The verbal system in Gyeli

Nadine Borchardt, Humboldt-Universität zu Berlin
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1 Introduction

1.1 The verbal system within the dissertation 'A Grammar of Gyeli'

1. Introduction
2. Phonology
3. Nouns and the noun phrase
4. **Verbs and the verb phrase**
   - **4.1 Verb structure**
     - **i. Introduction**
     - **ii. Structure of the verb root**
     - **iii. Subject marking**
     - **iv. Object marking**
     - **v. Verbal derivation**
       - **A. Reciprocal**
       - **B. Applicative**
       - **C. Causative**
       - **D. Non-productive extensions**
   - **4.2 Tense, aspect, mood**
     - **i. Tense**
       - **A. The present**
       - **B. The past**
       - **C. The future**
     - **ii. Aspect**
     - **iii. Mood**
   - **4.3 Negation**
   - **4.4 Adverbs**
5. Clause types
6. Texts
7. Lexicon

1.2 The Gyeli language

- 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)
- Endangered language because of change of subsistence
- Different varieties of Gyeli depending on contact language
- *Ngòló* variety of my dissertation spoken in the Bulu region
- Data: mostly own fieldwork within framework of a DoBeS (Documentation of Endangered Languages) project, previous work by Renaud (1976) concentrates on variety in contact with Mvoumbo speakers and on phonology + nominal morphology; there are significant differences between the two varieties/descriptions in terms of lexicon, phonology and morphology

1.3 The Bantu verb

The typical verb structure in Bantu languages has a verb root with slots to both its left and its right, as shown in Table (1).

Slot	Pre-initial	Initial	Post-initial	Pre-radical	**Radical**	Prefinal	Final	Post-final
Function	TAM, NEG, clause type	Subject concord	TAM, NEG, clause type	Object concord	**Root**	TAM, valence change	TAM	participant, NEG, clause type

Table 1: The Bantu verb structure (adapted from Güldemann, course materials 'Grammar and information structure in Bantu languages', WS 2011/12)

(1) Swahili

ni-ta-ku-zi-andik-i-a barua
1S-FUT-2S.OM-10.OM-write-APP-F 10.letter

'I will write the letters to you.'

2 The Gyeli verb structure

- Gyeli is more limited in the verbal slots than typical Savannah Bantu languages as shown in Table (2)

- Gyeli is significantly more isolating than Savannah Bantu languages such as Swahili. I analyze subject, object and most negation markers as free morphemes which are not bound to the verb root. Only tonally marked tense, verb extensions (valence change) and negation in the present tense are bound to the verb root.

Slot		**Radical**	Prefinal	Post-final
Function		**Root**	valence change	par-ticipant, NEG, clause type (?)

Table 2: The Gyeli verb structure

(2) Gyeli

mɛ̀ lúmɛ́lɛ́ wɛ̀
1S.PST send.PST 2S

'I sent you.'

2.1 The phonological structure of the verb root

Gyeli verb roots are either monosyllabic, bisyllabic or trisyllabic (in extended forms.)

+ **Vowel distribution in Gyeli verb roots**

- Tables (3) through (5) show the distribution of vowels in verb roots of various syllable lengths; the database includes at this point 268 verbs.

- Gyeli verb roots are most commonly bisyllabic. Trisyllabic verbs include probably at least historically a verb extension.

Monosyllabic

- Monosyllabic verbs most commonly have a mid /ɛ, ɔ/ or low /a/ vowel. Among these, front vowels are more frequent than back vowels as shown in Table (3).

- If the vowel is nasalized, then it is most likely /ã/. Nasalization probably spread from a former nasal coda that got lost.

plain vowels	i	u	e	o	ɔ	ɛ	a
	1	1	1	1	**7**	**11**	**14**
nasal vowels	ĩ	ũ	ẽ	õ	ɔ̃	ɛ̃	ã
	1	1	-	-	1	-	**11**
diphthongs	iɛ	uɔ	ua				
	2	2	1				

Table 3: Distribution of vowels in monosyllabic verb roots (total: 56)

Bisyllabic

- While high vowels /i, u/ and front high-mid /e/ occur in V1 position, they (almost) never occur in V2 position.
- Mid vowels /ɛ, ɔ/ are the most common in V2 position and less frequent in V1.
- Only the low vowel /a/ is common in both V1 and V2.
- Mid vowels only pair up with other mid vowels.
- Two vowels of the same quality only include /ɔ, ɛ, a/.
- Common pairings are /i/ + /ɔ/, /i/ + /ɛ/, /u/ + /ɔ/, /u/ + /ɛ/, /a/ + /ɔ/, /a/ + /ɛ/, and /a/ + /a/

V2/ V1	i (1)	u (-)	e (1)	o (14)	ɔ **(56)**	ɛ **(51)**	a (36)	ɛ̃ (3)	ɛː (2)
i **(39)**	-	-	-	3	**16**	**12**	6	2	-
u **(31)**	1	-	-	1	**11**	**10**	9	-	-
e (7)	-	-	-	3	2	1	1	1	1
o (6)	-	-	-	-	-	1	5	-	-
ɔ (5)	-	-	-	-	1	4	-	-	-
ɛ (17)	-	-	-	-	9	8	-	-	-
a **(44)**	-	-	1	7	**15**	**10**	**10**	-	1
aː (6)	-	-	-	-	-	3	3	-	-
ã (2)	-	-	-	-	-	1	1	-	-
ɔ̃ (1)	-	-	-	-	-	1	-	-	-
iɛ (2)	-	-	-	-	2	-	-	-	-

Table 4: Distribution of vowels in bisyllabic verb roots (total: 160)

Trisyllabic

- Vowels of every quality can occur in V1 position, but the most common are high vowels /i/ and /u/.
- In trisyllabic verbs, high vowels do not occur at all in V2 and V3 position, but only the mid vowels /ɛ/ and /ɔ/ and the low vowel /a/.
- The most common pairing in V2 and V3 is /ɛ/ + /ɛ/ followed by /a/ + /a/. Combinations of /ɛ/ and /a/ exist, but are rare.

- The back mid vowel /ɔ/ (and combinations with /ɛ/) exist, but are very rare.

V2 + V3/ V1	ɛ + ɛ **(32)**	a + a (6)	ɛ + a (2)	e? + a (1)	a + ɛ (3)	ɔ + ɔ (1)	ɔ + ɛ (1)
i **(13)**	**9**	1	2	1	-	-	-
u **(16)**	**10**	4	-	-	1	1	-
e (2)	2	-	-	-	-	-	-
o (3)	3	-	-	-	-	-	-
ɔ (3)	3	-	-	-	-	-	-
ɛ (4)	3	-	-	-	1	-	-
a (5)	2	1	-	-	1	-	1

Table 5: Distribution of vowels in trisyllabic verbs (total: 46)

+ **Consonant distribution in Gyeli verb roots**

Syllables in Gyeli verb roots are always open, unlike in noun roots which allow nasals as a coda.

Monosyllabic

- The most common onset in a monosyllabic verb root in Gyeli is a plosive, followed by a fricative, then liquid /l/ and nasals /m/ + /n/.

- Some voiced plosive and fricative counterparts are missing, namely /g/ and /z/.

- Palatalized and labialized onsets are common.

plain C (31)					
plosives	p	b	t	d	k
18	4	4	2	4	4
fricatives	v	w	s	dj	
8	4	1	2	1	
liquids	l				
3	3				
nasals	m	n			
2	1	1			
with accompaniment (25)					
palatalized	dy	gy	vy	ny	
12	4	3	1	4	
labialized	bw	kw	lw		
9	3	3	3		
rest	bv	nt	nd	nj	
4	1	1	1	1	

Table 6: Distribution of consonants in monosyllabic verb roots (total: 56)

Bisyllabic

- In bisyllabic verb roots in Gyeli, plosives are the most common consonants in C1 position, followed by fricatives and palatalized consonants.

- There is a significant imbalance between voiced and voiceless plosives: the voiced counterparts of /t/ and /k/ are almost missing. This is not true for /b/ and the affricate /dj/.
- While liquids, glides and nasals are not very common in C1, they are more frequent in C2, especially /l/.
- Palatalized and labialized consonants only occur in C1 (except for /ndy/), prenasalized stops only in C2.
- Voiced stops are more frequent in C2; the glottal stop only occurs in C2.
- Labiodental fricatives are missing in C2 as well as /p/.

C1 plain (107)							
plosives	p	b	t	d	k	g	'
58	9	**14**	**16**	1	**17**	1	-
fricatives	f	v	s	z			
24	1	9	**14**	-			
affricates	ts	dj					
9	2	7					
liquids	l						
9	9						
glides	y	w					
5	-	5					
nasals	m	n					
2	2	-					
C1 accomp. (48)							
palatalized	dy	ky	gy	sy	my	ny	
24	6	1	**12**	1	1	3	
labialized	bw	tw	kw	sw	lw	mw	
19	**11**	1	4	1	1	1	
rest	dv	bv	tf	dz	pf		
4	1	1	1	1	1		
C2 plain (114)							
plosives	p	b	t	d	k	g	'
39	-	**12**	3	9	5	5	5
fricatives	f	v	s	z	dj		
11	-	-	9	2	-		
liquids	l						
30	**30**						
glides	y	w					
19	8	**11**					
nasals	m	n					
15	**10**	5					
C2 accomp. (31)							
	mb	nd	ŋg	ndy			
	16	9	2	4			

Table 7: Distribution of consonants in bisyllabic verb roots (total: around 150)

Trisyllabic

- In trisyllabic verbs, possible consonants in C3 are quite restricted.
- The most common C3 is /l/.
- Plosives in C3 include only /d, k, g/, only /s/ appears as a fricative.
- There are no accompanied consonants in C3.

plosives (4)	d (1)	k (1)	g (2)
fricatives (7)	s (7)		
liquids (31)	**l (31)**		
glides (1)	w (1)		
nasals (2)	n (2)		

Table 8: C3 in trisyllabic verb roots (total: 45)

+ **Tones in Gyeli verb roots**

- Level tones are more frequent than contour tones, the contour HL more frequent than LH.
- In bisyllabic verb roots, a L on the second mora is most frequent.
- In trisyllabic verbs, two L on the last two moras are most frequent.

monosyllabic 56	L 20	H 16	HL 13	LH 7
bisyllabic 160	H H 15 H HL 1 LH H 1	L L **57** H LH 1 LH L 2	H L **59** L HL 2 HL H 3	L H 12 L LH - HL L 10
trisyllabic 46	H L L **29**	L L L **14**	H H H 2	L H L 1

Table 9: Tone patterns in Gyeli verb roots

+ **Questions**

- Should the section on the phonological structure of verb roots belong in the phonology chapter?
- Which consonants pattern with which vowels? → tendency that /t/ occurs often with /i/ and /b/ clusters with mid and low vowels.
- I have to look closely into vowel harmony. Also other phonological rules need to be investigated more systematically.

- Something to discuss: Verb roots always end in a vowel. So far, I do not talk about these final vowels in a typical Bantu 'final vowel' sense though because this vowel does not carry any information on TAM and varies highly in vowel quality (i.e. there is no meaning attached to a specific vowel). The fact that the final vowel drops in verbal derivation is phonologically conditioned and does not undermine this analysis.

2.2 Subject marking

- Verbs are preceded by the subject.
- The subject can be nominal and/or pronominal as in (3), and does not require a special subject marker on the verb as for instance Swahili does.

(3) a. pfúmá wɛ́
king.1 die.PST
'The king died.'

b. pfúmá à wɛ́
king.1 1S.PST die.PST
'The king died.'

Table (10) shows the subject pronouns in the present tense. The tones on subject pronouns change in different tenses as will be discussed in section (4.1).

First person Second person	1S *mɛ́* 2S *wɛ́*	1P *yá* 2P *bé(-yà)*
Third person	cl. 1 (3S) *nyɛ́/á* cl. 3 *wɛ́* cl. 5 *lé* cl. 7 *yɛ́* cl. 9 nyɛ́ cl. 14 bí	cl. 2 (3P) *bá* cl. 4 *mí* cl. 6 *má* cl. 8 *bí*

Table 10: Gyeli subject markers in the present tense

2.3 Object marking

Table (11) lists the object pronouns.

First person Second person	1S *mɛ̀* 2S *wɛ̀*	1P *bì/bì(-yɛ̀)* 2P *bwɛ̌*
Third person	cl. 1 (3S) *nyɛ̀* cl. 3 *wɔ̀* cl. 5 *lɔ̀* cl. 7 *yɔ̀* cl. 9 nyɔ̀ cl. 14 byɔ̀	cl. 2 (3P) *bɔ̀* cl. 4 *myɔ̀* cl. 6 *mɔ̀* cl. 8 *byɔ̀*

Table 11: Gyeli object markers

Gyeli does not mark objects in the preradical slot as in a Bantu typical verb structure. Objects both nominal and pronominal follow the verb as in (4).

(4) a. mɛ́ wùmbɛ́ bá-kúbɔ̀ SVO_{NOM}
1S.PRES want 2-chicken
'I want (the) chicken.'

b. mɛ́ wùmbɛ́ bɔ̀ SVO_{PRO}
1S.PRES want 2
'I want them.'

+ **Objects in transitive clauses**

- In a transitive clause, a nominal object receives a H tone on its noun class prefix which is underlyingly L.

- Pronominal objects are always L.

- This seems to be true in all tenses.

+ **Objects in ditransitive clauses**

In a ditransitive clause, the indirect object (recipient) follows the verb, the direct object (patient) follows the indirect object, no matter if the objects are nominal or pronominal as in (5).

(5) a. mɛ́ kíyà wɛ́ kúbɔ̀ SV IO_{PRO} DO_{NOM}
1S.PRES give 2S chicken.1
'I give you the/a chicken.'

b. mɛ́ kíyà wɛ́ nyɛ̀ SV IO_{PRO} DO_{PRO}
1S.PRES give 2S 1.OBJ
'I give it to you.'

The position of the indirect and the direct object can be inverse if the indirect object is preceded by a benefactive (?) marker as in (6).

(6) mɛ́ kíyà bwálɛ̀ bà wɛ̀ SV DO_{NOM} IO_{PRO}
1S.PRES give pirogue.14 BEN? 2S
'I give you the pirogue.'

It seems also to be possible to get an applicative/benefactive (?) reading as in (7).

(7) mɛ́ kwànɛ̀ wɛ̀ kù SV IO_{PRO} DO_{NOM}
1S.PRES sell 2S rat.1
'I sell the/a rat for you.'

+ **Questions**

- Is there any pattern to the distribution of the 3S subject markers *nyɛ́/á*?

- Emphatic pronouns?

- Where should this part go in the dissertation? Verb phrase or clauses?

3 Verbal derivation

- Gyeli verbal derivation is anchored in the prefinal slot in the verb structure.
- Formation of verb extensions: last vowel of verb root is deleted and then the extension gets attached as in Table (12)
- Tones on verb extension depend on the tense and will be discussed in the next section; tonal marking in this section is based on the present tense
- Productive verb extensions in Gyeli include applicatives, causatives, reciprocals (see Table (12)); there may be others such as the reversive which are not productive anymore
- Not every verb takes all of the possible extensions, verbs that take all extensions are rather an exception (9 out of 74 tested)
- Every verb root seems to only take one extension, unlike in for instance Swahili which allows multiple verb extensions

Basic verb form	Applicative	Causative	Reciprocal
lúwɔ̀ 'bite'	lúw-èlɛ̀ 'bite sb'	lúw-èsɛ̀ 'make sb get bitten'	lúw-àlà 'bite each other'

Table 12: Productive verb extensions

3.1 Reciprocals

- The most productive extension is the reciprocal.
- Out of 74 tested forms, 54 basic verb forms allow a reciprocal extension.
- For some basic verb forms, Gyeli does not have any reciprocal form, while its closest relative, Mabi, has it: *pímbɛ̀* 'try' > *pímbàlà* 'try together' or *lə̂̀* 'count' > *láŋgàlà* 'count each other'.

'mutuality'	'togetherness'
bédtàlà 'lift each other' < *bédtɔ̀* 'go up' *bínàlà* 'hit each other' < *bìyɔ́* 'hit' *kìyàlà* 'taste each other' < *kìyɛ̀* 'try' *vɔ́làlà* 'help one other' < *vɔ́'ɔ̀* 'calm oneself' *dyúwàlà* 'understand each other' < *dyúwɔ̀* 'hear' *gyíwàlà* 'call each other' < *gyíwɔ̀* 'call' *kwàlàlà* 'love each other' < *kwàlɛ̀* 'love' *tsíndàlà* 'push each other' < *tsíndɔ́* 'push'	*vémbàlà* 'sniff together' < *vémbɔ̀* ? *díàlà* 'eat together' < *dè* 'eat' *nyùlàlà* 'drink together' < *nyùlɛ̀* 'drink' *kɔ́sàlà* 'cough together' < *kɔ́sɛ̀* 'cough' *pámàlà* 'show up together' < *pámɔ̀* 'show up' *tɛ́bàlà* 'get up together' < *tɛ́βɔ̀* 'get up'

Table 13: Semantics of the Gyeli reciprocal extension

- Reciprocal extensions in Bantu languages usually carry a meaning of reciprocity and mutuality. This is also the case in Gyeli.

- In some cases, namely in those verbs which do not inherently carry a sensible reciprocal meaning, the reciprocal form rather expresses togetherness as shown in Table (13).

- The default meaning is, however, reciprocity which is much more frequent (44 vs. 6 clear cases).

- In some cases, the distinction between reciprocity and togetherness is less clear and the meaning includes perhaps both as in: *gyámbàlà* 'having wild sex' → *gyámbɔ̀* 'prepare', *sùβàlà* 'having an orgasm together' → *sùwɔ̀* 'jouir' or *vísàlà* 'snuggle' → *vísɔ̀* 'cover'. These cases may explain, why the reciprocal can extend its meaning towards togetherness.

- There are special cases where the reciprocal extension either does not correspond to the typical meanings of mutuality or togetherness or to the reciprocal form *-ala*.
  - special semantics? *tʰúàlà* 'make small pieces (fish, bread)' → *tʰùwɔ̀* 'crush'
  - special form: *vúàsà* 'shake one another' → *vùèsɛ̀* 'shake' → *vù* 'leave' → remnant of the causative form?

3.2 Applicative and causative

- The applicative/dative verbs are transitive; most often, their dative object fulfills the semantic role of a beneficiary (Schadeberg 2003: 74).

- The causative extension is added to both transitive and intransitive verbs (Schadeberg 2003: 73); semantically, it often has the meaning of causing sth, e.g. *gyígɛ̀sɛ̀* 'teach' = 'make sb learn' derived from *gyígkɛ̀* 'learn'.

- The categories of applicative and causative seem to be in the process of merging or at least becoming less productive.

- In 45 tested cases, there is only either an applicative or a causative form, but not both.

- In 20 tested cases, there is neither an applicative nor a causative form.

- Applicative forms are more numerous than causative forms (39 vs. 28 out of 74 basic verb forms).

Applicative	Causative
gyámbèlɛ̀ 'prepare for sb' → *gyámbɔ̀* 'prepare'	*djíɛ̀sɛ̀* 'feed sb' → *dɛ̀* 'eat'
làŋgèlɛ 'pass sb' → *lɑ́̃* 'pass'	*fùlèsɛ* 'put down' → *fùlɔ̀* 'descend'
nyùmbèlɛ` 'smell sth' → *nyùmbɔ̀* 'smell (like sth)'	*gyígèsɛ̀* 'teach' → *gyígkɛ̀* 'learn'
tíɛ̀lɛ̀ 'disturb sb' → *tíɛ̀* 'walk around'	*nyùlèsɛ̀* 'make sb drink' → *nyùlɛ̀* 'drink'
sùwèlɛ̀ 'pour sth' → *sùwó* 'spill'	*sɔ́lèsɛ̀* 'make undress' → *sɔ́lɛ́* 'undress'

Table 14: Applicative and causative extensions in Gyeli

+ **Semantics of applicatives and causatives in Gyeli**

- **Default case**

  - Applicatives usually take a meaning of doing sth for sb.
  - Causatives usually have the meaning of causing sth.

- **- Unclear semantic relation**

  - *gyíwɔ̀* 'call' → *gyíwèlɛ̀* 'dive'
  - *tsíbèlɛ̀* 'make sb work' → *tsíbɔ̀* 'grind'

- **Applicative form, but causative meaning**

  - *nyíŋgèlɛ̀* 'insert' → *nyɪ́̃* 'enter'
  - *tsíbèlɛ̀* 'make sb work' → *tsíbɔ̀* 'grind'
  - *ndàŋgèlɛ̀* 'make sb cross' → *ndɑ̀̃* 'cross'
  - *gyímbèlɛ̀* 'make sb danse' → *gyímbɔ̀* 'danse'

- **Causative form, but applicative meaning?**

  - *bàwèsɛ̀* 'carry sth' → *bàwɛ̀* 'carry'
  - *fúβèsɛ̀* 'rinse' → *fúβɛ̀* 'be clean'

'do sth for sb' (applicative) can also be expressed analytically as in (8); another way to express 'make sb to do sth' (causative) is given in (9).

(8) mɛ́ gyâ gyá mpá'à wɔ̂
1S.PRES sing song.7 for 2S
'I sing a song for you.'

(9) mɛ́ nzí sá nà wɛ́ dyɔ̀
1S.PRES PROG make QUOT 2S laugh
'I make you laugh.'

3.3 Non-productive extensions?

There may be other extensions that are much less or even not at all productive anymore:

- *-wɔ* reversive: *djí* 'open' → *djìwɔ̀* 'close'
- *-wɔ* also shows up in positional verbs: *kʰúdɔ̀wɔ̀* 'lean over', *sèŋgyɔ̀wɔ̀* 'lean against something', *gyíɛ̀wɔ̀* 'lean back on'
- *-ega* ? as *vìdègà* 'turn', *djìnègà* 'melt'

4 Tense and aspect

4.1 Tense

- Gyeli has four tenses: one present (PRES) tense, one future (FUT) tense and two past tenses which I call past (PST) and anterior past (ANT.PST).
- Tense is marked tonally in PST, FUT and PST and only receives a segmental marker in the ANT.PST.

+ Present

The present tense is marked by a H tone on the subject marker and a 'default' tonal marking on the verb root. Examples are given in Table (15).

σ	*mɛ́ kɛ́* 'I walk'
	mɛ́ ndà 'I cross'
	mɛ́ bwɛ̌ 'I catch'
	mɛ́ lə̂ 'I count'
σσ	*mɛ́ gyíbɔ̀* 'I call'
	mɛ́ bìyɔ́ 'I hit'
	mɛ́ gyàgà 'I buy'
σσσ	*mɛ́ dzímèsɛ̀* 'I extinguish'
	mɛ́ nyùmbɛ̀lɛ̀ 'I smell sth'

Table 15: Present tense verbs

+ Past

The 'simple' past tense is marked by a L tone on the subject marker and a tonal change on the verb root as summarized in Table (16). Table (17) gives some examples in comparison to the present tense.

σ	L → HL (or in some cases H as in mɛ́ dè 'I eat' → mɛ̀ dé 'I ate') H → H (anything else happening??) contour tones HL and LH seem not to change
σσ	H L → H H L H → H H L L → L H H H is still missing among my examples as well as contour tones
σσσ	H L L → H H H L L L → L H H

Table 16: Tonal patterns in past tense verbs

	Present	Past
σ	*mɛ́ kɛ́* 'I go'	**mɛ̀ kɛ́** 'I went'
	mɛ́ ndà 'I cross'	**mɛ̀ ndâ** 'I crossed'
	mɛ́ bwɛ̌ 'I catch'	**mɛ̀ bwɛ̌** 'I caught'
	mɛ́ lɑ̂ 'I count'	**mɛ̀ lɑ̂** 'I counted'
σσ	*mɛ́ gyíbɔ̀* 'I call'	**mɛ̀ gyíbɔ́** 'I called'
	mɛ́ bìyɔ́ 'I hit'	**mɛ̀ bíyɔ́** 'I hit (PST)'
	mɛ́ gyàgà 'I buy'	**mɛ̀ gyàgá** 'I bought'
σσσ	*mɛ́ dzímɛ̀sɛ̀* 'I extinguish'	**mɛ̀ dzímɛ́sɛ́** 'I extinguished'
	mɛ́ nyùmbɛ̀lɛ̀ 'I smell sth'	**mɛ̀ nyùmbɛ́lɛ́** 'I smelled sth'

Table 17: Past tense verbs in comparison to present

+ **Anterior past**

- The anterior past tense is marked by the auxiliary *bwɑ̌* 'have' (see Table (18)).

- The subject marker has a L tone as in the PST tense.

- The verb root has a 'default' tonal pattern as in the present.

σ	*mɛ̀ bwɑ̌ kɛ́* 'I went (long ago)' *mɛ̀ bwɑ̌ ndà* 'I crossed (long ago)' *mɛ bwɑ̌ bwɛ̌* 'I caught (long ago)' *mɛ̀ bwɑ̌ lɑ̂* 'I counted (long ago)'
σσ	*mɛ̀ bwɑ̌ gyíbɔ̀* 'I called (long ago)' *mɛ̀ bwɑ̌ bìyɔ́* 'I hit (long ago)' *mɛ̀ bwɑ̌ gyàgà* 'I bought (long ago)'
σσσ	*mɛ̀ bwɑ̌ dzímɛ̀sɛ̀* 'I extinguished (long ago)' *mɛ bwɑ̌ nyùmbɛ̀lɛ̀* 'I smelled sth (long ago)'

Table 18: Anterior past tense verbs

+ **Future**
The future tense is marked by a long vowel in the subject marker which is tonally either H H or H L (I'm not sure) and a 'default' tonal pattern on the verb root.

	Present	Future
σ	*mɛ́ kɛ́* 'I go'	**méé ké** 'I will go'
	mɛ́ ndà 'I cross'	**méé ndâ** 'I will cross'
	mɛ́ bwɛ̌ 'I catch'	**méé bwɛ̌** 'I will catch'
	mɛ́ lə̂ 'I count'	**méé lə̂** 'I will count'
σσ	*mɛ́ gyíbɔ̀* 'I call'	**méé gyíbɔ́** 'I will call'
	mɛ́ bìyɔ́ 'I hit'	**méé bíyɔ́** 'I will hit'
	mɛ́ gyàgà 'I buy'	**méé gyàgá** 'I will buy'
σσσ	*mɛ́ dzímèsɛ̀* 'I extinguish'	**méé dzímésé** 'I will extinguish'
	mɛ́ nyùmbèlɛ̀ 'I smell sth'	**méé nyùmbélé** 'I will smell sth'

Table 19: Future verbs in comparison to present

4.2 Aspect

- Aspect in Gyeli is marked by verbs such as 'come', 'finish' or 'be'.
- In the following, I present different aspects that I found so far (even though I cannot say anything conclusive). Other aspects may exist in Gyeli, but I have not seen any other neither in my elicitations nor in annotated texts.

+ **Progressive**
nzí 'come'

- *nzí* 'come' occurs in many other forms: *nzyé, njé, nzíɛ̀*
- Verbs indicating aspect follow the subject (pronoun) and precede the verb root as in (10).

(10) mɛ́ nzí kɛ́
1S.PRES PROG go
'I am walking.'

While the construction in (10) also occurs in others tenses by changing the tonal pattern on the subject marker, progressive constructions in tenses (other than the present?) often become more complex including the auxiliary *bɛ́* 'be' as in (11).

(11) a. mɛ̀ **bɛ́** mɛ̀ nzí kɛ́
1S.PST be 1S.PST come go
'I was walking.'
b. méé **bɛ́** mɛ̀ nzí kɛ́
1S.FUT be 1S.PST? come go
'I will be walking.'
c. mɛ̀ bwă **bɛ́** mɛ̀ nzí kɛ́
1S.PST have be 1S.PST come go
'I was walking (a longt time ago).'

The aspect marker *nzí* 'come' can occur twice in a clause as in (12). In (12a), the auxiliary *bɛ́* 'be' is used as well. (12b) shows, however, that the occurrence of the auxiliary is not obligatory.

(12) a. mɛ̀ **nzí** bɛ́ mɛ̀ **nzí** gyámbɔ̀ bé-dèwɔ́
1S.PST come be 1S.PST come prepare 8-food
'I was preparing food.'

b. mɛ̀ **nzí** mɛ̀ **nzíɛ̀** gyámbɔ̀ à nzíɛ̀ gyímbɔ̀
1S.PST come 1S.PST come prepare 3S.PST come danse
'While I was preparing food he was dancing.'

bɛ́ and *nzí* are also used with stative verbs such as 'be.cold' as in (13). I do not know yet, however, if this is a regular pattern with stative verbs (I have not worked on stative verbs in particular yet).

(13) mà-jíwɔ́ mà bɛ́ má njɛ́ vɔ̀
6-water 6 be 6 come be.cold
'The water was cold.'

+ Perfective

lɔ́ 'come'

There is another verb for 'come', namely *lɔ́*. According to speakers' judgement, it is a borrowing from Basaa. It is not used in the progressive aspect as *nzí*, but indicates that an event has just come to an end as in (14).

(14) à lɔ́ kâ kɛ́
3S.PST come ? go
'He just left (il vient de partir).'

The *kâ* is a mystery to me, I don't know what it is. It shows up in other constructions such is in (15) and (16).

(15) á gyámbɔ̀-lɛ́ kâ
3S.PRES prepare-Neg ?
'He doesn't cook.'

(16) sá mbù sá mɛ́ kyà kwámɔ̀ rí yí búlɛ́-lɛ́ kâ
thing.7 for thing.7 1S.PRES put bag.9 LOC 7 break-NEG ?
'No matter what I put in the bag, it doesn't break.'

sílɛ̂ 'finish'

The default aspect marker for perfective is *sílɛ̂* 'finish' and occurs in both past tenses as illustrated in (17).

(17) a. bà sílɛ̂ dè
3P finish eat
'They have eaten.'

b. mɛ̀ bwǎ sílɛ̂ tsìlɔ̀̌
1S.PST have finish write
'I finished writing (a long time ago).'

+ Habitual/Iterative

Habitual and iterative aspect is expressed by repetition. For habitual events, either the verb is repeated as in (18a) or other parts of the clause are repeated as in (18b).

(18) a. mɛ́ gyámbɔ̀ gyàmbɔ̀ bé-dèwɔ̀
1S.PRES prepare prepare 8-food
'I usually prepare food.'

b. mɛ́ vɔ̀βá mɛ́nɔ̀ nà mɛ́nɔ̀ mà-wúlá ntúɔ̀
1S.PST get.up day.7 COM day.7 5-hour six
'Every morning, I get up at 6 o'clock. '

Besides repetition, the regular occurrence of an event can also be expressed lexically as in (19).

(19) mɛ́ làdɔ́ nà nyɛ̀ yə̂sɛ̀
1S.PRES meet COM 3S often
'I meet him often/regularly.'

Iterativity is expressed by duplication of the verb as in (20). I do not know if other elements of the clause can be repeated as well as in (18b).

(20) à nzí kɔ́sɛ̀ kɔ̀sɛ̀ nà kúɣú
3S.PST PROG cough cough SIM evening.7
'He coughed a lot yesterday.'

+ **Questions**

- Are (some of) these aspect constructions serial verb constructions?

- What is *mɔ̀*?

(21) a. mɛ̀ bwɛ̌ **mɔ̀** yɔ̀
1S.PST catch ? 7OBJ
'I already caught it.'

b. mɛ̀ bwɛ̌ yɔ̀
1S.PST catch 7OBJ
'I caught it.'

c. *mɛ̀ dyú **mɔ̀** nyɛ̀
1S.PST kill ? 3S
'I killed him already.'

d. *mɛ̀ sá **mɔ̀** yɔ̀ (but works in Mabi)
1S.PST do ? 7OBJ
'I already did it.'

e. mɛ̀ gyá **mɔ̀** yɔ̀
1S.PST sing ? 7OBJ
'I just sang it [the song]. ('Je viens de le chanter.')'

f. mɛ́ wɔ́mbɛ̀lɛ̀ **mɔ̀**
1S.PRES sweep ?
'I'm sweeping. ('Je suis en train de balayer.')'

5 Negation

While negation in the present tense is marked by a negation affix on the verb root, negation is marked by a negation word that precedes the verb root. (I am not quite sure about the accuracy of the tones in this part.)

+ **Present**

Negation in the present tense is marked by a negation suffix on the verb root as in (22).

(22) a. mɛ́ nyɛ́-lɛ́
1S.PRES see-NEG
`I don't see.'

b. mɛ́ nyɛ́-lɛ́ bá-kù
1S.PRES see-NEG 2-rat
`I don't see any rats.'

+ **Past**

- In the past tense, there seem to be two different negation words, *pálɛ̀* 'jamais?' and *sàlɛ́* which speakers translate as 'know' ('connaître'). It could also be related the verb *sá* 'do'.

- It is probably not by coincidence that both words include -lɛ́, the negation suffix of the present tense. For *pálɛ̀*, however, I cannot reconstruct its historical origin at the moment.

- I am also not really sure about the semantic difference between the two forms. Example (23) represents the meaning differences as I understand them at the moment, but more research needs to be done on that.

(23) a. mɛ̀ pálɛ́ làdɔ́ nà nyɛ̀
1S.PST NEG.PST meet COM 3S
` I never met him.'

b. mɛ̀ sálɛ́ làdɔ́ nà nyɛ̀
1S.PST NEG.PST meet COM 3S
`I didn't meet him.'

c. mɛ̀ sálɛ́ djǐ wúndɛ̀
1S.PST NEG.PST open window.7
`I did not open the window.'

+ **Questions**

- How do I analyze the negation words synchronically? Do I assume a NEG suffix, at least for *sàlɛ́*, or do I have to say that the negation words are synchronically unparsable?

- How do I gloss the two different negation words?

- What about negation in the anterior past? So far, speakers gave me the same form as for the 'simple' past tense, but I'm not sure whether there is really not an anterior past negation.

+ **Future**
The future tense, just as the past, has a negation word *kálɛ́* that is in its form very similar to the negation words of the past tense. Again, I cannot reconstruct its historical origin. There is a verb kà 'promise', but I do not know whether it stems from this verb.

(24) a. mɛ̀ kálɛ́ dè
1S.? NEG.FUT eat
'I will not eat.'

b. mɛ̀ kálɛ́ gyàgà bá-kù
1S.? NEG.FUT buy 2-rat
'I will not buy rats.'

6 Open questions beyond the verb phrase

How do I analyze and gloss the following paradigm meaning 'x, it is that'?

NC	noun	?	OBJ?	ID	DEM?	ANA?
cl. 1 'woman'	mùdə̂	wɛ̂	nyɛ́	wɛ́	nú	ndɛ̀
cl. 2 'women'	bùdə̂	bɛ̂	bɔ́	wɛ́	bá	ndɛ̀
cl. 3 'coconut'	mbàŋgá	wɛ̂	wɔ́	wɛ́	wú	ndɛ̀
cl. 4 'coconuts'	mì-mbàŋgá	myɛ̂	myɔ́	wɛ́	mí	ndɛ̀
cl. 5 'fishtrap'	lè-lá	lɛ̂	lɔ́	wɛ́	lé	ndɛ̀
cl. 6 'fishtraps	mà-lá	mâ	mɔ́	wɛ́	má	ndɛ̀
cl. 7 'plantain'	kwándɔ́	yɛ̂	yɔ́	wɛ́	yí	ndɛ̀
cl. 8 'plantains'	bè-kwándɔ́	byɛ̂	byɔ́	wɛ́	bí	ndɛ̀
cl. 9 'bag'	kwámɔ́	nyɛ̂	nyɔ́	wɛ́	nyí	ndɛ̀
cl. 14 'pirogue'	bwálɛ̀	byɛ̂	byɔ́	wɛ́	bí	ndɛ̀

Table 20: Personal deixis paradigm

AGR class	DEM.PROX	DEM.DIST
1	nû	núú
2	bá	báá
3	wɔ̂	wɔ́ɔ́
4	mí	mɪ́
5	lɛ̂	lɛ́ɛ́
6	má	máá
7	yɛ̂	yɛ́ɛ́
8	bé	béé
9	nyî	nyíí
14	bí	bíí

Table 21: Demonstratives in Gyeli

Abbreviations

1S	first person singular	HL	falling tone
1P	first person plural	ID	identificational marker
2S	second person singluar	IO	indirect object
2P	second person plural	L	low tone
3S	third person singular	LH	raising tone
3P	third person plural	NC	noun class
AGR	agreement	NEG	negation
ANA	anaphoric	NOM	nominal
ANT	anterior	OBJ	object
APP	applicative	OM	object marker
BEN	benefactive	PRES	present
C	consonants	PRO	pronoun
CAUS	causative	PROG	progressive
cl.	class	PROX	proximal
COM	comitative	PST	past
DEM	demonstrative	QUOT	quotative
DIST	distal	SIM	similative
DO	direct object	TAM	tense, aspect, mood
F	final vowel	V	vowel
FUT	future	σ	syllable
H	high tone		

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