Gyeli noun phrase

## 2.1 Elements of the noun phrase

### + Noun

- the Gyeli noun consists of a root which may or may not take a prefix as in lè-kàá clan vs. Ø-tídí animal

#### + Demonstratives

- two sets of demonstratives: proximal and distal
- proximal and distal demonstratives differ in tone and/or vowel length
- proximal demonstratives: singular classes have a falling HL, plural classes a H
- distal demonstratives: all H, all long vowels
- Ngué Um (2011) reports anaphoric demonstratives for the Kola variety in the Basaa area, so there may also be anaphoric demonstratives in the Gyeli variety in the Bulu region, but I haven't come across them yet

	proximal	distal
1	nû	núú
2	bá	báá
3	ŵâ	wớớ
4	mí	míi
5	lε̂	lέέ
6	má	máá
7	jê	jéé béé
8	bé	
9	pi	níí
14	bê	béé

Table 2: Gyeli demonstratives

- if the noun is modified by a demonstrative only, the demonstrative obligatorily follows the noun as in (1)
  - (1) a. m-ùrì nû
    1nc-man DEM.PROX.1
    'this man'
    - b. m-ùrì núú 1nc-man DEM.DIST.1 'that man'

## + Possessive pronouns

- possessive pronouns in Gyeli have the roots as in Table 3 and take an agreement prefix (see also Table 6)
- classes 1 + 9 show a different tonal pattern than the other classes

	Singular	Plural	cl. 1	+ 9	other	classes
1	-ã	-isi	$-\hat{ ilde{a}}$	-isí	-â	-ísí
2	-D	-in $\epsilon$	-ŝ-	-ìnέ	-ŝ	-inέ
3	3-	-awə	-ê	-àwź	-έ	-áwó

Table 3: Basic possessive paradigm

- cl. 1 + 3: first high front vowel in 1. + 2. Pl changes to high back vowel (wúsí, wúné in AGR cl. 3 vs. mísí, míné in AGR cl. 6) after the semi-vowel /w/
- if the noun is modified by a possessive only, the possessive obligatorily follows the noun as in (2)

- (2) a. só w- $\hat{a}$  friend.1 1-1SG.POSS 'my friend'
  - b. bà-só b-ấ 2nc-friend 2-1SG.POSS 'my friends'

## + Numerals

- high variability among Gyeli speakers in terms of counting skills (depending on whether Bagyeli have been to school or not)
- Gyeli numerals very similar to Mabi (Kwasio) numerals  $\rightarrow$  borrowing or genealogical relation?

	Gyeli	Mabi
'1'	wúrữ	wúrè
'2'	bíbáà	bá
'3'	bíláálè	bilá
'4'	bínẫ	biná
<b>'</b> 5'	bítánè	bítán
'6'	ntùś	ntùś
'7'	mpúèré	mbúèré
'8'	lòmbì	lòmbì
·9 <sup>,</sup>	rèbvùá	rèbvùá
'10'	lèwúmò	wúm

Table 4: Enumeratives in Gyeli and Mabi

- Gyeli numerals '2' '5' are modifiers and agree with the noun
- '10', '100' and '1000' are nouns and belong to different genders: '10' to 5/6, '100' to 7/8 and '1000' to 1/2
- status of '1' and '6' '9' is unclear, they are probably not nouns, anyway they don't take agreement perfixes
- higher numerals are constructed by addition and multiplication
- addition is expressed by coordination (nominal-numeral COM numeral)
- multiplication is expressed by a N + MOD noun phrase (see Table 5)

	Addition		Multiplication
'11'	lè-wúmò ná wúrữ	'20'	mà-wúmò má-báà
'12'	lè-wúm ò ná bí-báà	'30'	mà-wúmò má-láálè
'13'	lè-wúm ò ná bí-láálè	'40'	mà-wúmò má-nấ
'14'	lè-wúm ò ná bí-nấ	'50'	mà-wúmò má-tánè
'15'	lè-wúmò ná bí-tánè	'60'	mà-wúmò ntùó
'16'	lè-wúmò ná ntùó	'70'	mà-wúmò mbúèré
'17'	lè-wúmò ná mpúèré	'80'	mà-wúmò lòmbì
'18'	lè-wúmò ná lòmbì	'90'	mà-wúmò rèbvùá
'19'	lè-wúmò nárèbvùá	'100'	bwújà
		'200'	bì-bwújà bí-báà
		'1000'	tódjínì
		'2000'	bà-tódjínì bá-báà

Table 5: Gyeli complex numerals

- when quantifying a noun, simplex (monomorphemic) numerals form either a noun phrase with the quantified noun (modifier numerals as in (3)) or enter a N + N construction (nominal numerals as in (4))

(3) a. só wúrữ friend.1 one
'one friend'
b. bà-só bá-báà 2nc-friend 2-two

'two friends'

- (4) a. lè-wúmò lí bà-só 5nc-ten 5:CON 2nc-friend 'ten friend'
  - b. bwújà (yá) bà-só hundred.7 7:CON 2nc-friend 'hundred friends'

- complex numerals:
  - if the complex numeral is a multiplication noun phrase, the quantified noun precedes the NP as in (5a)
  - if the complex numeral is a coordinated noun phrase expressing addition, the quantified noun is  $R_2$  and the nominal numeral  $R_1$  in a N+N construction while the modifier numeral agrees with  $R_2$  as in (5b)
  - a complex numeral including multiplication and addition is expressed via a coordination whose two conjuncts constitute NPs (N + MOD): the first conjunct comprises the multiplication NP with the nominal numeral, the second conjunct includes the quantified noun which is modified by the numeral modifier as in (5c)
  - (5) a. b-ùdì mà-wúmò má-báá 2nc-person 6nc-ten 6-two '20 people'

- b. lè-wúmò lí b-ùdì ná bá-báà
   5nc-ten 5:CON 2nc-person COM 2-two
   '12 people'
- c. mà-wúmò má-báà ná b-ùdì bá-báà 6nc-ten 6-two COM 2nc-person 2-two '22 people'

## + Adjectives?

- probably there is no 'adjective' category
- best candidates for 'adjectives' (good, bad, big, small) behave a bit nouny, but are not quite like the other nouns
  - some come with a plural form (but not all)
  - sometimes followed by an element which could be a connective
  - they cannot be modified by demonstratives or possessives
  - (6) a. só wà mpá / biwò friend.1 1:CON? good / bad 'good/bad friend'
    - b. bà-só bá mp\4 / biwò 2nc-friend 2:CON? good / bad 'good/bad friends'
- reversiveness of mpá
  - (7) a. mpá yá ndàwó goodness?.7 7:CON? house.9 'good house/goodness of the house'
    - b. mà-mpá má ndàwó6nc-goodness? 6:CON? house.9'good houses'
- semantic change in reversing bíwò
  - (8) a. m-wánò wà bíwò 1nc-child 1:CON? bad 'bad child (character)'
    - b. (wè) biwò m-wánò PRST bad 1nc-child 'ugly child'

- c. \*bíwò CON m-wánò bad CON 1nc-child 'bad/ugly child'
- predicative use
  - (9) a. m-ùrì nû **n** mp<sup>↓</sup>á
    1nc-person DEM.PROX.1 3Sg? good
    'this person is good'
    - b. m-ùrì nû à biwò
      1nc-person DEM.PROX.1 3Sg? ugly/bad
      'this person is ugly/\*bad'

## 2.2 Gender/agreement system

- agreement targets are: possessive pronouns, demonstratives, non-nominal numerals, quantifiers, connective markers, relative markers? and verbs
- ten agreement classes form seven genders (see Table 6 and Figure 1)
- agreement class 14 is only established by a tonal difference from class 8 in the proximal demonstrative

	noun class prefix	agreement prefix (posses-	example
		sives)	
1	N or Ø	w- + special tone pattern	mù dẫ wê his wife
2	bà-	b-	bùdẫ bé <i>his wives</i>
3	N	W-	nlô wé his head
4	mì- or mìn?	$ m mi$ - $/ m m^{j}$ -	mìnlô m <sup>j</sup> <i>é his heads</i>
5	lè-	l-	lèmáá lé his cheek
6	mà-	m-	màmáá m é $his\ cheeks$
7	mostly $\emptyset$ , sometimes N	j-	si̇́ŋgi̇̀ jέ his cat
8	bì-	bì-/b <sup>j</sup> -	bisíŋgi b <sup>j</sup> έ his cats
9	N	n- + special tone pattern	ກນ໌ໄຮິ ກຣິ <i>his body</i>
14	synchronically no prefix,	bì-/b <sup>j</sup> -	bwálè b <sup>j</sup> é <i>his pirogue</i>
	but all roots start with /b/		
	or /v/		

Table 6: Noun class and agreement prefixes

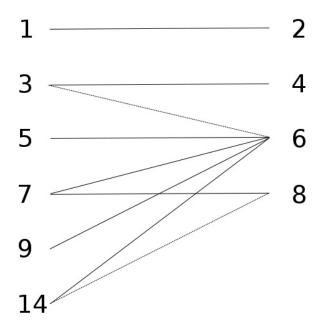


Figure 1: Gyeli gender system

- some genders have more members than others (1/2 and 7/8 bigger than 9/6 or minor genders such as 7/6 or 14/6)
- plural is always overtly marked on the noun  $\rightarrow$  loss of class 10 and its replacement by class 6

Gender	Size	Semantic tendencies
1/2	120/511	many humans, some animals, lots of loan words
3/4	65/511	many body parts, some humans, animals, a few plants, tools
5/6	83/511	body parts, animals, plants, tools
7/8	131/511	body parts, animals, plants, clothes, tools, loan words
9/6	30/511	no discernible pattern
7/6	12/511	no discernible pattern
14/6	5/511	fire, night, sun, medicine, boat

Table 7: Size and semantics of Gyeli genders

- problem to affiliate initial nasals in the singular to either the noun class prefix or the nominal root:
- → Where does the nasal belong to? Is it a noun class prefix or part of the root? If it is a noun class prefix, is it frozen in the plural? Or do I have different types of nouns, namely those where the nasal is a noun class prefix and does not appear in the plural and those where the nasal is part of the root and does show up in the plural?
- argument for nasal belonging to the nominal root: if the nasal occurs in the plural form, then it might be part of the root

- argument for nasal prefixes: nasals often constitute a TBU and therefore are probably not part of the nominal root, their occurrence in the plural can be explained as frozen prefixes
  - 1/2: jiẫ, bàpẫ mother,s; ndʒś?ò, bàndʒś?ò elephant,s but ntì, bà-tì in-law,s; ndʒíbí, bà-dʒíbí thief/ves
  - 3/4: ǹlô, mìnlô head,s; ǹkù, mi̇nkù hole,s but ǹsùné, mi̇-sùné calf,ves; ǹvèwò, mi̇-vèwò breath
  - 7/8: ndzi, bindzi place, s but awó, bi-lawó branch, es

## 2.3 Connective constructions

- connective construction: dependency relation between two nominal constituents: HEAD  $(R_1)$  RELATOR (REL[glossed CON]) DEPENDENT  $(R_2)$  (See Van de Velde forth.)
- canonical CON is an overt relator which agrees in an agreement prefix with R<sub>1</sub> and has, as in Proto-Banu, the canonical root -a with a tone that is harmonic with preceding prefix (Meeussen 1967)

AGR class	Connective
1	wà
2	bá
3	wá
4	mí
5	lé
6	má
7	já
8	bí
9	лà
14	bí / βí

Table 8: Gyeli connectives

- How do I analyze the structure of Gyeli connectives elegantly? Do I assume an underlying stem with some variation in classes 4, 5, 8 and 14? Or do I have to say that a potential stem is totally opaque synchronically?
- special case: if  $R_2$  is a personal name, the connective takes a fixed form  $\eta g \acute{a}$  for all agreement classes without being modified when  $R_1$  is singular; if  $R_1$  is plural,  $\eta g \acute{a}$  takes a plural prefix

- (10) a. m-pòmbó ŋgá nadine 1nc-face CON PN 'Nadine's face'
  - bà-mpòmbó bá-ŋgá nadine
     2nc-face 2-CON PN
     'Nadine's faces'
- (11) a. n-kwèé ŋgá nadine 3nc-basket CON PN 'Nadine's basket'
  - b. mì-nkwèé mí-ŋgá nadine 4nc-basket 4-CON PN 'Nadine's baskets'
- connective optionality: sometimes the use of the CON marker is optional; speakers have clear judgments about the contexts when CON can be omitted, but the rules for CON optionality are unclear to me, so I tested several hypotheses
- Note: connectives in brackets indicate their optionality while those without brackets are obligatory
- CON optionality conditioned by number morphology? More often, plural connectives are optional while their singular counterpart is obligatory; however, in (12) the singular CON is optional as well
  - (12) a. n-sínó (wá) má-ká 3nc-color 3:CON 6nc-leaf 'color of leaves'
    - b. mì-nsínó (mí) má-ká 4nc-color 4-CON 6nc-leaf 'colors of leaves'
- CON optionality conditioned by gender or agreement class morphology? Does connective optionality depend on the gender/noun class of  $R_1$  or  $R_2$ ?
- $\rightarrow$  no, because changing the noun class of R<sub>1</sub> (13) and R<sub>2</sub> (14) gives both obligatory and optional CON
  - (13) a. số (wà) ŋgjễ friend.1 1:CON stranger.1 'friend of the stranger'
    - b. ndzì nà ŋgjɛ̂
      path.9 9:CON stranger.1
      'path of the stranger'
- (14) a. số (wà) ŋgjễ friend.1 1:CON stranger.1 'friend of the stranger'
  - b. só wà 'n-kwànò friend.1 1:CON 3nc-honey 'friend of honey'
- it also dosen't depend on whether  $R_1$  and  $R_2$  belong to the same noun class or not:
  - (15) a. só wà kùsì friend.1 1:CON parrot.1 'friend of the parrot'
    - b. só (wà) singì friend.1 1:CON cat.7 'friend of the cat'

- CON optionality conditioned by tonal pattern?
- hypothesis: if the H tone of the CON spreads to the otherwise L prefix of  $R_2$ , the tonal process might mark the dependency relation and an overt connective marker is not necessary as in (16)
  - (16) a. n̂-lô wá tid<sup>↓</sup>í
    3nc-head 3:CON animal.1

    'the head of the animal'
    - b. mì-n-lô (mí) bá-tíd<sup>↓</sup>í 4nc-head 4-CON 2nc-animal 'the heads of the animals'
- (17) falsifies the tonal hypothesis because in (17a), there is no H spreading, but the use of CON is still optional while in (17b) there is H spreading, but the CON is still obligatory
  - (17) a. m-páà (wà) n-làmbó 1nc-president 1:CON 3nc-country 'president of the country'
    - b. bá-páà bá ń-làmbó
       2nc-president 2.CON 3nc-country
       'presidents of the country'
- CON optionality conditioned by phonological environment?  $\rightarrow$  tendency: monosyllabic R<sub>2</sub> require CON as in (18) compared to (19); however, there are exceptions as in (13a)
  - (18) a. só wà n-tí friend. 1:CON 1nc-in.law 'the friend of the in-law'
    - b. bà-só bá ń-ti 2nc-friend 2:CON 1nc-in.law 'the friends of the in-law'
- (19) a. só (wà) bà-tí friend.1 1:CON 2nc-in.law 'the friend of the in-laws'
  - b. bà-só (bá) bá-tí 2nc-friend 2:CON 2nc-in.law 'friends of the in-laws'
- CON optionality conditioned by semantics of  $R_1$  and  $R_2$ ?
- $\rightarrow$  there must be something to it because all nominal numerals in  $R_1$  position have an optional CON even though they belong to different noun classes
- however, other semantic patterns (e.g. human, animacy, plants, etc.) are less clear and there are always counterexamples
  - → CON optionality conditioned by a complex set of phonological and semantic rules?

## 2.4 Order of modifiers in the NP

- if only one modifier in the NP, then modifier follows noun
- if two or more modifiers in the NP, things get more complicated

- I look at NPs with two modifiers; modifiers comprise: POSS, DEM, NUM + 'ADJ' and their combinability and position
- NP with two modifiers (excluding numerals) as in Table 9:
- if the noun is in the initial position, the order of two following modifiers is free  $\rightarrow$  no modifier seems to be more bound to the noun than others
- maximally one slot before the head noun  $\rightarrow$  noun cannot occur at final position

N	POSS	DEM	N	DEM	'ADJ'	N	POSS	'ADJ'
mwànź	wâ	nû	mwànź	nû	wa mpá	mwànź	wâ	wa mpá
mwànź	nû	wâ	mwànź	wa mpá	nû	mwànź	wa mpá	wâ
nû	mwànź	wâ	wa mpá	mwànź	nû	wa mpá	mwànź	wâ
wâ	mwànź	nû	nû	mwànś	wa mpá	wâ	mwànź	wa mpá
* nû	$w\hat{ ilde{a}}$	mwànź	* wa mpá	$\hat{nu}$	mwànź	* wa mpá	$w\hat{ ilde{a}}$	mwànź
* wâ	$\hat{\mathrm{nu}}$	mwànź	* nû	wa mpá	mwànź	* wâ	wa mpá	mwànź
'this	my	child'	'this	good	child'	'my	good	child'

Table 9: NP with two modifiers (excluding numerals)

- NP with two modifiers including numerals as in Table 10:
- less restrictions and clear rules for modifier order
- $\rightarrow$  What does it say about the morphosyntactic properties of the NUM wúr $\tilde{u}$  one?
- $\rightarrow$  need to check with NUM that takes an agreement marker

N	DEM	NUM	N	POSS	NUM	N	NUM	'ADJ'
mwànó	nû	wúrằ	mwànź	wâ	wúrữ	mwànó	wúrằ	wa mpá
mwànź	wúrằ	nû	mwànź	wúrằ	wâ	mwànź	wa mpá	wúrằ
nû	mwànź	wúrằ	wúrằ	mwànź	$w\hat{ ilde{a}}$	* wúrằ	wa mpá	mwànź
nû	wúrằ	mwànź	wúrằ	$w\hat{ ilde{a}}$	mwànź	wúrằ	mwànź	wa mpá
? wúrằ	mwànź	nû	$  \hat{w}\hat{a}  $	mwànź	wúrằ	wa mpá	mwànź	wúrằ
? wúrằ	nû	mwànź	wâ	wúrằ	mwànź	wa mpá	wúrằ	mwànó
'this	one	child'	'my	one	child'	'one	good	child'

Table 10: NP with two modifiers (including numerals)

- even more complex with three 'modifiers' in the NP since 'rules' for two modifiers don't hold for three modifiers (N POSS DEM 'ADJ')
  - free order of modifiers following the noun as in (20)
  - only one slot before the head noun as in (21)

- (20) a. wa mpá m-wàn<br/>ó wấ nû ? good 1nc-child 1-1SG.POSS DEM.PROX.1 'this my good child'
  - b. \*wa mpá m-wànó nû wã
    ? good 1nc-child DEM.PROX.1 1-1SG.POSS
    'this my good child'
- (21) nû wấ m-wànó wa mpá DEM.PROX.1 1-1SG.POSS 1nc-child? good 'this my good child'

## 2.5 The status of basic color terms

- What part of speech are basic color terms in Gyeli? - while new color innovations in Gyeli are all nouns, the traditional basic color terms have different morphosyntactic properties (see Table 11)

Gyeli color	POS	English correspondence
ná vyûvyû / (nsìnó wá) ná vyû	?	'black'
(nsìnó wá) <b>ná</b> mbàmbàlà	?	'white'
<b>ná</b> bìbì / (nsìnó wá) <b>ná</b> bì	?	'red'
ná yêyè / (nsìnó wá) ná yê	?	'kind of white' (lost color)
<b>ná</b> pfûpfù / (nsìnó wá) <b>ná</b> pfû	?	'kind of white'(changed color)
mpùlé / (nsìnó wá mpùlé)	noun	'yellow' (type of tree with yellow bark)
máká / (nsìnó wá máká / léká / ká)	noun	'green' (leaves)

Table 11: Gyeli color terms

- What is **ná**?
- they are not nouns since they don't trigger agreement and don't have a plural form
- they are not verbs (but are probably derived from verbs) since ná is not a subject agreement marker
- they are not adjectives or any other modifier agreeing with the noun since they don't take any agreement marker
  - (22) dʒijó ná bibí chair.7? red 'the red chair' or 'the chair is red'
  - (23) Myoumbo
    - a. á bìbì tèbèdì? red table.?'the red table'

b. tèbèdì ná bìbì table.? ? red 'the table is red'

other occurrences of ná:

- COM marker (see e.g. complex addition numerals)
- ullet máná  $morning \rightarrow$  ná máná tomorrow,  $until \ tomorrow$
- kùyú evening  $\rightarrow$  ná kùyú yesterday

## Concluding remarks and discussion

- Noun class prefixes
- Morphosyntactic status of 'adjectives'
- Connective optionality
- Modifier order in the NP
- Part of speech of basic color terms and status of ná
- Suggestions on glossing

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