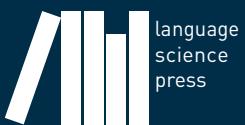


# A grammar of Gyeli

Nadine Grimm

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Nadine Grimm



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yá báléè mapé’è máwò  
For our ancestors who have left us —  
may we keep their wisdom*





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# Abbreviations

For notation conventions, I use the Leipzig Glossing Rules. These may differ from abbreviations typically used in the lexicon. Abbreviations in the lexicon are generally in small characters ending in a dot while most abbreviations in glosses (except for noun class labels) are represented in small capital letters. An exception form phonological abbreviations, which occur in capital letters.

*	ungrammatical form	AP	associative plural
◦	reconstructed form		(§3.10.1.4)
( )	element in brackets is optional	autoc.	autocausative (§4.2.4.5)
[]	phonetic transcription (Chapter 2)	AUX APPL/appl.	auxiliary (§3.2.2.3) applicative (§4.2.4.4, Appendix C)
[Language]	source language in code-switching (Appendix B)	ATT	attributive marker (§3.8.3.2)
-	morpheme boundary	ba	<i>ba</i> -noun class (§5.2.3)
<	derived from	be	<i>be</i> -noun class (§5.2.3)
D	proper name with a counterpart name in the other gender (§3.1.2.2)	BEN	benefactive (§4.2.4.3)
∅	prefixless noun class	C	consonant (§2.1, §2.3.1)
1-9	agreement class 1-9 (§5.2.2)	CAUS/caus.	causative (§4.2.4.3/Appendix C)
1PL	first person plural	CF	citation form (§2.4.2.4)
2PL	second person plural	COMP	complement clause
1SG	first person singular	cl.	agreement class (§5.2.2)
2SG	second person singular	COMPL	comitative marker
ADJ	adjective (§3.3)		(§3.10.1.2)
ADV	adverbial clause (§8.2.3)	COND	absolute compleptive
adv.	adverb (§3.4)		(§6.2.3.3)
AGR	agreement (§5.2.2)	CONJ	conditional clause
ANA	anaphoric marker (§3.8.1.5)	CONTR	(§8.2.3.2)
			conjunction (§3.11, §8.1)
			contrastive marker (§4.1.2.4)

## Abbreviations

COP	STAMP copula (§7.1.1)	LH	raising contour tone
DEM	demonstrative (§3.8.3.1)		(§2.4.1)
DIST	distal (§3.8.3.1)	LOC	locative (§3.10.1.1)
	direct object (§7.2.1.2)	m	male name (§3.1.2.2)
EXCL	exclamation (§3.12.5.2)	ma	<i>ma</i> -noun class (§5.2.3)
EXP	verb expansion (§4.2.4.7)	mi	<i>mi</i> -noun class (§5.2.3)
EXT	verb extension (§4.1.2.2)	MOD	nominal modifier (§3.8.1)
F	female name (§3.1.2.2)	N	nasal; <i>N</i> -noun class
FOC	focus (§7.3)		(§5.2.3)
fric.	fricatives (§2.1.2)	n.	noun (§3.1)
FUT	future (§6.2.1.3)	NC	nasal + consonant
GEN	genitive marker (§3.8.2.1)	NCA	(§2.1.3.1)
H	high tone (§2.4.1)		non-complete
HAB	habitual (§6.2.3.2)	n.cl.	accomplishment (§6.3.2)
HL	falling contour tone (§2.4.1)	NEG	noun class (§5.2.3)
HORT	cohortative (§6.2.1.6)		negation (§6.2.3.1, §6.3.1.5, §6.3.1.6, §6.3.1.7, §6.3.1.8)
HTS	high tone spreading (§2.4.2)	NOM	nominalization (§4.1)
ID	identificational marker (§7.1.2)	NP	noun phrase (§5)
IDEO	ideophone (§3.5)	npp.	nominalized past
IMP	imperative (§6.2.1.6)		participle (§4.2.1.7)
INCH	inchoative (§6.2.1.2)	O	numeral
INF	infinitival clause (§8.2.3.4)	OBJ	(§3.8)/(Appendix C)
INSTR	instrumental (§4.2.4.3)	OBJ.LINK	onset (§2.1.4)
IRR	irrealis (§6.2.2)		object (pronoun) (§3.6.2, §7.2.1.2)
INTERR	interrogative (§3.6.3, §7.4.1.3)	OBL	object linking H tone (§7.2.1.2)
inv.	invariable (Appendix C)	obstr.	oblique (§7.2.1.3)
IO	indirect object (§7.2.1.2)	ORD	obstruents (§2.1.2)
L	low tone (§2.4.1)	pal.	ordinal numeral (§5.5.6)
lab.	labialized (§2.1.2)	pass.	palatalized (§2.1.2)
lat. approx.	lateral approximants (§2.1.2)	PCF	passive (§4.2.4.2)
le	<i>le</i> -noun class (§5.2.3)	PL	predicate focus (§7.3)
-LENGTH	pragmatic lengthening (Appendix B)	pl.	plural marker (§3.6, §6.2.1.6)
		plos.	plural (Appendix C)
		PN	plosives (§2.1.2)
			proper name (§3.1.2.2)

POS	part of speech (§3)	RETRO	retrospective (§6.3.1.2)
posit.	positional (§4.2.4.6)	SG	singular
POSS	possessor pronoun (§3.6.4)	SBJ	subject (pronoun) (§3.6.1, §7.2.1.1)
PRED	predicate (Chapter 6, §7.1.3)	SBJV	subjunctive (§6.2.1.7)
pren.	prenasalized (§2.1.2)	SEQU	sequential marker
PREP	preposition (§3.10.1)	SG	singular (§3.6)
PRF	perfect (§6.3.1.4)	sg.	singular (Appendix C)
PRIOR	priorative (§6.3.2)	SIM	similative (§3.8.4.2)
PRO	pronoun (§3.6)	STAMP	subject-tense-aspect-mood-polarity clitic (§3.9.1)
PROG	progressive (§6.3.1.1)	stat.	stative (Appendix C)
PROSP	prospective (§6.3.1.3)	SUB	subordinate (§8.2, §6.3.1.1)
PROX	proximal (§3.8.3.1)	TBU	tone bearing unit (§2.4)
PRS	present (§6.2.1.1)	TM	tense-mood (§6.2)
PST1	recent past (§6.2.1.4)	TOP	topic (§7.3)
PST2	remote past (§6.2.1.5)	TRANS	transnumeral (§5.2)
Q	question marker (§7.4.1.1)	V	vowel (§2.2)
QI	quotative index (§8.2.2.3)	v.	verb (§3.2)
Q(tag)	question tag (§7.4.1.2)	v.i.	verb, intransitive (§2.1.1)
QUANT	quantifier (§3.8)	VOC	vocative (§4.1.2.5)
R	realis mood (§6.2.2)	v.t.	verb, transitive (§2.1.1)
RD	reported discourse (§8.2.2.3)	X	oblique (§7.2.1.3)
recip.	reciprocal (§4.2.4.1)		
REL	relative clause (§8.2.1)		



# 1 Introduction

Gyeli is a Bantu A80 language spoken in southern Cameroon and northern Equatorial Guinea. The Gyeli speakers, who are called *Bagyeli*, are hunter-gatherers constituting the western-most “Pygmy” group in Central Africa. Their forest foraging lifestyle distinguishes them from agriculturalist Bantu groups in the area, opposing “Bagyeli” and “Bantu” ethnically, although linguistically, they are all Bantu speakers.

This chapter provides extra-linguistic and methodological context to the grammatical description. The introduction contains four parts. I will provide a general discussion of Gyeli’s language situation including information on the name, linguistic classification, speaker numbers, language contact, and dialects. I will pay special attention to the village *Ngolo*, on whose speakers I base this description. In the second part, I introduce the Gyeli speakers, the environment they live in, and give a rough outline of their culture and subsistence. I will then address various aspects of the methodology I used in compiling the grammatical description of Gyeli. This includes information on the data, but also information on what I consider the “speech community” that provided data for the linguistic description. I conclude the chapter with a user guide to this grammar by providing a content overview of each chapter and a summary of basic grammatical features that frequently occur in glossed example sentences to make them easily accessible to the reader.

The introduction also highlights two distinctive features of this grammar. First, the grammatical description is based on a multimodal language documentation corpus compiled within the “Bagyeli/Bakola” *DoBeS* (Documentation of Endangered Languages) project. This corpus includes an extensive amount of natural texts of diverse genres as well as approximately 170 hours of elicitations, developed over the course of 4 years, 19 months of which were spent in the field. Following the “Boasian trilogy” (Evans & Dench 2006), the Gyeli grammar includes a grammatical description, a collection of annotated texts, and a small dictionary. In contrast to Boas, however, my text corpus does not only contain narratives, but also other text genres that reflect language use in everyday face-to-face communication. While the grammar is largely based on actual language use, elicitations supplement the range of constructions I was able to uncover. As

## 1 Introduction

such, this grammar is the product of an effort to synthesize language description and language documentation traditions. With advances in technology and archiving, not only are text and elicitation data available in a transcribed print version, but the primary video and audio data are available in the *The Language Archive* (Grimm et al. 2020), ensuring accountability and reproducibility of my claims.

In order to “let the language speak for itself”, this grammar is organized according to the form-to-function principle, rather than by semantic categories. Chapter 6 on the verbal complex, for instance, is structured according to predicate types rather than by functional domains, such as tense, aspect, mood, and negation. In order to facilitate finding functional categories, e.g. for typologists, I provide a summary of functional categories and their location in the grammar in the introduction of the chapter. Similarly, I summarize the semantic category of numerals at the end of Chapter 5.

### 1.1 The Gyeli language

The Gyeli language situation is characterized by a relatively small number of speakers scattered in a vast area that is shared with a multitude of other languages and ethnic groups. Estimations of the population of Gyeli speakers range from 2,200, following Renaud (1976: 27), to around 5,000 as proposed by Ngima Mawoung (2001: 215). In the *Ethnologue*, Lewis (2009) gives figures of 4,250 Gyeli speakers in Cameroon and 29 in Equatorial Guinea. Based on a sociolinguistic survey conducted with my colleague Emmanuel Ngue Um in 2010, we estimate 4,000 to 5,000 speakers.<sup>1</sup>

The region in which Gyeli is spoken measures about 12,500km<sup>2</sup> (which corresponds to about 4,800mi<sup>2</sup>). Unlike many other languages in the world, especially in the Indo-European context with its national languages, Gyeli is neither the only (or predominant) language in the region nor restricted to one contiguous geographic area. Instead, Gyeli is one out of nine languages in the area as shown below in Map 1.4. Naturally, there is intensive language contact between the languages of the region. Gyeli speakers are shifting to the languages of their farmer

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<sup>1</sup>The difficulty in establishing a more precise estimate arises for various reasons. Gyeli speakers often live in remote villages and settlements which are not easily accessible. They often do not possess identity cards, so that they are not officially registered with the authorities. Another difficulty in estimating population numbers is due to mobility patterns. Gyeli speakers, though becoming more sedentary in terms of permanent villages, are highly mobile and regularly switch villages. Therefore, it is hard to say how many people exactly live in a village.

neighbors, a trend which both fragments Gyeli into different dialects and contributes to the language's endangerment. I will discuss each of these aspects in turn in more detail below.

### 1.1.1 The language's name

Gyeli is known under a variety of names, sometimes depending on who is talking about the language. In the *Ethnologue*, for instance, Lewis (2009) calls the language *Gyele* with the code ISO 639-3: *gyi*. It also lists the following alternate names that are also used to designate the same language (however, not specifying who uses which name): Babinga, Bagiele, Bagyele, Bajele, Bajeli, Bako, Bakola, Bakuele, Bekoe, Bogyel, Bogyeli, Bondjiel, Giele, Gieli, Gyeli, Likoya.

There are two patterns observable within the various names. First, some names have a prefix of the general form *Ba-* and some are prefixless. The *Ba-* prefix, or the corresponding prefixes *Bo-* and *Be-* used in other languages, are typical Bantu prefixes of the plural noun class 2 of the human gender designating groups of people. Thus, the language names with a prefix derive from a group of people rather than their language.

Although this might be unusual for the anglophone Bantu tradition, I refer to the speaker group as *Bagyeli*, using the *Ba-* prefix instead of the bare stem. The reason for this is that the Gyeli speakers and their neighboring Bantu groups use this term (rather than *Gyeli*), both in local languages and in French. In contrast, most ethnic groups of the area, for instance the Kwasio, Mabi, Bulu, and Yasa, do not receive the *Ba-* prefix. Since the prefix is then not used consistently for all ethnic groups, it seems that it is really part of the name for Gyeli speakers. When talking about the language, however, I use the bare stem *Gyeli*.<sup>2</sup>

Another pattern, apart from a name with or without a prefix, is the similarities of forms to either "Gyeli" or "Kola". There are variants such as *-jele*, *-giele*, *-jeli*, *-gyel* or *Gieli* which can be subsumed under variants of "Gyeli". Other variants such as *-kola*, *-ko* or *-koya* can be subsumed under variants of "Kola". These two different names correlate with geographic areas. Speakers in the northern part of the Gyeli language zone call their language *Kola*, speakers in the central and southern part call it *Gyeli*, but it is nevertheless considered the same language. Accordingly, the speakers are called *Bagyeli* in the center and south, and *Bakola* in the north. Since the speech community on which I base this grammar is located in the southern-central part of the Gyeli/Kola language zone (see Map 1.4), I use the name *Gyeli* rather than *Kola*.

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<sup>2</sup>In contrast to the *Ethnologue*, I use the spelling of Gyeli with an ⟨i⟩ in the end instead of Gyele with an ⟨e⟩ at the end since my language consultants prefer this variant.

## 1 Introduction

*Bagyeli* and *Bakola* are terms used both as endonym (the way a group calls itself) and exonym (the name used for a group by outsiders).<sup>3</sup> There is, however, an alternate exonym used by all local Bantu neighbors, namely the French word *pygmées* “Pygmies”. It seems to be a convenient cover term for short-sized hunter-gatherers in Central Africa, especially since people not familiar with the ethnic and linguistic situation in Central Africa usually associate more with the term “Pygmy” than with “Bagyeli” or “Bakola”. I will, however, not use this term for several reasons. First, the term “Pygmy” generally has a pejorative connotation (although this is certainly not always implied by the Bantu farmer neighbors who use it). Second, it implies a certain homogeneity among such Central African forest foragers which is, in all reality, not existent. So-called “Pygmy” groups differ considerably in terms of language, type of contact with their farming neighbors, settlement patterns, and hunting techniques, just to mention a few differences.

### 1.1.2 Classification

With about 2000 languages out of the about 7000 languages world-wide, the African continent is linguistically very rich and diverse. For Cameroon alone, the *Ethnologue* lists 278 living languages. Figure 1.1 shows the geographic location of the Gyeli language within Africa.

#### Classification within Niger-Congo

Languages of Cameroon mostly belong to the Niger-Congo languages, as does Gyeli. With roughly 1,500 languages, Niger-Congo constitutes the biggest language family in Africa, as classified by, for instance, Williamson & Blench (2000). Figure 1.2 visualizes the classification of Gyeli within the Niger-Congo family. The figure is a simplified adaptation from Williamson & Blench (2000) and Lewis (2009). Within Niger-Congo, Gyeli belongs to the narrow Bantu languages and, within Bantu, to the Makaa-Njem group (A80).

#### Classification within Bantu

With about 500 members, the Bantu languages form the biggest subfamily of the Niger-Congo languages and, at the same time, cover a vast territory stretching from the borders of Nigeria and Cameroon all the way to east and south

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<sup>3</sup>Groups such as the Mabi and Ngumba, both dialects of Kwasio, as well as the Bulu, seem to use these terms. Exonyms used by other groups such as the Yasa or Bakoko, as represented in Map 1.4, require further investigation since I was not in direct contact with them during my fieldwork. Renaud (1976: 29-30) discusses exonyms as used by the Basaa, Bulu, Fang, Mabi, and Ngumba. They are all related to the terms “Gyeli” and “Kola”.

## 1.1 The Gyeli language



Figure 1.1: Location of Gyeli and Cameroon in Africa

based on [https://commons.wikimedia.org/wiki/File:Locator\\_map\\_of\\_Cameroon\\_in\\_Africa.svg](https://commons.wikimedia.org/wiki/File:Locator_map_of_Cameroon_in_Africa.svg) CC-BY-SA Shosholoza

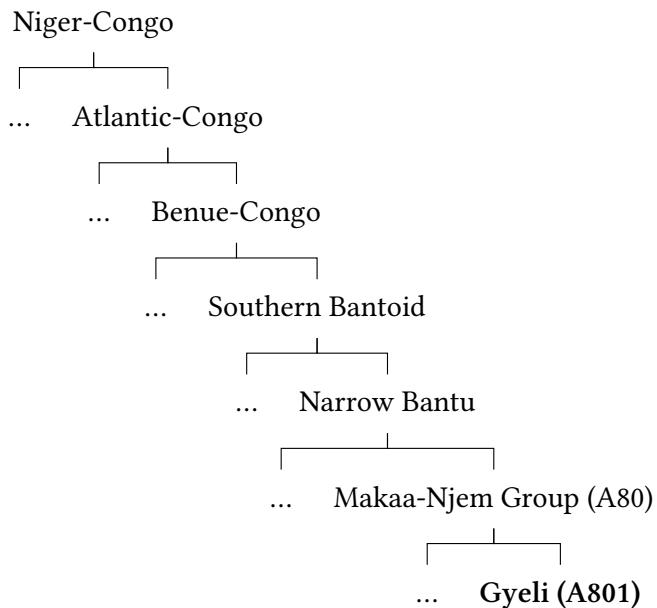


Figure 1.2: The classification of Gyeli within the Niger-Congo family,  
based on Williamson & Blench (2000) and Lewis (2009)

## 1 Introduction

Africa. Probably the most famous member of the Bantu languages is Swahili, a language spoken in Tanzania, Kenya and in parts of other surrounding countries such as Mozambique, Uganda, Burundi, the Democratic Republic of the Congo, and Somalia. Even though Swahili is spoken thousands of kilometers away, many linguistic similarities to the Bantu languages in Cameroon can still be observed.

Guthrie (1971) classifies the Bantu languages areal-typologically. As a referential classification, his model is, with slight modifications, still the most widely accepted one, although the classification is based on geography, and not on linguistic-genetic criteria, as Maho (2001: 46) points out. Guthrie divides the Bantu-speaking area into fifteen zones and names each zone with a capital letter (A, B, C, D, E, F, G, H, K, L, M, N, P, R, S), as explained in Nurse & Philippson (2003: 3) and shown in Figure 1.3. The J zone represented in the map is a later addition by the *Tervuren* team, which groups parts of Guthrie's zones D and E together.<sup>4</sup> As Philippson & Grollemund (2019: 337) explain, there is also a widespread convention to refer to later revisions in the classification of some Bantu languages by double letters, e.g. Rundi JD62, where the second letter refers to the zone that the language was previously grouped with. Each zone is further subdivided into smaller parts which are labeled by decimals. For instance, the Bantu zone A is divided into the subzones A10, A20, A30, A40, A50, A60, A70, A80, and A90.

Bantuists often distinguish between northwestern Bantu languages, also called “Forest” languages, and non-northwestern languages, referred to as “Savannah” languages. Northwestern Bantu includes Guthrie's zones A and B at its core and, to a lesser extent, also (parts of) zones C, D, and H, depending on the author (Nurse 2008: 10). Gyeli, as a Bantu A language, is a northwestern Bantu language. Nurse & Philippson (2003: 5) state that northwestern Bantu languages “form exceptions to many possible generalizations for Bantu” and show lots of “non-Bantu” features. This is also true for Gyeli which is, for instance, a much more isolating language than its Savannah relatives.

### Classification within the Makaa-Njem group (A80)

The languages of each subzone are specified by adding further digits to the sub-zone code. For instance, Gyeli as part of the subzone A80, also called the Makaa-Njem group, is referenced by A801. The internal classification of A80 according to the Guthrie code<sup>5</sup> is shown in Table 1.1. The table is sorted by the Guthrie

<sup>4</sup>Letters I, O, or Q were never used for zone designations.

<sup>5</sup>I follow Maho's (2009) updates of the codes, which include the additions of some coding features to Guthrie's system. Dialects are marked by a letter following the digits. A lower-case letter is used in Guthrie's original classification, an upper-case letter for newly added dialects.

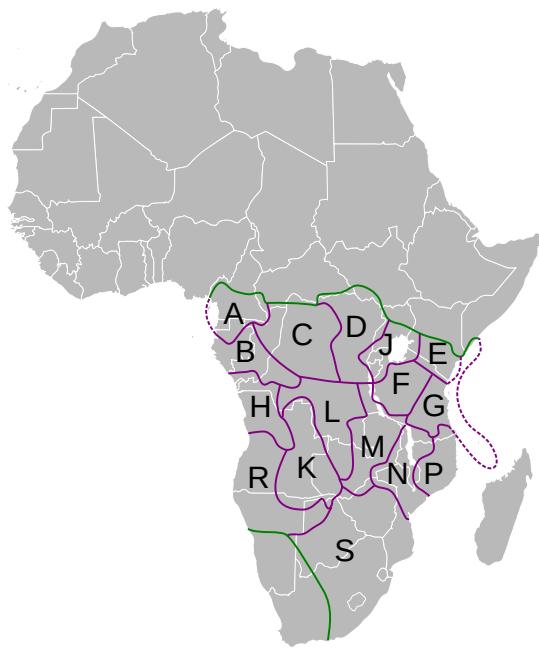


Figure 1.3: Guthrie's Bantu zones (with Tervuren's J zone)

based on [https://commons.wikimedia.org/wiki/File:Locator\\_map\\_of\\_Cameroon\\_in\\_Africa.svg](https://commons.wikimedia.org/wiki/File:Locator_map_of_Cameroon_in_Africa.svg) CC-BY-SA Shosholoza

code as updated by Maho (2009). The second column lists the ISO code, if existing, as used in the *Ethnologue*, followed by the glottocode used by the *Glottolog*. The fourth column gives the name and possibly alternate names used for the language.<sup>6</sup>

Gyeli receives the Guthrie code A801 by Maho (2001) and the ISO code 639-3: gyi. The three-digit Guthrie code indicates that the language was not represented in the original classification, but added later by Maho, since a third digit is added to the code if the language's affiliation is not clear or it is closely related to several other languages of the group (Maho 2001: 46).

One reason for Gyeli's unclear status may be more ethnic or historical than reflecting a synchronic linguistic reality. The Bagyeli have a special status in that they are not ethnically Bantu. They are forest foragers who have lived in symbiosis with sedentary Bantu farmer communities over a long period of time. Ruhlen (1994: 154) expresses a widely held view: "It is assumed that Pygmies once spoke their own language(s), but that, through living in symbiosis with other Africans,

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<sup>6</sup>A valuable discussion of the geographic distribution of Bantu A80 languages, including maps, is given in Cheucle (2014).

## 1 Introduction

Table 1.1: Languages of the Makaa-Njem group (A80)

Guthrie code	ISO code	Glottocode	Name(s)
A801	gyi	gyel1242	Gyele, Bagyeli, Bakola
A802	ukh	ukhw1241	Ukwadjo, Ukhwejo
A803		shiw1234	Shiwa, Shiwe, Oshieba, Ossyeba
A81	nmg	kwas1243	Mvumbo, Kwasio, Ngumba, Magbea
A82	sox	soca1235	So
A83	mcp	maka1304	Makaa, South Makaa
A83A		bebe1249	Bebend
A83B		mbwa1238	Mbwaanz
A83C		seku1238	Shikunda, Sekunda
A831	mkk	byep1241	Byep, North Makaa
A832	biw	kolc1235	Bekol, Kol, Bikele
A84	njy	njye1238	Njem, Nyem, Zimu
A841			Bajue, Badwee
A842	ozm	koon1245	Koonzime, Nzime
A85a		kuna1267	Nkonabeeb, Konabem
A85b	bkw	bekw1242	Bekwel, Bakwele
A86a		menz1238	Mezime, Medjime
A86b	mgg	mpom1254	Mponpon, Mpongmpong, Bombo
A86c	mcx	mpie1238	Mpiemo, Mbimu
A87	bmw	bomw1238	Bomwali, Sanghasangha

in prehistorical times, they adopted languages belonging to these two families [Niger-Kordofanian and Nilo-Saharan].<sup>7</sup> As with many other examples in the history of language classification, ethnic affiliation and/or historic assumptions may have influenced linguistic classification. In the Gyeli case, this may have lead to confusion as to how to integrate a hunter-gatherer language (with a supposedly distinctive linguistic history) into a farmer language group since the other languages of the Makaa-Njem group are all spoken by farming communities. In synchronic linguistic description, however, neither the ethnic background of the speakers nor an unknown linguistic history should play a role in classifying a language.

<sup>7</sup>While the term “Niger-Kordofanian” was used by authors such as Ruhlen (1994) and Welmers (1973), the current literature predominantly refers to this language family as “Niger-Congo.”

Another reason for Gyeli's unclear status within the A80 group in Maho's (2009) classification may be due to the problematic differentiation between "language" and "dialect". The Gyeli language is indeed closely related to Kwasio (A81). As previous literature by Renaud (1976) suggests, Gyeli is so similar to Kwasio that Bahuchet (2006) considers it a dialect of the latter. This view may, however, be biased since Renaud bases his description on a Gyeli variety that is closest to Kwasio. There are other Gyeli varieties which are less similar to Kwasio, but instead more influenced by other neighboring farmer languages as I will explain in §1.1.3 and §1.1.4 on language contact and dialects of Gyeli.

Just like the *Ethnologue* and Maho (2009), I consider Gyeli to be a language of its own, containing several dialects. Whether Gyeli is a language or a dialect (of Kwasio) is not entirely uncontroversial, for indeed, the Bagyeli in close vicinity to Kribi and along the road between Kribi and Lolodorf are in close contact with Kwasio speakers and their variety is very similar to Kwasio. There are, however, two main reasons why I treat Gyeli as a language of its own. First, there are still significant differences in linguistic features. For instance, the Gyeli tense system is highly reduced segmentally in comparison to the farmer languages of the area. While all related and neighboring Bantu farmer languages use inflectional morphemes to express tense, tense-mood in Gyeli is only marked by tonal contrasts. Second, mutual intelligibility between Kwasio and Gyeli is limited. All Bagyeli speak, or at least understand, Kwasio for socio-economic reasons since they have learned the language of higher prestige in a multilingual setting. My Kwasio language assistants state, however, that when the Bagyeli speak their own "real" or "deep" language, i.e. when they do not make efforts to be understood by their farming neighbors, Kwasio speakers do not understand them.

### 1.1.3 Language contact

The Gyeli language is part of a highly complex language contact situation. There are several groups and several directions of borrowing which altogether make for an intricate language contact scenario. The Gyeli speakers are in contact with eight Bantu farmer languages which, in turn, are influenced by the colonial language French.

Figure 1.4 provides a map of the Gyeli speaking area and its contact languages.<sup>8</sup> Gyeli, marked by the dotted area, is roughly spoken from the river Nyong in the north into Equatorial Guinea just across the river Ntem in the south. To the west, the area is delimited by the Atlantic Ocean while it stretches almost to Ebolowa

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<sup>8</sup>Figure 1.4 is based on the United Nations map No. 4227 (2004). Thanks to Sebastian Nordhoff for reworking an earlier version of this map.

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in the east. Bantu farmer contact languages are represented by capital letters in different colors. The colors correspond to different language subgroups within the Bantu A group, as listed in Table 1.2 below. For instance, the languages in green, Batanga and Yasa, are part of the A30 group. Contact languages of Gyeli varieties studied within the DoBeS project (§1.3.1) receive additional graphical marking by a shaded area. Basaa is marked by a yellow shade, Bulu by red, and the two areas in different hues of blue, Mabi and Ngumba, are dialects of Kwasio.

The variety I describe in this grammar is based on data from *Ngolo* village in the Bulu region. It is located about one to two kilometers to the southeast of the Bulu village *Nko'olong*. Officially, *Ngolo*, the Gyeli variant for the Bulu name *Nko'olong*, belongs to the Bulu village. Comparative data from both Gyeli villages in other language contact areas and neighboring Bantu languages have been collected within the DoBeS language documentation project. Gyeli villages are marked with boxes around the village names such as *Ngolo*, *Lebdjom*, *Bibira*, and *Namikoumbi*. *Nziou* in the *Mabi* area and *Nko'olong* in the *Bulu* area are locations of comparative data collection in neighboring Bantu languages.

It is characteristic for this part of Cameroon that languages are geographically quite interspersed. Usually, there is no clear-cut area that only contains one language. Taking a road in the northern part of the Gyeli speaking area, for instance, one might pass a Basaa village. The next village is Ewondo and then the next one is Basaa again. This is, of course, quite difficult to visualize in a map showing a surface larger than 12,500 km<sup>2</sup>. Therefore, the map in Figure 1.4 is best understood as an approximation rather than the representation of a linguistic reality.

### 1.1.3.1 Contact with Bantu farmer groups

Bantu farmer languages in contact with Gyeli include (read clockwise starting in the northwest in the map of Figure 1.4): Batanga, Bakoko, Basaa, Ewondo, Bulu, Fang, Yasa, and Kwasio with its two dialects Mabi and Ngumba. All of these languages also belong to the Bantu A zone, though to different subgroups, as illustrated in Table 1.2.<sup>9</sup>

The nature of contact and thus the linguistic closeness between the Bagyeli and speakers of these eight different farmer groups differs depending on the socio-economic relations in play. The Bagyeli have closer relations to some farming groups than to others. Contact with the Yasa, for instance, who are traditionally fishermen, is less intense than with the Kwasio who are, at least partially, agriculturalists: the Bagyeli seem to be more interested in agricultural products

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<sup>9</sup>Each language name is accompanied by the ISO code as used in the *Ethnologue*.

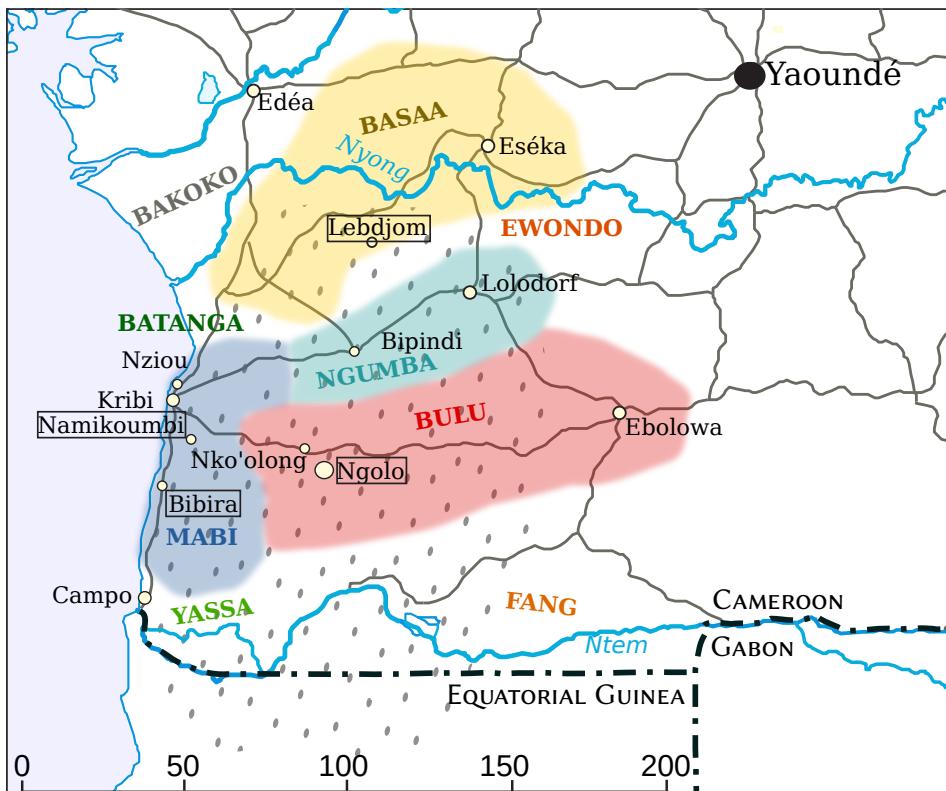


Figure 1.4: Map of the Gyeli language area and its neighboring languages

Table 1.2: Classification of Gyeli's contact languages

Group	Languages	Color in Fig. 1.4
A30	Batanga (bnm), Yasa (yko)	green
A40	Basaa (bas), Bakoko (bkh)	grey
A70	Bulu (bum), Fang (fan), Ewondo (ewo)	red
A80	Kwasio (nmg) with two dialects Mabi and Ngumba	blue

than in seafood. There may also be historic reasons why relations to some farming Bantu groups are closer than to others depending on whom the Bagyeli had first contact with and which Bantu farmer groups arrived later in the area. Further, on an individual rather than a group level, the type of contact may be dif-

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ferent between individual Gyeli and farmer families. Some Gyeli families have closer ties to certain farmer families than others.

The picture is thus quite heterogeneous and would require a thorough socio-economic survey supplemented by historical information in order to provide a more informed account of the nature of different types of contact. Since such a survey for the whole Gyeli speaking area would exceed the frame of this work, information presented here is based on statements by my informants, both Bagyeli and farmers, on sociolinguistic information gathered in the Gyeli village Ngolo, and on my observations of contact behavior between some Gyeli and farmer groups.

It is important to keep in mind that the status of Gyeli and the surrounding farmer languages are not the same concerning the prestige of the languages. Gyeli is associated with backwardness, a lack of education and even civilization. The Bantu farmer languages, in contrast, are the languages of the Bagyeli's patrons, associated with power and prestige. Thus, in inter-ethnic communication between Bagyeli and Bantu farmers, it is the farmers' languages that are being used. In fact, the farmers do not speak Gyeli. If some farmers understand snippets of a conversation among the Bagyeli this is only due to a certain amount of linguistic similarity between Gyeli and Kwasio.

### **1.1.3.2 Multilingualism**

Speakers of all different languages in the area are in contact with some other languages; it is not only the Bagyeli being in contact with Bantu farmers. As a consequence of this close contact as well as intermarriage and trading relations, just to mention the most important factors, members of all ethnic groups are multilingual. This also holds for the Bagyeli who are multilingual with at least the three languages they speak, but usually even more. How many and which languages a Gyeli speaker masters depends on the location of his or her village within the Gyeli speaking area. Given the geographic size of the Gyeli speaking area, it is obvious that a single Gyeli speaker is not in contact with all of the eight contact languages. Rather, Gyeli speakers are in close contact with usually one main contact language. Further, all Bagyeli seem to speak or at least understand Kwasio, Gyeli's closest linguistic relative. Whether a Gyeli speaker speaks other languages than Kwasio and potentially another language of close contact depends highly on individual ties to other Gyeli groups and individual mobility. For instance, if a Gyeli speaker from a village in the Bulu contact area has relatives in another Gyeli village closer to the Fang contact area where he or she

spends a certain amount of time, he or she will likely pick up some of the Fang language.

Of course, it is difficult to measure the degree of fluency in several languages or even a restricted number of Gyeli speakers given the number of languages the Bagyeli speak and the various factors for acquiring contact languages. Since it was not possible to test fluency of all the various languages my consultants claim to “speak”, information provided here relies to a large degree on the speakers’ self-assessment, at least for those languages I have not witnessed interactions with. In the case of Kwasio and Bulu, I was able to observe communications with the respective farmers and I am sure that the Bagyeli indeed speak these languages they claim to speak. For other languages, however, I do not have any data based on observation. In any case, the Bagyeli I have worked with have a good intuition of the languages of the area, even of those they do not speak: playing Gyeli texts from other contact regions to them, they were able with a high degree of accuracy to detect loanwords from other contact languages within the text and, even though they did not understand the meaning, they were able to indicate the source language.

While Gyeli is in contact with several Bantu farmer languages, there is also contact between different Gyeli varieties which I will describe in §1.1.4. Bagyeli of the Bulu contact area also have strong ties with other Bagyeli in the Mabi contact region who speak a different dialect. Contact among Bagyeli of different contact languages may be the primary reason that speakers have such a good intuition about languages of the area, even if they do not speak them.

### 1.1.3.3 The role of French

The last element in Gyeli’s language contact situation is the colonial language French. Gyeli is not (yet) directly influenced by French. Many Bagyeli do not go to school and thus do not speak French. This situation, however, may change rapidly since more schools are being built and the government, as well as some NGOs, make an effort to facilitate schooling for Bagyeli children. Nonetheless, Gyeli speakers already use a few French words that regularly show up in texts. These words include mostly particles and filling words such as *donc* ‘so’, *alors* ‘well’ or *allez* ‘let’s go’ and seem to have the emblematic function of showing a certain education. They are borrowed from Bantu farmers who use the same expressions in code-switching in their languages for exactly the same purpose.

### 1.1.3.4 Language contact situation in Ngolo

Ngolo is situated in the Bulu (A70) contact area, so Bulu is the primary farmer language of influence. The Bagyeli in Ngolo are all multilingual. Besides Gyeli and the main contact language Bulu, they also speak Kwasio (A80) (mostly its dialect Mabi, but some speakers rather speak the other dialect Ngumba). Further, most consultants in Ngolo speak Fang (A70). A few speakers in Ngolo have traveled far and state that they speak even Makaa, Eton and Bamenda.

Concerning the command of French, the Bagyeli in Ngolo have a comparatively good school education. In contrast to many other Gyeli villages, their children have attended school more or less regularly for a couple of years. Further, some of them have worked in the nearby rubber plantations where they had to interact in French. Thus, they all speak French on a basic level. Their command is, however, not enough to have a whole conversation or even do elicitations in French. There is a general tendency that Gyeli speakers in Ngolo rather understate their level of French by claiming that they do not speak French at all, while it turns out that they actually do speak some and they definitely understand more than they claim.

In terms of contact with other Gyeli varieties, the main contact dialects include Gyeli as it is spoken in contact with Mabi and Ngumba. Further, inhabitants of Ngolo are in contact with Gyeli villages in the Fang region. Since our project did not gather data in this region, however, it is not clear whether the Gyeli variety of the Fang region constitutes a different dialect than the one in the Bulu region. On an individual level, family ties may reach further than these regions.

As a consequence of all these factors, there is a high degree of linguistic variation even within just one village, depending on a speaker's individual linguistic background. In intra-ethnic communication, every Gyeli speaker just speaks their idiolect and everybody understands without attempting to correct each other concerning, for example, phonetic realizations or lexical choices. One reason for this non-prescriptive language behavior is likely due to the fact that there is no standard variety which could serve as the norm. Other factors may include a low level of education and a relatively egalitarian social system. An extreme example in Ngolo concerns a Gyeli woman who grew up with Kwasio farmers and thus speaks Kwasio even after having returned to the Gyeli village. This does not seem to bother the other Bagyeli who speak Gyeli with her while she keeps speaking Kwasio.

### 1.1.4 Dialects

Gyeli speakers are currently shifting to the languages they are most closely in contact with, due to massive changes in their environment, as outlined in §1.1.5. In the course of this language shift, different Gyeli dialects are emerging, as previous work and results of the current DoBeS project (§1.3.1) show.

Already in the 1970s, Renaud (1976: 29) noticed two varieties, based on phonological, morphological, and lexical differences. He refers to one variety as “Bajele” which he views as more innovative, while the “Bakola” variety is said to be more conservative, being more closely related to Proto-Bantu than to the Makaa-Njem group.<sup>10</sup> He further states that both varieties are mutually intelligible and not bound to any specific geographic distribution.

While it is true that Gyeli varieties are mutually intelligible, there seems to be some geographic distribution which is linked to Gyeli’s contact languages. Renaud’s “Bakola” variety seems to roughly correspond with Gyeli as spoken in the Basaa contact area, while his “Bajele” variety refers to the dialect spoken in the Ngumba contact area.<sup>11</sup> It seems, however, misleading to assume two varieties based on the two different names for the Gyeli language. Rather, there are more varieties than just two, but none of them have a specific name, neither given by the Bagyeli nor by outsiders. The terms “Bakola” and “Bajele” are originally exonyms from Basaa and Kwasio, respectively, which have become endonyms in the different Gyeli varieties and other Gyeli varieties.

The data from the DoBeS project on Bakola/Bagyeli suggests that there are at least three dialects: one that is influenced by Basaa, one by Kwasio, and the third by Bulu. There may be more dialects corresponding to other contact languages, such as Fang or Bakoko. Given the vast geographical area and number of contact languages, it was, however, beyond the frame of the project to investigate potential dialects in the entire Gyeli speaking area. Additionally, linguistic variation within the language is not classified by speakers by different dialect names. Thus, speakers would acknowledge that other Gyeli speakers speak “differently”, being

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<sup>10</sup>This generalization is based on only 221 lexical items. It is also not quite clear what the innovative versus conservative features are specifically.

<sup>11</sup>A reason why Renaud does not notice any particular geographic distribution of the two varieties may be due to his fieldwork location around Bipindi (see Figure 1.4). Bipindi lies at the intersection of two roads: along the east-west road, there are mainly Ngumba villages, while the road to the north houses many Basaa villages. Nevertheless, villages of different ethnic groups are generally interspersed and there is lots of contact between all groups. In addition to that, the Bagyeli are highly mobile and frequently stay in other Gyeli villages. Therefore, it is not surprising that both names seem to be used interchangeably within the same area.

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more influenced by a certain contact language, but there is no systematic classification nor labelling of varieties. As such, it is difficult to artificially label different varieties. Further, the geographic extent of a certain dialect is not known exactly at this point and must be taken as preliminary.

Therefore, we do not suggest any specific names for different Gyeli varieties, but rather refer to roughly where a dialect is spoken (not specifying the exact geographical extent). Within the three different contact regions that we investigated, namely Kwasio, Basaa, and Bulu, we collected data from several locations. This way, we made sure that the language variety is not only spoken in a particular village, but in a broader region.

Dialectal differences as observed within the DoBeS project are based on phonological and lexical differences. For instance, while the Gyeli variety that is primarily in contact with Bulu uses alveolar fricatives [s] and [z], these are systematically realized as postalveolar fricatives [ʃ] and [ʒ] in the Kwasio contact region. Another example concerns voiced bilabial and dental implosives which occur in the dialect that is in closest contact with Basaa, but which are lacking in the varieties of the Kwasio and Bulu contact region. Lexically speaking, each variety has a number of loanwords from its closest contact language that lack in different varieties.

Since the goal of this work is a grammatical description of one of the Gyeli varieties, an exact dialect comparison with a more extensive list of distinguishing features has to wait for future research, as well as determining more precisely how many Gyeli varieties there are. Another question that cannot be answered at this point concerns the historical development of Gyeli dialects. Thus, it is currently not clear when different varieties started to emerge and whether this ties in with sedentarization patterns or whether dialectal differentiation started already before the Bagyeli became sedentary as of the 1960s.<sup>12</sup>

### **1.1.5 Language endangerment**

Gyeli is considered an endangered language. Symptoms of Gyeli's status as an endangered language include a high level of bilingualism and on-going adaptation of the native languages of neighboring Bantu farmers. Other factors that are usually taken as signs of language endangerment such as low speaker numbers and a low level of transmission to the young generation seem to be less indicative. Currently, there are about 4,000 to 5,000 Gyeli speakers. While this is not a high number in comparison to larger languages in the world, the number is not

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<sup>12</sup>This date is given by Renaud (1976: 25).

alarming *per se*, given that all members of the ethnic group speak the language. In addition, the language is still passed on to Gyeli children and it seems that the current young generation is still fully fluent in Gyeli.

All Bagyeli are, however, at least bilingual with an increasing amount of situations where they use the non-native language. As a result, the non-native language has an impact on the way Gyeli is spoken, as outlined in §1.1.4. Investigating the causes for the increased use of other languages than Gyeli reveals the level of endangerment, even though this is not (yet) reflected in speaker numbers and language transmission to the next generation.

The two major causes for Gyeli to be viewed as endangered concern massive changes in the Bagyeli's environment, as discussed in §1.2.1, and the low social status of the Bagyeli. While the Bagyeli are traditionally hunter-gatherers depending on the forest for food resources, they are increasingly forced to change their subsistence strategy towards more sedentary farming activities. Together with this economic change, they are also linguistically adapting to their farming neighbors.

Another factor that reinforces language endangerment is the low prestige of Gyeli which ties in with the low social status of the Bagyeli as an ethnic group within the Cameroonian society. The Bagyeli are discriminated against by other Bantu farmer groups for their perceived backwardness, "primitive" lifestyle, low level of education, and lack of political organization and thus power. While not all Bantu farmers have a negative attitude towards the Bagyeli, the general sense is that the Bagyeli need to change their lifestyle, become sedentary and modern, educated and part of the general Cameroonian society.

Such expectations as well as discrimination have an impact on the Bagyeli's linguistic behavior. As Ngima Mawoung (2001: 218) notes, Bagyeli reportedly prefer to speak Kwasio when addressing outsiders. Since language also has an emblematic function, many Bagyeli prefer not to speak Gyeli to outsiders since they perceive their language as a sign of their putative backwardness. Instead, speaking a Bantu farmer language shows a higher level of education and distances the speaker less from the other Cameroonians. This was confirmed in my fieldwork experience, speakers had an initial tendency to switch to Bulu or Kwasio when speaking with the interpreters until they got used to speaking their language with outsiders.

Given the massive environmental changes in the area as well as the enormous social pressure to adapt to the Bantu farmers' lifestyle, it seems just a natural consequence to also adopt linguistic practices. Therefore, the future of the Gyeli language is far from being safe, despite current fluency amongst Gyeli children.

### 1.1.6 Special features of Gyeli

In terms of its linguistic structure, Gyeli yields features that are of interest to both Bantuists and to general typologists. In the following, I will list a few examples. Phonologically, for instance, Gyeli has more complex consonants and consonant clusters than other Bantu languages. These include, for example, homorganic affricates /pf/ and /bv/ and the prenasalized labio-velar /mgb/. Sounds that are usually analyzed as implosives in neighboring languages are realized as pre-glottalized and prevoiced stops in Gyeli.

Gyeli has a very complex tone system since tone plays a central role in this language, both for lexical distinctions and grammatical functions. Tense-mood distinctions are achieved without segmental morphemes, but only by tonal manipulation of the subject-clause-operator (SCOP) and the tonal pattern of the verb. In addition to tense-mood marking, tone also has a syntactic function of linking the closest argument to the verb. Tonal processes differ between the nominal domain, where high tone spreading goes from left to right, and the verbal domain where high tones spread from right to left.

In terms of nominal morphology, Gyeli has a remarkable system of genitive constructions when linking two nouns via an attributive marker. While the marker generally agrees in gender with the head noun, it receives a special form when the head noun is a proper name. Besides, Gyeli has intricate rules under which the attributive marker can be omitted in contrast to contexts when it has to occur.

Another typologically rare property of Gyeli concerns its postpositions. As Dryer (2013b) shows, languages with a basic V O word order usually have prepositions. While Gyeli has a basic V O word order, it nevertheless has both pre- and postpositions.

While Bantu languages are generally known for their productive verb extensions, part of the Gyeli verbal derivation system is being simplified, merging applicative and causative suffixes. In contrast, the language has an elaborate system of lesser studied extensions, distinguishing for example auto-causatives and positionals.

Gyeli also has a rich system in terms of negation strategies. The expression of negation depends on the tense-mood category and clause type. While in the PRESENT negation is marked by a suffix on the verb and a special tonal pattern of the STAMP clitic, negation in PAST and FUTURE is encoded by distinct negation words. The PRESENT as well as subordinate clauses further use a negation adverb which requires an infinitival verb in dependent clauses.

### 1.1.7 Previous literature

Languages of the Makaa-Njem group are generally under-studied. While there are a few accounts by SIL missionaries and local students, these works are often difficult to access. Probably the best known and widely available description of an A80 language is the sketch grammar on Makaa by Heath (2003). Cheucle (2014) provides a thorough comparative study of the A80 languages, comparing phoneme and tonal inventories as well as noun class systems. She also gives a valuable review of the linguistic literature of the Makaa-Njem languages so that I will not go into further detail here in this respect. Instead, I will review the existent literature on Gyeli, both linguistic and non-linguistic.

Previous linguistic literature on the Gyeli language is quite limited. It includes a description of “Bajèle” by Renaud (1976). This work is quite valuable and detailed in many respects. It is, however, restricted to the phonology and nominal morphology of the Gyeli variety that is spoken around Bipindi in the Kwasio contact region (with some influence by Basaa). Therefore, the description of the Gyeli variety spoken in Ngolo extends Renaud’s work in terms of a more in-depth grammatical description, covering, for instance, also verb morphology and clause types. It further adds to our knowledge about Gyeli varieties, given that the variety spoken in Ngolo constitutes a different dialect in comparison to the variety that Renaud studied. An additional resource is Letouzey (1995) which provides an ethnobotanic perspective on the language by comparing Gyeli tree names with other languages of the region.

Early publications on the Bagyeli come mostly from missionary and traveller reports. This is, for example, the case with Seiwert (1926) who gives an anecdotal account of his encounters with the Bagyeli in *Anthropos*. Other reports had been published even before the turn of the 20th century in German colonial reports and ethnographic journals. A list of these very early publications on Gyeli, which are generally difficult to get access to, is provided in Renaud (1976: 357-360). Newer ethnographic publications on the Bagyeli include papers by, for example, Joiris (1994) and Ngima Mawoung (2001) which both focus on the relationship between the Bakola and their neighbors. While this list is certainly not exhaustive, it covers the seemingly most important ethnographic studies, supplementing Renaud’s list.

Recent years have also seen a flourishing literature involving research on the Bagyeli in other scientific areas. One domain of publications involves ethnopharmacological and medical literature. Fomogne-Fodjo et al. (2014), for instance, investigate the Bagyeli’s plant use for treating respiratory problems. Mauclère et al. (2011) study viral infections in the Bagyeli population as compared to the Bantu farmer population.

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Another area of great attention in the recent literature concerns the Bagyeli's changing environment and their (lack of) protection as an ethnic minority group. For instance, Pelican (2009) discusses the impact (or lack thereof) of the Declaration on the Rights of Indigenous Peoples by the United Nations General Assembly in 2007 on ethnic minority groups such as the Bagyeli in *American Ethnologist Journal*. Germond-Duret (2012) explores discourse dynamics in the construction of indigenous peoples by different actors of conflicting interests in the *International Journal on Minority and Group Rights*. The impacts of the developing oil industry in the Gyeli speaking area are investigated in *Cultural Survival Quarterly* by Nelson & Tchouomba (2004) and in the *Journal of Developing Societies* by Swing et al. (2012).

In addition to traditionally published resources, more information on the Bagyeli is also found in other media, for example online. The DoBeS language documentation project that constitutes the framework of this description (see §1.3.1) provides information along with pictures and links to audio and video recordings in the DoBeS archive. Another online source is provided by the anthropologist Devin (2015) who has a website on different Central African "Pygmy" groups online, including information on the Bagyeli/Bakola. Further, there are various documentaries. Lorenz (2014) produced a documentary series in three episodes as part of our documentation project. Another documentary was done by Thomopoulos (2012).

## **1.2 The Gyeli speakers**

In this section, I provide more information on the Gyeli speakers, including their environment and lifestyle in terms of culture and subsistence.

### **1.2.1 Environment**

Gyeli (or Kola) speakers live roughly in the area between the Nyong river in the north and the Ntem river at the border to Equatorial Guinea, as shown in the map of Figure 1.4. Lewis (2009) reports in the *Ethnologue* that a few Gyeli speakers also live in Equatorial Guinea, but the majority of speakers are found on the Cameroonian side. On a west-east axis, the Gyeli speaking area stretches from the coastline of the Atlantic Ocean to about 150km inland, not quite reaching the town Ebolowa.

The Bagyeli are forest foragers of the tropical rainforest in southwestern Cameroon. Woodlands usually consist of primary rainforest, but also more and more

of secondary forest, i.e. forest areas which have regrown after logging. Primary rainforest is also increasingly replaced by private gardens and manioc farms and industrial plantations for rubber, cocoa, and palm oil.

Generally, forest areas are still large, however, and often difficult to access since roads are few and often so bad that they cannot be used by cars. Also, the rainforest is interspersed by a multitude of waterways, rivers, streams, and creeks. These could potentially be used as infrastructure through the forest, but the Bagyeli usually walk by foot rather than building canoes to use these waterways for moving in the forest. The same is true for the Bagyeli who live close to the coastline: canoes are not part of their transportation system.

The climate in this part of the world is tropical with an alternation of dry and rainy seasons. There is a dry season from November through February with temperatures reaching 32 degrees Celsius. March through June is a so-called “small” rainy season with drizzly rain while July is relatively drier again, but generally cooler than the big dry season. June and July are usually the busiest times of the year for the Bagyeli since this is the season for intensely collecting honey, fruit and nuts. The time from August through October receives most of the precipitation in a year with almost daily strong rains and heavy storms.

While the Bagyeli live traditionally as mobile hunter-gatherers in the rainforest, the changing landscape of the last decades is one cause for changes in their lifestyle. A lot of Gyeli villages are now also found alongside roads in close vicinity to Bantu farmer villages. Those who do not live close to the roads usually stay in more remote areas. These remote areas are typically regions that are less valued by the Bantu neighbors for their farming activities, such as hill sides, wetlands or the immediate area around protected forest such as the Campo Ma'an Reserve.

As a general tendency, there are fewer and fewer places the Bagyeli can live in the forest because of rapid deforestation. Industrial development of the region has the biggest impact on forest destruction. Forest area is significantly decimated by the construction of the deep-sea port south of Kribi, the largest port for central Africa which was inaugurated in 2015. The Kribi port complex spreads over 26,000ha and a coastline of 20km, according to Ntaryike (2015). Related infrastructure development projects further cause forest loss, such as the oil pipeline that runs from the border of Chad to the new port. The port also requires an extension of the existing road and railroad net for inland transportation. Figure 1.5<sup>13</sup> shows some of the landscape changes, including protected forests, the new deep-sea port, and the oil pipeline.

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<sup>13</sup>Thanks to Sebastian Nordhoff for reworking an earlier version of this map.

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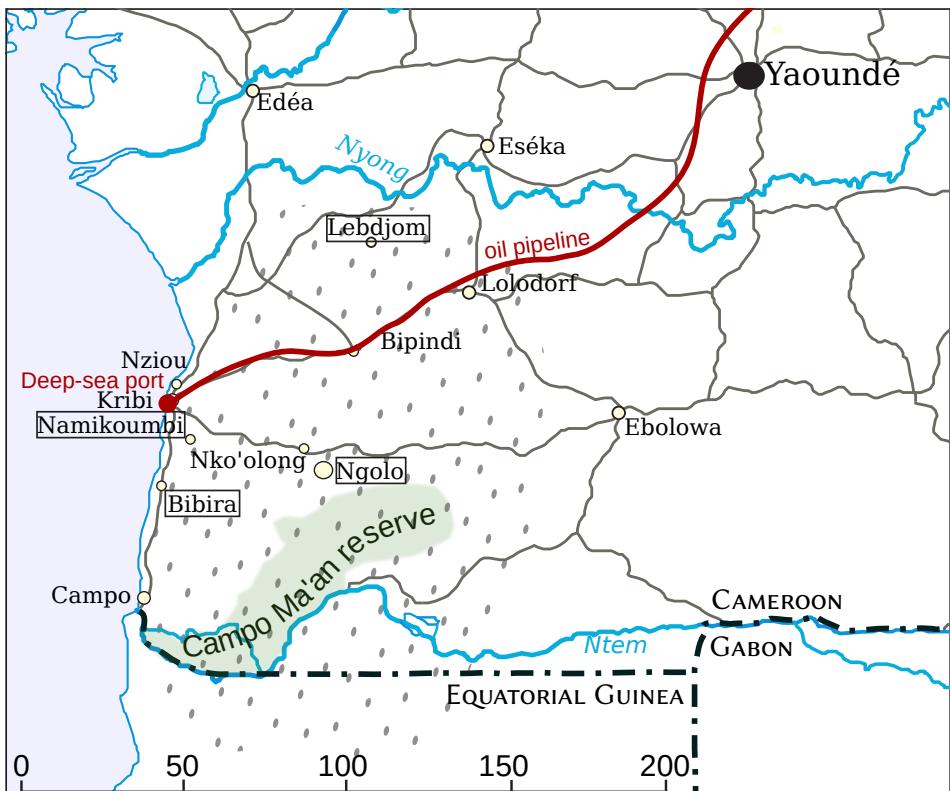


Figure 1.5: Map of landscape changes in the Gyeli area

Other manners of land exploitation also deprive the Bagyeli of rainforest areas they formerly had access to. There have been increased logging activities for tropical woods. Industrial plantations such as SOCAPALM (palm oil) and HEVECAM (rubber) take over and expand on former primary rainforest.<sup>14</sup> Even projects that are intended to protect the environment, such as the Campo Ma'an Reserve, displace the Bagyeli from former areas they inhabited since they are not allowed to live within the Reserve.

<sup>14</sup>Both plantations are roughly located to the southwest of Ngolo, but it was impossible to find any maps of their extent. Information on their total surface is also difficult to find. In a project approved in 1980, the Worldbank (2015) specifies that the HEVECAM rubber plantation has a surface of 40,000ha. These figures are, however, most likely outdated, while exact figures for SOCAPALM do not seem to be publicly accessible. For a general overview, the World Resources Institute (2015) provides more systematic information on the kinds of land use in the Forest Atlas of Cameroon. It is, however, not always clear who has the land rights.

### 1.2.2 Subsistence and culture

#### Subsistence

The Bagyeli are traditionally forest foragers who live off hunting animals in the rainforest and gathering plants, fruit, nuts, and honey. Hunting techniques involve killing animals with spears and machetes as well as net hunts with a larger group of individuals. Every Gyeli village has a number of dogs that help with hunting. The Bagyeli also build different types of traps, depending on the animal they are looking for. Animals that the Bagyeli eat include all sorts of monkeys, wild cats, different types of antelopes ranging from small duikers to larger water bucks, mongooses, bush rats, porcupines, as well as snakes and snails.

Fish is also on the dietary plan, but is less valued than meat. Fishing is regarded as a pastime, especially for children, but not as a serious activity. Bagyeli catch fish in creeks in the forest by building dams or, in deeper rivers and the sea, by using fish lines, standing on rocks. All of them are usually good swimmers, but they do not venture out into the sea.

Honey is highly valued for it is often dangerous to reach. Bee hives are usually high up in trees so that the Bagyeli have to climb a tree and smoke the bees out – without any security line holding them. Vegetarian food resources involve different types of tubers, fruit that grow in the forest, such as the so-called wild mango that is used to make a sauce, and nuts.

Since primary forest is becoming increasingly scarce, so are the animals and plants the Bagyeli depend on. Therefore, the Bagyeli get more and more engaged in other activities as well in order to make a living. This concerns foremost low-scale farming such as growing fruit trees (e.g. bananas and plantains, bread fruit, *Dacryodes edulis*, known as African pear or plum trees), which require little maintenance. They also grow other plants which need more care in small fields, such as manioc and yams. Keeping chickens is another innovation in many Gyeli camps.

Besides farming activities, some Bagyeli may earn a little bit of money through day labor in the industrial plantations or with the Bantu farmer neighbors and through selling wild meat and baskets they make. A few villages have also discovered tourism as a source of income where they take gifts (money, food, drinks) in return for pictures the tourists take.

### Sedentarization and mobility patterns

While the Bagyeli were traditionally nomads, who changed their camp sites frequently, they have become more and more sedentarized over the past decades<sup>15</sup> as a result of environmental changes as well as government efforts. As a consequence, Gyeli villages are generally as permanent now as those of the Bantu farmers in the sense that the material village does not change location.

The Bagyeli do keep, however, certain mobility patterns on both a group and an individual level. Groups of Bagyeli still leave their permanent village for hunting trips that can take up several days and even weeks. On such hunting trips, the Bagyeli construct traditional huts or use seasonal camps in the forest to sleep. Additionally, mobility is kept on an individual basis where single people move between different villages to visit relatives, partners, and friends. Such visits can also be extended to several days and weeks.

### Settlement patterns

Traditionally, the Bagyeli lived in temporary camps in the forest. The huts they used for shelter were made out of sticks and leafage. These huts are easy to assemble, requiring about 3 hours of work load. Nowadays, many Gyeli villages are comparable to those of the Bantu farmer neighbors, with the exception that they are usually smaller in size. An average Gyeli village, of which there are more than 100 in the whole Gyeli speaking area, has 20-30 inhabitants. There are, however, also smaller settlements with just a core family of 4-5 people, or exceptionally large villages with up to 150 inhabitants. Houses in permanent Gyeli villages are either made from wooden planks or clay, so-called *poto-poto* houses, which are highly valued by the Bagyeli since they are in the same style as the Bantu farmers' houses. Gyeli villages are either along the roads that cross-cut the rainforest, being built in close vicinity to Bantu farmer villages, or remotely located in the forest.

Due to environmental changes, there have been recent cases of resettlement. For example, Gyeli villages that were formerly located in the Campo Ma'an Reserve were moved outside the Reserve. Now, they line the border to the Park. There are also villages that needed to make way for the deep-sea port south of Kribi, as for example the village Bibira in Figure 1.5. While Bantu farmer villages, which were moved as well, got monetary compensation, the affected Gyeli villages have not yet received their promised compensation. Instead, wooden

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<sup>15</sup>Renaud (1976: 25) assumes progressive sedentarization since the 1960s, while Joiris (1994: 86) proposes that the Bagyeli have become increasingly sedentary already since the early 1900s.

houses were built for them outside the forest with the prospect that they may be resettled again.

### **Relations with Bantu farmers**

Relations between Bagyeli and their farming Bantu neighbors are complex. Generally, the Bantu farmers have a higher prestige and marriages between Bagyeli and farming neighbor communities are unilateral – Bantu farmer men occasionally marry Gyeli women, but Bantu farmer women do not marry Gyeli men. Apart from these tendencies, the relationship between Bagyeli and Bantu farmers takes a range of forms. On the extreme ends of this spectrum, the relationship may be described as one between masters and slaves, patrons and clients, or, on the other hand, as family relations. During the project, we have witnessed Bantu farmers who stated that they owned a certain Gyeli group and that we would have to pay them money in order to see the Bagyeli. In contrast, we have also seen Bantu farmer women who referred to elderly Gyeli women as their mother whom they treated with respect.

We interviewed Bagyeli in various villages of different language contact regions about the perceived relation to their Bantu neighbors. Many of the interviewees stated that they felt discriminated against in several ways. Discrimination, according to them, ranges from unequal treatment in business transactions to verbal and physical violence. For instance when selling bush meat, the Bagyeli would be paid much lower prices than Bantu vendors. In general, they state that they are poorly paid for day labor. Verbal discrimination involves either mockery, e.g. comparing bad habits such as getting very drunk to typical “Pygmy” behavior, or insults. In a few cases, Bagyeli also reported of physical violence and being beaten by Bantu farmers (the exact circumstances were not described). In contrast, some speakers also talked about their “Bulu father” who would lend them his gun in order to help young men out. This way, the young men could kill and sell more animals to save money for the required bride-price of the women they intended to marry.

In order to obtain a more holistic picture of the heterogeneous relations between Bagyeli and farmers, we also interviewed several villagers from various Bantu farmer groups. Also in these interviews, different attitudes were reflected. Some interviewees saw the Bagyeli as backward, dirty, dishonest, and “primitive”. Many requested that the government needed to help them so that they would reach an equal development state as the farmers by building schools and hospitals. Others called the Bagyeli their “brothers” who were basically of equal rank. In some cases, Bantu farmers expressed great admiration for the Bagyeli’s skills

as dancers and healers. For example, Bagyeli are frequently invited to the farmers for weddings and funerals in order to make music and dance. Bantu farmers also consult Gyeli healers for health issues. As such, they are admired for their magical powers, but also feared. No matter whether the attitude was more on the friendly or discriminatory side, the overall view was that the Bagyeli needed to stop living in the forest, and instead become modern people, more like the farmers themselves.

## **1.3 Methodology**

In this section, I describe the methodology involved in producing this grammatical description. I first outline the project that served as the framework for the grammar. I then define the “speech community” whose language variety I describe before I detail the data on which this grammar is based.

### **1.3.1 The project**

The basis for this grammar stems from 19 months of field research as a Ph.D. candidate that I conducted within the framework of the DoBeS (Documentation of Endangered Languages) project on the Bakola/Bagyeli language from March 2010 until February 2012 and during an extended project phase from March 2013 until August 2014. The overall goal of the project was to document aspects of the Gyeli language, concentrating on the collection and archiving of primary data. Primary data include both audio and video recordings, covering various text genres, e.g. conversations, interviews, traditional story telling, songs, and descriptive texts accompanying everyday activities such as hunting and hut building. A more detailed description of the data is provided in §1.3.3.

The project was carried out by the project director Prof. Maarten Mous and three linguists: Dr. Emmanuel Ngue Um, Daniel Duke and myself. In addition to the linguists, the project also included a professional cameraman, Christopher Lorenz. In terms of task distribution, the three linguists worked in different regions of the Gyeli speaking area, as represented by the shaded areas in Figure 1.4. Ngue Um worked on describing the Kola variety spoken in the Basaa contact area, Duke mainly worked in the Kwasio contact region around Lolodorf, but also in the Gyeli village Bibira, while the variety of my description is located in the Bulu contact region. The cameraman Lorenz joined the linguists’ team each year for several weeks and made high-quality video recordings in all dialectal areas.

I collected additional data on Gyeli as a collaborator in Jürgen Bohnemeyer's NSF #1535846 project "Causality across languages" (2015-2022). This enabled me to gather stimulus-based data on the expression of causal relations during another five weeks of fieldwork in 2017.

### 1.3.2 The construction of a speech community

A grammar is usually the description of some variety of a language spoken by a group of speakers that, in an idealized way, constitutes the speech community. In reality, however, there is no such thing as a "pure" or homogeneous speech community. A speech community that serves as the basis for a grammatical description is rather an abstraction made by the linguist. Various factors interfere with a clear-cut concept of "speech community", the most important ones being language contact and multilingualism in the Gyeli case.

As outlined in §1.1.3, the Gyeli language situation is complex with a high degree of language contact and multilingualism. As such, idiolects may differ quite a lot from speaker to speaker, even within the same village, depending on their individual language exposure to various contact languages and personal family ties to other Gyeli villages in other language contact regions.

I consider the village Ngolo as the speech community that provides the empirical basis for this grammar. Ngolo is located in the Bulu contact region and constitutes a different dialect from Gyeli villages in the Basaa or Kwasio speaking area. I do not, however, view the Gyeli variety as spoken in Ngolo necessarily representative for all Gyeli villages in the Bulu contact region since such a generalization would require a larger data coverage of all Gyeli villages in this region.<sup>16</sup>

A further complication with this "speech community" is to delimit who exactly is a member of Ngolo and thus to pinpoint how many speakers the community has. As explained in §1.2.2, the Bagyeli are still highly mobile between permanent villages. Therefore, there is always fluctuation in terms of presence and absence of individuals. While the number of houses remains stable, at any given time, I would never get the exact same set and number of speakers. The village has six houses that belong to different core families. The number of inhabitants is around thirty, including children. Core families or individuals may, however, be away for some time, visiting relatives in other villages are staying in the forest on extended hunting trips. At the same time, other relatives may be visiting and

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<sup>16</sup>Data gathered in another Gyeli village within the Bulu contact region, called *Bomnapenda*, suggests, however, that the variety in Ngolo and Bomnapenda constitute one dialect as opposed to other varieties in the Kwasio and Basaa regions.

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staying in the Ngolo houses. In order to come to grips with these dynamics, as a working definition for Gyeli speakers of Ngolo, I consider those a member of the “speech community” who state that they were either born in the village or come from another village within the Bulu contact region.

### 1.3.3 Data

Findings presented in this grammar are based both on elicitations and an extensive number of natural texts which are accessible in *The Language Archive* (<http://dobel.mpi.nl/projects/bakola/>). As part of a language documentation project, the documentary team collected a variety of text genres such as narratives, procedural, hortative, and descriptive texts, dialogues, conversations, and interviews, among others. These also include a wide range of everyday activities such as hunting with different techniques such as spears or nets, building traps and huts, collecting honey, building musical instruments, preparing hunted animals, dancing, healing sessions, and telling traditional and autobiographical stories.<sup>17</sup>

The text corpus that specifically serves as the empirical basis for the description of the Ngolo variety in terms of distribution and frequency of forms is comprised of 3,304 words (540 intonation phrases) of high-quality annotation, distributed over three text genres, namely a folktale, a conversation between multiple speakers, and an autobiographical narrative. I annotated the texts in coordinated discussion with the Gyeli speakers. (As Gyeli speakers are not literate, they were not able to carry out annotation tasks themselves.) Discussions with speakers were also indispensable since the tonal system of Gyeli is so complex that additional double-checking and elicitations were necessary to uncover its rules. The annotated texts can be found in Appendix B. In addition to these thorough annotations, more natural texts have been roughly annotated and/or translated. These supplementary annotations and translations include 15 different texts and snippets of texts of about 2 hours and 10 minutes in total. In addition to annotations, I use lexical databases, one for nouns and one for verbs. The noun database includes 875 entries and the verb database 377.

I also gathered experimental data based on the language of perception field manual designed at the Max-Planck Institute for Psycholinguistics. These experiments included color naming tasks<sup>18</sup> developed by Majid & Levinson (2007), the olfactory test by Majid et al. (2007), the taste test by Senft et al. (2007) and tests

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<sup>17</sup>A selection of audio and video material and their annotations can be found in the DoBeS archive. At present, 133 audio and 90 video recordings from different dialect areas are uploaded into the archive, 69 of which are annotated.

<sup>18</sup>The results of this experiment are published in Grimm (2014).

## *1.4 Structure of the grammar and basic grammatical features*

on spatial orientation by Levinson & Schmitt (1993) and topological relations by Bowerman & Pederson (1992).

The third kind of data I collected contains elicitations and questionnaires. They are comprised of approximately 1,000 audio recording sessions with an average of 10 minutes each, and in total about 167 hours. The questionnaires I used include, for instance, questionnaires on tense-aspect-mood, question types, relative clauses, and information structure. Each questionnaire that served as a basis for my analysis is cited in the chapter where the data occurs. While the collection of natural text and experimental tasks took place in the village of Ngolo, I supplemented these data with elicitations and questionnaires with language consultants in Kribi.

Elicitations were carried out with one or two consultants at a time, varying between five different speakers during my fieldwork. Natural text and experimental data stem from a larger pool of speakers. The number of speakers that provided natural text from Ngolo include at least 15 adult speakers. Given that the approximate size of the village is 30 inhabitants, including children, this seems to cover the entire adult population. In group conversations, children were also present and so their speech was also recorded. Some speakers were recorded more often than others, depending on their availability. While the ratio of male and female speakers is equal, men received slightly more recording time since women seemed to be generally busier with cooking while men had more time. Since basically all speakers of Ngolo were recorded, also all age groups are represented in the recordings. Adult speakers' ages range from teenagers<sup>19</sup> to elders of about 60 years.

## **1.4 Structure of the grammar and basic grammatical features**

This section is intended to help the reader navigate the content of the grammar and understand basic grammatical features that frequently occur in example sentences. I first outline the single chapters of the description and then provide a guide on how to read glossed examples.

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<sup>19</sup>In the Gyeli society, adulthood starts earlier than in western societies. Thus, teenagers of around 15 years are considered as young adults. Age is generally subject to estimation since the Bagyeli usually do not know their exact age.

### 1.4.1 Organization of the grammar

This grammar is generally organized from form-to-function and divided into eight chapters. After this introductory part, I describe the phonology of Gyeli in Chapter 2. This chapter contains a discussion of the phoneme inventory, the syllable structure as well as a description of the tonology.

Chapter 3 provides a discussion of Gyeli's parts of speech. This not only includes major word classes such as nouns and verbs and other lexical word classes (adjectives, adverbs, and ideophones), but also grammatical word classes, such as pro-forms, modifiers, adpositions, conjunctions, or extra-sentential elements.

In Chapter 4, I outline word formation processes by describing the various morpheme types found in Gyeli as well as derivation and compounding.

In Chapter 5, I explore grammatical phenomena in the noun phrase. This includes the gender and agreement system as well as different types of noun phrases, for instance noun + noun attributive constructions.

Chapter 6 describes the verbal complex according to predicate construction types. My basic distinction is between simple predicates, which largely encode tense-mood categories, and complex predicates, which encode aspect, mood, and modality.

The last two chapters are reserved for clause types. In Chapter 7, I investigate simple clauses, including both verbal and non-verbal predicates. I lay out the grammatical relations found in Gyeli and discuss basic word order as well as special word order constructions, for instance within the domain of information structure and questions. Chapter 8 deals with complex clauses including different types of both coordination and subordination, e.g. relative and adverbial clauses.

The eight chapters are supplemented by three appendices. In Appendix A, I list the specific verb extensions for each verb in my verb database. Appendix B contains a collection of annotated natural text. Appendix C provides a Gyeli – English dictionary with about 1500 lexical entries.

### 1.4.2 A quick guide to decoding glossed examples

In this section, I provide a brief overview of the main grammatical features in Gyeli in order to help the reader decode high-frequency elements in the glosses of example sentences.

Glossed examples are usually comprised of four lines, distinguishing the surface form on the word level in the first line and morpheme breaks in the second line, which provide important information on the underlying tonal patterns. Every vowel is marked for its surface tone in the first transcription line. In the

#### 1.4 Structure of the grammar and basic grammatical features

second line, some vowels have no tone marking, indicating that they are phonologically toneless.

In terms of transcription conventions, I follow a typical Bantu notation combined with local orthographic conventions. Only in Chapter 2 do I use IPA conventions. I list the differences between IPA notation and Gyeli transcription conventions in Table 1.3.

Table 1.3: Notation differences between IPA and Gyeli orthography

IPA	Gyeli orthography
palatal nasal /ɲ/	ny
velar nasal /ŋ/	n
palatal glide /j/	y
voiced affricate /dʒ/	j
voiceless affricate /tʃ/	ts
glottal stop /ʔ/	,

Velar nasals are virtually everywhere homorganic and precede a velar plosive. There is just one exception where the velar nasal precedes /w/ in the noun *ŋwándá* ‘manioc stick’. In this instance, I use the IPA version to mark the difference.

Gyeli has a basic SVO word order, as shown in (1)-(5).

- (1) [Màmbì]<sub>S</sub> [à dé]<sub>V</sub> [mántúà]<sub>O</sub>  
 Màmbì a dè-H H-ma-ntúà  
 Ø1.PN 1.PST1 eat-R OBJ.LINK-ma6-mango  
 ‘Mambi ate mangoes.’

The verb stem is generally preceded by a “STAMP” (subject-tense-aspect-mood-polarity) clitic, which encodes information about the subject person and gender agreement, tense, aspect, mood, and polarity, as seen in (1)-(5) with *à*, *mé*, and *bá*, respectively. While eastern and southern Bantu languages are known for their rich agglutinative morphology, often with distinct -CV- prefixes for each of these categories, Gyeli as a northwestern Bantu language displays restrictions in segmental morphemes preceding the verb stem. Conversely, Gyeli has a rich tonal morphology where the tonal combinations on the STAMP clitic and the verb stem yield different tense-aspect-mood categories, as discussed in Chapter 6. H tones attaching to the right of the verb stem, as expressed by -H in the second line, encode the two past tenses (PST1 and PST2) in some environments or a realis mood

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in other environments. The realis mood is pervasive in example sentences and glossed as -R, as seen in (1) through (5).

The subject can be dropped with the subject reference only encoded through agreement of the STAMP clitic, as in (2).

- (2) [à      dé]<sub>V</sub> [mántúà]<sub>O</sub>  
a      dè-H H-ma-ntúà  
1.PST1 eat-R OBJ.LINK-ma6-mango  
'S/he ate mango.'

The subject is rarely expressed by a pronoun. Subject pronouns (see §3.6.1) are glossed as SBJ to clearly distinguish them from the STAMP clitic, especially as most subject pronouns are segmentally identical to the STAMP clitic of their agreement class. The use of subject pronouns as in (3) usually serves information structure purposes, often indicating switch-reference through the pronoun's combination with the contrastive marker -gà (§4.1.2.4).

- (3) [nyègà]<sub>S</sub>    [à      dé]<sub>V</sub> [mántúà]<sub>O</sub>  
nyè-gà        a      dè-H H-ma-ntúà  
1.SBJ-CONTR 1.PST1 eat-R OBJ.LINK-ma6-mango  
'As for her/him, s/he ate mangoes.'

In addition to the H tones that attach to the right of the verb stem, expressing tense and mood categories, Gyeli has a pervasive syntactic H tone. It surfaces on phonologically toneless noun class prefixes of the object that immediately follows the verb, as in (3). This syntactic H tone is glossed as OBJ.LINK and further discussed in §7.2.1.2.

Most nominal modifiers, including relative clauses, follow the noun, as illustrated in (4)-(5).

- (4) mél      vúló      pémbó      yí      ná      ntfúmò      wâ  
mε-H      vúlɔ-H      pémbó      yí      ná      ntfúmò      w-â  
1SG-PRS cut-R Ø7.bread 7.DEM.PROX COM Ø3.knife 3-POSS.1SG  
'I cut this bread with my knife.'

- (5) bá      dyúwá      lékélc      [lé      wé      làwɔ]<sub>REL</sub>  
ba-H dyúwɔ-H H-le-kélc      lé      wε-H      làwɔ  
2-PRS understand-R OBJ.LINK-le5-language 5:ATT 2SG-PRS speak  
'They understand the language that you speak.'

The glossing of nouns deserves a detailed explanation. Each noun form belongs to an agreement class; Gyeli has nine agreement classes and six genders, as described in Chapter 5. Agreement classes are established on the basis of agreement patterns reflected on dependent agreement targets which include, in Gyeli, the STAMP clitic, subject, object, and possessor pronouns, some nominal modifiers, e.g. some numerals and other quantifiers, demonstratives, and attributive markers. The agreement class that a noun controls on its dependent targets is glossed with a digit from 1 through 9 preceding the noun stem, for instance *ntfúmò* ‘knife’ in (4) is glossed as ‘Ø3.knife’ as this noun triggers agreement in agreement class 3.

The agreement class digit itself is preceded by an indication of the noun prefix class, in the case of *ntfúmò* a zero morpheme which is glossed as ‘Ø’. Traditionally, many Bantu studies collapsed the concept of agreement and noun classes, assuming that each agreement class is more or less overtly marked by a nominal prefix. There is a rising awareness, however, that the noun prefixes do not necessarily match specific agreement classes (see, for instance, Güldemann & Fiedler 2019). In order to keep agreement classes and noun prefix classes distinct, I mark noun forms for both their noun prefix and their agreement class. In contrast to agreement class notation with a digit, noun prefix classes are represented by letters that indicate the shape of the prefix. This is straightforward for CV noun class prefixes, as shown in Table 1.4, as each CV prefix maps onto one agreement class.

The noun prefix classes “N” and “Ø”, however, map onto several agreement classes, as shown in the lower part of Table 1.4. The capital “N” is a typical Bantu notation for nasal prefixes and covers all homorganic nasals /m/, /n/, and /ŋ/, which are allophones whose shape is determined by the following consonant. Nasal noun prefixes occur in agreement classes 1 and 3. The noun prefix class that is characterized by a zero-prefix occurs in agreement classes 1, 3, 7, and 9 with exceptional occurrences in agreement class 8 as well.

It is important to note that both person and agreement classes are represented by digits, following Bantuist tradition. Agreement of speech-act-participants (1st and 2nd person) is marked for gender and number: 1SG, 1PL, 2SG, 2PL. In contrast, non-speech-act-participants, i.e. third person, are only marked for their agreement class with digits from 1 through 9, while number agreement is inherent to each agreement class, as described in §5.2.

There are a few high-frequency elements in glosses that are worth mentioning for the reader’s convenience. One of them is the attributive marker (§3.8.3.2), comparable to English ‘of’, which serves as a linker between a noun and another

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Table 1.4: Glossing of Gyeli nouns

Noun class	prefix	Agreement class	Example noun	Gloss	Meaning
“ba”		2	<i>ba-jíbí</i>	ba2-thief	‘thieves’
“mi”		4	<i>mi-mpá</i>	mi4-island	‘islands’
“le”		5	<i>le-nángá</i>	le5-star	‘star’
“ma”		6	<i>ma-nángá</i>	ma6-star	‘stars’
“be”		8	<i>be-nyàgà</i>	be8-cow	‘cows’
“N”		1	<i>m-ùdì</i>	N1-person	‘person’
		3	<i>n-vèwò</i>	N3-breath	‘breath’
“Ø”		1	<i>nyú</i>	Ø1.bee	‘bee’
		3	<i>mfù</i>	Ø3.poison	‘poison’
		7	<i>bàgò</i>	Ø7.hoe	‘hoe’
		8	<i>bwâ</i>	Ø8.medicine	‘medicine’
		9	<i>kwámó</i>	Ø9.bag	‘bag’

noun, pronoun, or demonstrative. It is glossed with ATT and is preceded by the agreement class marking, as in (6).

- (6) *mìmgbísì mí békumbí*  
 mi-mbgísì mí be-fùmbì  
 mi4-freshness 4:ATT be8-orange  
 ‘the freshness of the oranges’

The attributive marker also serves as optional marker for relative clauses, as shown in (7).

- (7) *vê mê sâ mwánò wôù wà wè bùdé nû*  
 vê mè sâ m-wánò w-ôù wà wè bùdë-H nû  
 give.IMP 1SG.OBJ only N1-child 1-POSS.2SG 1:ATT 2SG have-R 1.DEM.PROX  
 ‘Give me only your child that you have here.’

(7) also illustrates the glossing for demonstratives which represents its two paradigms based on distance: one for proximal (DEM.PROX) vs. distal (DEM.DIST).

The prepositions *é*, marking location, and the comitative *nà* also appear frequently in glosses. The locative *é* often precedes other locative adverbs, as in (8). See §3.10.1.1 for more information.

#### 1.4 Structure of the grammar and basic grammatical features

- (8) *é pée mèè lwɔ̄ nyá ndáwɔ̄*  
      é pé-é mèè lwɔ̄ nyá ndáwɔ̄  
      LOC there-DIST 1SG.FUT build real Ø9.house  
      'I will build a real house over there.'

The comitative marker *ná* expresses association in the nominal domain and can be translated both as ‘and’ and ‘with’, as shown in (9).

- (9) *bá nà bwánɔ̄ báwɔ̄*  
      bá nà b-wánɔ̄ b-áwɔ̄  
      2.SBJ COM ba2-child 2-POSS.3PL  
      ‘they and/with their children’

The comitative is found in a range of adjuncts, for instance in an instrumental contexts as in (4) above. More information about the comitative marker is provided in §3.10.1.2.

Finally, there are many instances of code-switching in the examples that stem from natural texts. These are marked by indicating the source language in square brackets in the gloss line, as in (10).

- (10) *yí ntégèlè vèdáà mé sùmbélè bê*  
      yi-H ntégèlè vèdáà me-H sùmbélè-H bê  
      7-PRS disturb but[Bulu] 1SG-PRS greet[Kwasio]-R 2PL.OBJ  
      ‘That disturbs, but I greet you.’

Typical source languages for code-switching include Kwasio, Bulu, and French.



## 2 Phonology

In this chapter, I outline the sound patterns of Gyeli including segmental and tonal phonology. The phonological description is complemented by some basic phonetic information. My account of Gyeli phonology is largely theory-neutral. In the tonology section, I use autosegmental phonology for convenience of explaining tonal rules.

For phonological and phonetic transcription in this chapter, I use IPA symbols. Phonetic transcriptions are marked by square brackets [] while phonemic representations are marked by slashes /. Throughout the other chapters of this grammar as well as in glossed examples I use an orthography that combines typical Bantu notation with local orthographic conventions. Gyeli does not have an official orthography but there are non-standardized conventions among the languages of the area which are, to a certain degree, influenced by French. For instance, the female proper name *Nandtoungou* is spelled in the French tradition, using ⟨ou⟩ to represent the vowel /u/. At the same time, the co-occurrence of a voiced and voiceless plosive ⟨dt⟩ stems from Kwasio orthography and is not typically Bantu. Even though most of the Gyeli speakers are illiterate at the time of writing this grammar, their literacy will certainly increase over the next decades. At the same time, more literate Bantu neighbors such as the Mabi, prefer a local Bantu orthography which will facilitate the use of this grammar for Gyeli speakers at a later point, given that the Bagyeli are mostly taught by teachers of surrounding Bantu groups.

The main differences between phonological transcription and local Bantu orthography concerns IPA symbols that are not easily produced on electronic devices such as computer keyboards and smartphones. A summary of the differences between IPA and Gyeli orthographic conventions were listed in §1.4.2.

As described in §2.4 of this chapter, Gyeli is a tonal language. I indicate tone according to the Africanist tradition with accent marks, an acute accent ['] representing a high (H) tone and a grave accent [`] representing a low (L) tone. If a syllable is not represented with any tonal marking, this indicates that it is toneless. In glossed examples, the first line represents the surface form, showing phonetic tone. Thus, even toneless syllables will be marked for their surface

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tone here. The second line represents the underlying phonological form where toneless syllables are represented without tonal marking.

I mark English translations of minimal pairs for their part of speech if there is an ambiguity between nouns and verbs. Verbs may further be specified for their valency: intransitive verbs are abbreviated with “v.i.” and transitive verbs with “v.t.” Gyeli verbs with two and three syllables are easily distinguishable from nouns as only their first syllable is specified tonally, while second and third syllables are toneless and therefore unmarked, as discussed in §2.4. Generally, tones are marked on vowels, while nasal vowels are transcribed with a tilde  $\langle \sim \rangle$  between the vowel and the tone mark (§2.2).

In this chapter, I first describe the autosegmental phonology of Gyeli, including the consonant and vowel inventory, complemented by realization rules and phonotactics. In the third part, I describe the syllable structures of Gyeli nouns and verbs before I turn to tonology. This last section contains the tone inventory as well as tonal distribution and rules. I conclude the chapter with a discussion of the place of Gyeli phonology within Bantu A80 languages.

### 2.1 Consonants

Gyeli segmental phonology features many typical characteristics that one would expect for a Bantu language, but there is also a certain degree of variation, as will become clear in this chapter. Gyeli has, in comparison with Proto-Bantu, retained a fairly simple vowel system with the same number of distinctions, namely seven, but with some featural changes (see §2.2).

Concerning the consonant system, the Gyeli system seems more complex than the Proto-Bantu one. According to Hyman (2003: 42), who cites Meeussen (1967), Proto-Bantu only had eleven consonantal phonemes including a series of voiceless stops \*p, \*t, \*k and voiced stops \*b, \*d, \*g.<sup>1</sup> \*c and \*j can, as Hyman (2003) points out, be interpreted as either affricates or palatal stops. Finally, PB had a series of nasals \*m, \*n, \*n̄. In addition to these Proto-Bantu sounds, Gyeli has developed a series of fricatives and semi-vowels, as I will describe in detail in the following.

In this section, I will first outline the phonemic inventory of Gyeli by providing minimal pairs. In §2.1.2, I present realization rules, including allophonic variation. Consonant clusters are discussed in §2.1.3. §2.1.4 gives information on the phonotactics of sounds, comparing their distribution in noun and verb stems.

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<sup>1</sup>There is discussion whether the latter should be viewed as voiced stops or rather as continuants

\*β, \*l, \*γ, which is how they are realized in many Bantu languages today (Hyman 2003: 42).

### 2.1.1 Phonemic inventory

Gyeli has twenty-two phonemic consonants, illustrated in Table 2.1. These comprise (series of) stops, fricatives, affricates, nasals, lateral approximants, glides, and prenasalized stops.

Table 2.1: Phonemic inventory

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal
Plosives	p, b		t, d		k, g	?
Pren. stops	mb		nd		ŋg	
Fricatives		f, v	s, z			
Affricates				tʃ, dʒ		
Nasals	m		n		n	
Lateral approx.			l			
Glides	w				j	

In the following, I will demonstrate the phonemic status of each proposed phoneme by providing (near-)minimal pairs. Information on the phonetic realization of certain consonants is given in §2.1.2.2.

#### /p/

Gyeli has a series of plosives including bilabial, alveolar, velar, and glottal stops. Except for the glottal stop, all plosives have a functional opposition of voicing. In stem-initial position, /p/ contrasts with a range of other phonemes, some of which are listed in (1), including for instance its voiced counterpart /b/.

- (1) pój ‘news, message’ vs. bò ‘rot (v.)’  
pémbó ‘clay, bread’ vs. vémbó ‘blow nose’  
pélè ‘moment’ vs. téle ‘place sth. upright’  
púù ‘reason (n.)’ vs. dúù ‘must not’  
pê ‘choose’ vs. kë ‘walk (v.)’

/p/ in stem-medial position is rather rare and I only found one near minimal pair:

- (2) pépé ‘clay, bread’ vs. pélè ‘side’

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### /b/

Bilabial plosives show a voicing contrast, functionally opposing /p/ and /b/ as shown in (3).

- (3) búò ‘mortar’ vs. pùó ‘pay’
- bè ‘sow, cultivate’ vs. pê ‘choose’
- bàwε ‘carry’ vs. wàwε ‘spread out’
- bíwò ‘bad luck’ vs. víwɔ ‘suck’
- bílε ‘being beaten’ vs. sílε ‘finish (v.)’

In contrast to its voiceless counterpart, /b/ is more frequent in stem-medial position. (Near-)minimal pairs are provided in (4).

- (4) kfúbó ‘chicken’ vs. kfùmá ‘stump (v.)’
- tsíbɔ ‘grind, trample’ vs. tʃilɔ ‘write’
- dvùbɔ ‘soak, dip’ vs. dvùdɔ ‘drive (v.)’

### /t/

Alveolar plosives also have a voicing contrast distinguishing /t/ and /d/, as shown in (5).

- (5) túmbó ‘country’ vs. dúmbó ‘package’
- tándó ‘womb’ vs. jándó ‘trace (n.)’
- tánè ‘five’ vs. sáne ‘decide’
- tòndò ‘nail’ vs. lòndó ‘ring’
- tàmè ‘spit’ vs. wámè ‘hurry’

(Near-)minimal pairs in stem-medial position are rare since most occurrences of stem-medial /t/ seem to be found in loanwords or words that are areally widespread.

- (6) pòtò ‘clay’ vs. pòpó ‘papaya’
- sótì ‘trousers’ vs. sóní ‘shame’
- tátɔ ‘squeak (v.)’ vs. tàwò ‘goat’

I have not found any opposition of /t/ and /d/ intervocally within a stem.

**/d/**

The phoneme /d/ occurs both stem initially and stem medially, as shown in (7) and (8), respectively.

- (7) dò ‘negotiate’ vs. tò ‘any’  
dile ‘bury’ vs. sile ‘finish (v.)’  
dè ‘eat’ vs. lè ‘tree’  
dà ‘draw water’ vs. mà ‘sea’  
dijè ‘expensive’ vs. jíje ‘dodge’
- (8) bédò ‘ferment’ vs. bénó ‘buttock’  
kúdé ‘skin’ vs. kùlé ‘borrow’  
vòda ‘rest (v.)’ vs. vòwa ‘wake up’

**/k/**

(9) shows (near-)minimal pairs of /k/ in stem-initial position.

- (9) kòlè ‘stumble’ vs. gólè ‘gold’  
kija ‘give’ vs. sija ‘wash’  
kù ‘rat’ vs. dù ‘oven’  
kèle ‘hang’ vs. jéle ‘whistle (v.)’  
kámbò ‘chew’ vs. lámbò ‘trap’

Unlike other pairs of plosives (/p/ and /b/ and /t/ and /d/), the velar plosives also contrast in terms of voicing stem medially, as shown in (10).

- (10) búkè ‘smoke ( v.t.)’ vs. búgè ‘put down lengthwise’  
fúkè ‘driver ant’ vs. fúgè ‘end (v.)’  
bvúkè ‘break (v.i.)’ vs. bvùlè ‘night’

**/g/**

As Van de Velde (2008: 10) points out for Eton (A71), “The opposition between /k/ and /g/ carries a very low functional load”. The same is true in Gyeli, at least for stem-initial syllable onsets. /g/ in Gyeli, just as in Eton, is usually prenasalized in nouns. In contrast to Eton, however, there are examples in Gyeli where /g/ occurs in initial stem position without prenasalization, although these occurrences are extremely rare, representing only 0.4% of both noun and verb stem onsets (see §2.1.4 on phonotactics for more information).

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- (11) **gâ** ‘gown’ vs. **kâ** ‘wrap’  
**gìjɔ** ‘cry (v.)’ vs. **bìjɔ** ‘hit (v.)’

/g/ is more frequent intervocally within a stem. Therefore, there are more (near-)minimal pairs listed in (12).

- (12) **kàgá** ‘defect giving birth’ vs. **káká** ‘shiver’  
**le-kàgà** ‘bewitched woman’ vs. **le-kà?**á ‘clan’  
**le-kàgà** ‘bewitched woman’ vs. **le-kàlà** ‘doughnut’  
**nkágá** ‘side of animal’ vs. **nkázá** ‘whip (n.)’

### /ʔ/

The glottal stop /ʔ/ only occurs in stem-medial positions, but never stem initially. Since /ʔ/ contrasts with other stops and its occurrence is not predictable from its morphophonological environment, I treat it as a phoneme. (13) gives (near-)minimal pairs.

- (13) **séʔè** ‘liver’ vs. **sékè** ‘termite’  
**nkáʔà** ‘colobus monkey’ vs. **nkágá** ‘side of animal’  
**nkéʔé** ‘jaw’ vs. **nkédé** ‘courage’

### /mb/

Gyeli has three voiced prenasalized stops which I consider as phonemic units: /mb/, /nd/, and /ŋg/. In contrast to other NC sequences which I treat as consonant clusters, these prenasalized stops occur both word initially and medially. A more thorough discussion of the segmental status of prenasalized stops as units versus sequences of consonants is given in §2.1.3.1. (14) provides (near-)minimal pairs for /mb/ in stem-initial position.

- (14) **mbê** ‘door’ vs. **mê** ‘1SG (OBJ)’  
**mbè** ‘drum’ vs. **bè** ‘be’  
**mbámbé** ‘ancestor’ vs. **ŋgámbé** ‘vision, oracle’  
**mbè** ‘flood (n.)’ vs. **pé** ‘injury’  
**mbòò** ‘fatness’ vs. **dòò** ‘puddle’

/mb/ is also found in onsets of second syllables, i.e. word medially, as the minimal pairs in (15) show.

- (15) **námbá** ‘armpit’ vs. **nàmá** ‘broken thing’  
**pémbó** ‘bread’ vs. **péwó** ‘scar’  
**ŋkùmbó** ‘porcupine’ vs. **ŋkùzó** ‘widow(er)’

**/nd/**

The same is true for /nd/. (16) gives some examples of (near-)minimal pairs for this phoneme in stem-initial position.

- (16) **ndísì** ‘rice’ vs. **dísì** ‘bowl’  
**ndáwò** ‘house’ vs. **tàwò** ‘goat, sheep’  
**ndà** ‘cross (v.)’ vs. **nà** ‘and, with’  
**ndè** ‘bait’ vs. **wè** ‘die’

Likewise, /nd/ is also contrastive in stem-medial position, as shown in (17).

- (17) **bwàndò** ‘peel (v.)’ vs. **bwádò** ‘dress (n.)’  
**pánde** ‘arrive’ vs. **pane** ‘hang up’  
**sóndò** ‘week’ vs. **só?ò** ‘continue’  
**wùndè** ‘ground nut’ vs. **wùmè** ‘pluck’  
**búndò** ‘bride price’ vs. **búlò** ‘fish (v.)’

**/ŋg/**

The third voiced prenasalized stop that I count as a phonemic unit is the velar /ŋg/. (18) provides minimal pairs for /ŋg/ in stem-initial position.

- (18) **ŋgò** ‘grinding stone plate’ vs. **dò** ‘negotiate, discuss’  
**ŋgèè** ‘eyebrow’ vs. **bèè** ‘shoulder’  
**ŋgàmbàlà** ‘difficulty’ vs. **kàmbala** ‘defend’  
**ŋgálè** ‘thunder, lightning’ vs. **bále** ‘surpass’  
**ŋgùŋgù** ‘log’ vs. **sùŋgù** ‘war’

(19) shows minimal pairs for stem-medial occurrences. The contrast between /ŋg/ and /g/ is only found in stem-medial position since /g/ rarely occurs in stem-initial position.

- (19) **kàngá** ‘proverb’ vs. **kàgá** ‘defect when giving birth’  
**mpìŋgá** ‘sweet cassava’ vs. **mpìmbá** ‘pancreas’  
**lùŋga** ‘grow’ vs. **lùndá** ‘bush area between villages (French: *bosquet*)’  
**ŋkóngó** ‘frog’ vs. **nkólò** ‘clock, watch’

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### /f/

Gyeli has a series of fricatives including labiodentals and alveolars, which both show a contrast in voicing. (20) shows functional distinctions with other phonemes of the same or similar place and manner of articulation.

- (20) fû ‘fish’ vs. vû ‘leave (v.)’  
fûkè ‘driver ant’ vs. búké ‘crazy person’  
fûlè ‘escape (v.)’ vs. dùlè ‘be bitter’  
fûlɔ ‘descend’ vs. búlɔ ‘fish (v.)’  
-fûsì ‘different’ vs. pûsí ‘bottle’

There are no minimal pairs with /f/ in stem-medial position. There are only two examples I found, showing that /f/ can occur medially, as in (21), one of which is a loanword.

- (21) mbàfùmbò ‘shrew’  
kɔfí ‘coffee’

### /v/

(22) gives (near-)minimal pairs for /v/.

- (22) vûlɔ ‘slice (v.)’ vs. fûlɔ ‘descend’  
vînɔ ‘finger’ vs. bînɔ ‘louse’  
vîsɔ ‘sun’ vs. sîsɔ ‘be happy’  
vîjɔ ‘fire’ vs. pîjɔ ‘small’  
vâà ‘praise (v.)’ vs. wâà ‘chimpanzee’

Just like for its voiceless counterpart, there are no minimal pairs with /v/ in stem-medial position. The few occurrences of /v/ in medial position in (23) either involve reduplication of the first syllable, which begins with /v/, or they tend to be loanwords.<sup>2</sup>

- (23) vùvùlè ‘baked bread’  
vóvvólè ‘freshness, peace’  
vâîvâî ‘generosity’  
ŋgóvìnà ‘government’  
mèvâ ‘pride’

<sup>2</sup>I speculate that *mèvâ* ‘pride’ may also be a loanword as its structure is reminiscent of A70 languages such as Bulu. In Bulu, *me-* serves as noun class prefix for class IV, according to Bates (1904), while /v/ frequently occurs stem initially. Gyeli could have borrowed the entire noun, treating the original prefix as part of the stem, as *mèvâ* ‘pride’ belongs to agreement class 7 in Gyeli.

## /s/

The phoneme /s/ occurs frequently in stem-initial positions. Examples of contrasts are presented in (24).

- (24) síjò ‘dry season’ vs. píjò ‘small’
- sóndò ‘week’ vs. tòndò ‘nail’
- sâ ‘do’ vs. bâ ‘marry’
- súmèle ‘greet’ vs. lúmèle ‘send’
- só ‘friend’ vs. dò ‘negotiate’

/s/ also occurs intervocally within a stem, as in (25). While both voiced and voiceless alveolar fricatives appear stem medially, I have not found any minimal pair contrasting the two within a stem.

- (25) vísó ‘bone’ vs. vijó ‘fire’
- kàsà ‘bridge’ vs. kàlà ‘straw mat’
- kóssé ‘cough’ vs. kóbè ‘cup’

## /z/

The voiced alveolar fricative /z/ is quite rare stem initially and the examples in (26) are the only near-minimal pairs that I found. It is possible that a stem-initial /z/ only occurs in loanwords or words that may be widespread in the area, such as zìbí ‘tsetse fly.’ It therefore seems that voicing carries a low functional load in stem-initial alveolar fricatives, just like the opposition of /k/ and /g/ in this position.

- (26) zìmbà ‘soldier’ vs. jìmbá ‘age’
- zíngó ‘short dress’ vs. nsíngó ‘fast speed’

In contrast, /z/ and /s/ contrast stem medially, as shown in (27).

- (27) nkázá ‘whip (n.)’ vs. nkwásá ‘fishing pole’
- nkùzó ‘widow/er’ vs. nkúló “dead” season (May-Aug)’
- kfúzá ‘fist’ vs. kfúmá ‘chief’

## /tʃ/

Both affricates, /tʃ/ and /dʒ/, are highly restricted in their distribution, unlike most other phonemes. They only occur as onsets of first syllables, comparable

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to labiodental fricatives, and they can only be followed by the vowel /i/. As the examples in (28) show, this restriction is not due to a realization rule, since plain consonants also occur in the same environment. The occurrence of the affricate is therefore not predictable. Arguments for affricates as phonemic units rather than consonant clusters are given in §2.1.3.3.

- (28) **tʃìi** ‘live’ vs. **tìi** ‘get going’  
**tʃìi** ‘life’ vs. **dʒìi** ‘forest’

/dʒ/

Just like its voiceless counterpart, the affricate /dʒ/ is restricted in its distribution and rather rare, as shown in §2.1.4 on phonotactics. There are still a few (near-)minimal pairs, as illustrated in (29).

- (29) **dʒíye** ‘burn (v.i.)’ vs. **díyè** ‘expensive’  
**dʒíwò** ‘river’ vs. **bíwò** ‘bad luck’

/m/

Gyeli has a series of three nasal consonants: /m/, /n/, and /ŋ/. (30) provides examples of functional oppositions of /m/ in stem-initial position while (31) lists oppositions within the stem.

- (30) **mâ** ‘accuse’ vs. **nâ** ‘that (COMP)’  
**mò** ‘stomach’ vs. **bò** ‘rot (v.)’  
**mâ** ‘sea’ vs. **lâ** ‘read, count’  
**míjù** ‘brother, cousin’ vs. **píjù** (**píjù**) ‘drizzle rain’
- (31) **pámō** ‘appear’ vs. **páno** ‘shine’  
**kwámó** ‘bag’ vs. **kwádó** ‘village’  
**djúmò** ‘spouse’ vs. **djúwò** ‘hear’

/n/

Also /n/ occurs frequently in both stem-initial and stem-medial position, as shown in (32) and (33), respectively.

- (32) **nòò** ‘take’ vs. **dòò** ‘puddle’  
**níndja** ‘urinate’ vs. **síndja** ‘exchange (v.)’  
**níi** ‘vagina’ vs. **tíi** ‘get going’  
**níjè** ‘how many’ vs. **jíjè** ‘dodge’  
**nâ** ‘that (COMP)’ vs. **mâ** ‘accuse’

- (33) džínò ‘name’ vs. džímò ‘be deep’  
 vìnò ‘finger’ vs. visó ‘bone’  
 kwàne ‘sell’ vs. kwàle ‘love (v.)’

### /ɲ/

The palatal nasal /ɲ/ occurs mainly in stem-initial position. (Near-)minimal pairs are listed in (34). While I use the IPA symbol for this phoneme in this section, I will follow the Bantu tradition in terms of orthography in the following and represent the palatal nasal as ⟨ny⟩.

- (34) júlè ‘body’ vs. júlè ‘deceased person’  
 jâ ‘finger/toe nail’ vs. lâ ‘harvest (v.)’  
 jàgà ‘cow’ vs. sàga ‘be surprised’  
 já ‘really’ vs. ná ‘still’  
 jú ‘bee’ vs. ndʒú ‘gap between incisor teeth’

In stem-medial position, /ɲ/ occurs so rarely that I didn’t find any minimal pairs.

### /l/

Gyeli has one lateral approximant, namely /l/. It occurs both stem initially (35) and stem medially (36).

- (35) lé ‘tree’ vs. té ‘posture, position’  
 lâ ‘read, count’ vs. dâ ‘draw water’  
 lúmèle ‘send’ vs. súmèle ‘greet’  
 lâ ‘harvest (v.)’ vs. nâ ‘that (COMP)’  
 lùndá ‘bush area between villages (French: *bosquet*)’ vs. kùndá ‘shoe’
- (36) nkélè (já dísì) ‘eyebrow’ vs. nkédé ‘courage’  
 kwàle ‘love (v.)’ vs. kwàne ‘sell’  
 jílè ‘viper’ vs. jíje ‘dodge’

### /w/

The bilabial glide /w/ is relatively frequent in stem-initial position and contrasts with other phonemes of the same or similar place of articulation, as shown in (37).

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- (37) wàà ‘chimpanzee’ vs. vàà ‘praise (v.)’  
wàwε ‘spread (v.)’ vs. bàwε ‘carry’  
wündè ‘groundnut’ vs. tündε ‘fail’  
wólè ‘hawk’ vs. lólè ‘weaver’  
wúsè ‘drought’ vs. pùsε ‘push (v.)’

Further, /w/ is found intervocally within a stem where it contrasts with other phonemes such as /b/ or /m/, as shown in (38).

- (38) džíwɔ ‘steal’ vs. džibɔ ‘close’  
djúwɔ ‘hear’ vs. djúmɔ ‘spouse’  
tàwɔ ‘goat’ vs. tàtɔ ‘squeak (v.)’

### /j/

The second of the two glides in Gyeli is the palatal glide /j/. Again, while I use the IPA symbol in this section, I will represent the palatal glide according to Bantu tradition as *y* in the following chapters. (39) provides (near-)minimal pairs for /j/ in stem-initial and (40) for stem-medial position.

- (39) jí ‘wood’ vs. jí ‘enter’  
jilè ‘viper’ vs. sile ‘finish (v.)’  
jándó ‘trace (v.)’ vs. tándó ‘womb’  
jíje ‘dodge’ vs. kíje ‘try’  
júlè ‘deceased person’ vs. fúlε ‘escape (v.)’
- (40) víjó ‘fire’ vs. vínjó ‘finger’  
kòjà ‘rope’ vs. kòla ‘add’  
síjè ‘saw (n.)’ vs. símε ‘respect (v.)’

### 2.1.2 Realization rules

Beside the 22 consonantal phonemes, Gyeli has a multitude of other sounds, including allophones and consonant clusters. I present these all in Table 2.2, instead of splitting them up into different tables in different sections. The reason for this is that the distinction between phonemic unit and consonant cluster is not trivial. I consider, for instance, voiced prenasalized stops as phonemic units, while I analyze their voiceless counterparts as consonant clusters, as discussed in §2.1.3.1. Table 2.2 allows the reader to see all sounds and consonant clusters at one glance, regardless of their phonemic status. This will also make it easier to

compare other languages of the area, which may have similar sound sequences, but which may be analyzed differently, depending on the author.

The phonemes are in bold to contrast them with other sounds which are either allophones (§2.1.2.2) or consonant clusters (§2.1.3). The sounds in parentheses, namely the labial-velar /kp/ and its voiced counterpart /mgb/, which only occurs prenasalized, are neither allophones nor clusters. They are so rare, however, that they seem to be borrowed rather than genuine Gyeli phonemes.

Table 2.2: Phonetic inventory, major consonants

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal	Labial-velar
<b>Phonemes and allophones</b>							
Plosives	<b>p, b</b>		<b>t, d</b>		<b>k, g</b>	<b>ʔ</b>	(kp)
Fricatives	<b>β</b>	<b>f, v</b>	<b>s, z</b>		<b>χ</b>		
Affricates			ts, dz	<b>tʃ, dʒ</b>			
Nasals	<b>m</b>		<b>n</b>	<b>ɲ</b>	<b>ŋ</b>		
Lat. approx.			l				
Glides	<b>w</b>			<b>j</b>			
Pren. plos.	<b>mb</b>		<b>nd</b>		<b>ŋg</b>		(mgb*)
<b>Consonant clusters</b>							
Lab. obstr.	pw, bw		sw		kw, gw		
Pal. obstr.	pj		dj		kj, gj		
Plos.-fric.	pf, bv		tf, dv		kf*		
<b>Prenasalized clusters</b>							
Plosives	mp		nt		ŋk		
Fricatives		mf, mv	ns, nz				
Affricates	mbv		ndv		nkf, ngv		
Labialized	mpw, mbw				nkw, ngw		
Palatalized			ndj		nkj, njg		

Abbreviations: fric.: fricatives, lab.: labialized, lat. approx.: lateral approximants, obstr.: obstruents, pal.: palatalized, plos.: plosives, pren.: prenasalized, \*: voiced form only if preceded by nasal, (): only in loanwords

### 2.1.2.1 Labial-velars

Labial-velars are rare and restricted in Gyeli, but they do occur. Interestingly, the voiceless labial-velar /kp/ is found only in one lexeme, namely in *kpèmè* ‘manioc leaves’, which is either a loanword or at least areally widespread. Its voiced counterpart [gb] only occurs prenasalized, never on its own. It is, however, more frequent than /kp/; six occurrences are listed in (41).

- (41) **mgbèŋmgbémè** ‘lion’  
**mgbásá** ‘hunting with spears and dogs’  
**mgbà** ‘crow’  
**mgbísi** ‘rawness, freshness’  
**mgbámàlà** ‘be sour’  
**ma-mgbámàlà** ‘acidity’

Cheucle (2014: 148) points out that labial-velars in other Bantu A80 languages such as Bekwel often occur in variation with labialized velar stops [kw] and [gw]. This does not seem to be the case in Gyeli. The labialized velar stops [kw] and [gw] seem more widespread in A80 than labial-velars, at least historically. Cheucle (2014: 503) reconstructs the lexeme for ‘crow’ as *\*gwàŋ* in Proto-A80, which surfaces synchronically as *ngbàn* in Bekol, Kwasio, and Njem. Further, according to the judgment of Mabi speakers, the Gyeli word *mgbèŋmgbémè* ‘lion’ is typical Gyeli, while the Mabi prefer *màbùnzò* for ‘lion’. This either means that the Gyeli word with the labial-velar is an older form pre-dating Proto-A80 (maybe even a phonological substrate from the language they spoke before shifting to Bantu) or that the Bagyeli acquired the lexeme through contact with non-Bantu speakers, as suggested by Bostoen & Donzo (2013) for Lingombe (C41, Democratic Republic of the Congo).

### 2.1.2.2 Allophones

Allophones in Gyeli mostly concern variation of voiced stops. The voiced plosives /b/, /d/, and /g/ often undergo lenition in intervocalic position. /b/ and /g/ are then realized as fricatives, while /d/ surfaces as a tap. I discuss each of them in turn.

#### Realization of /b/

Being subject to a general lenition rule of intervocalic voiced stops, /b/ is weakened to [β]. This rule is, however, not absolute, but rather subject to speaker variation and speech rate. The same speaker may pronounce the same lexeme with an intervocalic /b/ one time with [b], and another time with [β]. Therefore, there is no strict complementary distribution of [b] and [β], but rather a tendency. Further, this rule only applies in stem-medial positions. If the phoneme /b/ occurs stem initially in between vowels, it does not change to [β].

Figures 2.1 and 2.2 show the contrast of the two allophones. The realization of the intervocalic /b/ as a plosive is clearly seen in Figure 2.1 while in Figure 2.2 no closure appears.<sup>3</sup>

### Realizations of /d/

The phoneme /d/ is sometimes pronounced as a tap [ɾ] in stem-medial, intervocalic position. In contrast to the lenition of /b/ and /g/, this variation may be considered as an instance of interference from Kwasio. There seems to be a regular sound correspondence where the Kwasio [ɾ] is mostly pronounced as [d] in Gyeli. While all Bagyeli seem to be fluent in Kwasio, where /ɾ/ is part of the phonemic inventory (Woungh 1971: 33), speakers who are in closer contact with Mabi (a Kwasio dialect) tend to pronounce the lexeme for ‘woman’ as *mùrâ* while those who are less influenced by Mabi pronounce it *mùdâ*. Again, it is definitely a matter of speaker variation instead of complementary distribution and correlates with language contact factors.

I also found one example where a Mabi [ɾ] is pronounced as [l] in Gyeli: *mà-tárá* ‘beginning’ in Mabi which is *mà-tálá* in Gyeli. Due to lack of data, the exact correspondence is not yet clear. Cheucle (2014: 432) reconstructs Proto-A80 as not having possessed [ɾ] as a phoneme,<sup>4</sup> so it seems that [ɾ] might be an innovation in Mabi. In sum, Gyeli /d/ is only realized as [d], while words with a tap [ɾ] are instances of Mabi in Gyeli speech.

Further, just like word-initial /b/, initial /d/ is pre-glottalized and pronounced with a relatively long prevoicing time (see §2.1.2.4 on pre-glottalized stops).

### Realizations of /g/

The phoneme /g/ is, just like /b/, subject to lenition to the fricative [ɣ] in stem-medial, intervocalic position. Again, the same holds as for /b/: there is no strict complementary distribution, but there is variation whether the stop undergoes lenition or not.

/g/ in stem-initial position is rare, as shown in §2.1.4 on phonotactics. Velar stops in this position are either voiceless or stem-initial /g/ is palatalized and surfaces as [gj] (or ⟨gy⟩ in the orthographic representation). This, however, does not seem to be conditioned by any realization rule since the plain stop and the palatalized one can both be followed by any vowel. In the rare cases where /g/ occurs stem initially, /g/ is subject to prevoicing, which is discussed in §2.1.2.4.

<sup>3</sup>In stem or word-initial position, /b/ is pre-glottalized (see §2.1.2.4).

<sup>4</sup>It is not clear, however, whether [ɾ] occurred as an allophone since allophony is not discussed by Cheucle (2014).

## 2 Phonology

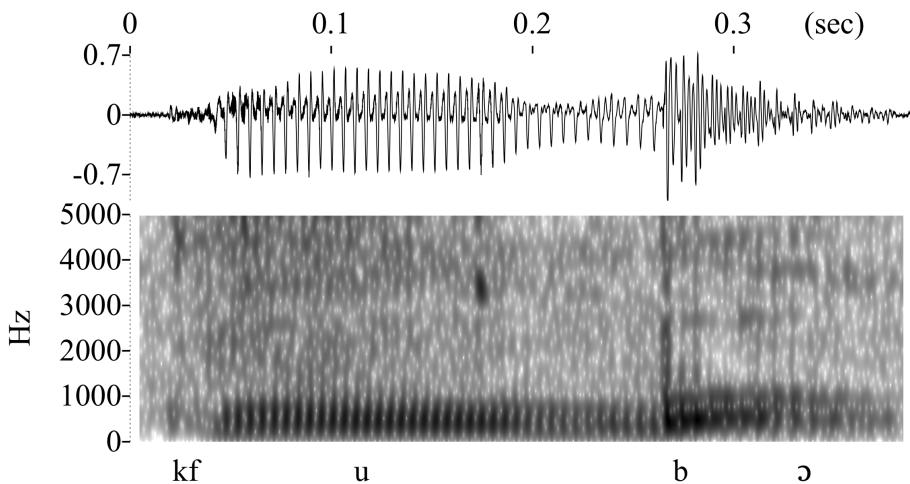


Figure 2.1: Intervocalic [b] in /kfúbɔ̄/ 'chicken', represented by a waveform (upper part) and a spectrogram (lower part)

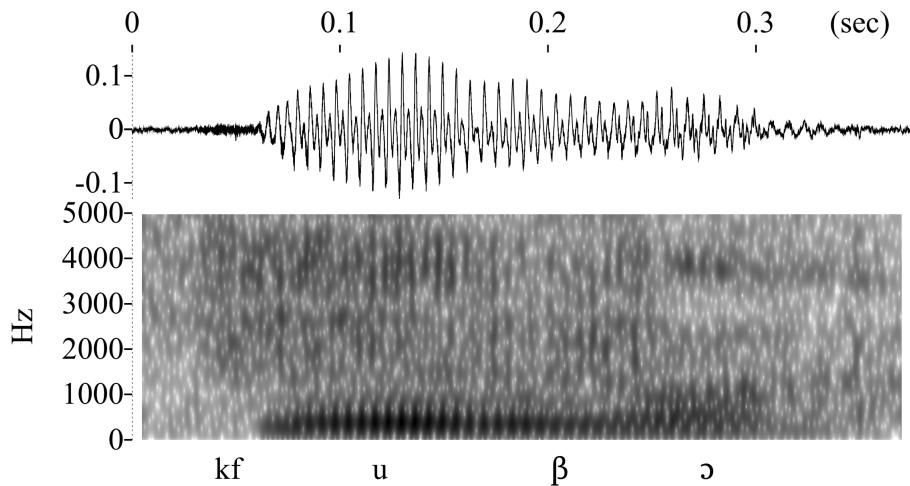


Figure 2.2: Intervocalic [β] in /kfúbɔ̄/ 'chicken'

### Realizations of /tʃ/ and /dʒ/

The affricates /tʃ/ and /dʒ/ are sometimes realized as /ts/ and /dz/, respectively, depending on speaker variation rather than a realization rule. While there is variation across speakers, both variants occur in free variation.

### The allophone [ŋ]

The velar nasal [ŋ] is an allophone of nasal consonants in general. Its occurrence is conditioned by the nasal place assimilation rule, as explained in §2.1.2.3. In contrast to the other nasal consonants /m/ and /n/, [ŋ] has no phonemic status in Gyeli because its occurrence is always predictable from a following velar obstruent. /m/ and /n/, however, also occur as plain nasals with a functional distinction, as was shown in §2.1.1.

There is one exception, namely with the noun *ŋwándó* ‘cassava stick’, which contrasts with *ŋgwándó* ‘melon seed’. While the latter noun takes a velar nasal as expected from the following velar stop, there is no velar stop in *ŋwándó* ‘cassava stick’. Actually, a labial nasal [m] would be expected before [w]. Since this is the only occurrence of a contrastive [ŋ] and since [ŋ] only occurs in sequences of nasal + velar consonants, but never on its own, I do not consider [ŋ] a phoneme.

### 2.1.2.3 Nasal place assimilation

A nasal that precedes another consonant, forming a nasal-consonant cluster, assimilates to the place of articulation of the following consonant, as shown for all nasal consonants in (42).<sup>5</sup> Nasal place assimilation also plays a role in prefixation such as in the formation of deverbal agentive nouns (§4.2.1.1).

- (42)    /N + b̪/       →    [mb̪] ‘arm’
- /N + túmbà/   →    [ntúmbà] ‘older brother’
- /N + gj̪/       →    [ŋgj̪] ‘stranger’

Interestingly, nasalization of labial-velars results in a bilabial nasal: /N + kp/ → [mgb].

### 2.1.2.4 Pre-voicing of labial and alveolar stops and the issue of implosives

In this section, I expand on the issue of the phonetic realization of voiced stops and show in some detail that these are not implosive. Implosives have been reported for other varieties of Gyeli and in neighboring languages, but in the Ngolo

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<sup>5</sup>In these instances, the nasal does not serve as a prefix.

## 2 Phonology

variety of Gyeli, voiced stops that could be perceived as implosives should rather be analyzed as pre-glottalized stops with a relatively long prevoicing time. During prevoicing, speakers expand their cheeks, increasing both the vocal tract size and amplitude before release of the voiced plosives /b, d/. An in-depth discussion is given in Grimm (2019).

In stem-initial position, the labial and alveolar stops /b/ and /d/ are realized with pre-glottalization and a relatively long prevoicing time. This combination sounds very different from [b] and [d] in western languages such as French and can perceptually easily be mistaken for the implosives [b] and [d], especially since the occurrence of implosives is expected in the area. On closer inspection, claims for implosives in neighboring languages may have to be reconsidered in the light of this analysis for Gyeli. Ngue Um (2012), for instance, lists all stem-initial occurrences of /b/ in the Gyeli variety spoken in the contact region with Basaa as either implosives or bilabial fricatives while, according to him, there are no stem-initial realizations as [b]. This is typologically rather unexpected, especially if there is no opposition of stem-initial egressive [b] versus the implosive [b].

In comparison, Thornell & Nagano-Madsen (2004: 173) state in their phonetic description of the closely related language Mpiemo (A86c) that the implosives [b] and [d] occur frequently in stem-initial and intervocalic position. The authors treat implosives as allophones of their egressive counterparts which generally occur in all positions except before the high close vowels [i] and [u], and before nasals. They also point out, however, that there may be free variation of implosives and egressive stops before [a] and that the distribution is not completely clear. They show an instance of a bilabial implosive in their Figure 6, replicated here in Figure 2.3.<sup>6</sup>

Clements & Osu (2002: 312) describe the most salient features of implosives as being

<sup>6</sup>Cheucle (2014: 461) assumes in her comparative study and reconstruction of Proto-A80 that voiced plosives have been realized phonetically as implosives, but given the scarce data, this may need to be reconsidered since she even points out herself that “Seul le mpiemo comporte une distribution complémentaire entre les implosives et les occlusives voisées. Pour le bekwel et le shiwa, il a été précisé plus haut que les occlusives sont généralement réalisées implosives. Dans les autres langues, nous ne disposons pas d’informations à ce sujet. On peut toutefois supposer que les occlusives voisées du P-A80 aient plutôt été des implosives”. [Only Mpiemo has a complementary distribution of implosives and voiced plosives. For Bekwel and Shiwa, it has been stated above that stops are generally realized as implosives. For the other languages, we do not have any information concerning this matter. One can still assume that voiced stops in P-A80 could still have been implosives.]

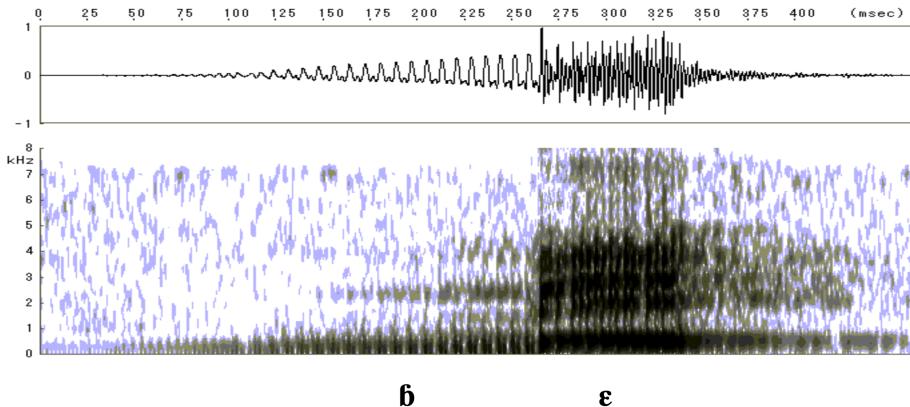


Figure 2.3: Implosive [b] in Mpiemo (Thornell & Nagano-Madsen (2004: 172))

the absence of turbulence noise (in the form of burst or aspiration) at their release and the steady or rising amplitude of vocal fold vibration during the production of the constriction.

In Figure 2.3, the rising amplitude before the release is clearly seen in a typical cone shape, with voicing starting a good 150ms before the release. In contrast, Gyeli does not necessarily have the same type of amplitude increase, as shown in Figure 2.4. One could argue that instead the amplitude is steady, but then the release has more turbulence which is an indication for an egressive [b].

Further, the voicing onset starts with a glottal closure, marked by the circle in Figure 2.4. In fact, the manner of production of the word/stem-initial egressive voiced stops in Gyeli involves the same places of articulation as implosives with a closure at the glottis, an increase of pressure in the oral cavity and finally a labial or alveolar release. The only difference is the movement of the glottis producing different kinds of airstreams. While in implosives the glottis usually moves downwards which causes an ingressive airstream, the airstream in Gyeli is always egressive with the glottis moving upwards. Evidence for this comes from the observation that speakers tend to expand their cheeks during prevoicing/before release. This was also noted by Renaud (1976) for the Gyeli variety spoken in Bipindi. In order to expand the cheeks, the airflow has to be egressive.

The increase of airstream pressure in the oral cavity varies among speakers, as shown in Figure 2.5. Here, the prevoicing before the release is not steady, but rising, although not in a regular way. And again, there is a good deal of turbulence noise during the release.

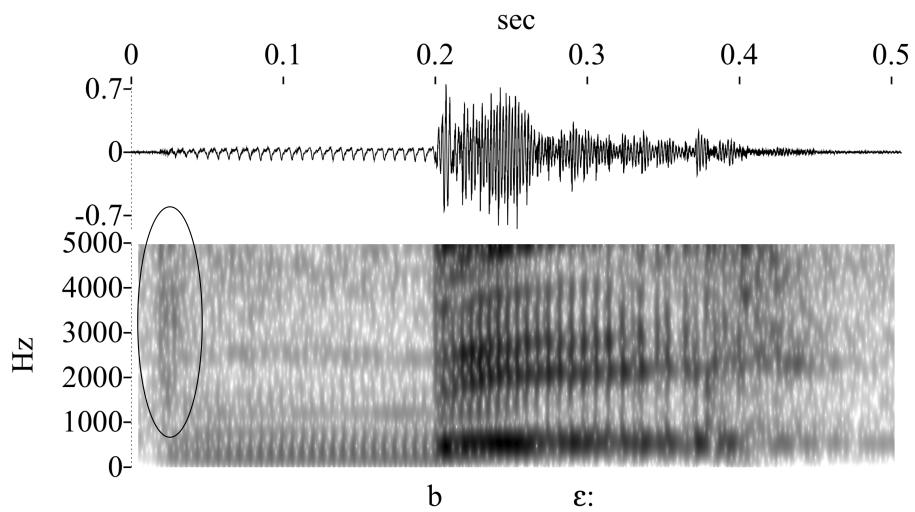


Figure 2.4: Preglottalized and prevoiced [b] in Gyeli, speaker 1

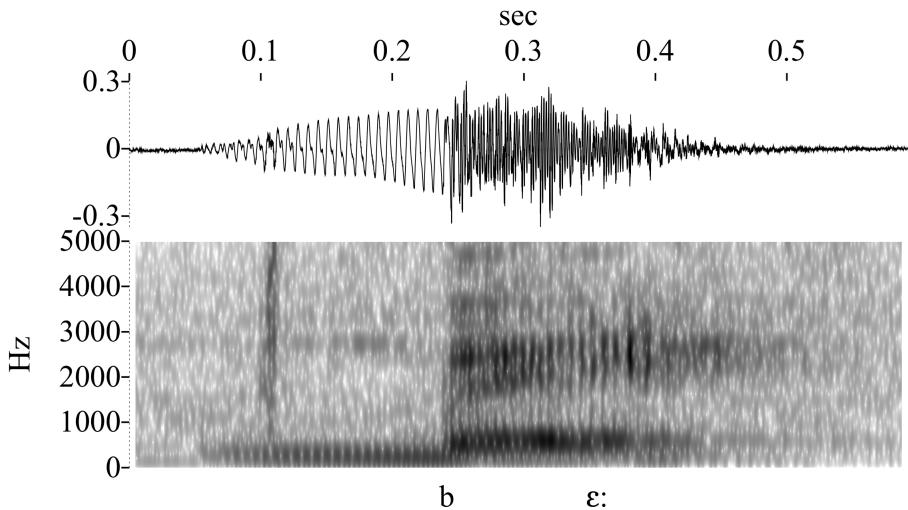


Figure 2.5: Preglottalized and prevoiced [b] in Gyeli, speaker 2

In summary, the perceived particularity in the production of stem-initial [b] and [d] is related to pre-glottalization followed by a long prevoicing time. Speaker 1, for instance, has prevoicing of 182ms in *bèè* ‘shoulder’ in Figure 2.4, and speaker 2 has prevoicing of 190ms in Figure 2.5. During voicing, airstream pressure increases in the oral cavity which, in turn, leads to a more intense burst at the release. The longer the voicing time, the potentially stronger is the burst at release.

Closure duration of the voiced plosive does not depend on the quality of the following vowel, as explained in detail in Grimm (2019). Instead, the duration depends on the speech rate, the lexical or grammatical function of a morpheme or stem, and the position in the intonation phrase. Thus, closure duration is generally longer in careful speech, in initial position of lexical stems, and at the beginning of an intonation phrase. Vice versa, closure duration is shorter in fast speech, in grammatical morphemes, and at the end of intonation phrases.

Also /g/ is prevoiced in word-initial position, but lacks pre-glottalization in comparison to /b/ and /d/. There are, however, not that many instances of a word-initial /g/ which would allow for a more systematic investigation. In the lexeme *gòlè* ‘gold’, for instance, the prevoicing time amounts to 120ms.

There are several ways to interpret these findings in relation to other Bantu A80 languages. Either, pre-glottalization followed by prevoicing of [b] and [d] could be areally more widespread, but it has not been recognized as such. Alternatively, it is a special feature in Gyeli. It is even possible that these pre-glottalized stops are an imitation of sounds that are possibly implosives in neighboring languages. For the Gyeli variety spoken around Bipindi, which is in contact with Kwasio and Basaa, Duke (2014) observes that speakers mimic in a playful way sounds of neighboring languages. This happens, according to Duke, both in contact situations with non-Bagyeli, but also within the speech community in order to emphasize personal relations with other Gyeli community members with whom the individual may have spent some time, for instance with the Basaa.

### 2.1.2.5 Voicing of intervocalic stops

In intervocalic position, voiceless stops such as [p, t, k] are slightly voiced in fast speech. For instance, the noun /ŋàtà/ ‘tied bundle’ may surface as [ŋgàdà] just as /fúkè/ ‘driver ant’ may be pronounced as [fúgè] (which then becomes a homonym with /fúgè/ ‘end’).

### 2.1.3 Consonant clusters

Gyeli has a wide range of consonant sequences such as prenasalized consonants, labialized and palatalized stops, and consonant-fricative clusters, as listed in Table 2.2. In many Bantu languages, these sounds are treated as single phonemic units. In Gyeli, I consider some of them as units, but some as clusters, i.e. sequences of phonemes. Following Gündemann (2001: 8), I view clusters as “a sequence of two consonantal constituents having phoneme status as independent segments which join together in one, more elaborate segment”. In the following, I will present the various consonant clusters and explain how I delimit them from unit segments.

#### 2.1.3.1 Prenasalization

Gyeli has a variety of prenasals, mostly prenasalized obstruents, but also a few prenasalized glides and laterals. Table 2.3 lists all nasal + consonant (NC) sequences. Every oral consonant in Gyeli that occurs stem initially can be prenasalized.

Table 2.3: Phonemic prenasalized consonants

	Bilabial	Alveolar	Palatal	Velar	Labial-velar
Stops	mp, <b>mb</b>	nt, <b>nd</b>		ŋk, <b>ŋg</b>	mgb
Fricatives		ns, nz			
Affricates				ntʃ, ndʒ	
Lateral approximant		nl			
Glides	mw			nj	

These prenasals can either be treated as a single segment or as a sequence of segments, i.e. consonant clusters. I argue that some NC occurrences form a segment unit, namely the ones in bold, while the others constitute clusters in Gyeli. The classification of NC segments into units versus sequences is primarily based on distributional properties, as I will explain below, while other diagnostics that are often used in Bantu studies to determine NC status can be ruled out as decisive criteria. (The prenasalized labial-velar is a marginal phenomenon and was discussed in §2.1.2.1.)

Chacha Mwita (2007) summarizes arguments that have been put forth in Bantu studies for and against treating prenasals as single segments. The main points of evidence concern homorganicity, duration, and syllabification. The author points

out that “similar gestural sequences in some languages should be treated as unitary segments, particularly if they occur in syllable-initial position”. As Table 2.3 shows, all NC segments are homorganic and, as I will show below, all occur in syllable-initial position. Therefore, homorganicity is not a criterion in Gyeli to distinguish NC units from NC sequences.

Another putative diagnostic for NC segments as phonemic units concerns duration. It has been claimed that, if NC segments are units, “at the phonetic level, the prenasalized consonants have the same length as other consonantal segments” (Chacha Mwita 2007: 61). According to Downing (2005: 183), however, one cannot simply correlate the phonetic duration of prenasalized consonants with their segmental status since this is language specific. In Gyeli, NC sequences seem to be longer than singleton segments, as (43) and (44) show.<sup>7</sup>

- |      |                |                |
|------|----------------|----------------|
| (43) | mè ‘1SG’       | → [m] = 133ms  |
|      | béè ‘shoulder’ | → [b] = 184ms  |
|      | mbé ‘door’     | → [mb] = 255ms |

Longer duration of prenasalized in comparison to plain obstruents is more evident in prenasalized voiceless stops, as shown in (44) since they lack the relatively long prevoicing time of voiced stops, as discussed in §2.1.2.2.

- |      |                  |                |
|------|------------------|----------------|
| (44) | ná ‘still (adv)’ | → [n] = 181ms  |
|      | kà ‘catch’       | → [k] = 21ms   |
|      | ŋká ‘line’       | → [ŋk] = 200ms |

Another argument that is often used in the discussion on the status of prenasals is syllabification. If the NC sequence belongs to the same syllable, it is usually viewed as a unit:

The fact that the units making up the prenasals usually find themselves in one syllable has been taken as proof that the consecutive consonants in a prenasal form a unit segment or one sound. (Chacha Mwita 2007: 62)

This is true for all NC sequences in Gyeli since nasals are never syllabic, as shown in §2.3. Gyeli has, synchronically, almost no nasal prefixes as would be common for Bantu languages. Instead, the nasal that most likely used to be a

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<sup>7</sup>Both (43) and (44) constitute single tokens and only serve to give an impression. For generalizations, a larger sample is needed. Since I do not consider duration as a decisive criterion in determining NC segment status, however, I do not investigate duration systematically at this point.

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syllabic prefix has become frozen to the noun stem. This is obvious in the plural classes which retain the nasal that occurs in the singular: *mbáálɔ́* ‘jaw’ retains the /m/ in the plural class 4 *mimbáálɔ́* ‘jaws’. This suggests a closer liaison between nasal and obstruent.

This syllabification pattern does not, however, solely apply to NC sequences such as /mb/, but also to those that are less typically viewed as single phonemic units, for example a nasal plus a lateral approximant [nl] as in *nlémò* ‘heart’, *min-lémò* ‘hearts’. While it is quite common for Bantu languages to have prenasalized obstruents as phonemic units, it is rather uncommon to have phonemic units of prenasalized lateral approximants.

As an interim summary, the diagnostics of homorganicity, duration, and syllabification are either inconclusive (as far as duration is concerned) or seem to indicate a unit status of all NC sequences. The unit status is then based on homorganicity of all NC sequences and their occurrence within the same syllable. The distribution of NC sequences, however, shows that there are differences between nasal + voiced stop sequences in contrast to other NC sequences, as illustrated in Table 2.4.

The table shows the distribution of NC sequences in nouns and verbs. For both nouns and verbs, different consonant positions in stems are represented. O1 stands for the onset of the first syllable in a stem, O2 for the second, and O3 for the third, irrespective of whether the onset is one single consonant or a cluster.

The numbers under O1, O2 and so on give total numbers of all NC sequences in this position. For instance, for O1 in nouns, 188 out of 855 nouns stems that have a consonantal onset in O1 start with an NC sequence. In contrast, 377 verb stems start with a consonant, but only 7 of them are prenasalized stops. The number of consonantal slots in O2 and O3 is lower than for O1 since these slots are empty in mono- and/or disyllabic stems.

The distribution shows that all possible NC sequences occur in O1 of nouns while they are exceptions in O1 of verbs. This distribution can be explained by the noun class morphology, as already stated above: diachronically, the nasal was most likely a syllabic nasal prefix as is common for many Bantu languages. Synchronously, the former nasal prefix has become frozen to the stem.

Assuming this historical scenario, it is not surprising that NC sequences are almost absent in O1 position in verbs, with a few exceptions only. There are a few instances where a verb starts with a prenasalized stop, as in *ndà* ‘cross’ or *ntégèlè* ‘disturb’. They are, however, restricted, not allowing prenasalized labials, and they are rather rare with only six occurrences in a database of 377 verbs, as shown in Table 2.4.

Table 2.4: Distribution of NC sequences

NC	Nouns			Verbs		
	O1	O2	O3	O1	O2	O3
	188/855	169/650	4/88	7/377	54/274	-/76
mp	30	1	-	-	-	-
mb	30	69	-	-	25	-
nt	26	1	-	3	-	-
nd	7	55	2	1	23	-
ŋk	47	3	-	-	-	-
ŋg	24	39	2	1	6	-
mgb	5	1	-	1	-	-
ns	20	-	-	-	-	-
nz	10	-	-	-	-	-
ntʃ	2	-	-	-	-	-
ndʒ	8	1	-	1	-	-
nl	9	-	-	-	-	-
mw	5	-	-	-	-	-

There are, however, also NC sequences that occur in O2 of nouns and verbs (and exceptionally in O3 of nouns). They are restricted to voiced prenasalized stops.<sup>8</sup> These occurrences cannot be explained by diachronic noun class morphology, but suggest a different phonological status. Given the distributional differences, I propose a unit analysis for the voiced prenasalized stops /mb/, /nd/, and /ŋg/ in Gyeli while I treat all other NC sequences as clusters. This has the advantage of not artificially inflating the phoneme inventory while acknowledging the language's properties in terms of homorganicity and syllabification.

### 2.1.3.2 Labialization and palatalization

Obstruents can occur in a labialized and/or palatalized form, i.e. the obstruent is followed by a labial or palatal glide. Both phenomena are specified in the lexicon rather than being phonological processes in Gyeli since their occurrence is not predictable from the (morpho-)phonological environment. Hyman (2003: 55) notes for Bantu languages in general that “[t]he post-consonant glides [y] and

<sup>8</sup>Instances of voiceless nasal stops in O2 of nouns can be explained as effects of reduplication.

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[w] are typically derived from underlying vowels". Therefore, one would expect that certain vowels following a labialized or palatalized obstruent are disallowed.

It turns out, however, that in Gyeli this is not the case. (45) lists noun stems that start with /bw/, providing examples of different vowel heights. These examples contrast with (46) where /b/ is not labialized and followed by the same vowels. Therefore, labialization cannot be a phonological process that is determined by the consonant's phonological environment. Just like most NC sequences, I consider labialized and palatalized obstruents as consonant clusters rather than single phonemic units. This analysis is based on the fact that both consonants in the sequence can occur as independent phonemes on their own as well as their distributional restriction to the first syllable. In this way, they are similar to the other consonant clusters, namely the nasal + obstruent clusters discussed in §2.1.3.1 and the consonant-fricative clusters described in §2.1.3.3. Therefore, and because (other) consonant clusters are not to be expected from a historical and language family perspective, I do not see any reasons to treat labialized and palatalized consonants differently from other consonant clusters in the language, for instance proposing secondary articulation.<sup>9</sup>

- (45) /bw/ noun stem-initial
- bwímò 'net hunting'
  - bwújà 'hundred'
  - bwèdòwò 'taste'
  - bwò 'brain'
  - bwàndjá 'disdain, adultery'
- (46) /b/ noun stem-initial
- bíá 'beer'
  - búgé 'tsetse fly (*Glossina*)'
  - bé 'well'
  - bóndí 'black colobus monkey'
  - bàlándè 'larva'

The same is true for other obstruents and palatalization (for the sake of space, I will not give examples for all of them). Another putative analysis would be that the glide is part of a diphthong. Gyeli has four diphthongs: /uɔ/, /ua/, /ɔa/, /ie/

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<sup>9</sup>Another possible analysis would be to assume a third category of complex consonants, in contrast to simple consonants and consonant clusters, as Güldemann (2001) proposes for !Xöö. While this is an elegant solution for !Xöö, it does not seem to have any advantage in describing Gyeli synchronically. Introducing a third category rather moves the decision between unit and cluster analysis to another level.

(see also §2.2.2). For instance, it would be possible to posit that the diphthong /ua/ surface as [wa]. This analysis, however, does not work for two reasons. First, in that case we should only find labialization/palatalization with certain vowels—/w/ preceding /ɔ/ and /a/ and /j/ preceding /e/. This is clearly not the case since these coarticulated consonants occur before any vowel, as shown above. Second, speakers pronounce diphthongs and labialized stops distinctly. This can be nicely illustrated with the minimal pair *bwɔ̊* ‘brain’ vs. *búɔ̊* ‘mortar’.

The fact that labialization and palatalization are not predictable realization rules in Gyeli is also seen in (near-)minimal pairs contrasting plain obstruents and obstruents + glide, as shown in (47) for labial glides and in (48) for palatal glides.

- (47) **bwà** ‘give birth’ vs. **bâ** ‘marry’  
**kwà** ‘grind’ vs. **kâ** ‘catch’  
**swáálè** ‘bone marrow’ vs. **sáálè** ‘work (n.)’
- (48) **djò** ‘laugh’ vs. **dò** ‘negotiate’  
**kjàle** ‘start an engine’ vs. **kálé** ‘sister’  
**lè-gjólé** ‘bush-baby (*Galago senegalensis*)’ vs. **gólè** ‘gold’

Labialized and palatalized obstruents basically only occur stem initially, as shown in Table 2.5. Exceptions in second syllable onsets of noun stems are due to reduplication of the first syllable and loanwords. Also, these sounds occur more frequently in nouns than in verbs. The most frequent ones are /bw/, /kw/, /dj/, /gj/.

Finally, labialized and palatalized obstruents can enter an even more complex consonant cluster by being preceded by a nasal. These complex sounds are, however, restricted to nouns. Table 2.6 shows the distribution. Mostly, these complex sounds occur in O1 position, with the exception of /ndj/, which is more frequent in O2 than in O1.

(49) shows the opposition between prenasal stops and prenasal stops + glide.

- (49) **mpá** ‘island’ vs. **mpwá** ‘bouillon’  
**ndáwò** ‘house’ vs. **ndjáwò** ‘chisel’  
**nkâ** ‘guinea fowl’ vs. **nkjâ** ‘scabies’

### 2.1.3.3 Consonant-fricative clusters

Gyeli has consonant-fricative sequences, which I consider to be clusters for two reasons: (i) their occurrence is highly restricted in terms of their distribution,

Table 2.5: Labialized/palatalized consonants

	Nouns			Verbs		
	O1 59/855	O2 2/650	O3 -/94	O1 53/377	O2 -/274	O3 -/76
<b>Labialized obstruents</b>						
pw	2	1	-	1	-	-
bw	12	-	-	10	-	-
kw	10	-	-	9	-	-
gw	2	-	-	-	-	-
sw	3	-	-	2	-	-
<b>Palatalized stops</b>						
pj	1	-	-	-	-	-
dj	11	1	-	12	-	-
kj	1	-	-	2	-	-
gj	17	-	-	17	-	-

Table 2.6: Prenasalized and labialized/palatalized consonants in noun stems

Prenasalized stops	O1	O2	O3
<b>Prenasalized-labialized stops</b>			
mpw	1	-	-
mbw	5	1	-
nkw	6	-	-
ngw	7	-	-
<b>Prenasalized-palatalized stops</b>			
ndj	2	13	-
nkj	3	-	-
ngj	8	1	-

unlike most other phonemic units, and (ii) a unit analysis would be typologically uncommon for these sequences. Treating all of them as phonemic units would again artificially expand the phoneme inventory. Further, a cluster analysis is in line with the treatment of prenasal and labialized/palatalized consonant clusters.

Most consonant-fricative clusters consist of a stop + fricative, but there are also lateral + fricative sequences, as Table 2.7 shows. All of these are restricted to the onset of the first syllable, both in noun and verb stems. The only exception of an occurrence of /bv/ in O2 in the table involves a reduplication of the first syllable.

Table 2.7: Distribution of consonant-fricative clusters

Consonant-fricative sequence	Nouns			Verbs		
	O1	O2	O3	O1	O2	O3
	40/855	1/650	-/94	27/377	-/275	-/76
Consonant-fricative	40	1	-	27	-	-
pf	6	-	-	5	-	-
bv	6	1	-	6	-	-
tf	6	-	-	5	-	-
dv	4	-	-	5	-	-
kf	16	-	-	4	-	-
lv	2	-	-	2	-	-
Prenasalized stop-fricatives	24	-	-	-	-	-
mbv	8	-	-	-	-	-
ndv	2	-	-	-	-	-
nkf	5	-	-	-	-	-
ngv	9	-	-	-	-	-

All consonant-fricative clusters are relatively rare, [kf] being the most frequent sequence type, at least in noun stems.<sup>10</sup> In contrast, /lv/ sequences are the least frequent.

Some of the stop-fricative clusters appear also prenasalized, as shown in Table 2.7. Prenasalization is, however, restricted to a subset of consonant-fricative

<sup>10</sup>An observation with respect to the closest related language Mabi: Mabi does not have the phoneme [kf], but rather uses [pf] as in Mabi *pfúmá* ‘chief’ where the Bagyeli say *kfúmá*. It is not clear, however, if this is a regular sound correspondence since Gyeli uses both (non-allophonic) sequences [pf] and [kf].

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clusters in noun stems, including prenasalization of /bv/, /dv/, /kf/, and /gv/. /gv/ as voiced counterpart to /kf/ only occurs if a nasal precedes it. Prenasalized consonant-fricative clusters do not occur in verbs.

Consonant-fricative clusters are further restricted in their distribution in that they only occur before the high vowel /u/. This makes it possible to assume a realization rule of affrication, as for instance Van de Velde (2008: 26) describes for Eton. There is, however, no complementary distribution or conditioning of the fricative cluster occurrence with respect to plain consonants. Their occurrence is not predictable from any rules, as the (near-)minimal pairs in (50) show. All initial consonants are followed by the same high back vowel [u]. Speakers are aware of the difference between plain consonants and consonant-fricatives clusters and correct me if I pronounce it wrong either way.

- (50)   **bvúlɛ** ‘Bulu person’ vs. **búlɛ** ‘burst’  
      tfúdɛ ‘bump’ vs. túdɛ ‘tumor’  
      kfúdɛ ‘cover’ vs. kúdɛ ‘skin’  
      Ivúmɔ́ ‘maggot’ vs. lùmɔ́ ‘yellow fever mosquito’

As there are also examples of /bw/ preceding the high vowel /u/, such as the noun *bwújá* ‘hundred’, an analysis in which [bv] derives from /bw/ with frication before /u/ can be ruled out.

While ruling out a realization rule of affrication, one could still assume that stop-fricative clusters should be viewed as either homorganic or heterorganic affricates. An argument in favor of this hypothesis is that the affricates /tʃ/ and /dʒ/ are equally restricted in their distribution: they only occur in first syllables of noun and verb stems and they precede only the vowel /i/.

There are several reasons, however, why I treat the affricates /tʃ/ and /dʒ/ as phonemic units which are distinct from consonant-fricative clusters. First, clusters are *per definitionem* comprised of two consonantal constituents which have independent phonemic status. While this is true for the consonant-fricative clusters, it does not hold for the affricates: /ʃ/ and /ʒ/ are not independent phonemes in Gyeli. Second, the affricates are better explained within the system as filling a slot in the palatal series, as also suggested by Cheucle (2014: 335) for other A80 languages. She further points out that affricates are viewed as phonemic units in other A80 languages. It also seems to be more systematic to group the clusters as distinct from the affricates since they differ in the type of fricative. While consonant-fricative clusters always involve a labiodental fricative, the affricates /tʃ/ and /dʒ/ involve a palatal fricative.

### 2.1.4 Phonotactics

In this section, I lay out the phonotactics, i.e. distribution and frequency, of consonants comparing noun and verb stems. The basis for my analysis is a database of 875 noun and 377 verb stems.<sup>11</sup>

Consonants only occur in syllable onset positions, and almost never as codas (with the exception of a few nasals). Noun stems can have up to four syllables, verb stems up to three. (For more detailed information on syllable structure, see §2.3.) Tables 2.8 and 2.9 describe the occurrence of consonants in nouns and verbs, respectively. Thus, O1 (onset 1), for instance, stands for the stem-initial consonant slot, O2 (onset 2) for the consonant slot in the second syllable and so on. I prefer to refer to onsets rather than to C (consonant) because these slots can be filled by multiple consonants such as the consonant clusters discussed in §2.1.3.

The number following O1, O2, and so on refers to the number of onsets. For example, out of 875 noun stems, 855 have an onset in their first syllable, while there are only 650 onsets in the slot O2, and only 94 in O3. The percentages refer to the occurrences within one onset type. For instance, the 205 occurrences of stops constitute 24% of the 855 instances of O1. There are two reasons why the number does not match the total number of noun/verb stems. First, there are a few loanwords which do not have a consonantal onset, for instance the French loanword *essence*, *èsâs* ‘fuel’. Second, the numbers are smaller for slots O2, O3 (and O4) because noun and verb stems have different syllable lengths. Monosyllabic stems obviously do not have an O2 slot, so the potential number of O2 occurrences is smaller than for O1.

Tables 2.8 and 2.9 show the frequency and distribution of all 22 phonemic consonants in Gyeli noun and verb stems. Allophones are included with their respective phoneme. For instance, occurrences of intervocalic [β] are subsumed under the phoneme /b/. The lateral approximant /l/ and the glides /w/ and /j/ are subsumed under “approximants”. The bold numbers in the rows of “Stops”, “Affricates”, “Fricatives”, “Nasals”, “Approximants”, and “Prenasalized stops” show the sums of their respective single phonemes. For example, 56 is the number of all occurrences of /m/, /n/, /ŋ/ taken together in O1 noun stem position. This is 6.5% of all noun stem onsets, which means that nasals are relatively rare in noun

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<sup>11</sup>Note that there is a much higher number of verb forms, namely derived verbs that take verb extensions. I consider, however, only synchronically non-derived verb stems. If, on the other hand, a verb stem has an applicative extension *-ele*, but synchronically there is no basic verb stem (anymore), I consider this applicative form in my analysis. For more information on verbs and verb extensions, see §3.2.

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Table 2.8: Phonotactics of phonemic consonants in noun stems

	O1 (855)	O2 (650)	O3 (88)	O4 (6)
<b>Stops</b>	<b>205 (24%)</b>	<b>138 (21.2%)</b>	<b>14 (15.9%)</b>	<b>1 (16.6%)</b>
p	36	4	-	-
b	54	28	2	-
t	31	10	1	-
d	19	43	7	-
k	63	15	3	-
g	2	25	6	1
?	-	13	-	-
<b>Affricates</b>	<b>25 (2.9%)</b>	-	-	-
tʃ	16	-	-	-
dʒ	9	-	-	-
<b>Fricatives</b>	<b>97 (11.3%)</b>	<b>48 (7.4%)</b>	<b>9 (10.2%)</b>	<b>1 (16.6%)</b>
f	11	2	1	-
v	25	5	-	-
s	58	36	7	-
z	3	5	1	1
<b>Nasals</b>	<b>56 (6.5%)</b>	<b>92 (14.2%)</b>	<b>17 (19.3%)</b>	<b>1 (16.6%)</b>
m	24	60	5	-
n	7	28	12	1
ŋ	25	4	-	-
<b>Approximants</b>	<b>67 (7.8%)</b>	<b>176 (27.1%)</b>	<b>40 (45.5%)</b>	<b>3 (50%)</b>
l	29	125	30	2
w	22	30	9	-
j	16	21	1	1
<b>Prenasalized stops</b>	<b>61 (7.1%)</b>	<b>163 (25.1%)</b>	<b>4 (4.5%)</b>	-
mb	30	69	-	-
nd	7	55	2	-
ŋg	24	39	2	-
<b>Total</b>	<b>59.6%</b>	<b>95%</b>	<b>89.7%</b>	<b>100%</b>

stem-initial position. The percentages at the bottom under “Total” sum up all phonemic unit instances in a particular slot. For O1 in noun stems, for instance, only 59.6% have a phonemic unit onset. The other 40% are occupied by consonant clusters.

In both noun and verb stems, stops and fricatives generally occur stem initially, but their rates of occurrence decrease in O2 and O3. The contrary is the case for nasals and approximants: they are more numerous in O2 and O3 while they are rather rare stem initially.<sup>12</sup>

In terms of voicing, some plosives are more frequent in stem-initial position, such as /t/ and /k/ which are more frequent in O1 than their counterparts /d/ and /g/, whereas in O2 the inverse is the case. This holds for both noun and verb stems. The situation is different for bilabial stops where the voiced /b/ is more frequent in any position; in verb stems, /p/ only occurs in O1.

This voicing distribution is not true for fricatives in general. /v/ is more frequent than /f/ in O1 and O2 in both noun and verb stems. For the alveolar fricatives, though, the voiceless /s/ is always more frequent than voiced /z/. Interestingly, /z/ does not occur in verbs at all. Further, /s/ is the only fricative in verb stems that occurs in other positions than O1.

As to nasals, /m/ is more frequent than /n/ in both nouns and verbs. These two phonemes mostly occur in O2. In contrast, /p/ is only found in O1 in verb stems which is also generally true for nouns. The four occurrences of /p/ in O2 of nouns can be explained by reduplication and loanwords.

Similar to nasals, approximants are also more frequent in O2 than in O1. /l/ is the most frequently used phoneme in this position. As to the semi-vowels, /w/ is generally more frequent than /j/ in O1 and for noun stems also in O2, while the distribution of /w/ and /j/ is equal for O2 in verbs.

Comparable to the voiced alveolar stop /d/ and the nasals /m/ and /n/, prenasalized stops are more frequent in O2 than in O1 position. This is true for both noun and verb stems. Another exceptional distribution concerns affricates, which only occur in O1 position but never stem medially.

The tables also show that verb stems generally have a higher percentage of plain consonants which, in turn means, that consonant clusters are more common in noun stems. About 40% of noun stem-initial onsets consist of clusters, while for verbs only about a quarter of the stems begin with a sequence of consonants. The same trend holds in onsets of second and third syllables. For O2, about 95% have phonemic units in nouns while it is 99.6% in verbs.

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<sup>12</sup>O4 in noun stems should not be counted in these generalizations since there are only six occurrences anyway so that their numbers are not representative. The same may be true for O3 in verb stems.

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Table 2.9: Phonotactics of phonemic consonants in verb stems

	O1 (377)	O2 (274)	O3 (76)
<b>Stops</b>	<b>129 (32.6%)</b>	<b>66 (24.1%)</b>	<b>9 (11.8%)</b>
p	20	-	-
b	34	17	1
t	22	4	1
d	7	19	3
k	39	7	-
g	1	16	4
ʔ	-	3	-
<b>Affricates</b>	<b>22 (5.8%)</b>	-	-
tʃ	9	-	-
dʒ	13	-	-
<b>Fricatives</b>	<b>65 (17.2%)</b>	<b>20 (7.3%)</b>	<b>10 (13.2%)</b>
f	4	-	-
v	24	-	-
s	37	20	10
z	-	-	-
<b>Nasals</b>	<b>26 (6.9%)</b>	<b>51 (18.6%)</b>	<b>5 (6.6%)</b>
m	8	37	-
n	4	14	5
ŋ	14	-	-
<b>Approximants</b>	<b>45 (11.9%)</b>	<b>82 (29.9%)</b>	<b>51 (67.1%)</b>
l	31	48	44
w	10	17	7
j	4	17	-
<b>Prenasalized stops</b>	<b>2 (0.5%)</b>	<b>54 (19.7%)</b>	-
mb	-	25	-
nd	1	23	-
ŋg	1	6	-
<b>Total</b>	<b>74.9%</b>	<b>99.6%</b>	<b>98.7%</b>

As already discussed in §2.1.3, most consonant clusters occur stem initially, with the exception of a few prenasalized stops which also occur in O2. Table 2.10 summarizes the distribution of consonant clusters in O1 and O2<sup>13</sup>, contrasting noun and verb stems. Since detailed information was already given in the respective discussions of single consonant cluster types, I only list types of sequences here.<sup>14</sup>

Table 2.10: Phonotactics of consonant clusters in noun and verb stems

Cluster type	Nouns (855 total)		Verbs (377 total)	
	O1	O2	O1	O2
Prenasalized obstruents	208 (24.3%)	5 (0.8%)	4 (1.1%)	-
Labialized obstruents	29 (3.4%)	1 (0.2%)	22 (5.8%)	-
Palatalized obstruents	30 (3.5%)	1 (0.2%)	31 (8.2%)	-
Plosive-fricative clusters	40 (4.7%)	-	27 (7.2%)	-
Total	35.9%	1.2%	22.3%	-

It is remarkable that prenasalized obstruents mostly occur stem initially in nouns while they rarely occur in O1 in verb stems. This distribution is the result of frozen noun class prefixes, as explained in §2.1.3.1. Prenasalized stops do occur in O2 in verbs, but they are still more frequent in the same position in nouns. Prenasalized stops are basically the only consonant clusters that occur stem medially. The exceptional couple of labialized and palatalized obstruents in noun O2 can be explained as a result of reduplication of the stem's first syllable or by loanwords.

While prenasalized clusters are more frequent in noun stems, labialized/palatalized obstruents as well as affricates are more frequent in verb stems. Adding up all consonant clusters, almost 40% of noun stems start with a consonant sequence while only 28% of verb stems do so. This trend also holds for O2 with about 26% in nouns and 18% in verbs. These figures reflect what has already been stated for the distribution of plain phonemes, which are more often found in verb than in noun stems.

<sup>13</sup>Consonant clusters do not generally occur in O3 or O4.

<sup>14</sup>The various types of sequences include the following consonant clusters: prenasalized obstruents: [mp, nt, nk, mgb, ns, nz, nl, mw]; Labialized obstruents: [pw, bw, kw, gw, sw]; Palatalized obstruents: [pj, dj, kj, gj]; Stop-fricative clusters: [pf, bv, tf, dv, kf]. Further, labial-velars are subsumed under prenasalized obstruents since their only occurrence is in a cluster [mgb].

## 2.2 Vowels

Gyeli has seven contrastive vowels. In addition, the language has a range of diphthongs, as well as contrastive vowel length and nasalized vowels. I will discuss each of these in turn, starting with a presentation of the “plain”, i.e. short, oral vowels.

### 2.2.1 Plain vowels

Figure 2.6 shows the seven plain vowels /i/, /u/, /e/, /o/, /ɛ/, /ɔ/, /a/.

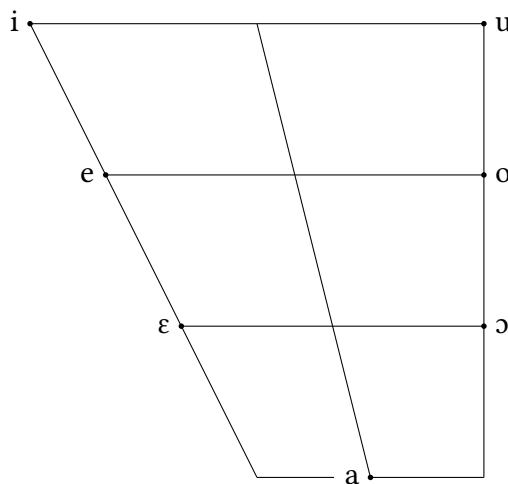


Figure 2.6: Plain vowels in Gyeli

(51) provides (near-)minimal pairs of all seven vowels, demonstrating their functional contrast.

- |      |             |                     |     |                      |
|------|-------------|---------------------|-----|----------------------|
| (51) | /i/ vs. /u/ | /kìndá/ ‘sugar ant’ | vs. | /kùndá/ ‘shoe’       |
|      | /u/ vs. /o/ | /kùlɛ/ ‘borrow’     | vs. | /kòlɛ/ ‘help’        |
|      | /e/ vs. /ɛ/ | /lé/ ‘tree’         | vs. | /lɛ/ ‘glass’         |
|      | /o/ vs. /ɛ/ | /kòlɛ/ ‘help’       | vs. | /kèlɛ/ ‘hang’        |
|      | /ɛ/ vs. /i/ | /lèbelɛ/ ‘follow’   | vs. | /líbelɛ/ ‘show’      |
|      | /ɔ/ vs. /ɛ/ | /kámbɔ/ ‘chew’      | vs. | /kámbɛ/ ‘weaver ant’ |
|      | /a/ vs. /ɛ/ | /kìja/ ‘give’       | vs. | /kijɛ/ ‘try’         |
|      | /o/ vs. /ɔ/ | /bédo/ ‘ferment’    | vs. | /bédɔ/ ‘go up’       |
|      | /i/ vs. /a/ | /wùsi/ ‘sprout’     | vs. | /wùsa/ ‘forget’      |

### 2.2.1.1 Vowel space

The Gyeli vowel system is the same as what Cheucle (2014: 389) reconstructs for Proto-A80. Synchronously, Bantu A80 languages differ in the number of phonemic vowels and vowel quality as described by Cheucle (2014: 324). According to her summary of the literature, most of these languages have six phonemic vowels /i, e, ε, a, o, u/, while Shiwa and Kwasio only have a five-vowel system /i, e, a, o, u/ where /e/ and /o/ are variants of /ε/ and /ɔ/, respectively. This special status of /e/ and /o/ is also seen in Gyeli. Even though these two vowels have a contrastive function as shown in (51) and therefore must be considered phonemes, /e/ and /o/ differ from the other vowels in two respects. First, they are significantly less frequent than other vowels, as will be shown in, for instance, Tables 2.12 and 2.14 in the discussion of vowel phonotactics. Second, plotting the Gyeli vowel space in Figure 2.7 shows that both /e/ and /o/ are cramped between /i/ and /ε/ and /u/ and /ɔ/, respectively.<sup>15</sup>

While a seven-vowel system is the norm in Bantu languages, the Gyeli vowel space differs from what is generally expected for Bantu languages. Maddieson (2003: 18) notes that

Bantu vowel inventories, both five- and seven-vowel systems, are split between those which are similar to global norms in their spacing [i.e. evenly distributed] and those in which the vowels are atypically crowded in the higher part of the vowel space.

Vowels are neither evenly distributed in the vowel space in Gyeli, nor are the vowels atypically cramped in the higher part. Maddieson's example of a seven-vowel system, with atypical crowding in the higher part, still differs from Gyeli in that the high and mid vowels are relatively evenly spaced with respect to one another, while there is a relatively large space between the mid vowels and /a/. What seems to be atypical in Gyeli is that /e/ and /o/ are tightly wedged between /i/ and /ε/ and /u/ and /ɔ/, respectively. With the exceptions of /e/ and /o/, the other five vowels are fairly evenly distributed.

The Gyeli system is very similar to the one of Mpembo that Thornell & Nagano-Madsen (2004: 167) describe. In Mpembo, /i/ and /e/, and /u/ and /o/ are also very close together. Further, both languages are similar with respect to the spacing of the lower mid vowels /ε/ and /ɔ/ to /a/, the mid vowels ranging at on average

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<sup>15</sup>The vowel chart was plotted from 233 vowel tokens taken from two male speakers. I used a Praat script to measure F1 and F2. For extreme outliers I corrected the formant frequencies manually. These cases all concerned word-final vowels. Many thanks to Joyce McDonough and Murray Schellenberg for their help with this.

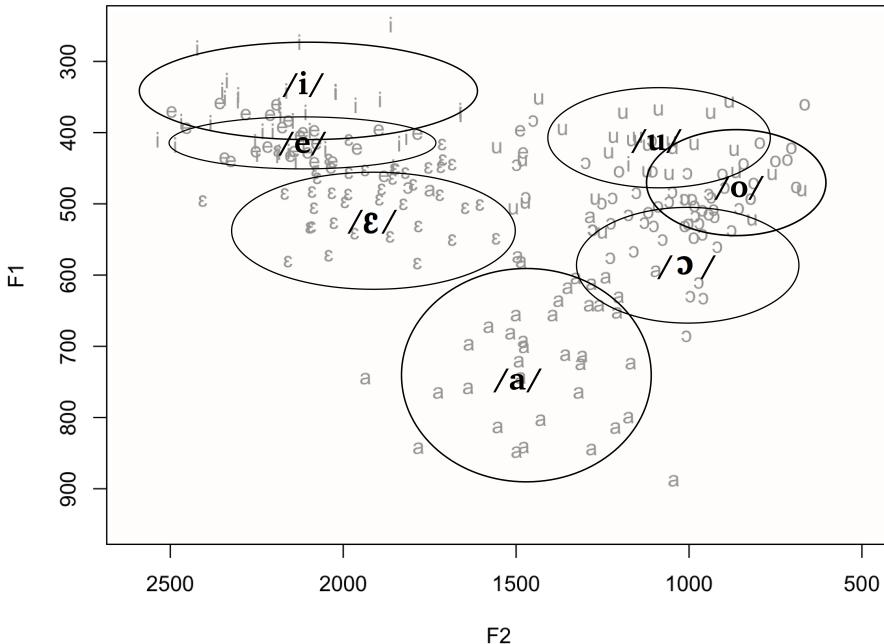


Figure 2.7: Vowel plot

around 500 Hz in F1 and /a/ at a mean of about 730 Hz. There are, however, differences concerning especially F2 for the high vowels, which ranges below 1000 Hz in Gyeli, but slightly under 700 Hz in Mpiemo.

### 2.2.1.2 Vowel phonotactics

In terms of frequency and distribution of vowels, a general observation is that the high vowels /i, u/ occur more in first syllables of both verb and noun stems while the lower mid vowels /ɛ, ɔ/ and the low vowel /a/ are more frequent in second syllables. This becomes obvious when comparing plain vowels in noun and verb stems of different syllable length, summarized in Table 2.11. This concerns only plain vowels and does not represent general syllable distribution, which will be discussed in §2.3.

Table 2.11: Frequency of plain vowels in noun and verb stems

	Noun stems	Verb stems
$\sigma$	108	39
$\sigma \sigma$	508	205
$\sigma \sigma \sigma$	93	76

Disyllabic stems are most frequent for both noun and verb stems, as Table 2.11 shows. In contrast, it is more frequent for nouns to have plain vowels with monosyllabic than with trisyllabic stems, while the inverse is the case for verbs.

Table 2.12 shows the frequency of the various plain vowels in monosyllabic noun stems, contrasting them with verb stems. While the high back vowel /u/ occurs slightly more often than its front counterpart /i/ in noun stems, the distribution of these two high vowels is more equal in verbs. The mid vowels /e, o/ are rare in both nouns and verbs. /o/ is even completely absent in monosyllabic verb stems.<sup>16</sup> Also, in both noun and verb stems, the most frequent plain vowel is /a/ with over 30%.

Table 2.12: Distribution of plain vowels in monosyllabic stems

Vowel	Noun stems	Verb stems		
i	14	13%	4	10.3%
u	18	16.6%	4	10.3%
e	3	2.7%	2	5.1%
o	3	2.7%	-	
$\varepsilon$	18	16.6%	11	28.2%
$\circ$	18	16.6%	6	15.4%
a	34	31.5%	12	30.8%

Comparing plain vowel distribution in disyllabic noun and verb stems shows that the occurrence of vowels is more restricted in verb than in noun stems, as shown in Tables 2.13 and 2.14. For both, there is a tendency for high vowels to occur more frequently in noun stems than in verb stems.

<sup>16</sup>Despite this low frequency of mid vowels, they can still not be subsumed under either higher or lower vowels since there are minimal pairs that prove their contrastive function.

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Table 2.13: Phonotactics of vowels in disyllabic noun stems

$\sigma_1$	$\sigma_2$							Total $\sigma_1$	%
	i	u	e	o	$\epsilon$	$\circ$	a		
i	23	11	-	3	7	29	15	88	17.3
u	11	15	5	6	43	37	29	146	28.7
e	1	-	1	4	3	2	1	12	2.4
o	2	1	1	3	2	-	1	10	2.0
$\epsilon$	6	-	-	1	30	12	7	56	11.0
$\circ$	7	-	-	-	19	26	6	58	11.4
a	9	3	6	12	27	32	49	138	27.2
Total $\sigma_2$	59	30	13	29	131	138	108	508	100
%	11.6	5.9	2.6	5.7	25.8	27.2	21.3	100	

Table 2.14: Phonotactics of vowels in disyllabic verb stems

$\sigma_1$	$\sigma_2$							Total $\sigma_1$	%
	i	u	e	o	$\epsilon$	$\circ$	a		
i	1	-	-	2	15	23	7	48	23.4
u	1	-	-	1	18	20	9	49	23.9
e	-	-	-	2	1	5	1	9	4.4
o	-	-	-	-	1	-	3	4	2.0
$\epsilon$	-	-	-	-	9	12	-	21	10.2
$\circ$	-	-	-	-	11	1	2	14	6.8
a	-	-	-	5	18	28	9	60	29.3
Total $\sigma_2$	2	-	-	10	73	89	31	205	100
%	1.0	-	-	4.9	35.6	43.4	15.1	100	

cur more frequently in the first than in the second syllable. In verb stems, though, high vowels systematically do not occur at all in the second syllable.<sup>17</sup> The mid vowels /e, o/ are, just like in monosyllabic stems, rare in both first and second syllables. In noun stems, only 2.4% of first syllables contain /e/, and only 2% contain /o/. In verb stems, /e/ occurs with a frequency of 4.4% while /o/ has the same frequency as in nouns. As to the second syllable, /e/ does not occur at all in verb stems and is rare in noun stems (2.6%).

<sup>17</sup>The two instances of /i/ in the second verb stem syllable shown in Table 2.14 are most likely due to loanwords.

In contrast, the lower mid vowels /ɛ, ɔ/ occur in the first and second syllable, but are significantly more frequent in second syllables. This holds for both noun and verb stems, while, again, this tendency is even stronger in verb stems. Here, 10.2% of first syllables contain /ɛ/ and 6.8% /ɔ/, but /ɛ/ occurs in 35.6% of verb stem second syllables and /ɔ/ even in 43.4%. In noun stems, lower mid vowels occur around 11% of the time in first syllables and are more frequent in second syllables with 25.8% for /ɛ/ and 27.2% for /ɔ/.

The vowel /a/ is, just like high vowels, more frequent in first syllables for both noun and verb stems. This difference is more significant in verbs than in nouns with 29.3% occurrence in first and 15.1% in second syllables, whereas 27.2% of first noun stem syllables include /a/, but only 21.3% of second syllables.

Stems with three syllables are the most restricted as to the vowel that occurs in the third syllable. The vowel quality of these final vowels is further restricted by its preceding vowel of the second syllable while the first syllable vowel does not seem to influence the last's syllable vowel at all. Table 2.15 shows the frequency of the different plain vowels in the third syllable of trisyllabic stems, contrasting nouns and verbs. The table further provides information on the vowel that precedes the final vowel in the second syllable. For instance, /ɛ/ is used as a final vowel in a trisyllabic verb stems in 61.8% of all third syllable vowel occurrences. In 85% of these cases, the final /ɛ/ is preceded by the same vowel in the stem's second syllable.

Table 2.15: Frequency of  $\sigma_3$  plain vowels in trisyllabic stems

V	Noun stems			Verb stems		
	Frequency	Preceding syllable vowel	Frequency	Preceding syllable vowel		
i	15	16.1% /i/ (> 50%)	-	-		
u	6	6.5% high and mid vowels	-	-		
e	3	3.2% /e/ and /a/	-	-		
o	3	3.2% /o/ and /u/	-	-		
ɛ	32	34.4% /ɛ/ (40.6%), /a/ (21.9%)	47	61.8% /ɛ/ (85%), /a/ (12.8%)		
ɔ	12	12.9% /ɔ/ (66.7%)	6	7.9% /ɔ/ (all)		
a	22	23.7% /a/ (50%), /i/ (27.3%)	23	30.3% /a/ (78.3%), /ɛ/ (21.7%)		

In the third syllable of a trisyllabic noun stem, any vowel can show up. Most frequently, this is /ɛ/, followed by /a/. The lower mid vowels /e, o/ also show up in this position, but they are rare, as in other positions as well. It is further remarkable that the front high vowel /i/ occurs significantly more often than its back

counterpart /u/. Despite a tendency of specific vowels to occur in the preceding second syllable of a noun stem, there do not seem to be strict rules that prohibit the occurrence of some vowels before a certain third syllable vowel. The final vowel /a/, for example, is mostly preceded by a vowel of the same quality (50%) or the high front vowel /i/ (27.3%). The remaining 12.7%, however, are vowels of different qualities.

This is different with third syllable vowels in verb stems. First, unlike noun stems, only three vowels are permitted in this position: /ɛ, ɔ, a/. Like with nouns, the most frequent one of these is /ɛ/, albeit with a much higher percentage. Second, the vowel in the preceding second syllable is more restricted than in noun stems. Every occurrence of /ɔ/ in a final trisyllabic verb syllable, for instance, is preceded by a syllable whose vowel is also /ɔ/. Also for the other two possible vowels, there is a tendency that the last vowel is preceded by an identical vowel. Thus, 85% of the trisyllabic verb stems ending in /ɛ/ also have /ɛ/ as a second syllable, while endings in /a/ have /a/ in 78.3% of the second syllable as well. The few cases where second and third syllable vowels are not identical are covered by /a/ for endings in /ɛ/ and, vice versa, by /ɛ/ for endings in /a/.

### 2.2.2 Diphthongs

Gyeli has four diphthongs: /ua/, /uɔ/, /iɛ/, /ɔa/. They all occur in monosyllabic stems of nouns and verbs (and in reduplicated second syllables of noun stems). Examples are given in (52); the dot represents the syllable boundary.<sup>18</sup>

- (52) djúà. ‘swim’  
      ŋgùó. ‘sugar (cane)’  
      tsíè. ‘blood’  
      tòà. ‘boil (v.i.)’

Diphthongs in Gyeli do not constitute mere vowel sequences, i.e. vowels of two syllables without hiatus, but are part of one syllable which speakers clearly recognize when humming syllables. Thus, monosyllabic diphthongs can be contrasted with disyllabic vowel sequences which are always subject to hiatus resolution by means of glides, as shown in (53).

<sup>18</sup>In terms of tonal representation, tonal marking on each vowel in a diphthong does not indicate two tones, but only one tone on the syllable, which is the tone bearing unit, as argued in §2.4. In *djúà* ‘swim’, for instance, the syllable does not have one H and one L tone, but one falling HL tone. In *tòà* ‘boil’, the syllable has one long L tone comparable to syllables with long vowels, as discussed in §2.2.3.

- (53) djù.wá ‘thorn’  
 nkfù.wó ‘torso’  
 kí.yé ‘iron’  
 tó.wá ‘all’

Diphthongs are rather rare, as Table 2.16 shows. Out of a total of 223 monosyllabic noun stems, 8.0% contain a diphthong. The percentage for verbs is slightly higher with 12.5% diphthongs in a total of 88 monosyllabic verb stems. The most frequently found diphthong in noun stems is /uɔ/ while for verb stems it is /iɛ/. The diphthong /ɔa/ is the least frequent in both noun and verb stems.

Table 2.16: Diphthongs in monosyllabic noun and verb stems

Diphthong	Noun stems (total 223)	Verb stems (total 88)
ua	4	1.8%
uɔ	9	4.0%
iɛ	4	1.8%
ɔa	1	0.4%
Total	18	8.0% 11 12.5%

Historically, these diphthongs were most likely two distinct vowels belonging to different syllables. The likely scenario would be that an intervocalic consonant, the onset of the second syllable, first underwent lenition, then elision, and in a third step, as hiatus resolution, the two adjacent vowels were contracted to a diphthong in one syllable. This assumption is supported by Cheucle (2014: 330–331), who reaches the same conclusion by showing that some cognates in different Bantu A80 languages contain either a disyllabic stem where the intervocalic consonant is either /b/ or /w/, or where the consonant has been lost, resulting in a vowel sequence or diphthong. Her example (47), for instance, includes the lexeme ‘shield’ which is *nkùbò* in Njem, *nkùwò* in Makaa, and *nkùò* in Konzime. This scenario would also explain why diphthongs are only found in monosyllabic stems.

Nevertheless, Gyeli cannot be simply categorized as a language that synchronically displays only one stage in this development, for example only using diphthongs in contrast to disyllabic stems with intervocalic consonants. Rather, Gyeli has all three types: disyllabic stems with an intervocalic /b/ as in Njem, e.g. *kfúbò* ‘chicken’, disyllabic stems with an intervocalic glide /w/ as in Makaa, e.g. *djúwò* ‘sky’, and diphthongs, e.g. *búò* ‘mortar’. As shown in Figure 2.2 of §2.1.2.2, Gyeli

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has a tendency to weaken intervocalic voiced plosives such as /b/ which then surface as /β/. This may then easily undergo further lenition to /w/ up to a complete omission, resulting in diphthongs. Rather than a phonological rule, it seems to be lexically specified to which of these three stages a noun or verb stem belongs. The same is true for high vowels and diphthongs; it is lexically specified that certain stems are monosyllabic with a diphthong such as *tʃié* ‘blood’, while others are disyllabic with an intervocalic glide, such as *nsijè* ‘string’. In other words, some diphthongs are phonemic, whereas for other vowel sequences the syllable boundary is phonemic.

### 2.2.3 Vowel length

Gyeli uses vowel length as a distinctive feature. This is quite expected, according to Cheucle (2014: 327):

La longueur vocalique semble avoir une fonction distinctive dans la plupart des langues A80. La longueur est considérée comme phonémique, par les auteurs, en bekol, en makaa, en njem, en konzime et en bekwel. [Vocalic length seems to have a distinctive function in the majority of A80 languages. Length is considered as phonemic by the authors in Bekol, Makaa, Njem, Konzime, and Bekwel.]<sup>19</sup>

For Gyeli, there are numerous (near-)minimal pairs showing the contrastive function of vowel length. Some examples are given in (54). All plain (oral, short) vowels have a long counterpart except for /o/.

- (54)    *tʃíi* ‘life’ vs. *tʃí* ‘prohibition’  
        *nkùù* ‘evil spirit’ vs. *nkù* ‘animal den’  
        *mbéé* ‘metal oven’ vs. *mbé* ‘door’  
        *dàj* ‘puddle’ vs. *dà* ‘negotiate’  
        *mpàà* ‘fog, vapor’ vs. *mpà* ‘bush-baby (*Galago thomasi*)’

/e/ does occur sometimes as a long vowel, as shown in (55), but the frequency is so low that I did not find any minimal pairs with potential plain vowel oppositions.

- (55)    *pèè* ‘conscience’  
        *téè* ‘start walking’

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<sup>19</sup>Cheucle (2014: 327) assumes that vowel length is currently developing phonemic status in Kwasio and Mpiemo.

Long vowels are clearly longer than short vowels and perceivable as such. Also, speakers are aware of vowel length and reliably indicate whether a vowel is short or lengthened (*tire*). (56) contrasts two minimal pairs, measuring their vowel length. In the first case, the long vowel [aa] in *nzádlè* ‘beggar’ is about 100ms longer than the short [a] in *nyálé* ‘son/brother-in-law’. In the second example, the long vowel [uu] in *nkùù* ‘evil spirit’ is 180ms longer than [u] in *nkù* ‘animal den’, which is more than twice as long. Of course, these two examples only provide an impressionistic picture and a more systematic investigation of a larger quantity of vowels would be desirable in future work.

- (56)    *nádlè* ‘beggar’                      → [aa] = 235ms  
           *nálé* ‘son/brother-in-law’         → [a] = 135ms  
           *nkùù* ‘evil spirit’                      → [uu] = 430ms  
           *nkù* ‘animal den’                       → [u] = 150ms

Contrastive long vowels are most often found in monosyllabic stems. Table 2.17 shows the frequency and distribution of long vowels in monosyllabic stems, contrasting nouns and verbs. In general, long vowels are more frequent than diphthongs. 26.5% of monosyllabic noun stems contain a long vowel, but only 8.0% have diphthongs. The same is true for verb stems, of which 19.3% have a long vowel, but only 12.5% have a diphthong (see Table 2.16 in §2.2.2).

Table 2.17: Long vowels in monosyllabic noun and verb stems

Long vowel	Noun stems (total 223)	Verb stems (total 88)
ii	7	3.1% 1 1.1%
uu	13	5.8% -
ee	2	0.9% 1 1.1%
oo	-	-
ɛɛ	8	3.6% 3 3.4%
ɔɔ	7	3.1% 1 1.1%
aa	22	9.9% 11 12.5%
Total	59	26.5% 17 19.3%

As with other phonological features, long vowels differ in frequency and distribution in noun and verb stems, but also show some similarities. For both noun and verb stems, /aa/ is the most frequent long vowel. In contrast, while /uu/ is

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relatively often found in noun stems, it is completely absent in verb stems. Generally, the long high and higher mid vowels /ii/, /uu/, and /ee/ are rather rare in verb stems, while /oo/ is absent altogether.

Even though long vowels are most frequently found in monosyllabic stems, they are not restricted to this environment, but can also occur in stems that have two syllables, as (57) shows, and in syllables other than the first. As such, long vowels differ from diphthongs. Long vowels in second syllables only occur in noun stems and are so rare that I did not find any minimal pairs. Nevertheless, (58) shows a few examples.<sup>20</sup>

- (57) pùùlè ‘mosquito’ vs. pùlè ‘flame’  
káasa ‘imitate’ vs. kàsà ‘bridge’  
náalè ‘beggar’ vs. nàlè ‘son/brother-in-law’
- (58) sìsùù ‘apparition’  
ŋòmbáà ‘lemon’  
nákúlúú ‘forest tortoise (*Kinixys homeana*)’

Table 2.18 shows the distribution of long vowels other than in monosyllabic stems.

Table 2.18: Long vowels in di- and trisyllabic noun and verb stems

Long vowel	Noun stems	Verb stems
Disyllabic, VV in $\sigma_1$	20	3.6% 4 1.9%
Disyllabic, VV in $\sigma_2$	10	1.8% -
Disyllabic, VV in $\sigma_1$ and $\sigma_2$	2	0.4% -
Trisyllabic, VV in $\sigma_3$	1	1.0% -

In comparison to noun stems, long vowels are rather restricted in verb stems. Apart from monosyllabic stems, long vowels are only allowed in the first syllable of disyllabic stems. All cases exclusively have /aa/ as the long vowel in this position. Noun stems, in contrast, are more flexible as to where long vowels are permitted as well as to which vowel quality can occur in disyllabic stems. In disyllabic noun stems where the first syllable has a long vowel, the majority (60%) of these long vowels are /aa/, but the remaining 40% have other vowel qualities including /uu/, /ee/, and /oo/. Long vowels in the second syllable of a disyllabic

<sup>20</sup>I analyze nákúlúú ‘forest tortoise (*Kinixys homeana*)’ as a disyllabic stem which is preceded by a simulative prefix, as discussed in §4.1.1.1.

noun stem are evenly distributed across /aa/ and /uu/. Long vowels in the last syllable of trisyllabic stems are negligible since I only came across one occurrence in the lexeme *le-délémɔɔ* ‘mud wasp’.

As to the origin and development of long vowels, it is possible that (some) long vowels developed, just like diphthongs, from disyllabic stems where an intervocalic /b/ or glide was lost, contracting two adjacent vowels into one syllable. Either these two vowels were of the same vowel quality or they assimilated to become so. Cheucle (2014: 328) shows in her example (41) that long vowels in one language correspond to disyllabic stems with an intervocalic or syllable final /b/ or glide in other languages. These correspondences are, however, by no means regular. Also, this scenario does not account for all instances of long vowels because if long vowels originated solely from intervocalic loss, one would not expect long vowels in disyllabic stems, especially not in second syllables.

#### 2.2.4 Nasal vowels

Gyeli has six distinctive nasal vowels. Just like with long vowels, all vowels can be nasalized except for /o/. (59) provides examples of (near-)minimal pairs.

- (59) ndzí ‘jealousy’ vs. ndzí ‘path’
- kû ‘leopard’ vs. kù ‘rat’
- pé ‘injury’ vs. péè ‘avocado’
- tê ‘limp’ vs. tê ‘create, invent’
- lâ ‘read, count’ vs. lâ ‘harvest’

Comparable to diphthongs and long vowels, nasalized vowels are also most often found in monosyllabic stems, as Table 2.19 shows. Nasal vowels are slightly more frequent in noun stems than in verb stems. For both, /ã/ is the most frequent nasal vowel, followed by /ũ/ in noun stems. /ɔ/ is completely absent in verb stems, while other mid and high vowels are generally rare.

There are a few cases where nasal vowels show up in disyllabic noun and trisyllabic verb stems, as shown in Table 2.20.

In contrast to noun stems, nasal vowels never occur in stem final syllables in verbs. They are either found in the first syllable or in the second if there is a third syllable. Again, /ã/ is the most frequent nasal vowel in these positions.

Since nasal vowels in non-monosyllabic stems are rare, it is difficult to find minimal pairs. (60) provides some examples of noun and verb stems where nasal vowels occur in the first and/or second syllable of bi- or trisyllabic stems.

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Table 2.19: Nasalized vowels (short, oral) in monosyllabic noun and verb stems

Nasal vowel		Noun stems (total 223)	Verb stems (total 88)	
ĩ	5	2.2%	1	1.1%
ũ	10	4.5%	2	2.3%
ẽ	3	1.3%	1	1.1%
õ	-		-	
ɛ	4	1.8%	2	2.3%
ɔ	6	2.7%	-	
ã	21	9.4%	9	10.2%
Total	49	22.0%	15	17.0%

Table 2.20: Long vowels in di- and trisyllabic noun and verb stems

Position		Noun stems	Verb stems	
Disyllabic, VV in $\sigma_1$	2	0.4%	5	5.2%
Disyllabic, VV in $\sigma_2$	9	1.6%	-	
Disyllabic, VV in $\sigma_1$ and $\sigma_2$	2	0.4%	-	
Trisyllabic, VV in $\sigma_1$ and $\sigma_2$	-		1	1.0%
Trisyllabic, VV in $\sigma_2$ only	-		1	1.0%

- (60) ma-bwášà ‘thoughts’  
 m-ùdâ ‘woman’  
 le-tsìjé ‘knot’  
 ñgångå ‘healer’  
 gjâle ‘roast’  
 sáåsa ‘mix’  
 víjåsa ‘be bright’

Long vowels and diphthongs can also be nasalized, as shown in (61) for long vowels and in (62) for diphthongs.<sup>21</sup>

<sup>21</sup>It is remarkable that most nasalized long vowels and diphthongs carry an HL tone, even though there are also exceptions.

- (61) *sī̄* ‘approach sth.’  
*tū̄* ‘axe’  
*be-bē̄* ‘beauty’  
*tē̄* ‘abandon’  
*djā̄* ‘chase, drive away’

Nasalized long vowels and diphthongs are quite rare. There are two instances of nasalized long vowels in noun stems and eight in verb stems, including /ī̄/, /ē̄/, and /ā̄/. For diphthongs, the inverse distribution applies, with seven cases of nasalized diphthongs (/ūā/ and /ūō/) in noun stems and two in verb stems. Thus, there is no overall tendency as to which one is more frequent. Examples of nasalized diphthongs are given in (62).

- (62) *ŋkū̄* ‘treason, treachery’  
*jū̄* ‘snake’  
*lū̄* ‘build’  
*lū̄* ‘whistle’

Nasal vowels in Gyeli derive diachronically from closed syllables with a velar nasal as their coda. This becomes obvious when comparing Gyeli to other A80 languages. Cheucle (2014: 329) proposes a floating underlying nasal segment to explain nasal vowels in Bantu A80. She points out that all A80 languages in her study have closed syllables ending in a velar nasal coda. Vowels preceding these velar nasals are usually nasalized, which suggests that nasalized vowels in these languages are contextual with nasality spreading from a following nasal consonant. As Cheucle (2014: 329) states, only Makaa uses stem final nasal vowels, which corresponds to velar nasal codas in the other languages. Nasal vowels with phonemic status in Makaa are, however, restricted to /ē̄/ and /ō̄/. Further, Makaa has instances of closed syllables using a velar nasal as a coda.

In that sense, Gyeli seems to be the only known A80 language which does not have closed syllables (see also §2.3), not even with velar nasal codas. In contrast, the inventory of contrastive nasal vowels is larger than in Makaa, also including phonemic /ī/, /ū̄/, /ē̄/, /ō̄/, and /ā̄/ (but not /ō̄/, unlike Makaa).

## 2.3 Syllable structure

Despite syllables being an integral part of phonological description, they are intuitively less “tangible” than other phonological units such as vowels or consonants. Therefore, I will first provide a definition of syllables and then present

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arguments as to why syllables should be viewed as phonological constituents. I also discuss some preliminaries on the role of sonority and the internal structure of syllables before I describe the Gyeli data.

### The syllable as a phonological constituent

According to Blevins (1995: 207), “syllables can be viewed as structural units providing melodic organization to such [phonological] strings” with segments being “organized into rising and falling sonority sequences, with each sonority peak defining a unique syllable”. She posits several arguments why the syllable should be considered as a phonological constituent. Some of these arguments clearly apply to Gyeli, and I outline them in turn.

First, tone takes the syllable as its tone bearing unit (TBU) in Gyeli, distinguishing heavy and light syllables in tonal mapping (see §2.4 for more detail). Second, syllables serve as targets for morphological processes such as reduplication. Color terms, for instance, are quite susceptible to reduplication of their second syllable, as with *ná.vjû* ‘black’, which may also occur as *ná.vjû.vjû*. Other instances of syllable reduplication are often lexical rather than morphological, for example in the nouns *sà.sà.mbé* ‘miscarriage’ or *nkú.nkú.mbé* ‘bow’. It is likely that these nouns are historically derived from nominalized verbs and an object, but synchronically this parsing has become opaque. In any case, it is rather unusual for the first and second syllable of a stem to be identical in Gyeli, which suggests that the forms above are the product of reduplication. Finally, Blevins (1995: 209) mentions native intuitions as a diagnostic for the syllable as a phonological unit. Indeed, the Bagyeli are very reliable and consistent in recognizing syllables and syllable breaks which they easily hum.

### Sonority

As stated above, syllables are defined by sonority sequences organized around sonority peaks. While many issues concerning sonority are controversial in phonological theory,<sup>22</sup> most phonologists agree that there is some sort of sonority scale governing the sequences of phonological units that form syllables. This is often referred to as the “sonority sequencing principle”, a term which has been used for more than a century by, for instance, Jespersen (1904) and Selkirk (1984). Blevins (1995: 210-211) prefers to call it the Sonority Sequencing Generalization,

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<sup>22</sup>These issues comprise fundamental questions such as “How should sonority be defined?” or “Is there a single universal sonority scale or is there cross-linguistic variation?” See Clements (1990) for an in-depth discussion.

pointing out that cross-linguistically many exceptions can be found. She states the following version of the Sonority Sequencing Generalization:

Between any member of a syllable and the syllable peak, a sonority rise or plateau must occur. (Blevins 1995: 210)

Gyeli mostly follows this generalization, conforming to a typical sonority hierarchy such as *vowels > glides > liquids > nasals > fricatives > stops*, which is an adapted version from Clements (1990) and Blevins (1995). There is one exception, however. Gyeli violates the Sonority Sequencing Principle in that nasals may occur before stops and fricatives in syllable onsets, as will be shown in detail in §2.3.1 on the internal structure of Gyeli syllables. Clements (1990: 321) explains, however, that these instances have a special status. He argues that sequences of consonants with the same place of articulation are simpler than sequences with different places of articulation, which takes precedence over the sonority principle.

### Syllable internal structure

The theoretical literature proposes several models concerning the internal structure of syllables. I use a binary branching model with onset and rhyme as illustrated in Figure 2.8 for the German word *Traum* ‘dream’, adopted from Blevins (1995: 213).<sup>23</sup>

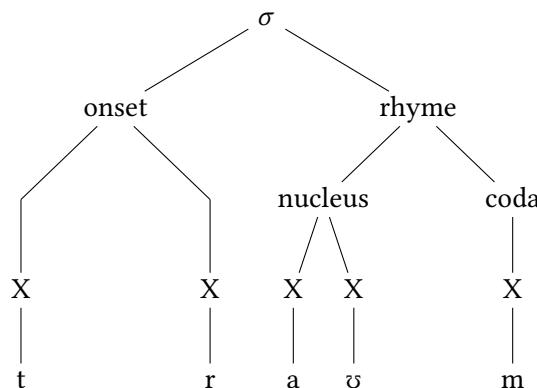


Figure 2.8: Binary branching model with rhyme

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<sup>23</sup>See Blevins (1995: 212-14) for a discussion of models of the internal structure of syllables and arguments for the binary branching model in the rhyme.

Many phonological phenomena can be described in terms of this model, for instance language specific differences in terms of syllable weight, distinguishing *heavy* and *light* syllables. Hyman (1985) defines heavy syllables as those that have a branching nucleus or a branching rhyme.

In the remainder of this section, I give an outline of Gyeli's internal syllable structure, presenting the various syllable types. I then show their distribution as well as frequencies of syllable types in the domains of prefixes, subject-tense-aspect-mood-polarity (STAMP) markers, noun stems, and verb stems.

### 2.3.1 Syllable internal structure

Gyeli has light and heavy syllables. Heavy syllables are characterized by a branching nucleus, never by a branching rhyme since the language only has open syllables, i.e. there are no codas (with the exceptions of a few loanwords). In this, Gyeli has retained a typical feature of Proto-Bantu, according to Hyman (2003: 43), who also states that many other northwestern Bantu languages of zones A and B have developed closed syllables (p. 58). Branching nuclei consist of both long vowels (V:) and diphthongs (VV). Gyeli also has complex onsets with up to three consonantal phonemes. At the same time, V-initial syllables are generally prohibited, with the only exceptions occurring in loanwords such as *áŋjònè* 'onion' and subject-tense-aspect-mood-polarity markers (§3.9.1).

Gyeli allows the following syllable types:

V, CV, CV:, CVV, CCV, CCV:, CCVV, CCCV, CCCV:, CCCVV

Since there are restrictions on the combination of onset consonants, I further subdivide the class of consonants using the following symbols that are also employed by Van de Velde (2008: 41):<sup>24</sup>

C	any consonant
G	glide (subclass of C)
N	nasal (subclass of C)
P	plosive (subclass of C)
F	fricative (subclass of C)
V	vowel

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<sup>24</sup>In contrast to Van de Velde (2008: 41), I do not distinguish sonorants and voiced stops since this distinction does not play a role in Gyeli.

Syllables in Gyeli range from the simplest structure, consisting only of a vocalic nucleus – which is generally rare in Gyeli – to more complex syllable structures. Syllable complexity concerns both the consonantal onset and the vocalic nucleus. In terms of onsets, complexity varies, allowing either a simple consonant or a consonant cluster. Clusters may include up to three consonantal phonemes. Consonant clusters are restricted to those discussed in §2.1.3: prenasalized obstruents, consonants (mostly obstruents, but also a few lateral approximants) followed by glides, and affricates. Furthermore, both affricates and clusters of obstruents plus glides can be prenasalized, forming a cluster of three phonemes. Thus, possible phoneme combinations in syllable onsets are:

C	simple consonant
NC	prenasalized consonant
CG	consonant + glide
PF	plosive + fricative (affricate)
NCG	nasal + consonant + glide
NPF	nasal + plosive + fricative

Complexity in the syllable nucleus concerns vowels. These can occur as simple (short) vowels, long vowels, or diphthongs (sequences of vowels). In my notation, I mark long vowels with a colon while diphthongs are represented as VV:

V	simple (short) vowel
V:	long vowel
VV	diphthong

The different types of nuclei combine with any of the onset structures, even though their frequency varies. For example, diphthongs following a consonant + glide onset are so extremely rare that I only found one instance. Also, syllables may consist of only a nucleus of a short or long vowel, but there are no syllables that consist of only a diphthong. In contrast to many languages of the area, for instance Eton or Abo, Gyeli does not have syllabic nasals, as further explained in §2.3.2.1. For each of the possible syllable types, I provide examples below:

- (63)
- |    |       |                                       |
|----|-------|---------------------------------------|
| V  | á     | 's/he, it (1 PRS)'                    |
| V: | àá    | 's/he, it (1 INCH)'                   |
| CV | vì.lè | 'ginger species ( <i>Aframomum</i> )' |
|    | té.ge | 'make tired'                          |

CV:	kòò	'plant species ( <i>Gnetum africanum</i> )'
	dùù	'nose'
CVV	túà	'move places'
	pùó	'pay'
PFV	pfù.dé	'mold'
	tsí.dí	'animal'
PFV:	tsìù	'be well, live'
	le-bvúú	'anger'
PFVV	bvúò	'break (v.t.)'
	tsié	'blood'
NCV	le-nké.dé	'hip'
	mbì.mbó	'corpse'
NCV:	mbáá.ló	'jaw'
	ŋgèè	'eyebrow'
NCVV	nkùá	'tree trunk'
	ntùó	'six'
CGV	gwà.wó	'civet'
	gjí.mù	'tongue'
CGV:	djùù	'kill'
	bwàà	'become'
CGVV	djúà	'swim'
NCGV	ŋgjà	'intestines'
	mbwɛ	'dog'
NCGV:	ŋgjéè	'block sth.'
	ná.nkjáá.lé	'termite mound'
NCGVV	ndjúà	'swimming'
NPFV	nkfù.wó	'torso'
	mbvú	'year'
NPFV:	ndzàà.lé	'tree pangolin ( <i>Manis tricuspis</i> )'
	nkfúù	'ghost'
NPFVV	ndvùó	'suffering, difficulty'
	mpfùó	'last meal in healing ceremony'

### 2.3.2 Syllable distribution

In this section, I present how the different syllable types are distributed in various environments. These different environments include noun class prefixes, subject-tense-aspect-mood-polarity markers (§3.9.1), and noun and verb stems. I start out with the more restricted environments.

### 2.3.2.1 Syllables in nominal prefixes

Noun class prefixes come in two forms, either as a nasal consonant or as a syllabic prefix of CV shape (see also §4.1.1.2 and §5.2.3). Nasal prefixes such as in (64) are, however, not syllabic.

- (64) n-sùné ‘flesh’ → mi-sùné ‘types of flesh’  
      n-túmbà ‘older brother’ → ba-túmbà ‘older brothers’  
      n-gjèli ‘Gyeli person’ → ba-gjèli ‘Gyeli people’

There are two arguments that support this claim. First, the initial nasals do not serve as tone bearing units (see §2.4) and second, speakers do not recognize them as syllables when they are humming.<sup>25</sup>

### 2.3.2.2 Syllables in STAMP markers

Subject-tense-aspect-mood-polarity markers are portmanteau morphemes that encode subject agreement as well as tense, aspect, mood, and polarity, as discussed in §3.9.1. Nearly all of the STAMP forms have a CV shape, just like plural noun class prefixes. There is one exception for agreement class 1, which lacks an onset and thus is V-initial *a*. In the present tense, this STAMP marker consists of a short vowel, while for future and remote past the vowel is lengthened.

### 2.3.2.3 Syllables in noun stems

Noun and verb stems are more complex in their syllable structure because they vary in syllable length (i.e. the number of syllables per stem), while syllabic nominal prefixes and STAMP markers are restricted to one syllable. In this and the next section, I will first outline syllable length of stems before turning to the distribution of syllable types within stems.

Noun stems are most frequently disyllabic. Out of 869 nominal lexemes, 555 stems have two syllables. As shown in Table 2.21, monosyllabic noun stems are, in contrast, only about half as frequent, while stems with three syllables are the rarest.<sup>26</sup>

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<sup>25</sup>Renaud (1976: 109) treats nasal prefixes as syllabic, carrying an L tone in the Gyeli variety spoken around Bipindi in the contact region with Kwasio. I see, however, no evidence for such an analysis, at least not in the Gyeli variety spoken in Ngolo.

<sup>26</sup>There are a few noun stems that consist of four syllables, but their number is negligible. They also show some morphological particularities including either syllable reduplications or derivation from compounds.

## 2 Phonology

Table 2.21: Frequency of syllable length in noun stems

Syllable length	Number of occurrences/Frequency
$\sigma$	224
$\sigma\sigma$	555
$\sigma\sigma\sigma$	90
Total	869
	100%

Most syllable types are found in noun stems, regardless of the number of syllables. More restrictions on syllable types apply, however, the more syllables a stem has. Also, restrictions on syllable occurrence apply with respect to the syllable's position within the stem. This does not hold for monosyllabic stems. Table 2.22 shows the frequency of different syllable types in monosyllabic noun stems. For convenience, I do not subdivide different consonant types in consonant clusters, but subsume them under C.<sup>27</sup> In contrast, vowels are represented as either short or long vowels or diphthongs. Nasal vowels are treated just like oral vowels since, in terms of syllable structure, they do not behave differently from their oral counterparts. They are thus categorized as either short or long vowels and rarely as nasalized diphthongs.

As Table 2.22 shows, the most common syllable type is CV,<sup>28</sup> followed by CCV. Generally, frequency decreases with increasing complexity of the onset, just as simple, i.e. short, vowels are preferred over heavy syllables. There are, however, a fair number of monosyllabic noun stems with a long vowel, although diphthongs are generally rarer.

In disyllabic noun stems, as represented in Table 2.23, the preference for light syllables including short vowels becomes even more obvious. Diphthongs in both first and second syllables occur either not at all, for instance as CCVV, or at frequencies under 1%. The latter is the case for CVV and CCCVV. Parallel to monosyllabic stems, CV syllable types are the most frequent ones in disyllabic stems. CV.CV is the most common combination, followed by CCV.CV. The inverse order, i.e. CV.CCV, is another commonly found pattern, as well as CCV.CCV. More

<sup>27</sup>For more information on the occurrence and frequency of various consonant clusters, see §2.1.3.

<sup>28</sup>In a few cases, a C onset may stem from a non-syllabic noun class prefix as, for instance, in *d-á* 'crab', which is *m-á* 'crabs' in the plural. In most cases, however, a stem genuinely comes with its own consonantal onset.

### 2.3 Syllable structure

Table 2.22: Distribution of syllable types in monosyllabic noun stems

Syllable type	Frequency	
CV	78	34.8%
CV:	27	12.1%
CVV	6	2.7%
CCV	63	28.1%
CCV:	12	5.4%
CCVV	12	5.4%
CCCV	18	8.0%
CCCV:	3	1.3%
CCCVV	5	2.2%
Total	224	100%

Table 2.23: Distribution of syllable types in disyllabic noun stems

$\sigma_1$	$\sigma_2$							Total $\sigma_1$	%
	CV	CV:	CVV	CCV	CCV:	CCVV	CCCV		
CV	197	5		71			6	279	(50.3)
CV:	9	2						11	(2.0)
CVV		2						2	(0.4)
CCV	132	1	1	64	3		6	207	(37.3)
CCV:	6							6	(1.1)
CCVV								-	-
CCCV	31			12			3	46	(8.3)
CCCV:	3							3	(0.5)
CCCVV	1							1	(0.2)
Total $\sigma_2$	377	10	1	147	3	-	15	555	(100)
%	(68.3)	(1.8)	(0.2)	(26.5)	(0.5)	-	(2.7)	(100)	

complex onset types including three consonantal phonemes are quite rare, in second syllables even more so than in first syllables.

Turning to trisyllabic noun stems, the most frequently found syllable type combinations are CV.CV.CV (33%), CCV.CV.CV (21.6%), CV.CCV.CV (16%), and CCV.CCV.CV (13.6%), as shown in Table 2.24. Both long vowels and diphthongs

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are almost absent in trisyllabic noun stems and only occur as rare exceptions, represented at the bottom of the table. Generally speaking, but especially for the last syllable in a trisyllabic stem, a CV type is preferred. If a stem includes syllables with a complex onset, this onset will most likely have only two consonants and occur towards the left side of the stem, or in the middle.

Table 2.24: Distribution of syllable types in trisyllabic noun stems

Syllable type	Frequency	
CV CV CV	29	33.0%
CV CCV CV	14	16.0%
CV CV CCV	4	4.5%
CCV CV CV	19	21.6%
CCV CCV CV	12	13.6%
CCV CCV CCV	1	1.1%
CCV CV CCV	1	1.1%
CCCV CV CV	3	3.4%
CCCV CCCV CV	2	2.3%
CCVV CV CV	1	1.1%
CV CV CV:	1	1.1%
V CCV CV	1	1.1%
Total	88	100%

### 2.3.2.4 Syllables in verb stems

Verb stems show the same distribution in syllable length as compared to noun stems. Here also the most common stem length is disyllabic, which accounts for more than half of the verbs in the database. In contrast to noun stems, however, the frequency difference between mono- and trisyllabic is not as sharp, as shown in Table 2.25. Both kinds occur at above 20%.

Verb stems are much more restricted in the syllable types that they allow, in comparison to noun stems. While in monosyllabic noun stems complex onsets with three consonantal phonemes are found, these are completely absent in verb stems. Verb stems, however, also display heavy syllables with a nucleus consisting either of a long vowel or a diphthong, as shown in Table 2.26. Again, CV

Table 2.25: Frequency of syllable lengths in verb stems

Syllable length	Frequency
$\sigma$	88 23.3%
$\sigma\sigma$	213 56.5%
$\sigma\sigma\sigma$	76 20.2%
Total	377 100%

Table 2.26: Distribution of syllable types in monosyllabic verb stems

Syllable type	Frequency
CV	34 38.6%
CV:	14 15.9%
CVV	9 10.2%
CCV	20 22.7%
CCV:	5 5.7%
CCVV	8 9.1%
Total	88 100%

syllables are the most frequent ones, followed by different CCV types, just as is the case with noun stems.

disyllabic verb stems have even more restrictions with respect to which syllable types they permit. In contrast to noun stems, they only allow three types in the second syllable—CV, CCV, CCCV—but not heavy syllables. Also, disyllabic verb stems do not allow diphthongs in any position, which is another difference from noun stems.

Table 2.27 shows that CV type syllables are most frequent with 62.9% in first and even 78.4% in second syllables. The most common syllable type combination is CV.CV, followed by CCV.CV. CCV syllables are also found in second position, while complex onsets with three phonemes in this position are very rare. All of the latter are of the type NPG, either /ndj/ or /ngj/, as for instance in *bwàndjà* ‘despise’ or *gjángjá* ‘work’.

Finally, trisyllabic verb stems allow fewer syllable types than their nominal counterparts. With the exception of CV:CV.CV, trisyllabic verb stems do not

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Table 2.27: Distribution of syllable types in disyllabic verb stems

$\sigma_1$	$\sigma_2$			Total $\sigma_1$	%
	CV	CCV	CCCV		
CV	<b>111</b>	29	3	<b>143</b>	(67.1)
CV:	5			5	(2.3)
CCV	<b>49</b>	12	2	<b>63</b>	(29.5)
CCV:	1			1	(0.5)
CCCV	1			1	(0.5)
Total $\sigma_2$	<b>167</b>	41	5	<b>213</b>	(100)
%	(78.4)	(19.2)	(2.3)	(100)	

Table 2.28: Distribution of syllable types in trisyllabic verb stems

Syllable type	Frequency	
CV CV CV	4	56.7%
CV CCV CV	9	11.8%
CV CV CCV	1	1.3%
CV: CV CV	1	1.3%
CCV CV CV	20	26.3%
CCV CCV CV	1	1.3%
CCCV CV CV	1	1.3%
Total	76	100%

generally allow heavy syllables. More than half of trisyllabic verb stems have a CV.CV.CV combination while the other likely combination is CCV.CV.CV.

As the distribution and frequency of syllable lengths and types presented above are based on basic verb forms, the observations made in this section do not account for any exceptions in syllable structure that occur in some derived verb forms.<sup>29</sup> These are discussed in detail in §3.2.1. The most notable exception to this pattern concerns a medial onset-less syllable in a few rare cases where the

<sup>29</sup>Both basic and derived verb forms are listed in Appendix A.

verb root lacks an underlying final consonant. For instance, the derived reciprocal form of *djâ* ‘lie down’ is *djá.a.la* ‘lie down together’, with the exceptional syllable pattern CCV.V.CV (§3.2.1.3).

To summarize, Gyeli has open syllables with both complex onsets and complex nuclei. Simple syllable structures are, however, preferred in all environments and stem positions. Also, in terms of complexity, minimally complex onsets, i.e. two consonantal phonemes in an onset, are generally preferred over nucleus complexity while heavy syllables more often contain a long vowel rather than a diphthong.

## 2.4 Tonology

Gyeli is a tonal language. It uses pitch differences to make both lexical and grammatical distinctions. Yip (2002: 4) gives the following definition of a tone language:

A language with tone is one in which an indication of pitch enters into the lexical realization of at least some morphemes.<sup>30</sup>

Maddieson (2013) also includes distinctions of grammatical functions in his definition of tone languages, pointing out that tone languages use “pitch patterns to distinguish individual words or the grammatical forms of words”.

Tone attaches to segmental units which are called “tone bearing units” (TBUs). Whether the TBU is the segment (e.g. vowel or nasal consonant), mora, or syllable is language specific and may vary across even closely related languages. In Gyeli, the TBU is the syllable. As discussed in §2.3.1, Gyeli has heavy and light syllables, differing in the number of weight units which are called “moras”. Heavy syllables have two moras, light syllables only one. The reason why in Gyeli the syllable must be the TBU is that heavy and light syllables bear the same number of tones (Yip 2002: 73).

Both heavy and light syllables can host level and contour tones, as further discussed in the following section and illustrated in (65).

- (65) a. *tʃí* ‘prohibition’  
*tʃíi* ‘live, be well’

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<sup>30</sup>This definition also classifies accentual or “pitch-accent languages” as tone languages. Yip (2002: 258) describes these languages as “impoverished” tone languages with a lexical contrast between a phonological tone and no tone.

- b. dʒí ‘bench’  
dʒí ‘forest’
- c. fū ‘fish’  
fūú ‘rainy season’

The occurrence of contour tones on both heavy and light syllables reveals that the syllable is the TBU in Gyeli. In contrast, the vowel and mora can be dismissed as possible TBUs based on the occurrence of contour tones: If the TBU was the vowel or the mora, one would expect that contour tones are not allowed in monomoraic syllables. The light syllable examples in (65) show, however, that monomoraic syllables in Gyeli do allow contour tones. Moreover, one would expect that bimoraic syllables allow for two contour tones, allowing a contour tone on each mora. Two contour tones in one syllable, however, are not permitted.

In the following, I will first describe the tonal inventory of the language as well as the tonal distribution in noun and verb stems. Then, I will present the tonal rules.

### 2.4.1 Tonal inventory

Gyeli possesses level tones, contour tones, and underlyingly toneless TBUs which surface phonetically as L or are assigned an H tone by their environment. I will address each of these in this order.

#### 2.4.1.1 Level tones

Gyeli has two level tones: H and L, as contrasted in (66).

- (66) a. sín̥gí ‘squirrel’
- b. sín̥gì ‘spirit’
- c. sín̥gì ‘cat’

The L tones in these examples are lexically specified as such, rather than being underlyingly toneless. Toneless syllables are restricted to noun class prefixes in the nominal domain and to (diachronic) extension morphemes in the verbal domain. Both are described in §2.4.1.3, which also provides an in-depth discussion of distinguishing L and toneless TBUs. I distinguish phonological L from toneless TBUs in my notation by marking L with a grave accent, while toneless TBUs are not marked for tone in glosses of underlying forms.

In terms of their distribution, level tones are significantly more frequent than contour tones in nouns. Table 2.29 shows the distribution of tone patterns with

level tones only in noun stems of different syllable lengths. In monosyllabic stems, for instance, 119 out of a total of 224 stems have level tones, which is a bit more than half (53.1%) of all monosyllabic noun stems. (The remaining 46.9% carry contour tones, discussed in §2.4.1.2.) The rows below indicate the frequency of the different level tones, L and H, within the set of level tone carrying mono-syllabic noun stems. Thus, 57 (47.9%) monosyllabic noun stems have L, while 62 (52.1%) have H.<sup>31</sup>

Table 2.29: Distribution of level tones in noun stems

Tonal pattern	Frequency	Example		
$\sigma$	(119/224)	53.1%		
L	57	(47.9%)	<i>ndè</i>	'bait'
H	62	(52.1%)	<i>nká</i>	'line, row'
$\sigma\sigma$	(518/555)	93.3%		
L L	115	(22.2%)	<i>ntòŋgè</i>	'hornet, wasp'
H H	148	(28.6%)	<i>ndzímí</i>	'blind person'
L H	106	(20.5%)	<i>vìná</i>	'finger'
H L	150	(29.0%)	<i>džínà</i>	'name'
$\sigma\sigma\sigma$	(86/90)	95.6%		
L L L	26	29.1%	<i>bèŋgvùdè</i>	'golden angwantibo'
H H H	14	17.4%	<i>títímó</i>	'middle'
L H H	6	7.0%	<i>ndzìmázó</i>	'guard'
H L L	13	15.1%	<i>mpi'ídí</i>	'heat (from fire)'
L H L	10	11.6%	<i>sísímù</i>	'shadow (of person)'
H L H	3	3.5%	<i>nkúmbòlá</i>	'diarrhea'
L L H	5	5.8%	<i>míntùlí</i>	'mouse'
H H L	9	10.5%	<i>djúngúlè</i>	'chameleon'

Generally, level tones occur in more than 90% of di- and trisyllabic noun stems, while only about half of the monosyllabic stems have level tones. Gyeli exploits all possible combinations of level tones in noun stems that the binary distribution

<sup>31</sup>Bimoraic syllables with the same level tone are treated the same as monomoraic syllables. For example, a monosyllabic noun stem such as *nlàà* 'antenna, horn' with a long vowel would be categorized as an L tone monosyllabic stem in the table.

of H and L allows, with two possibilities in monosyllabic stems (L and H), four patterns in disyllabic stems (L L, H H, L H, H L), and eight in trisyllabic stems (see Table 2.29). L and H tones are relatively evenly distributed across mono- and disyllabic noun stems. Both range around 50% in monosyllabic stems, with a slight preference for H tones. In disyllabic stems, nouns also have a slight preference for H tones where both H L and H H are more common than L L or L H. This preference is different in trisyllabic noun stems, where the most frequently found pattern is L L L, accounting for almost a third of all level tone stems. Generally, almost half of all trisyllabic noun stems show the same tone on all syllables, either L L L or H H H.

In contrast to noun stems, verb stems only allow level tones, but no contour tones, as Table 2.30 shows. Also, different tonal patterns within a verb stem are significantly more limited than nouns. This is due to the fact that only monosyllabic stems and the first syllable of stems with more than one syllable are specified for tone. Any second and/or third syllable in a verb stem is underlyingly toneless (see §2.4.1.3).

Table 2.30: Tonal distribution in verb stems

Tonal pattern	Frequency	Example	
$\sigma$	(88)		
L	39	44.3%	<i>kè</i> ‘go’
H [HL]	49	55.7%	<i>nyɛ</i> ‘see’
$\sigma\sigma$	(213)		
L Ø	92	45.2%	<i>sèŋɛ</i> ‘lower’
H Ø	121	56.8%	<i>gjibɔ</i> ‘call’
$\sigma\sigma\sigma$	(76)		
L Ø Ø	26	34.2%	<i>kàsɛlɛ</i> ‘light’
H Ø Ø	50	65.8%	<i>dʒímɛsɛ</i> ‘extinguish’

While H tones in di- and trisyllabic verb stems are realized as such, H tones in monosyllabic stems surface phonetically as HL, as further discussed in §2.4.2.4. Phonologically, I treat them as H tones. Just like with nouns, verb stems have a slight preference for H tones, which constitute just over 55% of all monosyllabic verb stems. This is also true for di- and trisyllabic stems in terms of an H in the first syllable. Especially in trisyllabic stems, the difference is significant, with about 65% stems starting with an H in contrast to about 35% starting with an L tone.

### 2.4.1.2 Contour tones

Gyeli has two contour tones: falling HL and rising LH. Contrastive examples are given in (67) and (68) for falling and rising contour tones, respectively.

- (67)    a. sâ ‘thing’ vs. sá ‘hut’
  - b. le-lâ ‘antenna, horn’ vs. le-lá ‘fish trap’
  - c. le-báà ‘stumbling’ vs. le-bàà ‘view’
  - d. mbê ‘door’ vs. mbè ‘drum’
- (68)    a. dží ‘bench’ vs. dží ‘place’
  - b. bwă ‘swell’ vs. bwà ‘give birth’
  - c. be-džìi ‘forests’ vs. be-džii ‘anger’

The occurrence of contour tones is restricted to noun stems: contour tones do not occur in verb stems. In noun stems, both HL and LH contour tones are found, as Table 2.31 shows.

Falling HL contour tones are significantly more frequent than rising LH ones. LH occurs in mono- and disyllabic noun stems, but not in trisyllabic noun stems. Table 2.31 shows that almost 80% of all monosyllabic noun stems with contour tones carry an HL, while only about 20% are covered by LH. Further, LH is more restricted in terms of its position. While HL is found in initial and final syllables of di- and trisyllabic noun stems, LH is limited to the first syllable (unless the second syllable is a reduplication of the first, as is the case when two contours occur in a disyllabic stem).

While contour tones are pervasive in monosyllabic noun stems, they constitute exceptions in di- and trisyllabic stems: only 40 examples of contours are found in di- and trisyllabic noun stems, equalling 4.6% of all nouns in the database. In many instances, this exceptional tone pattern can be explained on a morphophonological basis. For instance, disyllabic stems which have a contour in both syllables are always instances of reduplication. A final HL tone in di- and trisyllabic nouns (in conjunction with an initial nasal) is found in many deverbal nouns where the final HL is part of the derivation rule for those lexemes that have an H tone on the first TBU, as described in §4.2.1.7. This is the case, for example, with the noun *nkándâ* ‘crack’, which is derived from the transitive verb *kánda* ‘crack’. Other examples can be explained by compounding. For instance, *tſièsámè* ‘circumcision’ includes the verb *tſiè* ‘cut’, although *sámè* does not seem to be a Gyeli lexeme. It may either be a loanword from Mabi or a contracted form of *nsámbò* ‘penis’).<sup>32</sup>

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<sup>32</sup>Another explanation for unusual contour tone patterns is most likely borrowing. Examples such as *le-jímbálí* ‘entrance’ do not look like Gyeli words, but their source is not known.

Table 2.31: Distribution of contour tones in noun stems

Tonal pattern	Frequency		Example	
$\sigma$	(105/224)		46.9%	
HL	82	78.1%	sâ	'thing'
LH	23	21.9%	<i>mbwɛ</i>	'dog'
$\sigma\sigma$	(36/555)		6.5%	
Contour Level		12	33.3%	
HL H	4	33.3%	<i>kândá</i>	'proverb'
HL L	6	50%	<i>nkâñgà</i>	'weaver bird'
LH H	1	8.3%	<i>ná-nkjâálé</i>	'termite mound'
LH L	1	8.3%	<i>pùúlì</i>	'hat'
Contour Contour		5	13.9%	
HL HL	4	80%	<i>püipü</i>	'butterfly'
LH LH	1	20%	<i>bùábùá</i>	'non-dry meat/fish'
Level Contour		19	52.8%	
L HL	13	68.4%	<i>mèvâ</i>	'pride'
H HL	6	31.6%	<i>nkándâ</i>	'crack'
$\sigma\sigma\sigma$	(4/90)		4.4%	
Contour Level Level		1	25%	
HL H L	1	25%	<i>tíësámè</i>	'circumcision'
Level Level Contour		3	75%	
H H HL	1	25%	<i>le-jímbálî</i>	'entrance'
L H HL	1	25%	<i>le-délémôò</i>	'mud wasp'
H L HL	1	25%	<i>mwádèkâ</i>	'other side'

### 2.4.1.3 Toneless syllables

In addition to level and contour tones, Gyeli has morphemes that are unspecified for tone, i.e. which are underlyingly toneless.<sup>33</sup> Toneless TBUs are restricted to noun class prefixes in the nominal domain and to (diachronic) extension morphemes – second and third syllables in verb stems – in the verbal domain. These TBUs surface phonetically as L in isolation or take an H tone through High Tone Spreading from their tonal environment, as discussed in §2.4.2. Furthermore, some grammatical words are underlyingly toneless as well. This is the case for the verbal plural particle *ŋga* (§3.9.2.2). Also, subject-tense-aspect-mood-polarity (STAMP) markers, i.e. portmanteau morphemes that encode subject marking and tense-mood information, are toneless and take different tonal patterns depending on the category they encode. Their various tonal patterns are described in §6.2.1.

There are many Bantu languages that have a two-way distinction of privative H tones and toneless TBUs. Hyman (2001: 239) lists, for instance, Shona, Haya, and Digo as examples of tonal systems where a possible L tone assignment is only phonetic. In contrast, Gyeli has a three-way phonological opposition in level tones, namely H, L, and Ø. This claim raises at least two questions: how can we tell that there is really a distinction between L and toneless TBUs rather than treating both as one category, either L or Ø? And, if we accept that there is a distinction, how can we tell them apart within the language?

Hyman (2001) proposes a range of arguments and characteristics in order to determine whether tones in a language should be analyzed as “marked” (phonological tones) or “unmarked”, surfacing only phonetically. Based on his criteria, L is a marked tone in Gyeli because in languages with privative H as opposed to Ø, one would not expect to find contour tones. The reason for this, according to Hyman (2001: 240), is that “the combination of [H] and [Ø] could only be pronounced [H]”. Since Gyeli has contour tones, as shown in §2.4.1.2, L must be phonologically marked.

Having established that there must be marked L tones in Gyeli, I now turn to explaining why I propose additional toneless TBUs. The two arguments I put forth involve tonal distribution on the one hand and the nature of tone realization rules on the other. At the same time, these arguments explain the distribution of L and toneless TBUs in Gyeli.

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<sup>33</sup>Renaud (1976) is rather unspecific on this issue for the Gyeli variety spoken around Bipindi in the contact area with Kwasio. He gives a definition of “neutral syllables”, but in his subsequent discussion, he only seems to talk about surface tones, which makes it difficult to distinguish whether a toneme is phonologically marked as L, for instance, or whether this is only the phonetic realization.

Looking at tonal distribution, it is quite striking that while noun stems can take all kinds of tonal combinations, including H on penultimate and final syllables, this is not the case for verb stems. As shown in §2.4.1.1, Table 2.30, second and third syllables always surface as L in isolation. Since tonal distribution in noun stems is unpredictable, I suggest that all tones in noun stems are lexically specified, and L tones are therefore marked as such rather than being underlyingly toneless. In contrast, only first syllables in verb stems are specified for tone, including L tones, while any second or third syllables are predicted to be (phonetically) L in isolation.

Further evidence for this claim comes from the realization of tonal rules. Toneless morphemes are subject to high tone spreading (HTS) under certain conditions, for instance in past tenses or with the H tone marking realis (see Chapter 6 for tonal patterns in verb inflection and §6.2.2 for mood inflection by tone). In leftward HTS in the verbal domain, it is the final syllable in disyllabic and the mid and final syllable in trisyllabic stems that will host the spreading H tone, while first syllable L tones are not affected by the spread (see §2.4.2.2). This suggests that L in the first syllable is marked as such, while the following morphemes are toneless and thus “free” to host spreading H tones.

Monosyllabic verb stems behave a bit differently. They are specified for tone and never toneless, even though their L tone gets detached and replaced by an H tone in, for instance, past tense formation. I explain this in more detail in §2.4.2.2.

Turning to the nominal domain, toneless TBUs occur in CV noun class prefixes, while noun stems are specified for H and L tones. This is not surprising, since Kissoberth & Odden (2003: 60) point out that “Class prefixes [in Bantu languages] are typically toneless”. Evidence for this in Gyeli comes, again, from tonal realization in certain environments. Just like verbal extension morphemes, noun class prefixes are subject to HTS, for instance when preceded by an H tone attributive (ATT) marker in an  $N_1 + N_2$  construction (§2.4.2.1) or with an object-linking H tone (§4.1.1.4). If class prefixes were underlyingly marked L rather than just surfacing phonetically L in isolation, one would expect an H stem in  $N_2$  to be downstepped, as Hyman & Lionnet (2012: 175) discuss for Abo.<sup>34</sup> This is, however, not the case. Rather than suggesting a rule of featural change of a marked L prefix or L deletion followed by HTS in such contexts, suggesting toneless class prefixes provides a simpler and more elegant analysis for Gyeli.

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<sup>34</sup>Abo shows the same tonal surface in these environments in that the H stem is not lowered. Hyman & Lionnet (2012: 175) propose a different analysis, suggesting that the L of a prefix is deleted in these contexts and then followed by HTS.

## 2.4.2 Tone rules

Gyeli possesses a small set of tonal rules, the most important of which is high tone spreading (HTS). In the nominal domain, HTS operates from left to right, but in the verbal domain it operates from right to left. I will discuss both in turn.

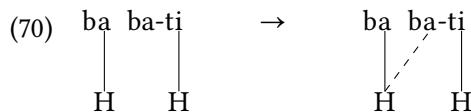
### 2.4.2.1 High tone spreading to the right

High Tone Spreading (HTS) targets the toneless morphemes of CV noun class prefixes and the verbal plural marker *ŋga*. HTS onto CV noun class prefixes is restricted to specific grammatical environments including (i) H tone attributive markers and (ii) a floating H tone that marks objecthood. H tones from preceding lexical items do not spread.

In the first case, an H tone spreads from an attributive marker of a noun + noun attributive construction to the noun class prefix of the second noun, as in (69a). In contrast, the attributive marker in (69b) has an L tone. Thus, the following underlyingly toneless noun class prefix of the second nominal constituent surfaces with L as well since it is underlyingly toneless and there is no H that could attach to it.

- (69) a. *bà-só      bá      bá-tí*  
           ba-só      bá      ba-tí  
           ba2-friend 2:ATT ba2-in.law  
           ‘the friends of the in-laws’
- b. *só      wà      bá-tí*  
           só      wà      ba-tí  
           Ø1.friend 1:ATT ba2-in.law  
           ‘the friend of the in-laws’

(70) gives an autosegmental representation of (69a). It shows how the H from the attributive marker spreads to the right onto the toneless noun class prefix which then surfaces as H as well.



As discussed in §2.4.1.3, the noun class prefix is underlyingly toneless and only surfaces phonetically as L in isolation. If it was marked L, one would have to assume a more complicated rule of featural change or L deletion. Or, one would

expect an underlying L to affect an H stem by lowering the L in downstep. This is, however, not the case, as shown in Figure 2.9. Just as in (69a), *mà-fwálá má bé-túmbó* ‘borders (lit. ends of the countries)’ surfaces with an H on the prefix *be-* which has spread from the preceding attributive marker *má*. The pitch track in Figure 2.9, represented by the lower line, shows that there is neither downstep nor downdrift, but the pitch stays at the same level throughout the utterance.

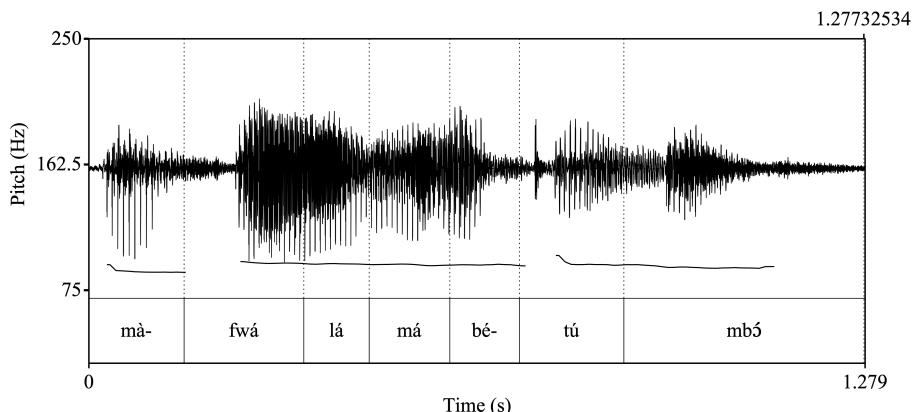


Figure 2.9: Pitch in HTS within the nominal domain

H tone lowering may occur towards stem-final positions if an H is preceded by an L, as shown by the lower pitch line in Figure 2.10. The final H in the noun + noun construction *bà-bwálè bá bá-ntèmbó* ‘the parents of the younger siblings’ is lower than the H tones on all other H syllables. This, however, seems to be a phonetic realization phenomenon rather than a phonological rule. The final H is affected both by the preceding L and its utterance-final position, lacking the energy to be produced with the same pitch as the preceding H tones.

The second grammatical environment where HTS onto CV noun class prefixes occurs is with the floating object-linking H tone, which will be discussed in detail in §4.1.1.4 and §7.2.1.2. The fact that the object-linking H tone is indeed only realized on toneless TBUs is shown in (71). The nominal object *ntúà* ‘mango’ in (71a) lacks an overt noun class prefix and thus the object-linking H tone does not attach. Also, phonetically, there is no change in the tonal pattern of the noun stem that could indicate the presence of the H tone.

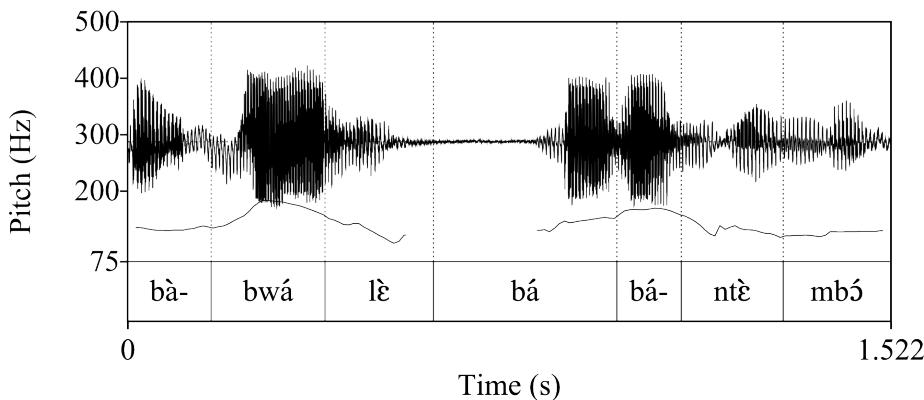


Figure 2.10: Phonetic pitch lowering of final H after L

- (71) a. *mé wúmbé dè ntúà*  
     me-H wúmbε-H dè ntúà  
     1SG-PRS want-R eat Ø7.mango  
     'I want to eat a/the mango.'
- b. *mé wúmbé dè má-ntúà*  
     me-H wúmbε-H dè H-ma-ntúà  
     1SG-PRS want-R eat OBJLINK-ma6-mango  
     'I want to eat (the) mangoes.'

In contrast, the nominal object *mantúà* 'mangoes' in (71b) has a CV noun class prefix which takes the object-linking H tone.

Not every H tone preceding a toneless CV noun class prefix licences HTS. H tones that are part of a preceding lexical stem, like the H verb in (72), do not spread onto the toneless TBU, which surfaces as L. There is no object-linking H tone in this example because the noun phrase following the verb is not an argument, but an adjunct.

- (72) a. *mè kwé màfù mábáà*  
     me kwê-H ma-fû má-báà  
     1SG.PST1 fall-PST ma6-day 6-two  
     'I fell two days ago.'

- b. \* *mè*      *kwé*      *máfû*      *mábáà*  
           mε      kwê-H ma-fû      má-báà  
           1SG.PST1 fall-PST ma6-day 6-two  
           'I fell two days ago.'

The same is true for a second object whose toneless CV noun class prefix follows an H nominal stem, as in (73). The object-linking H tone only occurs after the (lexical) verb and only attaches to the object that directly follows it. A second object surfaces with an L CV noun class prefix, even if the preceding nominal stem ends in an H tone.

- (73) a. á *dilésé bésíngí*      *màbélē*  
       a-H dílese-H H-be-síngí      ma-bélē  
       1-PRS feed-R OBJ.LINK-be8-squirrel ma6-kola.nut  
       'S/he feeds the squirrels kola nuts.'  
   b. \* á *dilésé bésíngí*      *mábélē*  
       a-H dílese-H H-be-síngí      ma-bélē  
       1-PRS feed-R OBJ.LINK-be8-squirrel ma6-kola.nut  
       'S/he feeds the squirrels kola nuts.'

The object-linking H tone can also attach to a verbal plural marker *ŋga*, as it constitutes another morpheme that is underlyingly toneless and thus capable of hosting the H tone. HTS onto the verbal plural marker is generally restricted to specific grammatical environments since this marker only occurs in a few positions. Testing grounds for HTS are limited to a preceding HL pattern with imperative verbs and the preceding H tone of the negative auxiliary *tí*. These are described with examples in §3.9.2.2. To summarize the overall findings, *ŋga* follows an imperative verb form that characteristically carries a final HL pattern. If *ŋga* is intonation phrase-final, it surfaces with L, as in (74a). If *ŋga* is not phrase-final, the verbal marker hosts a potential object-linking H tone which it “steals” from a nominal object, as in (74b). This example also shows that the H tone cannot spread further onto other toneless TBUs. The underlyingly toneless CV noun class prefix of *mantúà* ‘mangoes’ has to surface L.

- (74) a. *gyàgâ* ***ŋgà***  
       gyàgâ *ŋga*  
       buy.IMP PL  
       'Buy (pl.)!'

- b. *gyàgâ ñgá mántúà*  
 gyàgâ H-ñga ma-ntúà  
 buy.IMP OBJLINK-PL ma6-mango  
 'Buy (pl.) mangoes!'

The verbal marker also follows the negative auxiliary *tí*, which is then followed by a lexical non-finite verb. In this case, *ñga* always takes the H tone from the preceding auxiliary, as illustrated in (75).

- (75) *tí ñgá gyàgà mántúà*  
 tí ñga gyàgà H-ma-ntúà  
 NEG.R PL buy OBJLINK-ma6-mango  
 'Don't (pl.) buy mangoes!'

Given these positional restrictions, investigating the tonal behavior of *ñga* following, for instance, a lexical H tone, is therefore impossible.

#### 2.4.2.2 High tone spreading to the left

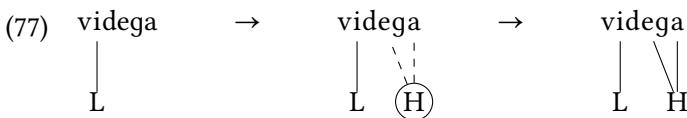
HTS in verbs differs from other instances of HTS in that the spreading goes to the left rather than to the right. The tone that attaches to the right of a verb can be viewed as a melodic tone in the sense of Odden & Bickmore (2014) and Marlo & Odden (2018) and is either an H or an HL, depending on the inflectional category it marks. A grammatical floating H tone encodes past tenses (§6.2.1) and/or realis mood (§6.2.2). A verb-final HL tone, which spreads H to the left in case there is a second toneless TBU, marks imperative and subjunctive categories (§6.2.1.6 and §6.2.1.7). The origin of HTS in verbs thus differs from the sources of HTS in nouns and verbal plural markers.

Regardless of the function of the attaching tones, phonologically tones can only spread across underlyingly toneless TBUs in verbs. These include second and third syllables, while first syllables are always specified for H or L. This is illustrated in the autosegmental representation in (76), where a floating H tone (marking either past tense or realis mood) attaches to the second, toneless syllable of the verb *gjàga* 'buy', while the first syllable keeps its lexical L tone.

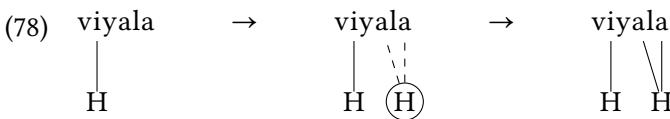
- (76) *gjaga* → *gjaga* → *gjaga*
-

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If an H attaches to a trisyllabic verb stem, as with the verb *videga* ‘turn’ in (77), the H attaches to the rightmost toneless TBU and then spreads to the left to the second syllable of the verb. Again, the first syllable keeps its lexical tone.



If the first verb syllable is H, the surface tonal pattern ends up with a sequence of H tones, as illustrated in (78) for the verb *víyala* ‘touch’.

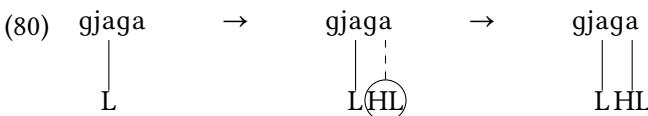


Just as in HTS to the right, the combination of an underlying H tone in the first syllable of a verb stem and HTS of inflectional H tones (from right to left in verbs) can result in sequences of multiple H tones at the surface. In (79), for instance, a realis-marking H attaches to the finite verb and spreads across its toneless TBUs, while an object-linking H attaches to the following noun class prefix, resulting in a sequence of five H tones.

- (79)    à        *swásélé bápándyè*  
           a        *swásélè-H H-ba-pándyè*  
           1.PST1 dry-R      OBJLINK-ba2-plate  
           ‘S/he dried the plates.’

As Figure 2.11 shows, all five H tones have the same pitch level throughout the utterance so that potential downstep phenomena can be ruled out.

In addition to floating H tones that attach to the right side of verbs, HL melodies can also attach to verb stems, marking categories such as imperative and subjunctive. In disyllabic verb stems, the HL melody is realized on the final toneless TBU, as shown in (80) for the verb *gjaga* ‘buy’.



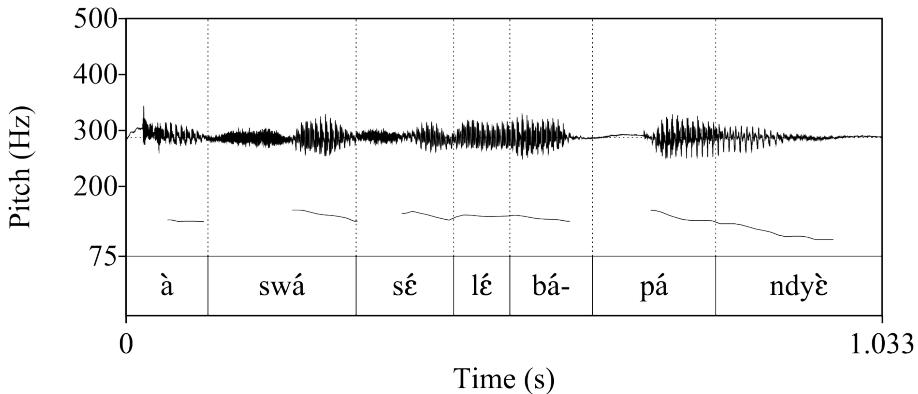
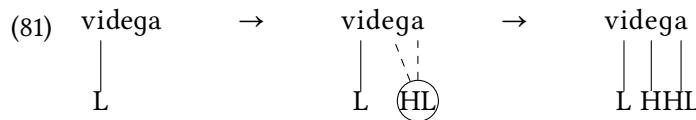


Figure 2.11: Pitch level of H sequence

In case there is a second toneless TBU, as in (81) for *videga* ‘turn’, only the H of the HL melody spreads to the left, while the final TBU remains HL.



I take this tonal behavior as an argument to posit tonal attachment to the right with leftwards spreading rather than assuming a tonal attachment to the first toneless TBU with spread to the right. In this way, the processes for attaching tonal melodies, H and HL, are the same: the melody attaches to the right and H spreads leftwards. If one assumed rightwards spreading, an additional rule would be needed that specifies when an H tone lowers to HL on the final toneless syllable or when it remains H. This view is further in line with analyses of other languages of the area. Marlo & Odden (2014), for instance, assume the attachment of one of six inflectional melodies to the right in Bakweri (Bantu A22) verbs, stating that melody initial H spreads leftwards.

#### 2.4.2.3 L detachment in monosyllabic L verb stems

In tonal inflection of verbs for various tense, aspect, mood, and polarity categories, the processes of tonal attachment and spreading as described for di- and trisyllabic verb stems above do not apply to monosyllabic verb stems since these

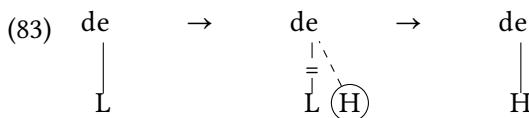
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are already specified for tone and there are no toneless TBUs to which a tonal melody could attach and/or spread. Nevertheless, the same inflectional melodies surface on monosyllabic stems as on stems that have toneless TBUs. For monosyllabic L verb stems, I assume tonal detachment of the lexical tone which is then replaced by the inflectional tone melody, either H or HL.

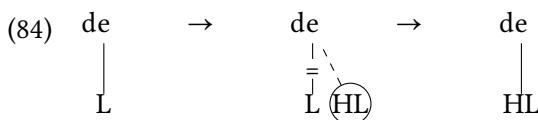
Monosyllabic L verb stems take an H in past tenses (82b) and in the realis mood (82c).

- (82) a. *mé dè*  
           mε-H dè  
           1SG-PRS eat  
           'I eat.'  
       b. *mè dé*  
           mε      dè-H  
           1SG.PST1 eat-PST  
           'I ate.'  
       c. *mé dé téè*  
           mε-H dè-H téè  
           1SG-PRS eat-R now  
           'I eat now.'

In order to explain how an H in monosyllabic L verb stems surfaces, simple H attachment and/or spreading is not enough. A specified L must either be deleted before the H can attach or be featurally changed. For the sake of consistency with HTS of di- and trisyllabic verb stems, I propose that an L in monosyllabic verb stems gets detached, as shown in (83), and then replaced by the inflectional H.



The same is true for an HL melody attaching to a monosyllabic L verb, as illustrated in (84).



#### 2.4.2.4 H lowering in monosyllabic H verb stems

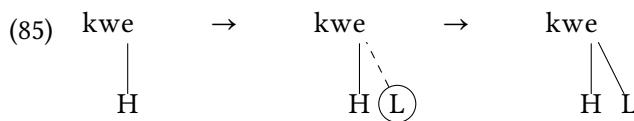
While all other verb stems (monosyllabic L as well as di- and trisyllabic stems) show the same tonal surface patterns on the final syllable, monosyllabic H stems deviate from this pattern, as shown in Table 2.32.<sup>35</sup>

Table 2.32: Surface patterns of verb stem-final syllables

Environment	General pattern	Monosyllabic H
Citation form	L	HL
Inflectional melody 1	H	H
Inflectional melody 2	HL	HL

As explained in §2.4.2.2 and §2.4.2.3, the tonal processes that are involved in arriving at the surface tonal melodies of final syllables in verbs differ between monosyllabic L verb stems and verb stems with more than one syllable that include toneless TBUs. Monosyllabic H stems, however, already pose an exception to the general surface pattern as there is a syncretism between forms in isolation and the HL inflectional melody.

The question of how the HL surface tone of monosyllabic verb citation forms is derived presents different analytic possibilities which I evaluate in terms of likelihood. I propose to view these verbs underlyingly as monosyllabic H verbs which get lowered to a falling HL tone in the citation form categories. (85) shows the autosegmental representation of the final lowering in citation form categories (non-finite, present, future, and inchoative) of monosyllabic H verb stems. A lowering L attaches to an underlying monosyllabic H verb stem, resulting in an HL surface form.



<sup>35</sup>The three environment categories in Table 2.32 each subsume different grammatical categories in which this surface form is used. The citation form comprises a verb uttered in isolation as well as the non-finite form, and present, future, and inchoative tense-mood verb forms. The inflectional melody 1, a final H, is used in past tenses and for marking realis mood. The inflectional melody 2, a final HL, marks imperative and subjunctive. The grammatical functions of verb tones and their interaction with tonal melodies of subject-tense-aspect-mood-polarity markers are discussed in Chapter 6.

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This is the reason why there are, on the surface, no monosyllabic H non-finite verb forms: they all surface as HL.<sup>36</sup> Renaud (1976: 230) addresses this phenomenon, subsuming it under a general rule of // → / at the end of a syntagm. This rule, however, is not context sensitive, neglecting cases that have syntagm-final melodic H, for instance for past tense forms.

The representation that follows for glossing is exemplified in (86) for all tonal melodies that attach. For citation form categories such as the present in (86a), the underlying monosyllabic H stem is lowered to HL by an L. For the inflectional melody 1 with an H in (86b), the verb just surfaces with its underlying H form. In (86c), the HL inflectional melody 2 overrides the underlying H, resulting in a surface pattern that is identical to citation form categories.

- (86) a. *mé kwé*  
me-H kwé-L  
1SG-PRS fall-CF  
'I fall.'
- b. *mè kwé*  
me kwé-H  
1SG.PST1 fall-PST  
'I fell.'
- c. *kwé*  
kwé-HL  
fall-IMP  
'Fall!'

Since the final lowering of citation form categories in monosyllabic H verb stems is purely phonological and does not seem to carry any grammatical function, unlike the inflectional tonal melodies, I do not represent the phonological lowering rule in my glosses in the following chapters and appendices. In order to be consistent with the other verb patterns and to transparently track the attachment of inflectional melodies, I use the glosses as in (87). The HL citation form will appear in the underlying form line (the second line) and possibly take inflectional melodies as in (87b). It should be kept in mind though that, phonologically, the underlying form of HL monosyllabic verb stems is in fact H.

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<sup>36</sup>See the distribution of level and contour tones in §2.4.1.1 and §2.4.1.2.

- (87) a. *mé kwê*  
           me-H kwê  
           1SG-PRS fall  
           'I fall.'  
 b. *mè kwé*  
       me      kwê-H  
       1SG.PST1 fall-PST  
       'I fell.'

There are two other possible ways of analyzing the surface HL form on monosyllabic verb stems. First, HL could be the underlying form, just like monosyllabic L verbs are underlyingly specified for L. This would mean, however, that there is a contrast between L and HL verb roots for monosyllabic stems, while polysyllabic stems have a lexical contrast of H and L. Another argument against this analysis comes from the distribution of contour tones in Gyeli, which are generally only found in noun but not in verb stems. Monosyllabic stems would be the only exception, but an H tone contrast is more likely.

Second, one may also posit an H vs. toneless distinction for monosyllabic verb stems. Under this analysis, the citation form categories would all carry a final L tone, which surfaces with L for toneless monosyllabic as well as for polysyllabic verb stems and with HL for underlying monosyllabic H stems. While an H vs. toneless analysis generally makes sense in many Bantu languages, it does not quite fit the patterns of di- and trisyllabic verb stems in Gyeli, in which the first syllable is clearly specified for either H or L but is never toneless. I therefore do not assume any lexical toneless roots (first syllables) for Gyeli.

## 2.5 Discussion: Gyeli phonology within Bantu A80

Having described consonants, vowels, syllables, and tones in Gyeli, I conclude this chapter by comparing Gyeli phonology to other Bantu A80 languages and thus locating Gyeli within this language family. For comparative data, I refer to Cheucle (2014), whose valuable thesis is based on her own fieldwork on Bekwel and also includes an overview of data by various authors. Her comparison includes Bekwel, Bekol, Konzime, Makaa, Mpiemo, Kwasio, Njyem, and Shiwa, which she uses to reconstruct Proto-A80.<sup>37</sup> The data show that Gyeli possesses

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<sup>37</sup>These are the languages that are sufficiently described to allow for systematic comparison. A few A90 languages may arguably be considered as more closely related to A80 and should thus be included in such a comparison, but this exceeds the limits of this work.

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many properties that are found in the A80 group. At the same time, it is most closely related to Kwasio and to Shiwa and possibly Mpiemo, as can be seen from many characteristics these languages have in common and which are absent in the other languages.

### 2.5.1 Consonants

Gyeli's consonant inventory is quite close to the Proto-A80 one as reconstructed by Cheucle (2014: 432). The main difference concerns the series of fricatives for which the author proposes /s/ as the only fricative in the proto-language, while Gyeli's fricative inventory has expanded, synchronically comprising /f/, /v/, /s/, and /z/.

According to Cheucle (2014: 335), all A80 languages she compares have a series of bilabial, alveolar, palatal, and velar stops, both voiced and voiceless.<sup>38</sup> Gyeli clusters more closely, however, with Kwasio and Shiwa in three respects. First, the use of /g/ is also highly restricted in Kwasio. Second, Kwasio and Shiwa are the only two other A80 languages that feature fricative clusters like in Gyeli, such as /pf/, /bv/, /kf/, and /gv/. Third, Shiwa is the only other language, with Gyeli, that allows for voiceless stops in C<sub>2</sub> while all other A80 languages exclusively allow voiced plosives in this position (Cheucle 2014: 340).

The distribution of fricatives among A80 languages is synchronically more varied. Cheucle (2014: 342) lists six possible fricatives that may occur: /f/, /v/, /s/, /z/, /ʃ/, and /ʒ/. Gyeli has the first four of these, but lacks the latter two. No other language displays the same distribution. The most similar distribution is found in Konzime, which has /s/ and /z/, but only a restricted occurrence of /f/ and /v/, and Kwasio with the same phonemes, although the occurrence of /f/, /v/, and /z/ is rather limited.

Other consonants are less varied across A80, all featuring the nasals /m/, /n/, and /ŋ/. Also /l/, /w/, and /j/ are found in all languages. They all feature NC clusters, but for many languages (Konzime, Njyem, Kwasio, and Shiwa), their phonological status is not clear, according to Cheucle (2014: 348). Nevertheless, all languages, including Gyeli, have both prenasalized voiced and voiceless obstruents, except for Kwasio and Shiwa which are otherwise most similar to Gyeli in other respects.

### 2.5.2 Vowels

Cheucle (2014: 324) states that A80 languages differ significantly in their number of vowels, ranging between five and eleven, as well as in their vowel quality.

<sup>38</sup>Cheucle (2014: 335) classifies /tʃ/ or /ts/ as well as /dʒ/ or /dʒ/ in the literature as palatal /c/ and /ɟ/. In Gyeli, they correspond to the affricates /tʃ/ and /dʒ/.

The vowels that all languages under investigation have in common are /i/, /u/, /ɛ/, and /a/. Differences concern mostly the mid vowels. Gyeli displays the same seven-vowel system as Bekwel and Mpiemo, comprising /i/, /u/, /e/, /o/, /ɛ/, /ɔ/, and /a/. Cheucle (2014: 389) reconstructs this same vowel system for Proto-A80 which means that Gyeli, Bekwel, and Mpiemo are the most conservative languages within the A80 group, at least with respect to their vowels.

It is possible that languages such as Gyeli and potentially Mpiemo are currently losing /e/ and /o/ as contrastive phonemes. This hypothesis is supported by the special status of these vowels in Gyeli as suggested by the small space in the vowel plot these vowels occupy and their low frequency, as discussed in §2.2.1. Other A80 languages, according to Cheucle (2014: 324-325), support this assumption since most of them have lost a phonemic vowel in comparison with the seven-vowel system of Proto-A80. In Shiwa and Kwasio, /e/ and /o/ are variants of /ɛ/ and /ɔ/, so there seems to be a tendency to dispense with the higher rather than the lower mid vowels. Also, the trend is to lose vowels rather than to expand the vowel inventory to a nine-vowel system, which would be a possible route of innovation.

Contrastive vowel length is found in most A80 languages, like it is in Gyeli. In Gyeli's closest related languages, Mpiemo, Kwasio, and Shiwa, however, vowel length has not been analyzed as phonemic by the authors, as Cheucle (2014: 327) points out. In Proto-A80, vowel length is assumed to not have been distinctive. Cheucle (2014: 395-396) reconstructs synchronic distinctive vowel length as originating from final nasal consonants or syllables with /b/ as their onset, which have been lost in some languages and replaced by long vowels.

Gyeli seems to have a special status as to nasal vowels within A80. Only Makaa has two nasal vowels, /õ/ and /ጀ/, while nasal vowels are regarded as contextual in the other languages under investigation, being conditioned by following velar nasals (Cheucle 2014: 329, 397).

Vowel sequences or diphthongs are attested in Konzime, Njyem, Mpiemo, Kwasio, and Shiwa, as summarized by Cheucle (2014: 330). Just like in Gyeli, they occur canonically in monosyllabic stems, but differ in number and vowel quality. The sequence/diphthong /uo/ (or /uጀ/), for instance, is only attested in Gyeli, Konzime, Kwasio, and Shiwa.

A feature absent in Gyeli, but widespread in other A80 languages, is vowel epenthesis. Cheucle (2014: 332) specifies that vowel epenthesis in languages such as Bekol, Makaa, Konzime, and Bekwel most often involves a schwa.

### 2.5.3 Syllables

Cheucle (2014: 319) states that A80 languages are generally characterized by open syllables and a canonical CV type, allowing, however, other types of syllables as well, including closed ones. In this, Gyeli differs from the majority of A80 languages in that it exclusively has open syllables. The only other language with this restriction is Shiwa.

All studied A80 languages allow for complex onsets, including Gyeli. Even though an onset is most frequently occupied by a simple consonant, more complex clusters are allowed. Cheucle (2014: 319) distinguishes consonant clusters that include a consonant and a glide, but treats nasal + consonant clusters as well as affricates as phonemic units. Therefore, a comparison of onset complexity and frequency is not possible at this point.

As to syllable structures in prefixes, all languages under investigation allow CV prefixes, according to Cheucle (2014: 322). In terms of other prefix structures, however, they differ. Gyeli shares with Shiwa and Kwasio the feature of not allowing V type nominal prefixes while all other studied A80 languages do. Shiwa and Kwasio, however, have syllabic nasal prefixes, and Gyeli does not. In this respect, it behaves like Konzime and Njyem which have nasal prefixes that are not syllabic.

### 2.5.4 Tone

A tonal comparison across A80 languages is limited to lexical tones and even then rather tentative since tone is treated to varying degrees in the literature. Nevertheless, according to Cheucle's (2014: 350) summary of A80 lexical tone, Gyeli behaves as expected, displaying an H and an L level tone as well as HL and LH contour tones, the latter of which may be realized as a mid tone in some languages. The literature does not, however, discuss potentially toneless TBUs. It would be worthwhile to investigate tonal rules and grammatical tone across A80 languages in the future, especially since Kisseeberth & Odden (2003: 59) point out that despite a widespread two level tone opposition in Bantu languages, there is considerable variation between Bantu languages and dialects in terms of their tonal systems.

### 3 Parts of speech

In this chapter, I describe the parts of speech in Gyeli, also referred to as word classes. The presentation of Gyeli's parts of speech system relies on a grammatical rather than semantic classification into categories. Following Schachter & Shopen (2007: 1-2), I consider grammatical properties such as "the word's distribution, its range of syntactic functions, and the morphological or syntactic categories for which it is specifiable" as determining criteria for parts of speech classification.

I generally distinguish lexical and grammatical word classes as well as open and closed classes.<sup>1</sup> Gyeli has only two open word classes, namely the lexical classes of nouns and verbs. Given their limited number of members, adjectives and adverbs are closed classes in Gyeli, unlike many other languages in which these are open classes. The semantic functions that they carry in languages with large adjective and adverb classes are taken over by nouns. In addition to these typical lexical word classes, Gyeli also has a lexical, closed class of ideophones.

The frequency of lexical word classes' occurrence in the Gyeli text corpus is displayed in Table 3.1. Lexical words constitute 46.9% of the words in the corpus.<sup>2</sup> Out of these lexical words, 87.8% constitute open class words, namely nouns and verbs. The closed lexical word classes with the most tokens are adverbs, followed by ideophones and finally adjectives.

In comparison, grammatical words constitute more than half of the corpus with 53.1%. Their various subcategories are summarized in Table 3.2. Following Schachter & Shopen (2007) with slight modifications,<sup>3</sup> I distinguish pronouns,

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<sup>1</sup>Gyeli words maximally contain three segmental morphemes with the possibility to host additional tonal morphemes. This is discussed in detail in Chapter 4. The restriction on word length is, however, not morphological in nature, but phonological, as outlined in §2.3.2, generally permitting only up to three syllables in a word.

<sup>2</sup>As described in §1.3.3, the corpus comprises 3304 words in total. For the distribution of word class frequencies, only 3133 words were taken into account, omitting e.g. code-switching and repetitions.

<sup>3</sup>Differences between Schachter & Shopen (2007) and my parts of speech classification concern the subclasses of major categories. While Schachter & Shopen (2007: 35) only subsume role markers, quantifiers, classifiers, and articles under noun adjuncts, I treat every grammatical word class that can appear in the noun phrase as an element of the noun phrase.

### 3 Parts of speech

Table 3.1: Frequency of lexical word classes (46.9% of tokens in the corpus)

Word class	Frequency	
<b>Open</b>	<b>1289</b>	<b>87.8%</b>
Nouns	630	48.9%
Verbs	659	51.1%
<b>Closed</b>	<b>179</b>	<b>12.2%</b>
Adjectives	9	5%
Adverbs	150	83.8%
Ideophones	20	11.2%
Total	1468	100%

other pro-forms, elements of the noun phrase, elements of the verb phrase, adpositions, conjunctions, and other minor word classes in Gyeli, each of which has some subclasses. Elements of the verb phrase constitute the most frequent grammatical word category with 33.3%. Within this category, the subject-tense-aspect-mood-polarity (STAMP) marker is the most common with 430 occurrences (77.5%).

With regard to open versus closed word classes, the majority of the word tokens in the corpus belong to the closed classes in Gyeli. All grammatical parts of speech presented in Table 3.2 are closed classes.<sup>4</sup> In addition, the lexical classes of adjectives, adverbs, and ideophones belong to the closed word classes, as explained above. Thus, closed classes constitute 58.9% (1844 in total numbers) of the 3133 word corpus. The relative dominance of closed word classes in Gyeli is remarkable since it correlates with a morphological type of language that is closer to the analytic end of the analytic–synthetic scale. As Schachter & Shopen (2007: 23) point out,

closed word classes tend to play a more prominent role in analytic languages than they do in synthetic languages. This is because much of the semantic and syntactic work done by the members of closed word classes in analytic languages is done instead by affixes in synthetic languages.

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<sup>4</sup>Parts of speech with zero occurrences are attested from elicitations, but are not represented in the corpus.

Table 3.2: Frequency of grammatical word classes (53.1% of tokens in the corpus)

Word class	Frequency	
<b>Pronouns</b>	<b>240</b>	<b>14.4%</b>
Subject pronouns	61	25.4%
Non-subject pronouns	103	42.9%
Interrogative pronouns	10	4.2%
Possessor pronouns	59	24.6%
Reflexive pronoun <i>médé</i>	7	2.9%
<b>Other pro-forms</b>	<b>63</b>	<b>3.8%</b>
Interrogative pro-forms	19	30.2%
Pro-adverb	33	52.4%
Pro-clause	5	7.9%
Pro-sentence	6	9.5%
<b>Elements of the noun phrase</b>	<b>233</b>	<b>14%</b>
modifiers with agreement prefix	54	23.2%
modifiers with plural agreement only	5	2.1%
modifiers with agreeing free morpheme	167	71.7%
prenominal invariable modifiers	0	0%
postnominal invariable modifiers	7	3%
<b>Elements of verbal complex</b>	<b>555</b>	<b>33.3%</b>
STAMP marker	430	77.5%
Auxiliaries	75	13.5%
Verbal particles	50	9%
<b>Adpositions</b>	<b>156</b>	<b>9.4%</b>
Prepositions	120	76.9%
Postpositions	36	23.1%
<b>Conjunctions</b>	<b>180</b>	<b>10.8%</b>
Coordinators	56	31.1%
Subordinators	124	68.9%
<b>Other minor classes</b>	<b>238</b>	<b>14.3%</b>
Copulas	55	23.1%
Identificational marker	13	5.5%
Discourse structuring <i>yój</i>	39	16.4%
Question markers	1	.4%
Sentential modifiers	57	23.9%
Extrasentential modifiers	73	30.7%
<b>Total</b>	<b>1665</b>	<b>100%</b>

### *3 Parts of speech*

I will describe each part of speech in the remainder of this chapter, providing defining properties for each category. I start with the open word classes of nouns and verbs, giving information on selected subclasses, for instance the mass/count distinction in nouns. I then proceed with the other lexical classes of adjectives, adverbs, and ideophones before discussing grammatical classes.

## **3.1 Nouns**

There has been much discussion in the literature as to what a *noun* is, a linguistic term that is often used intuitively. Rijkhoff (2002: 10) maintains that “there is still no general consensus among typologists on what constitutes a noun”. There is not even a unanimous agreement as to whether every language has a noun category. Gil (2013b) claims, for instance, that Riau Indonesian does not have a noun (nor a verb) word class. Rijkhoff (2002: 12) distinguishes between (i) languages without a major word class of nouns, (ii) languages where nouns cannot be distinguished from other word classes, and (iii) those languages that do have a distinct noun word class. Schachter & Shopen (2007: 5), on the other hand, hold that “[t]he distinction between nouns and verbs is one of the few apparently universal parts-of-speech distinctions”. They further explain that alleged examples of languages which would fall in category (i) or (ii) according to Rijkhoff had been based on incomplete data and therefore cannot be considered as counter-examples against this universal word class distinction. In any case, scholars seem to agree that at least most languages of the world have nouns as a distinct word class (Koptjevskaja-Tamm 2006: 720).

According to Evans (2000: 708), linguists usually define nouns by three different types of criteria, namely semantic, morphological, and syntactic. In terms of semantics, a common definition is given by Schachter & Shopen (2007: 5) who consider nouns a “class of words in which occur the names of most persons, places, and things”. Similar definitions are provided by other authors, for example by Koptjevskaja-Tamm (2006: 720) and Evans (2000: 710). All these scholars emphasize, however, that this is a traditional definition of convenience, but that membership of a word in a certain part of speech has to be established on other grounds. There may be nouns that refer to other entities than persons, places or things, while, on the other hand, there may be persons, places or things that denoted by some other word class than nouns.

Another way of viewing nouns is to distinguish them from other open word classes such as verbs, adverbs, and adjectives on the basis of different morphosyntactic properties (see, e. g. Bhat 2000 and Baker 2003). The advantage of this ap-

proach is that it emphasizes the specific structures within a parts-of-speech system of a given language rather than over-generalizing across languages. Nouns may be inflected for categories such as number, case, possession, and definiteness (Koptjevskaja-Tamm 2006: 722). They may trigger agreement of these categories as heads of a noun phrase. Syntactically, they may take a certain position within a noun phrase that serves as an argument or adjunct, while dependent word classes are arranged in specific ways around them.

As Lehmann & Moravcsik (2000: 733) put it concisely, “[l]ike any other grammatical category, the word class “noun” has no universal status *a priori*; rather, it is a language-specific category”. I will discuss noun properties in Gyeli in detail in the following section. This will help to distinguish nouns from other parts of speech as well as to establish subcategories of nouns that share some nominal features, but not all of them.

### 3.1.1 Noun properties

I define Gyeli nouns by their structure, function, and distribution in a phrase, distinguishing them from other word classes. As is typical for Bantu languages, Gyeli has an elaborate noun classification system distinguishing nine agreement classes (§5.2.2) which form six major genders (§5.2.4). The agreement classes are labeled by digits from 1 through 9, while genders are marked by pairings of agreement classes, for instance gender 1/2, which pairs agreement classes 1 and 2. The single agreement classes are also specified for number: agreement classes labeled with odd numbers encode singular and pair with even numbered classes that typically express plurality.

Agreement classes are established on the basis of agreement patterns on dependent elements. Nouns inherently belong to a gender and trigger agreement on their agreement targets. Agreement targets and their agreement forms in Gyeli are listed in Table 3.3. They include the various pronominal paradigms, the subject-tense-aspect-mood-polarity (STAMP) marker and STAMP copula as verbal indexing as well as some elements of the noun phrase (§3.8), namely demonstratives, attributive and anaphoric markers, nominal modifiers<sup>5</sup> distinguished by consonant-initial and vowel-initial stems, and the plural agreement only in some

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<sup>5</sup>There are five nominal modifiers in Gyeli, which encompass a variety of semantic/functional classes and which show diverse agreement prefix patterns. They are individually listed in Table 3.26. In Table 3.3 I represent them as three groups: modifiers with a stem-initial consonant “MOD(-C)”, modifiers with a stem-initial vowel “MOD(-V)”, and those that only show agreement in the plural “NUM, GEN”.

### 3 Parts of speech

numerals and the genitive marker. Agreement targets are sorted by their agreement strategy in terms of free morphemes or agreement prefixes in Table 5.2. As for pronominal forms, only non-speech act participants (third person) agree in gender. In contrast, speech act participants are only distinguished in terms of number. The full pronominal paradigms, including speech act participants, is given in Table 3.20.

Agreement class affiliation is transparently marked on some nouns in some agreement classes by a noun class prefix (§5.2.3). Noun class prefixes are, however, not a consistent diagnostic for agreement class affiliation. As the gender and agreement system of nouns is a phenomenon that affects the noun phrase and indexing at large, I discuss this in detail in §5.2.

Table 3.3: Parts of speech controlled by the noun with agreement forms

AGR class	1	2	3	4	5	6	7	8	9
<b>Pronouns</b>									
SBJ	nyɛ	bá	wú	mí	lí	má	yí	bé	nyì
OBJ	nyê	b-â	w-ô	my-â	l-â	m-â	y-â	by-â	ny-â
POSS	w-	b-	w-	mí-	l-	m-	y-	bí-	ny-
<b>Verbal index</b>									
STAMP	a/nyɛ/nu	ba	wu	mi	le	ma	yi	bi	nyi
COP	àà/nùù	báà	wúù	míî	léè	mâà	yîî	béè	nyîî
<b>Nominal modifiers</b>									
DEM	nû	bâ	wô	mî	lê	mâ	yî	bî	nyî
ATT	wâ	bá	wá	mí	lé	má	yá	bí	nyá
ANA	nú-	bá-	wó-	mí-	lé-	má-	yí-	bí-	nyí-
MOD(-C)	m-	bâ-	m/Ø-	mí-	lè-	mâ-	Ø-	bî-	m/Ø-
MOD(-V)	w/n-	b-	w-	my-	l-	m-	y-	by-	ny-
NUM, GEN	-	bá-	-	mí-	-	má-	-	bí-	-

Structurally, nouns consist minimally of a stem and, depending on the noun type, can take noun class prefixes as well as similative and object-linking H tone prefixes, as outlined in §4.1.1. This sets them apart from verbs which cannot take prefixes. While the agreement targets of nouns also consist of a stem plus prefix, these agreement targets can only take one prefix and that prefix generally differs in its form from noun class prefixes.

On the clause level, most nouns in Gyeli serve as subjects, objects, and adjuncts, as discussed in detail in §7.2, as well as copular complements, as outlined

in §7.1.1. Nominalized past participles are an exception to this and can only occur as nominal predicates in copula constructions. All nouns can generally occur as bare nouns in their positions.

On the phrase level, nouns function as the head of the construction where they appear in initial position, followed by both agreeing and invariable modifiers, as outlined in Chapter 5. In more complex noun phrases such as attributive constructions, the first constituent is always a noun, followed by an attributive or genitive marker and then containing another word, (e.g. a noun or verb—see §5.5 for more information on attributive constructions). With respect to their morphosyntactic behavior, nouns have a grammatical gender and trigger agreement on their agreement targets (see §5.2).<sup>6</sup>

Phonologically, nouns allow syllabic and tonal patterns that are disallowed in verbs. For instance, noun root onsets may be complex with clusters of up to three consonants, while this pattern is not found in verbs. Also, diphthongs can be found in monosyllabic noun stems and rarely in the first and second syllables of disyllabic nouns. In contrast, diphthongs are always restricted to monosyllabic stems in verbs. For more information, see §2.3.2. Tonologically, nouns show a greater variety of patterns, allowing, for instance, H tones on second and third TBUs. Verbs, however, have underlyingly toneless TBUs in second and third syllables which surface as L tones in isolation, as explained in §2.4.1.

### 3.1.2 Noun types

Gyeli nouns do not constitute a unified class. Instead, they have further subclasses which show different morphosyntactic behavior. This is nothing unusual from a typological perspective; as Schachter & Shopen (2007: 8) point out:

In most languages some grammatical distinction is made between common nouns, which are used to refer to any member of a class of persons, etc. (e.g. girl, city, novel), and proper names, which are used to refer to specific persons, etc. (e.g. Mary, Boston, Ivanhoe).

Gyeli has three types of nouns: common nouns, proper names, and nominalized past participles. I discuss them one by one in the following sections.

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<sup>6</sup>I view agreement phenomena as a major reason to posit the noun as the lexical head of the phrase rather than assuming a (covert) functional head. The noun as the agreement trigger determines the morphological shape of all agreement targets, including demonstratives that could serve as potential determiner heads.

### *3 Parts of speech*

#### **3.1.2.1 Common nouns**

Common nouns differ from other noun types in their morphophonological structure as well as their morphosyntactic behavior. Structurally, common nouns in Gyeli consist minimally of a nominal stem with up to three prefixes maximally added, the first of which is tonal, as shown in the template in (1). The different prefix types are described in §4.1.1.<sup>7</sup>

- (1) object-linking H tone – noun class – similative marker – stem

Common nouns can thus take a larger variety and number of prefixes compared with other noun types: proper names can only take a similative prefix, as described in §3.1.2.2 and nominalized past participles can only take a nasal noun class prefix, as described in §3.1.2.4.

Another difference between common and other nouns is the potential of the former for number inflection. While most common nouns (with the exception of uncountable nouns) have a singular and plural counterpart, as reflected by their pairing of different agreement and noun classes, proper names and nominalized past participles do not inflect for number.

On a phrasal level, common nouns and proper names differ as well. In nominal possessive constructions, common possessor nouns require an attributive marker, as discussed in §5.5. In contrast, proper names take a distinct genitive marker instead, as described in §3.8.2.1. Nominalized past participles do not occur in possessive constructions.

In summary, a set of tests helps to reliably identify whether a word is a common noun or not. A Gyeli common noun can:

1. serve as the subject of a clause
2. serve as the first constituent of a noun + noun construction
3. be modified by an agreeing demonstrative or possessive pronoun
4. possibly make a number distinction (even though not all nouns do so)

I discuss the number distinction in more detail in §3.1.3.

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<sup>7</sup>Further information as well as an explanation of terminological distinctions of “noun class”, “agreement class”, and “gender” are provided in §5.2.

### 3.1.2.2 Proper names

Proper names appear to be often viewed as one category and refer to names of people and places. In Gyeli, however, proper names of persons and proper names of places form two distinct subcategories of one noun type that I broadly call “proper names”. While the two subcategories share some features in which they differ from common nouns, they also differ in a range of aspects. Table 3.4 lists the features that distinguish all proper names from common nouns as well as those in which person and place names differ from one another.

Table 3.4: Features of proper names

Feature	Person names	Place names
No noun class marker	✓	✓
No plural formation	✓	✓
No object-linking H tone	✓	✓
Restriction to a few agreement classes	✓	✓
Similative prefix	✓	
Vocative suffix	✓	
Special genitive marking	✓	

In contrast to common nouns, proper names of persons and places never take noun class prefixes nor do they have singular/plural pairings. Names of people can, however, take the associative plural (AP) marker *bà* which precedes the proper name, as in *bà Ádà*, referring to Ada and his family or relatives or, depending on the context, to people that share character traits with Ada (people like Ada). The associative plural marker *bà* is not restricted to proper names, but is also used with common nouns and pronouns, as discussed in §3.10.1.4. As proper names do not take noun class prefixes, they do not provide any TBU to take an object-linking H tone, as discussed in §4.1.1.4.

All proper names trigger agreement just like common nouns. In comparison to common nouns, they are very restricted in the agreement classes to which they are affiliated. All proper names of persons are a subcategory of class 1. In contrast, all proper names of places such as settlements, villages, towns, rivers, and countries are generally in class 7, with the exception of *kàmèrún* ‘Cameroon’, which is also in class 1. Since many of the place names are derived from common

### 3 Parts of speech

nouns,<sup>8</sup> place names can also agree in gender with the noun they are derived from. For instance, the village name *Ngòlò* is derived from the Bulu word *nkòl* ‘hill’.<sup>9</sup> Since the cognate *nkùlé* ‘hill’ in Gyeli belongs to gender 3/4, the village name can trigger agreement patterns both in class 7 and class 3.

Person names feature a range of characteristics that place names do not exhibit. Names of persons productively take the similative prefix *ná* in the derivation of female names, as discussed in §4.1.1.1. In contrast, I did not find any place name with this prefix. Person names can further take the vocative suffix *-o*, as discussed in §4.1.2.5.

Finally, person and place names differ in their marking of noun + noun genitive constructions when the possessor is a proper name. While all examples in (2) are structurally identical, person names take a special genitive marker (§3.8.2.1), as shown in (2a). In contrast, place names (2b) pattern with common nouns (2c) in that they take an attributive marker (§3.8.3.2).

- (2) a. person name

*j-íñò        ngá Námpundi*

le5-name GEN Ø1.PN

‘the name of [the woman] Nampoundi’

- b. place name

*j-íñò        lé        Ngòlò*

le5-name 5:ATT Ø7.PN

‘the name of [the village] Ngolo’

- c. common noun

*j-íñò        lé        sínì*

le5-name 5:ATT Ø7.cat

‘the name of the cat’

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<sup>8</sup>The source noun of place names does not necessarily have to come from Gyeli, but could come from another language in the area. Still, the original meaning is recognized and allows for other agreement classes than class 7. Also, even though there are some lexical differences, cognates across languages of the area are often recognizable to speakers and are found in the same gender.

<sup>9</sup>The Bulu name for the village is *Nko'olong*.

### 3.1.2.3 Ethnographic note on naming strategies

The Bagyeli have bipartite names, consisting of a vernacular name that is followed by a Christian French name.<sup>10</sup> Taking a Christian name seems to imitate the naming strategy of the Bantu farmers since Christianity does not play a big role in most Gyeli villages. Unless a Gyeli village is in very close contact and on good terms with their farming neighbors, the Bagyeli tend not to go to church and I do not know of any Gyeli village that has their own church at the time of writing. Since the Christian religion is very strong among the Bantu farmers, however, claiming to be Christian in front of outsiders and having a Christian name seem to serve at reducing stigmatization and creating common ground between the Bagyeli and Bantu farmers. Also, the Bagyeli who attend school are more likely to use their Christian name, at least officially, since it is required for enrollment. In practical terms, however, I have met a few Bagyeli who had forgotten their Christian name. This is not implausible given that the Bagyeli do not call each other by their Christian, but by their vernacular name, and that there is often no official documentation such as birth certificates or ID cards that would remind people of their names.

The vernacular name is either considered typical Gyeli or a name that is found in other languages of the area as well. If a name occurs in other languages as well, it is most often shared with the Kwasio dialects Mabi and Ngumba, even if the person was born in, for instance, the Bulu contact region. If a name is shared by other languages than Mabi and Ngumba, such as Basaa, Bulu, or Fang, it is almost certainly predictable that the person comes from that specific contact region.

Many of the vernacular names have a (derived) meaning, often from the plant world or animal kingdom. Also, many of them are not gender-specific, but can be used for men and women alike. For others, female names can be derived from some male names. The derivations of a female from a male name are numerous and seem largely unpredictable. Differences between a male and a female form of the same name encompass tone differences as in *Mimbe* (male: *Mimbê*, female: *Mimbê*), different prefixation (*Mgbâ* (M) > *Mímgbâ* (F) and *Sàmè* > *Màsámè* (F)), as well as denasalization of a final vowel (*Mbò* (F) > *Mbɔ̂* (M)). The most productive derivation strategy is through the similitative prefix *Na-* as in *Nenze* with its male counterpart *Nze* or *Nandtoungou*, which is derived from *Ntoungou*. Table 3.5 provides examples of vernacular names as found amongst my consultants

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<sup>10</sup>The sample of proper names comprises 111 female and male names and covers all proper names from three Gyeli villages, namely Ngolo, Bomnapenda, and Bibira. It also includes some of the names from yet other villages such as Lebdjom (in the Basaa speaking area) and Ebobissé (within Kribi town).

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and Bagyeli from other Gyeli villages. The table<sup>11</sup> specifies whether a name is used for men and/or women,<sup>12</sup> its potential use in other languages of the area, and its meaning (if known).

The orthography of names<sup>13</sup> is a mix between Bantu and French notation strategies which, in some parts, seem to lack a strict convention. For instance, the sound /u/ can be represented by either the French style <ou> or the Bantu notation <u>. A word-final /e/, as in <Mamende> or <Mabale>, can either be written with plain <e> or with the French style <é>; accents in local orthography do not mark tone. Other versions seem to be admissible as well, for example varying between <Mabale>, <Mabalé>, <Mabali>, and potentially <Mabally>. This variation can be explained both by idiosyncratic preferences as well as dialectal variation in pronunciation.

In addition to the vernacular and Christian name, many of my consultants, both men and women, have nicknames by which they are consistently called in everyday life. They acquire their nicknames either through their parents or peers or even sometimes come up with a nickname on their own. Usually, nicknames refer to something that a person has achieved or say something about the person's character. Nicknames also come from Western languages (French, English). Examples of nicknames used in Ngolo include *Bataillon* or *Délégué*. Also outsiders might receive a nickname; the project's cameraman was thus called *Freeboy*, presumably due to his nonchalant attitude towards kneeling in the mud while filming. There seems to be a tendency to pick nicknames originating from other languages, as is particularly obvious with Western words. Local languages also provide nicknames, for instance *àválà tíd* 'red animal' from Bulu, which was given to a woman for her bright color of skin.

#### 3.1.2.4 Nominalized past participles

Nominalized past participles are defective nouns that are the most deviant noun type.<sup>14</sup> All nouns of this category are derived from verbs and function like a

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<sup>11</sup> A blank cell in the table means that no certain information is available. In contrast, a hyphen (in the Meaning column) means that speakers state that there is no associated meaning with a name.

<sup>12</sup> The superscripted D after the gender means that the name has a counterpart in the opposite sex: Mandzoué (F) > Mandzong (M), Mba (M) > Mimba (F), Mimbê (F) > Mimbê (M), Nanze (F) > Nze (M), Nandtoungou (F) > Toungou (M), Tsimbo (F) > Batsimbo (M).

<sup>13</sup> The orthography is provided by different Mabi speakers since the Gyeli speakers are mostly illiterate.

<sup>14</sup> Their category label does not imply that there are non-nominalized participles.

Table 3.5: Examples of Gyeli proper names (in local orthography)

Name	Gender	Languages	Meaning
Ada	M, F	Gyeli, Kwasio, Fang, Bulu	–
Bibanga	F	Gyeli, Kwasio, Fang	–
Bikanda	M, F		
Biyang	M	Gyeli, Kwasio	remedy
Boulopuma	M	Gyeli	rotten breadfruit
Bwedila	M	Gyeli, Kwasio	–
Kimpile	F		
Luonga	F	Gyeli, Kwasio	group
Mabalé	M	Gyeli, Kwasio	
Mambi	M	Gyeli	behavior
Mandzoué	F <sup>D</sup>		
Manligui	F		
Mba	M <sup>D</sup>	Gyeli	rank
Mbiambo	F	Gyeli	plenty
Mimbanji	M	Gyeli	arbalest, crossbow
Mimbê	F <sup>D</sup>	Gyeli, Basaa, Bulu	–
Minlar	M	Gyeli	union
Nalingui	F	Gyeli, Kwasio	–
Nanze	F <sup>D</sup>	Gyeli, Kwasio, Bulu, Basaa	panther
Nandtoungou	F <sup>D</sup>	Gyeli, Kwasio	–
Nashuong	F	Gyeli	young palm heart?
Ngolo	F	Gyeli, Kwasio	–
Ngo Minsem	F	Gyeli, Basaa	daughter of Minsem
Nguiamba	M		
Ngusa	M	Gyeli, Basaa	–
Nziwu	M	Gyeli, Kwasio	Great antelope
Sedyua	M	Gyeli, Kwasio	derived from civet?
Tsimbo	F <sup>D</sup>	Gyeli, Kwasio	outcast

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past participle, as illustrated in (3). More information on the derivation process is provided in §4.2.1.7.

- (3) *yìi nkélá*  
yìi n-kél-a  
7.ID N-hang-NOM  
'It is hung up [lit. a hung-up person/thing].'

Unlike full nouns, nominalized past participles never allow a plural form. Thus, while the nominal predicate in (4a) takes the plural noun class marker *ba-*, agreeing in number with the subject, this is not the case for the nominalized past participle in (4b).

- (4) a. *Àdà nà Màmbì báà bàngèlénè*  
Àdà nà Màmbì báà ba-ngélénè  
Ø1.PN COM Ø1.PN 2.COP ba2-teacher  
'Ada and Mambi are teachers.'
- b. *Àdà nà Màmbì báà mbánâ*  
Àdà nà Màmbì báà m-bán-a  
Ø1.PN COM Ø1.PN 2.COP N-marry-NOM  
'Ada and Mambi are married [lit. are married ones].'

The occurrence of nominalized past participles is restricted to the predicate position of a STAMP copula construction (§3.9.1), as shown in (3) and (4). Consequently, they do not serve as an argument or adjunct, unlike common nouns and proper names. Given their distributional restriction, they never occur in a position where they would trigger agreement, for instance through the addition of agreement targets in the predicate NP. Likewise, speakers would not replace the nominalized past participle with a pronoun that could indicate its affiliation with an agreement class.

Another hypothesis would be to consider these forms as verbs, given their verbal stem and translation. Despite significant differences from common nouns and proper names, I do not adopt this analysis, but instead classify nominalized past participles as a defective noun type. Evidence for this comes from their prefixation and tonal behavior, and their distribution in sentences which distinguishes them from verbs. Morphologically, verbs do not take prefixes, but only suffixes. The nominalized past participle, however, consistently takes a nasal prefix. Verbs only have tonal specifications for the first syllable while the potential second and third syllables are underlyingly toneless and thus surface as L in isolation, as explained in §2.4. In contrast, nominalized past participles never surface L on the

last syllables, but either H or HL. Also in terms of their distribution in sentences, nominalized past participle forms cannot be verbs since verbs follow the subject-tense-aspect-mood-polarity (STAMP) marker, as described in §3.9.1. These participles cannot combine with the STAMP marker. They only occur in STAMP copula constructions (§7.1.1). There are several predication types for copula constructions, including nominal and adjectival copulas, but never verbs. (5) contrasts a nominalized past participle with a passive construction in (5b), as the translation of the nominalized past participle construction might suggest a passive reading.

- (5) a. *ndáwɔ nyíi mbúyâ* (nà viyá)  
     ndáwɔ nyíi m-búy-a (nà viyá)  
     9Ø.house 9.COP N-destroy-NOM COM 8Ø.fire  
     ‘The house is destroyed (by fire).’
- b. *ndáwɔ nyí búyá* (nà viyá)  
     ndáwɔ nyi-H búy-a-H nà viyá  
     9Ø.house 9-PRS destroy-PASS-R COM 8Ø.fire  
     ‘The house is being destroyed by fire.’

The nominalized past participle and the passive construction both allow for an instrumental oblique. The form of the STAMP copula in (5a) and the STAMP marker in (5b) are, however, distinct, as is the participle form with its nasal and its tonal pattern in which it differs from the verbal form in the passive.

While the passive and the nominalized past participle are two distinct categories, both categories are, however, linked semantically and formally. In terms of semantics, their subjects are the undergoer of an action while the agent would appear in an adjunct or not at all. This is true for both categories, but since the nominalized past participle is more about the result, the agent is mentioned very rarely.

Formally, both categories take a suffix *-a*. There are two possibilities to analyze *-a* with respect to the different categories. Either, one could posit that it is the same suffix which just takes different tonal patterns in different categories. Or one could assume two different suffixes *-a*, which each come with their own tonal patterns for the passive and the nominalized past participle. I choose the second option, as reflected in the glosses. The reason for this is not only the different tone patterns associated with the different suffixes, but also a (synchronously) insufficient link between the two categories. Thus, glossing both suffixes *-a* as passive (and assuming that nominalization is primarily encoded through the nasal prefix in the nominalized past participle) presupposes a derivation chain with passivization as a necessary step. This assumption is, however, not justified

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since many verbs with a nominalized past participle form lack a passive form: only 105 (27%) verbs take a passive form, but 325 (86%) have a nominalized past participle form.

#### 3.1.3 Nouns and countability

Gyeli has a “mass/count distinction” like many languages in the world. Formally, one can distinguish countable nouns, those that occur both in a singular and a plural form, from non-countable nouns, which do not show a singular/plural distinction. Countable nouns typically describe discrete individual entities such as humans, animals, plants, tools and the like.

Non-countable nouns are most frequently and regularly found in the transnumerical gender 6. (More information on the gender and agreement system is provided in §5.2.) Semantically, all liquids fall into this class, as exemplified in (6).

(6) Liquid mass nouns

- a. ma-jíwó ‘water’
- b. ma-vúdó ‘oil’
- c. ma-tàngò ‘palm wine’
- d. ma-vínó ‘pus’
- e. ma-nzálè ‘urine’
- f. ma-dyúmù ‘sperm’

In addition, deverbal event nouns of gender 6, as in (7), are uncountable. More information on their derivation process is provided in §4.2.1.4.

(7) Deverbal event nouns

- a. ma-nyû ‘drink (n.)’ < nyùlɛ ‘drink (v.)’
- b. ma-bwâsà ‘thoughts’ < bwâsa ‘think’
- c. ma-bwàlè ‘birth’ < bwàlɛ ‘be born’
- d. ma-sâ ‘game (playing)’ < sâ ‘do’
- e. ma-tálá ‘beginning’ < tálɛ ‘begin’
- f. ma-dilá ‘funeral’ < dile ‘bury’

There are other non-countable nouns with only a plural form in other agreement classes, but they seem to be less frequent. They mostly belong to class 8 and comprise entities that usually occur in groups, for instance *bè-sìngi* ‘spirits’.

They also include deverbal nouns such as *bè-déwò* ‘food’, which is derived from *dè* ‘eat’.

Then there are nouns that only have a singular form. Most often, they are abstract nouns of class 7, as illustrated in (8).

(8) Abstract nouns

- a. *dú* ‘lie’
- b. *sòmònè* ‘complaint’
- c. *ngòngòlé* ‘sadness, compassion’
- d. *pónè* ‘truth’
- e. *sónè* ‘shame’
- f. *mèvâ* ‘pride’

There are a few other singular nouns without a plural form in other classes. Semantically, they describe mass entities which have a rather unspecified shape and lack clear-cut boundaries such as *pfùdé* ‘mold’ (cl. 9) or *dùwó* ‘sky’ (cl. 5). *bíwò* ‘bad luck’ (cl. 3) is another example of an abstract noun. Also a few nouns in agreement class 8 lack a plural form. This is remarkable since class 8 is generally a plural class. As explained in §5.2.3, however, there are also singular nouns that trigger class 8 agreement, namely those that lack the CV- noun class prefix *be-*. Examples of singular-only class 8 nouns include *vísá* ‘sun’ and *vìyó* ‘fire’. More examples of uncountable nouns are given in §5.2.5 on inquorate genders.

Finally, there are nouns which display mixed characteristics of both non-countable and countable nouns. They have a singular and a plural form, and semantically designate granular aggregates such as *nsé/mì-nsé* ‘sand’ or *ndísi/mì-ndísi* ‘rice’. In their singular form, they behave like other non-countable nouns, for instance transnumeral liquids. This becomes especially obvious when modified by some invariable quantifiers (§3.8.5.3) and some nominal quantifiers (§5.5.1.4). If used in the plural form, these nouns get a reading of ‘different types of’ or ‘different units of’. In this usage, they grammatically behave more like countable nouns.

## 3.2 Verbs

Nouns and verbs constitute the two major word classes in possibly all languages in the world, as Viberg (2006: 408) points out. There is, however, still a need to consider what verbs are and how they are distinguished from nouns. Schachter & Shopen (2007: 9) provide a general, semantically based definition, stating that

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*Verb* is the name given to the parts-of-speech class in which occur most of the words that express actions, processes, and the like.

Other properties that the authors highlight include, for instance, that verbs foreground temporal relations as well as their function as predicates. After all, characteristics of verbs (as any other word class) are language specific and therefore, it makes sense to distinguish them based on a given language's properties. In Gyeli, nouns and verbs are distinct in many ways. As shown in Chapter 2, they differ on phonological grounds, for example in their distribution of phonemes and tones, nouns allowing a larger degree of freedom while verbs have more restrictions on the occurrence of consonants, vowels, and tones. On a morphological level, nouns take prefixes which Gyeli verbs do not. In contrast, verbs take extension suffixes which is not the case for nouns. In terms of syntactic function, verbs serve canonically as predicates while nouns (or noun phrases) constitute arguments of a given predicate. These various formal differences show clearly that nouns and verbs in Gyeli belong to different word classes.

In the following, I will first describe the structure of the verb. I then discuss different verb types, including main verbs and auxiliary verbs.

#### **3.2.1 Verb structure**

The Gyeli verb consists of a lexical root that can take a valence-changing suffix and a tense-mood marking tonal morpheme, as shown in Table 3.6.

Table 3.6: The Gyeli verb structure

Slot	Radical	Prefinal	Final
Function	lexical root	valence change	tense-mood
Tone pattern	H or L	toneless	-H

Table 3.6 indicates the “slot” in which the root and the suffixes occur and is based on the segmental morphological Bantu verb schema by Güldemann (2003: 184). I extend this schema to also accommodate tonal morphemes. In contrast to the lexical root and the valence changing suffix, which are always segmentally expressed, the final tense-mood marking morpheme is exclusively tonal. The absence or presence of an H tone that attaches to the right of the verb stem encodes past tenses and the realis mood (§6.2). Lexical roots are specified for either an H or an L tone, while valence changing suffixes are underlyingly toneless.

While Güldemann's (2003) Bantu verb schema has eight slots, four before the root and three after the root, Gyeli has a more reduced verbal structure. For instance, subject concord and preverbal tense-aspect-mood information are not encoded on the verb, but by a preverbal subject-tense-aspect-mood-polarity (STAMP) clitic (§3.9.1) and/or complex predicates with auxiliaries (§6.3).

I follow the Bantuist tradition (e.g. Guthrie 1971, Hyman 1993, and Schadeberg 2003) in my terminological distinction between *radical* and *stem*. The radical, also called *root*, is the “irreducible core” (Guthrie 1971: 14) of the verb that cannot be parsed into further morphemes. In Gyeli, its phonological structure is typically C(C)VC-, but there are exceptions in surface forms pertaining to an additional vowel in some disyllabic underived verbs (§3.2.1.1) and the deletion of the root-final consonant in monosyllabic verb forms (§3.2.1.3).

The root in Gyeli can function as an independent word without any further bound morphemes attached, as exemplified in (9) for monosyllabic verb roots. All monosyllabic verbs consist of a root only. Under derivation, a root-final consonant (or variants thereof) will surface, as described in §3.2.1.3. This root-final consonant is deleted in monosyllabic roots in order to adhere to an open syllable structure.

(9) Monosyllabic roots

- a. dè ‘eat’
- b. kwê ‘fall’
- c. bvúò ‘break (v.t.)’

Also some disyllabic verb roots satisfy the criterion of an irreducible core, as in (10).

(10) Disyllabic roots

- a. bámɔ ‘scold’
- b. púndi ‘polish’
- c. gyàga ‘buy’

The root can take an extension or expansion derivation suffix that brings about a valence change. A list of all verbs in the database and their extension morphemes is given in Appendix A. The root and the potential suffix constitute the stem.<sup>15</sup> There are also disyllabic verbs that consist of a root plus extension suffix,

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<sup>15</sup>Traditionally, the stem additionally includes the *final vowel* that encodes tense-aspect-mood information in more agglutinative Bantu languages. In these languages, Bantuists use the term *base* to designate the root and potential derivation suffixes without the final vowel. In Gyeli, however, there is no final vowel. Therefore, this distinction is not necessary.

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as shown in (11). Derivation with extension and expansion suffixes is described in §4.2.4.

(11) Disyllabic stems

- a. bèn-a ‘be refused’ (passive extension *-a*)
- b. jì-bɔ ‘close sth.’ (-*bɔ* expansion)
- c. vú-lɛ ‘get rid of sth.’ (-*lɛ* expansion)

Thus, whether a disyllabic verb consists of a root only, as in (10), or constitutes a stem with a root plus suffix, as in (11), depends on the synchronic function of the second syllable. In synchronic disyllabic verb roots, the vowel of the second syllable is part of the lexeme since its shape is not predictable on morphophonological or morphosyntactic grounds. In contrast, in a disyllabic stem, the second syllable functions as a valence changing suffix. A root vs. stem contrast can be found even with the same lexeme, as for instance with the root *béðɔ* ‘mount (v.t.)’ whose passive form *béd-a* ‘be mounted’ is analyzed as a stem. A more detailed discussion on the status of the final vowel as part of the root is given in §3.2.1.1.

The number of transparent derivational suffixes a root can take is restricted to one.<sup>16</sup> Derivational extensions can, however, come as mono- or disyllabic suffixes, allowing a maximum of three syllables in a stem, as shown in (12).

(12) Trisyllabic stems

- a. gyámb-ɛlɛ ‘cook for sb.’ (applicative extension *-ɛlɛ*)
- b. lèb-ala ‘follow each other’ (reciprocal extension *-ala*)
- c. dyég-ɔwɔ ‘get in a leaning position’ (positional extension *-ɔwɔ*)

In the following, I will discuss the shape of the verb root in more detail, focusing on two issues. First, I explore the status of the Gyeli stem-final vowel, arguing that it does not occupy the “final” slot of Güldemann’s (2003) morphological Bantu verb structure. I then describe root-final consonants and their variants.

#### 3.2.1.1 Stem-final vowel

Although the Gyeli verb structure is significantly different from Güldemann’s (2003) morphological verb schema, one might wonder whether Gyeli does have a vowel in the “final” slot, which is typically related to tense-aspect-mood. Due to a canonical CV syllable structure, Gyeli verbs always end in a vowel, but they are by no means comparable to the “final vowel” in the “final” slot found in eastern

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<sup>16</sup>As discussed in §4.2.4, two categories, e.g. applicative and passive, can be merged into one morpheme through vowel change of the applicative suffix in trisyllabic verbs.

and southern Bantu languages where the final vowel has a grammatical function. In contrast, Gyeli root and stem final vowels are lexically specified. As discussed in §2.2.1, vowel quality is restricted by the stem's syllable length. In monosyllabic verbs, any of the seven vowels, except for /o/, can occur in final position, while disyllabic verbs only allow five vowels in this position, /i/, /o/, /ɛ/, /ɔ/, /a/. Trisyllabic verb stems only allow /ɛ/, /a/, and /ɔ/ as a final vowel.

Another argument for not considering Gyeli stem-final vowels as occupying the final slot of Güldemann's (2003) Bantu verb structure comes from verb extensions. When Bantu languages such as Swahili add an extension morpheme in the prefinal slot, the final vowel is not necessarily affected by this. The Swahili stem *chek-a* 'laugh', for instance, keeps the final vowel *-a* even if the stem is extended by a causative morpheme *-Ish-*:<sup>17</sup> *chek-esh-a* 'make laugh'. Extension morphemes in Gyeli, however, come with their own final vowels and override a disyllabic root-final vowel as in *jílɔ* 'be satisfied' → *jíl-ɛsɛ* 'make satisfied'.

While all final vowels in verbs are lexically specified, they differ with regards to their morpheme affiliation. There are three types of verb-final vowels. First, a verb-final vowel is the nucleus of the verb root in monosyllabic verb forms. It is tonally specified and does not usually change in derived forms. The root vowel ends up in the final position because the final root consonant is deleted, as illustrated in (13). The deleted root-final consonants in parentheses only surface with derived forms of the verb, as with the passive forms in (13). (More information on root-final consonant deletion is provided in the next section.)

- (13) a. *dyà(y)* 'sing' < *dyày-a* 'be sung'
- b. *kwà(g)* 'grind' < *kwàg-a* 'be ground'
- c. *ndà(ng)* 'cross' < *ndàng-a* 'be crossed'

Second, in disyllabic verb roots, the final consonant is followed by a lexicalized (underlyingly toneless) vowel. This vowel is synchronically part of the root since its quality is not predictable and does not have any grammatical function. In derived forms, this vowel is deleted, as shown in (14). The fact that these additional root vowels are not specified for tone, a property they share with verb extension and expansion suffixes, suggests that diachronically they were derivation suffixes as well.

- (14) a. *fùlɔ* 'descend' < *fùl-a* 'be descended'
- b. *dyòdɛ* 'deceive' < *dyòd-a* 'be deceived'
- c. *gyánga* 'work' < *gyáng-ɛsɛ* 'make sb. work'

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<sup>17</sup>The capital *I* denotes a front vowel that is subject to vowel harmony.

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Final vowels of monosyllabic verb forms with a diphthong or long vowel as nucleus are treated the same way. As shown in (15), the second vowel of the diphthong gets deleted in derived forms.

- (15) a. *bvúj* ‘break (v.t.)’ < *bvú.g-ε* ‘make break’  
b. *dyùù* ‘kill’ < *dyù.w-a.la* ‘kill each other’  
c. *níɛ* ‘be beautiful’ < *ní.ng-ε.ss* ‘make beautiful’

Historically, these verbs were likely disyllabic, as the examples in (14). This would have involved a process in which first the root final consonant got deleted and then the vowel of the second syllable was merged with the first syllable’s nucleus. Synchronously, the second vowel of the diphthong is clearly part of the root vowel since it is specified for tone.

The third type of stem-final vowel is specified through the derivation suffix a root can take, as shown in (16).

- (16) a. *dyúw-ɛlɛ* ‘listen to’  
b. *ntég-ala* ‘bother each other’  
c. *pwàs-ɔwɔ* ‘stretch oneself out’

The segments of derivation suffixes do not change in different tense-aspect-mood categories, but their tonal patterns do (§6.2.1).

#### 3.2.1.2 Suppletive root vowels

Gyeli has a few verbs which change their root vowel in (some) derived forms. I view these as lexically specified exceptions since they do not follow any predictable pattern and are generally rare. All suppletive root vowel forms are given in Table 3.7.

Ten out of the thirteen suppletive root vowels are regular in the sense that all derived forms have the same suppletive vowel. For instance, *lùà* ‘curse’ takes *à* as root vowel in its reciprocal, passive, and causative forms. Also, the suppletive vowels retain the same tonal pattern as in the underived form, namely H for underived verbs which have an HL pattern and L for L underived verbs. There are a few more irregular cases, however, which have different suppletive vowels for different derived forms and/or tonal changes on the suppletive vowel. For example, *bwè* ‘catch’ retains /e/ in the reciprocal form *bèyala*, but loses the glide /w/, while it has a suppletive vowel /u/ in the passive form *bùle*. All root vowels remain L. In contrast, *kwè* ‘fall’ has a regular reciprocal form *kwéyala*, both in

Table 3.7: Root-final consonant variants (monosyllabic verbs)

Underived form		Reciprocal	Passive	Causative	Variants
lùà	'curse'	lòg-ala	lòg-a	lòg-ɛsɛ	ua/ɔ
lūà	'whistle'	lóng-ala	lóng-a		ua/ɔ
túà	'move places'	tóg-ala		tóg-ɛsɛ	ua/ɔ
bwà	'become big'	bòg-ala			wa/ɔ
bwádɔ	'wear'	bód-ala		bód-ɛsɛ	wa/ɔ
bwèdɔwɔ	'be tasty'			bód-ɛsɛ	we/ɔ
bwè	'catch'	bèy-ala	bùl-ɛ		we/u
kwê	'fall'	kwéy-ala		kù-ɛsɛ	we/u
lâ	'harvest'	léy-ala	léy-a		a/e
lága	'contaminate'	lég-ala		lég-ɛsɛ	a/e
bô	'lie down'		búg-a		o/u
yíè	'dodge'	yé-ala			iɛ/e
dè	'eat'	díy-ala	díb-a	díl-ɛsɛ	e/i

terms of the vowel and its tone, but an irregular causative form *kùɛsɛ* with both a suppletive vowel and a tonal change from H to L. Finally, *dè* 'eat' has the same suppletive vowel /i/ for all derived forms, but all derived forms have an H instead of an L tone.

Most verbs with suppletive root vowels have monosyllabic stems containing the diphthong /ua/ or the glide /w/, which is changed to /ɔ/ in derived forms. The verb of the underived form is, however, not predictive of a necessary vowel change in derived forms since verbs generally keep their glides and vowels in derived forms. (17) gives an opposition between a regular and an irregular form.

- (17) a. bwà 'give birth' → bwàl-ɛsɛ (CAUS)  
       b. bwà 'become big' → bòg-ala (RECIP)

Other suppletive forms, for instance from /a/ to /e/ in *lâ* 'harvest' or /e/ to /i/ in *dè* 'eat' seem even more exceptional.

### 3.2.1.3 Root-final consonant variants

Generally all verb roots (with a few exceptions) have a final consonant, which is lexically specified and only surfaces when a vowel-initial derivation suffix at-

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taches. In monosyllabic stems (9) and with derivation suffixes that are consonant-initial such as *-le* or *-bo* in (11), the root-final consonant is deleted. In turn, when deriving a monosyllabic verb, the question is which root-final consonant it will have.

As shown in Table 3.8, the majority of monosyllabic stems have the same root-final consonants in all their derived forms.<sup>18</sup> The types of consonant that can consistently appear root finally are limited to seven: /ŋ/, /g/, and /y/ are the most frequent ones while /l/, /s/, /n/, and /w/ are rare. There are two exceptions to this general pattern. First, eleven monosyllabic verb stems have different root-final consonants with different verb extensions, and second, there is one verb which consistently takes no root-final consonants in any of its forms.

Table 3.8: Root-final consonants in the derivation of monosyllabic verbs

Root ending	Frequency	Example	
Consonant	69	85.2%	
/ng/	23	26.7% sâ ‘vomit’	→ sângala ‘vomit together’
/g/	22	25.6% dvùò ‘hurt’	→ dvùgesè ‘make hurt’
/y/	17	19.8% bà ‘smoke’	→ bàyaga ‘smoke (by itself)’
/l/	3	3.5% vô ‘be calm’	→ vôlese ‘make calm’
/s/	2	2.3% sôò ‘continue’	→ sósélé ‘continue with sth.’
/n/	1	1.2% nyê ‘see’	→ nyénala ‘see one another’
/w/	1	1.2% dyû ‘kill’	→ dyúwala ‘kill one another’
Variable	11	13.6% see Table 3.9	
No consonant	1	1.2% dyâ ‘lie down’	→ dyáala ‘lie down together’

The diversity of root-final consonants surfacing in derived verb forms likely has a historical explanation. Some monosyllabic verb stems may originate from a diachronic extension that got reduced and merged with the monosyllabic root. In the process, the onset consonant of the second syllable –the historical extension suffix –got lost in monosyllabic forms and the suffix vowel got merged with the root vowel. This reduction is synchronically reflected in monosyllabic verb stems with diphthongs and long vowels, as discussed in §2.2.2 and §2.2.3. The original consonants still surface in some derived forms. This scenario would explain why

<sup>18</sup>This is based on 86 monosyllabic verb stems. As discussed in §2.3.2.4, there are 88 monosyllabic verb stems in my database. Yet, not all of them undergo derivation. *dɔ* ‘negotiate’ and *kè* ‘go’ do not have any derived forms and therefore the underlying root-final consonant never surfaces.

only a limited number of consonants can now serve as root-final consonants: they are related to a limited number of suffixes, some of which do not exist anymore.

The quality of the root-final consonant that will surface in the derivation of monosyllabic verbs is not (entirely) predictable on phonological grounds, as the oppositions in (18) to (20) show.

- (18) a. bwà ‘give birth’ → bwàl-ɛsɛ ‘make give birth’
- b. bwà ‘become big’ → bòg-ala ‘become big together’
- (19) a. bâ ‘marry’ → bán-ala ‘marry each other’
- b. bà ‘smoke’ → bày-ala ‘smoke together’
- (20) a. nyâ ‘suckle’ → nyáng-ɛsɛ ‘breast-feed’
- b. nyàà ‘defecate’ → nyàg-ɛsɛ ‘make defecate’

There are, however, some tendencies that allow us to predict the underlying root-final consonant based on the phonological shape of the monosyllabic verb stem. Monosyllabic stems ending in nasal vowels, for instance, almost exclusively have /ŋg/ as root-final consonant, as exemplified in (21). This ties in with the scenario of a historical extension suffix that has been lost: /ŋg/ may have been the onset of the suffix that was lost, while nasality survived on the root vowel.

- (21) là ‘pass’ → làngɛlɛ ‘let pass, spend time’
- kè ‘shave’ → kèngala ‘shave one another’
- sâ ‘vomit’ → sángɛsɛ ‘make vomit’
- dyû ‘be hot’ → dyúngɛlɛ ‘heat sth.’

Another tendency is found with monosyllabic verb stems containing a diphthong. Their final root consonant is almost exclusively /g/, as shown in (22), with a few exceptions concerning the diphthong /ie/, which sometimes may also take /y/ as in *tsíyala* ‘cut each other’, derived from *tsiè* ‘cut’.

- (22) dvùò ‘hurt (v.i.)’ → dvùgala ‘hurt one another’
- lùà ‘curse’ → lòga ‘be cursed’
- tòà ‘boil (v.i.)’ → tògala ‘boil together’
- líè ‘cede, let’ → lígala ‘let to one another’

All other root-final consonants seem not to be predictable on phonological grounds.

There are two exceptions to the general pattern described so far. First, in a few cases, the same underived monosyllabic verb stem has different root-final

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consonants with different extension morphemes. Table 3.9 gives an exhaustive list of all final root consonant variants for monosyllabic verbs that occur in the database. While there are usually only two variants for the same lexical root, *dè* ‘eat’ shows that there can be even three variants.<sup>19</sup>

Table 3.9: Root-final consonant variants (monosyllabic verbs)

Underived form		Reciprocal	Passive	Causative	Applicative	Variants
bâ	‘marry’	bán-ala		bál-ese		n/l
bwè	‘catch’	bèy-ala	bùl-ε			y/l
vû	‘leave’	vúy-ala	vúm-a			y/m
sîi	‘approach’	síng-ala			sís-εle	ng/s
níyε	‘be beautiful’	níndy-ala		níng-εse		ng/ndy
vè’è	‘try on clothes’	vèg-ala			vè’elε	g/’
dyà	‘sing’	dyà-ala	dyày-a			y/none
kwê	‘fall’	kwéy-ala		kù-εse		y/none
dâ	‘draw water’	dàng-ala	dâ-àla		dâ-àlε	ng/none
dyò	‘laugh’	dyò-ala	dyòlas-a	dyòl-εse		l/none
dè	‘eat’	diy-ala	dib-a	dil-εse		y/b/l

Root-final consonant variants likely occur for the same reason that root-final consonants take different shapes generally. Gyeli probably had more derivation suffixes diachronically and possibly allowed more suffixes than the synchronic limit of three syllables. Different final root consonants may reflect remnants of former extension suffixes or diachronic stacking of derivation suffixes. For instance, /l/ could be related to the expansion suffix *-le*, as discussed in §4.2.4.7. /s/ in *sís-εle* ‘approach sb.’ could be related to the causative suffix *-εse*.

Other variant forms may rather reflect an ongoing reduction of segmental material, as in *vè’è* ‘try on clothes’, which has retained a probably older final consonant /g/ in its reciprocal form *vèg-ala* that got reduced to a glottal stop in the monosyllabic and applicative forms. The next step on the continuum of segmental reduction is the complete loss of the final root consonant.

Final root consonant variants also occur with disyllabic verb roots, but they are less frequent. Table 3.10 shows all their occurrences found in the database.

The second exception concerns the lack of a root-final consonant in which case adjacent vowels are allowed. Only one verb is known that has a derived form with a zero final root consonant, but no variant consonant in another derived form:

<sup>19</sup>The passive form of *dyò* ‘laugh’ is derived from the applicative form *dyòl-εse*, which affects not only the final vowel, but changes both vowels /ε/ of the extension to /a/.

Table 3.10: Root-final consonant variants (disyllabic verbs)

Underived form	Reciprocal	Passive	Causative	Applicative	Variants
dyúwɔ̄ ‘hear’	dyùw-ala		dyúg-ɛsɛ	dyúw-ɛlɛ	w/g
líyɛ ‘leave’	líg-ala				y/g
vòwa ‘wake up’	vòw-ala		vòl-ɛsɛ		w/l
tíno ‘harvest tubers’	tín-ala	til-ɛ			n/l
bíyo ‘hit’	bín-ala	bíl-a	bíl-ese	bíy-ɛlɛ	y/n/l

*bwû* ‘think’ whose reciprocal form is *bwúala*. In all the other cases of zero root-final consonants, there is another consonant variant in another derived form. The variants of zero-consonant and root-final consonant in derived verb forms are listed in Table 3.9. Other variants of zero-consonants do not show in derived verbs, but in the nominalized past participle (NPP) forms, which are discussed in §4.2.1.7. All instances of variants showing up only in the nominalized past participle are given in Table 3.11.

Table 3.11: Zero root-final consonant variants in nominalized past participles

Underived form	Reciprocal	NPP	Variants
dyâ ‘lie down’	dyá-ala	ndyáy-â	none/y
sâ ‘do’	sá-ala	nsáy-â	none/y
yíè ‘avoid’	yé-ala	nyéy-â	none/y
kâ ‘wrap’	ká-ala	nkál-â	none/l
láà ‘tell’	lá-ala	nláw-â	none/w

As described in §2.3.2.4, there is some variation in the production of vowel sequences in verb stems. While synchronically vowel sequences are found in verb stems, these have alternate forms with a glottal stop, as illustrated by the two variants in (23).

- (23) a. móélɛ ‘nibble’ → mó-ala (RECIP) → mó-ɛsɛ (CAUS)  
       b. mó’élɛ ‘nibble’ → mó’-ala (RECIP) → mó’-ɛsɛ (CAUS)

The exact distribution of one variant in comparison to the other is not known. There is variation across speakers as well as within the same speaker. This tendency, however, seems to align with the loss of segmental material posited for other verb forms.

### 3.2.2 Verb types

I distinguish three different verb types in Gyeli, based on their morphosyntactic behavior: main verbs, auxiliary verbs, and light verbs. I define and describe each of these and their potential subtypes in turn.

#### 3.2.2.1 Main verbs

I view the main verb as the lexical verb in a phrase which, according to Anderson (2011a: 796), contributes lexical content to an expression. The main verb in Gyeli always serves as the semantic head of a clause, but is only the syntactic, finite head in simplex predicate constructions. In complex predicate constructions, the syntactic head is an auxiliary or semi-auxiliary (§3.2.2.3), while the main verb appears in its non-finite form. In contrast to true auxiliaries, main verbs can occur on their own in a simplex predicate construction.

In the simple predicate construction in (24), the main verb *gyésó* ‘look for’ is the syntactic and semantic head of the clause.

- (24) *mùdâ á gyésó bédéwò*  
      m-ùdâ     a-H    gyésó-H   H-be-déwò  
      N1-woman 1-PRS look.for-R OBJ.LINK-be8-food  
      ‘The woman looks for food.’

As the syntactic head, the main verb is inflected for its tense-mood category, as described in §6.2.1. In this case, *gyésó* ‘look for’ is a finite form, carrying a realis-marking H tone.

In contrast, in a complex predicate construction, the main verb is the semantic head of the clause. An auxiliary or light verb serves as the syntactic head, as exemplified in (25) with the negative subjunctive auxiliary verb *dúù*. In this example, the auxiliary is the finite verb encoding the tense-mood category it belongs to. The main verb takes its non-finite form, namely with an underlyingly toneless final vowel, as described in §2.4.1.3.

- (25) *mùdâ á dúù gyésò bédéwò*  
      m-ùdâ     a-H    dúù       gyésò   H-be-déwò  
      N1-woman 1-PRS NEG.SBJV look.for OBJ.LINK-be8-food  
      ‘The woman must not look for food.’

The non-finite form in (25) is, at the same time, the **infinitive** form. Infinitive forms in Gyeli do not receive any special morphological or tonal marking, but

are identical to their citation form. As shown in §2.4.1, second and third syllables are underlyingly toneless, surfacing with an L tone. Infinitive forms are found in complex predicates (25) as well as two types of subordinate clauses. First, they occur in subordinate infinitival clauses (§8.2.3.4), as in (26).

- (26) [pámɔ́ tísɔ́nì]<sub>INF</sub> á súmélé bùdì  
 pámo tísònì a-H súmelé-H b-ùdì  
 arrive Ø7.town 1-PRS greet-R ba2-people  
 'Having arrived in town, he greets the people.'

These subordinate infinitival clauses can also be negated with the negative auxiliary *tí*, as in (27).

- (27) à múa nà bábè [tí wúmbè wè]  
 a múa nà bábè tí wúmbè wè  
 1 be COM Ø7.illness NEG want-R die  
 'He was sick, not wanting to die.'

And second, the main verb of certain attributive clauses with the complementizer *nâ* appears in its infinitival form, as shown in (28) and explained in more detail in §8.2.2.4.

- (28) mùdâ à ló sisélè nónégá [nâ nyê nà kósè]  
 m-ùdâ a ló sis-elé n-ónégá nâ nyê nà kóse  
 N1-woman 1.PST RETRO scare-APPL 1-other COMP 1 COM cough  
 'The woman scared the other by her coughing.'

Infinitives are also found in non-verbal clauses where the infinitive is linked with the STAMP copula *yî* of agreement class 7 to its predicate, as shown in (29). This construction is further described in §7.1.1

- (29) jíwò yî bíwò  
 jíwɔ́ yî bíwò  
 steal 7.COP bad  
 'To steal is bad.'

Verbal clauses are discussed in §7.2 and complex predicates are explained in more detail in §6.3.

In contrast to other types of verbs, lexical verbs take a range of different valencies (intransitive, transitive, ditransitive), as illustrated in (30).

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- (30) a. *Màmbì à ké* (intransitive)  
     Màmbì a      kè-H  
     Ø1.PN 1.PST1 fall-PST  
     ‘Mambi fell.’

b. *Màmbì à bé lé* (transitive)  
     Màmbì a      bè-H    lé  
     Ø1.PN 1.pst plant-R Ø7.tree  
     ‘Mambi planted a tree.’

c. *Màmbì à vé Biyá màntúà* (ditransitive)  
     Màmbì a      vè-H Biyá ma-ntúà  
     Ø1.PN 1.PST give-R Ø1.PN ma6-mango  
     ‘Mambi gave Biyang mangoes.’

The valency of a verb is lexically specified, but can also be changed through verb extensions, which are explained in §4.2.4. Valency change and verb extensions also relate to different voices a main verb can express, such as active, middle voice, and passive voice. Examples of each are shown in (31).

- (31) a. Màmbì à      *vidé*    màtúà  
           Màmbì a      víde-H màtúà  
           Ø1.PN 1.PST turn-R Ø1.car  
           ‘Mambi turned the car.’

b. màtúà à      *vidégá*  
           màtúà a      víde-ega-H  
           Ø1.car 1.PST turn-AUTOCAUS-PST  
           ‘The car turned (around).’

c. màtúà à      *vidá*                (nà    Màmbì)  
           màtúà a      víde-a-H        nà    Màmbì  
           Ø1.car 1.PST turn-PASS-PST COM Ø1.PN  
           ‘The car was turned (by Mambi).’

### 3.2.2.2 Special cases of main verbs

There are two subtypes of main verbs, namely main verbs that require a preposition with their object and main verbs that require a cognate object. Main verbs requiring a preposition with their object argument are generally rare with only 14 verbs (3.7%) of the 377 verbs in the database. In most cases, the comitative preposition *nà* is required. All twelve cases are listed in Table 3.12.

Table 3.12: Main verbs requiring the comitative *nà*

báàla nà	'repeat sth.'
bágá nà	'stop sth.'
bísi nà	'pay attention to'
bvúda nà	'quarrel'
gyíka nà	'resemble sb./sth.'
kàmbɔ́ nà	'defend sth.'
làdo nà	'meet sb.'
náàta nà	'stick to'
njì nà	'bring, come for'
táàla nà	'judge sb.'
túwans nà	'meet with sb.'
vúba nà	'hug sb.'

The other preposition that links an argument is the directional *bà*. It occurs only in two verbs of very similar meaning in the database, namely *síi bá* 'approach sth.' and *síso bá* 'approach sth.' Obviously, the prepositions *nà* and *bá* occur more frequently in the text corpus, but they are usually found in adjunct noun phrases.

Gyeli has a few verbs that take a cognate object as argument, as in (32) where the verb is marked in bold.

- (32) a. **gyá gyá** 'sing (a song)'  
 b. **sá sálé** 'work (a work)'  
 c. **ké kèndé** 'walk (a walk)'

All these verbs can also take a different lexeme as an object, as for instance, in (33a). They cannot appear without an object, as (33b) shows.

- (33) a. *mé      ké      tísɔnì*  
           me-H    kè-H tísɔnì  
           1SG-PRS go-R Ø7.town  
           'I go to town.'  
 b. \* *mé      kè*  
           me-H    kè  
           1SG-PRS go  
           'I walk.'

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At the same time, the cognate objects can also appear with other verbs, as shown in (34).

- (34) *yóò bá téé kèndè*  
yóò ba-H téè-H kèndè  
so 2-PRS start.walking-R Ø7.walk  
'So they go on a walk.'

#### 3.2.2.3 Auxiliaries and semi-auxiliaries

A set of verbs in Gyeli occur as the finite verbal element in a complex predicate construction without (fully) contributing to its lexical content. (Complex predicate constructions are discussed in §6.3.) I call these verbs "auxiliaries", which I subdivide into true auxiliaries and semi-auxiliaries. They both precede the lexical verb. (35) illustrates the contrast between a complex predicate with a semi-auxiliary (the modal *yánε* 'must') in (35a) and its simplex predicate counterpart in (35b). In the complex predicate construction, the semi-auxiliary *yánε* is inflected for tense-mood (see §6.2.1), while the lexical verb *dyâ* 'lie down' appears in its non-finite form. In the simplex predicate construction, the lexical verb receives the tense-mood marking H tone.

- (35) a. *mè yánε dyâ vâ kùgúù dè màfú mábáà*  
me yánε-H dyâ vâ kùgúù dè ma-fú má-báà  
1SG must-R lie.down here Ø7.evening today ma6-day 6-two  
'I had to sleep here in the evening two days ago [from today].'
- b. *mè dyá vâ kùgúù dè màfú mábáà*  
me dyá-H vâ kùgúù dè ma-fú má-báà  
1SG.PST lie.down-R here Ø7.evening today ma6-day 6-two  
'I slept here in the evening two days ago [from today].'

True auxiliaries and semi-auxiliaries can be distinguished along two parameters, as shown in Table 3.13: (i) full conjugation potential across different tense-mood categories vs. restrictions thereof and (ii) full lexical meaning vs. no lexical meaning. True auxiliaries are restricted in the tense-mood category they can appear in, as detailed in §6.3.1, as well as in the verbal predicate type they occur in: true auxiliaries can never appear on their own in a simple predicate construction, but require the addition of a lexical verb. Semi-auxiliaries, in contrast, have full lexical meaning and the potential to serve as the finite element in a simple predicate construction. They have full conjugation potential across all tense-mood categories in both simple and complex predicate constructions.

Table 3.13: Auxiliary types

	Full inflection	Inflectional restrictions
No lexical meaning		<b>True auxiliaries</b> <i>nzíí</i> PROG.PRS, <i>nzí</i> PROG.PST, <i>nzéé</i> PROG.SUBORD, <i>lò</i> RETRO, <i>sàlé</i> NEG.PST, <i>pálé</i> NEG.PST, <i>kálè</i> NEG.FUT, <i>tí</i> NEG.IMP
Lexical meaning	<b>Semi-auxiliaries</b> <i>kè</i> ‘go’, <i>là</i> ‘pass’ <i>nji</i> ‘come’, <i>lige</i> ‘stay’, <i>síle</i> ‘finish’, <i>pâ</i> ‘do first’, <i>táale</i> ‘begin’, <i>bàga nà</i> ‘stop’ <i>lèmbɔ</i> ‘know’, <i>kwàle</i> ‘like’, <i>wúmbe</i> ‘want’, ( <i>yáne</i> ‘must’)	<i>bwàá</i> ‘have’, <i>múà</i> ‘be almost’, <i>dúù</i> ‘must not’

Since tense-mood categories are only marked tonally, but true auxiliaries are restricted to specific categories, it cannot be proven that they take tonal inflection instead of having a fixed tonal pattern, as there are no contrastive pairs. There are several reasons, however, to classify true auxiliaries as finite verbal elements. First, their tonal patterns coincide with the tonal patterns of their respective tense-mood category. Second, they occur in the same position as semi-auxiliaries that clearly inflect for tense-mood tonal marking. Third, they are followed by a non-finite lexical verb.

Semi-auxiliaries and true auxiliaries can be thought of as distributed towards opposite ends of a grammaticalization scale. Semi-auxiliaries are closest to main verbs while true auxiliaries are highly grammaticalized. While most (semi-) auxiliaries fall neatly in either one of the auxiliary types, there are nevertheless some exceptions which behave slightly differently, reflecting their different stages on the grammaticalization path. This is the case for *dúù* ‘must not’, which is restricted to present and subjunctive clauses and cannot appear as the finite verb in a simple predicate but, unlike true auxiliaries, it has a lexical meaning.<sup>20</sup> The same is true for *bwàá* ‘have’ with its restriction to the two past categories, and *múà* ‘be almost’ with its restriction to the future. Another outlier within the semi-auxiliaries is the deontic modal *yáne* ‘must’, which is the only one that cannot

<sup>20</sup>Lexical meaning is based on speaker intuition. Speakers are entirely consistent in ascribing the meaning *ne pas devoir* ‘must not’ to *dúù*, and identify the word as the counterpart of *yáne* ‘must’. In contrast, speakers find it very difficult to describe what true auxiliaries mean.

appear in a simple predicate construction. In this respect, it patterns with true auxiliaries, but has a lexical meaning like semi-auxiliaries. Since it has no tense-mood category restrictions, I classify it as a semi-auxiliary.

Both true auxiliaries and semi-auxiliaries encode elements of various functional domains, i.e. there is no one-to-one mapping from their form to one specific function. True auxiliaries comprise some aspect markers and all negation auxiliaries. Semi-auxiliaries also encode some aspect markers as well as modality and motion/posture verbs.

### 3.3 Adjectives

Gyeli has a small set of adjectives, as listed in Table 3.14.<sup>21</sup> They constitute a closed class in Gyeli and denote properties of the noun such as value, dimension, and color.

Table 3.14: Adjectives

quality	mpà	'good'
	bíwò	'bad'
	díyè	'expensive'
	pówàlà	'calm'
	nátî	'straight'
size	píyò	'small'
	nénè	'big'
color	námbàmbàlà	'white'
	návyûvyû	'black'
	nábèbè	'red'
	nápfùpfù	'darkened color'
	náyêyê	'lightened color'

Morphosyntactically, adjectives can be clearly delimited from other parts of speech such as nouns and verbs. Adjectives do not exhibit any verbal qualities such as combining with a STAMP marker or an aspect marker. They can also be clearly distinguished from nouns as they do not exhibit (most) typical nominal behavior. First, they do not take a singular and/or plural form. Second, they do

<sup>21</sup>There is one other nominal modifier that semantically expresses a quality, which is *nyá* 'big'. As it differs structurally from the adjectives presented in this section, I discuss it in §3.8.2.2.

not have the possibility of being modified by other elements of a noun phrase such as demonstratives or possessor pronouns. They can, however, serve as the head of an attributive construction, as further explained below.

This word class in Gyeli meets the broad criteria for adjectives given in the typological literature (which often mixes semantic and morphosyntactic criteria), for instance, following Bhat (1994: 16) in terms of “(i) their belonging, prototypically, to the semantic class of properties, and (ii) their having modification (of a noun) as the primary (categorial) function”. Dixon (2004), who postulates that every language has a class of adjectives which is distinct from nouns and verbs, adds to this list predicative use of adjectives, for example as a copula complement.

Besides these broad criteria, however, adjectives form a vastly diverse class cross-linguistically, as for instance pointed out by Segerer (2008) for adjectives in African languages. Gyeli adjectives are unusual from a Bantu perspective in that they do not take any agreement prefixes, but are invariable in their form, both in attributive and predicative use.

In attributive use, adjectives modify nouns in two different default constructions, as shown in (36). Either the adjective directly follows the head noun or it appears as the second constituent in an attributive construction where the attributive marker agrees with the head noun.

- (36) a. [N ADJ]  
b. [N ATT ADJ]

Examples of both construction types are given in (37) and (38), respectively.

- (37) a. *nkɔ́lɔ́ mpa*  
Ø3.watch good  
'a/the good watch'  
b. *nkɔ́lɔ́ nénè*  
Ø3.watch big  
'a/the big watch'  
c. *nkɔ́lɔ́ nábèbè*  
Ø3.watch red  
'a/the red watch'
- (38) a. *nkɔ́lɔ́ wá mpa*  
Ø3.watch 3:ATT good  
'good watch'

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- b. *nkólɔ́ wá nénè*  
Ø3.watch 3:ATT big  
'big watch'
- c. *nkólɔ́ wá nábèbè*  
Ø3.watch 3:ATT red  
'red watch'

Constructions that either take or optionally omit the attributive marker are discussed in §5.5.

The order of adjective and noun can also be reversed, as a more marked form. The adjective can either precede the noun directly or can appear as the head of an attributive construction in which case the attributive marker takes the default agreement form of class 7. Choices between construction forms usually entail a change in meaning, as shown in (39).

- (39) a. *só wá nénè*  
Ø1.friend 1:ATT big  
'big friend'
- b. *só nénè*  
Ø1.friend big  
'important friend'
- c. *nénè yá só*  
big 7:ATT friend  
'big size of the friend'

It is difficult to detect the exact meaning contrast present. It depends on the lexical semantics of the adjective and noun in question and the construction they stand in. Another example of meaning contrast across different construction types is given in (40). While the use of the attributive marker is optional in both constructions, it is preferred in (40a) and dispreferred in (40b)

- (40) a. *m-wánɔ́ (wá) bíwɔ́*  
N1-child 1:ATT bad  
'bad child [bad character traits]'
- b. *bíwɔ́ (yá) m-wánɔ́*  
bad 7:ATT N1-child  
'ugly child'

There are also examples where a switch of constituents does not seem to change the meaning as speakers state that both mean exactly the same, as in (41) and (42), although in these cases both constituents are clearly nouns, which have a plural form and which can be modified by demonstratives and possessor pronouns.

- (41) a. *nkwé* (wá) *nkpámá*  
Ø3.basket 3:ATT Ø3.newness  
'new basket'
  - b. *nkpámá* (wá) *nkwé*  
Ø3.newness 3:ATT Ø3.basket  
'new basket'
- (42) a. *m-ùdi* (wá) *nkángè*  
N1-person 1:ATT Ø3.courage  
'courageous person'
  - b. *nkángè* (wá) *m-ùdi*  
Ø3.courage 3:ATT N1-person  
'courageous person'

In predicative use, the adjective serves as the copula complement as shown in (43).

- (43) *m-àmbò máà mpà*  
ma6-thing 6:COP good  
'Things are good.'

The adjective clearly shows no agreement morphology, although this would be expected with all plural classes. The same is true for an adjectival complement in a negative non-verbal construction, as in (44).

- (44) *mìnsáyá mí béká sâ mí bélé mpà*  
mi-nsáyá mí béká-H sâ mi-H bélé mpà  
mi4-thing 4:ATT 2PL-PRS do 4-PRS be-NEG good  
'The things that you do are not good.'

Adjectives can be used as parameters of comparison in comparison constructions, as described in Chapter 7.4.3. They are, however, not marked morphologically in these constructions. Finally, they can also be used adverbially to modify a verb, as discussed in §3.4.3.

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Some special remarks are in order for color adjectives. As shown in Table 3.14, all color term adjectives (and the quality adjective *náti* ‘straight’) have in common that they start with the similitative marker *ná-*, as described in §4.2.2. There is evidence that, historically, color terms in at least some related languages of this area were verbs. These verbs used for color descriptions then developed into other parts of speech. For instance, in Bulu the basic color terms are synchronically nouns: *é vindì* ‘black’, *é vèlè* ‘red’, and *é fùmùlù* ‘white’.<sup>22</sup> In Gyeli, it is likely that such color verbs were grammaticalized, together with the *ná* similitative marker, into a synchronic uninflected element of the noun phrase.

Another argument that color adjectives are grammaticalized verbs including a similitative marker comes from the atypical terms *nápfúpfù* ‘darkened color’ and *náyéye* ‘lightened color’, which describe a change of color as opposed to a specific hue. When asked for the meaning of these atypical colors, speakers give a verbal explanation, namely that a more prototypical color such as ‘black’, ‘white’, or ‘red’ has changed by either having become darker (*nápfúpfù*) or lighter, being ‘bleached out’ (*náyéye*). In contrast, other colors are referred to by French adjectives in explanations.

According to traditional color theories, these two special color terms are unusual in that they do not fit into basic color words that have been investigated cross-linguistically (see, for instance, Berlin & Kay 1969). Nevertheless, I classify *nápfúpfù* ‘darkened color’ and *náyéye* ‘lightened color’ as color terms since they only show up in discourse when talking about colors and they were systematically used by speakers in the color booklet task (Majid & Levinson 2007).<sup>23</sup>

## 3.4 Adverbs

Adverbs, along with nouns, verbs, and adjectives, constitute an open part-of-speech class. According to Schachter & Shopen (2007: 20), adverbs may have various subclasses, such as directional adverbs ('down'), degree adverbs ('extremely'),

<sup>22</sup>Bates (1904) gives the verbal color forms for Bulu as follows: *vé* ‘be/get red’, *vin* ‘be/get black’, and *fum* ‘be white’ without mentioning any nominal color forms. Alexandre (1955: 44) explains that these verbs can take a causative suffix *vin* ‘be black’ → *vin-i* ‘make black’. These causative verbs were then nominalized and assigned to noun class 5 with the prefix *é*. Alexandre (1955: 68) states that this class usually hosts deverbal nouns derived from stative verbs.

<sup>23</sup>Gyeli has more color terms than the adjectives listed in Table 3.14. Other color terms include, for instance, *mpùlé* ‘yellow’, which is derived from the name of a tree with yellow bark (*Enantia chlorantha*), or *máká* ‘green’, which is a noun also means ‘leaves’. Those other color terms are, however, recently acquired and differ in their morphosyntactic status in that they are nouns rather than adjectives, as further explained in Grimm (2014).

manner adverbs ('quickly'), time adverbs ('today'), or sentence adverbs ('unfortunately'). These subclasses show that adverbs do not necessarily modify verbs, but may also modify adjectives or other adverbs or even whole sentences. Schachter & Shopen (2007: 20) thus provide a broad definition of adverbs as elements which "function as modifiers of constituents other than nouns".

In general, the class of adverbs in Gyeli is rather restricted in diversity, just as in many other Bantu languages. Thus, in the Gyeli text corpus, as described in §1.3.3, fewer than 20 different adverbs occurred. One reason for this is that, according to Creissels et al. (2008: 126), in many African languages, "the possibility of deriving manner adverbs from other categories or to use adjectives as verb modifiers, is very limited". This is also true for Gyeli where the meaning of typical English manner adverbs is instead expressed by ideophones, as will be discussed in §3.5, or by nouns in complement position, as in (45).

- (45) *màléndí*      *máà*      *vèè* *kwè* *mípìndí*  
       ma-léndí      máà      vèè kwè H-mi-pìndí<sup>1</sup>  
       ma6-palm.nut 6.DEM.PROX only fall OBJ.LINK-mi4-unripeness  
       'These palm nuts only fall when they are unripe.'

Despite this restricted diversity, Gyeli adverbs occur pervasively in all types of text genres (dialogues, folktales, autobiographic narratives). Almost a quarter of all intonation phrases in the Gyeli text corpus (123 (23%) of 540 intonation phrases) include an adverb.

Gyeli adverbs are invariable and do not receive any specific morphological marking, e.g. through suffixes, like the English *-ly* or French *-ment*. Subclasses of adverbs can be distinguished through several morphosyntactic properties and/or a combination of them. I will consider the following three subclasses as described by their most salient characteristics:

*Group 1:* adverbs optionally combining with LOC preposition *é*

*Group 2:* adverbs that can occur in noun + attributive constructions

*Group 3:* adverbial lexemes that can act as nominal modifiers in NPs

Subclassification of adverbs in the literature is typically done on a semantic basis, such as manner, temporal or locative adverbs. The choice of semantic categories may, however, be arbitrary and may not match the morphosyntactic categories of a language. In Gyeli, morphosyntactic classes map onto semantic categories, as shown in Table 3.15. Group 1 consists entirely of deictic adverbs which

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include locative and manner deictics. Group 2 hosts temporal adverbs and group 3 contains manner adverbs.

Nevertheless, the defining criteria for adverbial subclasses in Gyeli are four morphosyntactic properties as listed in the column names of Table 3.15: (i) the potential combination with the locative *é*, (ii) use of a lexeme as both adverb modifying a verb and adjective/quantifier modifying a noun, (iii) occurrence in noun + attributive marker construction, and (iv) occurrence in phrase-final position only. The last column also provides information on the derivational source of the adverbs. Yet, since this is not a morphosyntactic property, it does not determine adverbial classification.

Table 3.15: Criteria for adverb classification

Group	Semantic core	LOC é	ADJ/QUANT	ATT constr.	only final position	derivational source
1	deictic	x	–	(x)	–	underived
2a	temporal	–	–	x	–	underived
2b	temporal	–	–	x	–	denominal
3	manner	–	x	–	x	ADJ/QUANT

The distinctive characteristic of group 1 adverbs is their potential combination with the locative preposition *é* which no other adverbial subclass allows for. Also, some (but not all) group 1 adverbs can be used in noun + attributive marker constructions. This property is defining for group 2 adverbs. Group 3 adverbs are the only ones to be restricted to phrase-final position only while all other adverbs can also occur at the beginning of a phrase. Lexemes occurring in group 3 can also be used as adjectives or quantifiers to modify nouns.

#### 3.4.1 Group 1 adverbs: Deictic

Adverbs of group 1 are all deictic in nature, including both locative and manner deixis. They are the most frequent ones occurring in natural text out of all adverb types. Deictic adverbs, as any deictic elements, are often accompanied by gestures or assume common knowledge of the specific place under discussion. Table 3.16 provides a summary of deictic adverbs in Gyeli as well as their numeric frequency in the Gyeli text corpus.<sup>24</sup> The deictic elements represented in

<sup>24</sup> Obviously, this is a very limited corpus, but it shows some tendencies as to which adverb gets used more frequently.

the table mostly function as adverbs, namely when they occur with verbs, but as the last column shows, almost all of them may also occur in the nominal domain modifying nouns. §3.10.1.1 provides more information on the locative  $\acute{e}$ .

Table 3.16: Deictic adverbs

Deictic element	Gloss	Frequency	
		with verb	with noun
( $\acute{e}$ ) <i>vâ</i>	'here'	41	2
( $\acute{e}$ ) <i>pɛ</i>	'over there'	21	0
( $\acute{e}$ ) <i>wû</i>	'there'	12	3
( $\acute{e}$ ) <i>tè</i>	'there'	8	13

### Formal commonalities

I view deictic adverbs as a category, based on formal similarity and their potential co-occurrence with the locative marker  $\acute{e}$ , which distinguishes them from other adverb subclasses. All deictic adverbs are monosyllabic. They do not seem to be derived from another part of speech, in contrast to, for instance, group 3 adverbs. Some of them may, however, also be used to modify nouns rather than verbs, namely as the second constituent in noun + attributive marker constructions, as discussed in §5.5. The distribution of deictic adverbs as modifying verbs as opposed to nouns is illustrated in Table 3.16 under "Frequency". (46) gives an example of a deictic element as nominal modifier while the examples in the remainder of this section show deictic adverbs modifying verbs.

- (46) *mègà*    *méè*    *dyúwɔ*    *nzâà*    [*dúwɔ*    *lé*    *tè*]  
 mε-gà    mεè    dyúwɔ-H nzâà    d-úwɔ lé    tè  
 1SG-CONTR 1SG.PST2 feel-R    Ø7.appetite le5-day 5:ATT there  
 'As for me, I had a craving [for meat] that day.'

Contrasting deictics as verbal versus nominal modifiers, there is a tendency that the more frequently a (locative) deictic element occurs as verbal modifier, the less frequently it is found as a nominal modifier. This is the case, for instance, with *vâ* 'here'. Within the Gyeli text corpus, *vâ* is found 41 times as a verbal modifier, but only twice as a nominal modifier. Conversely, the less frequently a deictic adverb modifies verbs, the more often it occurs as a nominal modifier as with *tè* 'there', which occurs only 8 times with verbs, but 13 times with nouns.

### Phrase position

A further distinctive morphosyntactic property in adverbial subclasses is the phrase position in which adverbs can occur. As a default position, all adverb classes occur phrase finally. This is also true for group 1 adverbs, as shown in (47) and (48).

- (47) *mé bvú nâ nkwalá wúù tfundé mè vâ*  
       mε-H bvû-H nâ nkwalá wúù tfundε-H mè vâ  
       1SG.PRS think-R COMP Ø3.machete 3.PST2 miss-R 1SG here  
       'I think that the machete missed [injured] me here.'
- (48) *mé pâ ná kè dígè mudì wà nû é pé*  
       mε-H pâ-H ná kè díge m-ùdî wà nû é pé  
       1SG.PRS try-R again go see n1-person 1:ATT 1.DEM.PROX LOC there  
       'I try again and go to see that person there.'

In contrast to group 3, group 1 adverbs also pervasively appear in phrase-initial positions, as in (49) and (50). This position is clearly correlated with information structure, moving the deictic adverb into a focus position.<sup>25</sup> While also group 2 (temporal) adverbs can occur in this initial focus position, deictic adverbs are significantly more frequently focused in the Gyeli text corpus.

- (49) *é vâ mè dyùwɔ nâ é vâ yî sîlè njì bûlè*  
       é vâ mε dyùwɔ-H nâ é vâ yî sîlè njì bûlε  
       LOC here 1SG.PST1 hear-R COMP LOC here 7.FUT finish.FUT come destroy  
       'I heard that it [the road] will all come here to be destroyed [the plants].'
- (50) *é pé-é mèè lwɔ nyà ndawɔ*  
       é pé-é mèè lwɔ nyà ndawɔ  
       LOC there-DIST 1SG.FUT build real Ø9.house  
       'Over there, I will build a real house.'

If a deictic adverb occurs in the initial focus position, it is often repeated again at the end of the phrase in its default position, as shown in (51) and (52).

- (51) *é pè bà sîlé bî lwɔ mândawɔ é pè*  
       é pè ba sîlε-H bî lwɔ H-ma-ndawɔ é pè  
       LOC there 2.PST1 finish-R 1PL.OBJ build OBJLINK-ma6-house LOC there  
       'There, they have finished to build us houses.'

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<sup>25</sup>See §7.3 on information structure for a more detailed discussion.

- (52) *é wû bêyá l̩wɔ́ kwád yâ é wû*  
       é wû bêyá l̩wɔ́-H kwád y-â é wû  
 LOC there 2PL[Kwasio] build-R Ø7.village 7-POSS.1SG LOC there  
 'Over there, you (pl.) build my village over there.'

The use of the locative *é* is more frequent when the adverb occurs phrase initially while post-verbal and phrase-final occurrences allow for a higher degree of optionality as to whether the locative is used or not. The higher degree of locative *é* omission when the deictic adverb occurs phrase finally might be phonologically conditioned. Phrase finally, the locative *é* usually follows a vowel either from a preceding verb or noun and may undergo deletion in fast speech. When asked, speakers state that the use of the locative *é* is possible in both phrase-initial and phrase-final positions. It is less clear at this point whether the co-occurrence of the locative *é* with a deictic adverb is generally optional, comparable to the optional use or omission of the attributive marker as discussed in §5.5.1.1 or whether the locative *é* is always underlyingly present with deictic adverbs and its omission in the surface form is purely phonological.

### Distinctions within the locative deictic system

Gyeli uses a range of deictic elements to refer to places or locations in varying distance to the speaker. Since most of these elements would be translated as 'there' in English, the system merits a more thorough explanation. In general, distances in Gyeli are relative rather than absolute in that 'here', for instance, can denote a place within the hand-reach of the speaker, but could also talk about a whole village. On the other hand, 'over there' can then be a distant place or, in other cases, a place even within the village, depending on the discourse topic.

Semantically, the clearest distinction is between *vâ* 'here', which refers to the relative immediate surroundings of the speaker, and *pè* 'over there', which denotes the place furthest away. In French, *pè* gets translated as *là-bas*. *wû* and *tè* would both be translated as 'there', or *là* in French, which makes it more difficult to grasp their semantic distinctions. Differences in their morphosyntactic behavior can help to disentangle their meaning contrast.

In the default case, it seems that *wû* denotes a medial distance between *vâ* 'here' and *pè* 'over there' and occurs mainly in the verbal domain. In contrast, *tè* is mostly used with nouns rather than with verbs where *tè* seems to be related more to specificity and/or anaphora than to actual location. In that sense, *tè* may be less part of the distance-related deictic system, as (53) illustrates. In this example, *tè* is more existential than about distance.

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- (53) *bâ yɔ̄ɔ yî tè*  
       bâ y-ɔ̄ɔ yî tè  
     ∅7.word 7-2SG.POSS 7.ID there  
     ‘You are understood [lit. your word is there].’

Also in (54), the use of *tè* is not primarily locative, but more anaphoric to the circumstances of earning only 250 Cameroon Francs.

- (54) *ká bá ké wê vè bé-bwúyà békáà nà mà-wú*  
       ká ba-H kè-H wê vè H-be-bwúyà békáà nà ma-wú  
       if 2-PRS go-R 2SG.OBJ give OBJ.LINK-be8-hundred 8-two COM ma6-ten  
       mátánè wé sá tè ná  
       má-tánè wé-H sâ-H tè ná  
       6-five 2SG-PRS do-R there how  
     ‘If they go to give you 250 (Francs), how do you manage there? [because it’s very little money]’

In other cases, however, as in (55), *tè* is place-denoting just like the other deictic adverbs. Speakers state that, in this example, *tè* can also be replaced by *pè* or *wû* in both instances.

- (55) *tè mèè jíbi kè lwâ tè*  
       tè mèè jíbi kè lwâ tè  
       there 1SG.FUT start go build there  
     ‘There, I will first go to build there.’

Further, distance cannot be the only distinctive criterion within the locative deictic system: an increased sense of distance can be added phonologically by lengthening the final vowel of the adverb and an H tone, as shown in (56) and in (50) above.

- (56) *lèkfúdè à nzí bíyɔ nlô péé*  
       le-kfúdè a nzí bíyɔ nlô pé-é  
       le5-idiot 1 PROG.PST hit Ø3.head over.there-DIST  
     ‘The idiot was hitting his head far over there.’

This way of expressing further distance by vowel lengthening and H tones is possible with both *pè* and *wû*. An example for the latter is given in (57). In contrast, this does not seem to be possible with *tè*, which indicates again that *tè* behaves differently from the other more purely locative deictic elements.<sup>26</sup>

<sup>26</sup> *vâ* ‘here’ also does not allow for final vowel lengthening and an H tone, but that is clearly a semantic restriction since it denotes a place that is close to the speaker.

- (57) *báà tfùbò báà tfùbò mpàgó wá nùmbà wúú*  
**báà** **tfùbò** **báà** **tfùbò** **mpàgó** **wá** **nùmbà** **wú-ú**  
 2.FUT pierce 2.FUT pierce Ø3.road 3:ATT Ø1.logger there-DIST  
 'They will cut, they will cut. The road of the loggers there.'

Another difference between *wû* and *tè* concerns the combination with a vocative morpheme *-o* which, at the same time, can further take an H tone to indicate distance between the speaker and the addressee. This vocative morpheme can be used with *wû*, as shown in (58), but not with *tè* nor any other deictic element.

- (58) *mùdì kí tàtsò wúó*  
**m-ùdì** **kí** **tàtsò** **wú-o-H**  
 N1-person NEG scream there-VOC-DIST  
 'Nobody scream over there!'

In summary, it seems that *vâ* 'here', *wû* 'there' and *pè* 'over there' form the core locative deictic system while *tè* 'there' takes over other functions (specificity, anaphora) as a default, but can also act as a deictic element within the locative system. The different properties of the various locative deictics as discussed above are summarized in Table 3.17.

Table 3.17: Morphosyntactic properties of locative deictics

Deictic	Gloss	LOC ε	mostly modifying	DIST marking	Vocative -o
vâ	'here'	x	verbal	—	—
wû	'there'	x	verbal	x	x
pè	'over there'	x	verbal	x	—
tè	'there'	x	nominal	—	—

### 3.4.2 Group 2 adverbs: Temporal

Adverbs of group 2 have four members which are all temporal and listed in Table 3.18. While group 2 adverbs form a unitary morphosyntactic category, they differ in their derivational source. While *téè* 'now' and *dê* 'today' seem to be underived lexemes, the other two adverbs in the group are clearly derived from nouns: *nàkùgúù* 'yesterday' is derived from *kùgúù* 'evening' and *nàménj* 'tomorrow' from *ménj* 'morning'. The *nà-* prefix in these adverbs is a derivational similitative marker, as described in §4.1.1.1.

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Table 3.18: Group 2 adverbs

Adverb	Gloss	Derivational source
téè	'now'	underived
dê	'today'	underived
nàkùgúù	'yesterday'	denominal
nàménó	'tomorrow'	denominal

The defining property of group 2 temporal adverbs is that they can all also occur in nominal modification as second constituent in a noun + attributive marker construction, as in (59).

- (59) a. *bèdewò*   *bé*   *dê*  
          be-déwò   bé   dê  
          be8-food 8:ATT today  
          'food of today'  
       b. *nlâ*      *wá*   *nàkùgúù*  
          nlâ      wá   nàkùgúù  
          Ø3.story 3:ATT yesterday  
          'yesterday's story'

While some group 1 adverbs exhibit the same property, deictic adverbs also combine with the locative *é*, unlike group 2 temporal adverbs.

All group 2 adverbs occur phrase finally as a default position. Examples are given in (60) through (62).

- (60) *wé*      *làwó*   *téè*  
       wε-H    làwɔ-H téè  
       2SG-PRS talk-R now  
       'You speak now.'  
      (61) *nyè* *náà*   à *múà*   *wé*      *bíyò* *dê*  
       nyε náà   à múà   wè      bíyò dê  
       1 COMP 1 PROSP 2SG.OBJ hit today  
       'He [says] that he is about to beat you today.'  
      (62) *mè* *nzí*      *kè* *jí*      *nàkùgúù*  
       mε nzí      kè jí      nàkùgúù  
       1SG PROG.PST go Ø7.forest yesterday  
       'I was going to the forest yesterday.'

They can all also occur phrase initially, as shown in (63). In these cases, they are in focus, as discussed for group 1 adverbs and in §7.3 on information structure. In (63), the narrator stresses that the mice will only eat the skulls the next day, as contrastive focus to the possibility that they might eat them right away.

- (63) àà **nàménó** bwáà dè **nàménó**  
 àà nàménó bwáà dè nàménó  
 EXCL tomorrow 2PL.FUT eat tomorrow  
 ‘Ah, tomorrow you will eat, tomorrow.’

In comparison to group 1 adverbs, which occur frequently in this focus position, group 2 adverbs are rarely found in this position in natural text.

### 3.4.3 Group 3 adverbs: Manner

Group 3 adverbs are defined by the double affiliation of their lexemes to the part of speech of adjectives (§3.3) or nominal modifiers (§3.8.1). Semantically, they map onto manner adverbs. Manner adverbs are rare in Gyeli, both in terms of number and occurrence. Table 3.19 gives an exhaustive list of all manner adverbs found in the Gyeli text corpus as well as those stemming from questionnaire elicitation. Each of these manner adverbs occurs only a couple of times in the corpus, thus their natural frequency seems to be generally low. Gyeli seems rather to have a preference to express the manner of an action or event by ideophones, as will be discussed in §3.5.

Table 3.19: Manner adverbs and their affiliated parts-of-speech

Manner adverb	Gloss	Affiliation to other pos
mpà	good	invariable adjective
bíwò	bad	invariable adjective
fi	different	deictic modifier (→ short form of -fúsi)
bvùbvù	a lot	invariable quantifier

In terms of their position, manner adverbs exclusively occur (intonation) phrase finally. Thus, the adverb may follow the verb if there is no object, as demonstrated in (64) and (65).

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- (64) *wè nzíí bálè mpà*  
wε nzíí-H bále mpà  
2SG PROG.PRS-R keep good

‘You are remembering well [lit. your are keeping the words well].’

- (65) *wé ná báàla nà nyé fí nà wé ndyándyá*  
wε-H ná báàla-H nà nyê-H fí nà wε-H ndyándya-H  
2SG-PRS again repeat-R COM see-R different COM 2SG-PRS work-R  
*ná sálé é p̄é*  
ná sále-H é p̄é  
again Ø7.work LOC there

‘You repeat [it] again and try something else and you work there again.’

If the clause has an object, the manner adverb will follow the object instead of the verb, as shown in (66) and (67).

- (66) *á sìmbó màtúà bíwò*  
a-H sìmbó-H màtúà bíwò  
1-PRS drive-R Ø1.car bad  
‘He drives the car poorly.’

- (67) *mèé jí-lé wé bvùbvù*  
mèé jí-lé wé bvùbvù  
1SG.PRS.NEG ask-NEG 2SG much  
‘I don’t ask you [for] much.’

In contrast to adverb groups 1 and 2, manner adverbs cannot be used in a phrase-initial focus position.

#### 3.4.4 Discussion: Multiple adverbs

While only one adverb can appear phrase initially, multiple adverbs can occur phrase finally. There seem to be some ordering principles among multiple phrase-final adverbs slot, with some adverbs seem closer to the center of the phrase than others. Since multiple adverbs do not occur very frequently in natural speech, it is not possible at this point to give a full account of adverb order in multiple adverb constructions. The present examples, however, suggest that group 1 adverbs are closest to the center, i.e. verb and following object, as shown in (68) and (69).

- (68) *pílì bèyá ló njí è vá téè dé*  
when 2PL RETRO come LOC here now today  
‘When you just arrived here now today...’

- (69) *mè nzí dyá vâ kùgúù [dê] màfú mábáà]*  
 mè nzí dyá vâ kùgúù dê mà-fú mábáà.  
 1SG PROG.PST1 lie.down here Ø7.evening today ma6-day 6-two  
 'I was here in the evening two days ago.'

Other generalizations as to whether any of the other adverb subclasses are closer to the center or the periphery of the clause require more investigation. This is most likely also correlated with information structure factors.

### 3.5 Ideophones

Ideophones are widely attested in the literature on African languages (see, for instance, Doke (1935), who coined the term, Westermann (1907) on Ewe, Dumestre (1998) on Bambara, Alexandre (1966) on Bulu, or Newman (2001) on Hausa) and also found in Gyeli. In defining the term *ideophone*, I refer to Dingemanse (2011: 25) who views ideophones as “marked words that depict sensory imagery”, a definition that deserves some further explanation. First, according him, ideophones are often marked by phonological peculiarities and/or stand out from other words by means of “special word forms, expressive morphology, relative syntactic independence and foregrounded prosody” (p. 26). Second, the fact that ideophones are words implies that they are “conventionalized minimal free forms with specifiable meanings”. Gyeli speakers use ideophones in a conventionalized way able to describe the meaning of single ideophones consistently.<sup>27</sup> Third, Dingemanse (2011: 27) makes the point that ideophones rather *depict* than describe their referents. This is similarly explained by Güldemann (2008: 280) who notes that “Metaphorically, one can characterize ideophones as a performance or a gesture in disguise of a word”. Finally, Dingemanse restricts ideophones to a semantic domain depicting sensory imagery which he views as “perceptual knowledge that derives from sensory perception of the environment and the body” (p. 28). He argues that this semantic-functional definition makes sense for cross-linguistic comparison while grammatical-structural features of ideophones have to be considered language specifically.

Gyeli ideophones<sup>28</sup> modify verbs in some cases, namely when they behave like adverbs. Even when they are syntactically more independent or occur in comple-

<sup>27</sup>Ideophones that are identical or similar in their form and meaning seem to be consistently used in the languages of the area either through genealogical affiliation or language contact. In any case, they are easily recognized and understood by speakers of neighboring languages such as Mabi and Bulu.

<sup>28</sup>There are 19 occurrences of ideophones in the corpus, comprising 16 different ideophones.

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ment clauses, they depict the way an event happens. Generally, Gyeli ideophones structurally stand out from other words in terms of their phonological shape and their syntactic integration into a phrase.

#### **3.5.1 Phonological shape of ideophones**

Ideophones in Gyeli are phonologically marked by various means, including reduplication or a repetitive character, final vowel lengthening, and special syllable structure such as closed syllables or syllables consisting of a consonant only. These three properties usually do not all occur in the same ideophone, but are partially mutually exclusive. For instance, final vowel lengthening excludes the possibility of a closed syllable. Also, reduplication does not usually occur with final vowel lengthening while closed syllable ideophones may also be reduplicated. Ideophones are also more specified for the use of alveolar versus postalveolar fricatives and affricates, allowing for less variation. For that reason, I exceptionally represent ideophones with IPA notation in this section.

##### **Reduplication/repetitive character**

Many Gyeli ideophones involve reduplication or repetition, where a word is minimally reduplicated. In most cases, however, the word gets repeated multiple times, i.e. more than twice, usually three to five or six times, depending on the ideophone and the dramatic effect aimed at in the discourse. For all repetitive ideophones it holds that the number of repeated syllables is not necessarily conventionalized. Each ideophone seems to have a preference for the number of repetitions as represented in the following examples, but the number is not fixed.

Repetitive ideophones can be divided into those that have the same tone on each repeated syllable and those that change their tonal melody across repeated syllables. In (70), for instance, the ideophones involve repeated monosyllabic words each carrying the same tone.

- |                     |   |
|---------------------|---|
| (70)    /jɛ̂/ jŷɛ̂ | 'depiction of sneaking'   |
| tʃɔ̂p tʃɔ̂p tʃɔ̂p   | 'depiction of dripping sound or sound of walking in mud'            |
| mtʃà mtʃà mtʃà      | 'depiction of picky eating (only taking certain items off a plate)' |
| ké ké ké ké ké      | 'depiction of placing objects in a row'                             |
| tsùk tsùk tsùk tsùk | 'depiction of noise that mice make'                                 |

In contrast, the ideophones in (71) show an alternating tonal pattern with repeated monosyllabic words alternating between H and L tones. One could argue that two syllables, an H plus an L, actually constitute one unit that gets repeated rather than the single syllable. The fact that these ideophones are often used with an uneven number of syllables, however, indicates that also for tonally alternating ideophones the repeated unit is usually the monosyllabic word.

- (71) gbí gbí gbí gbí gbí ‘depiction of small objects moving in space (e.g. bacteria roaming in a body)’  
wùù wúú wùù wúú ‘depiction of sound of bees’

There are a few instances, however, where the word is disyllabic and again, it is the word that gets reduplicated, as shown in (72). In contrast to monosyllabic ideophone words, disyllabic ones are only subject to reduplication, but usually do not get repeated more than twice.

- (72) kpúdùm kpúdùm ‘depiction of drumming’  
kpàdà kpàdà ‘depiction of drumming on bamboo pipes’  
mátjà mätjà ‘depiction of eating in little bits’

Semantically, ideophones that involve reduplication or repetition often depict iterative events, for example repeated motion such as drumming or dripping water or recurring sounds such as noise of mice.

### Final lengthening

A large group of Gyeli ideophones systematically employs final vowel lengthening, as shown in (73). The extreme length, often until the speaker needs to take another breath, is marked by four vowels (instead of two for phonological long vowels). All of these lengthened ideophones occur as monosyllabic words only.

- (73) ndééééé ‘depiction of staring’  
wóóóóó ‘depiction of moving by foot or motorbike’  
bâââââ ‘depiction of walking a long distance fast’  
wùùùùù ‘depiction of pouring liquids or granulars’  
pfáááá ‘depiction of flinging a long object or slinging’  
tèèèè ‘depiction of waiting’

In comparison to iterative, repetitive ideophones, this group depicts events that either persist in time, for instance staring or waiting, or depict distances,

as it is the case with flinging an object (into some distance) or moving into the distance.

As mentioned above, this group of ideophones that receives its special marking in the sense of Dingemanse's (2011) definition by vowel lengthening usually does not combine with reduplication. There are a few exceptions, however. For instance, *wùùùù* 'depiction of pouring liquids or granulars' was found to be used in a reduplicated form, depicting the situation when the main character in the Nzambi story (see Appendix B.2) repeatedly pours fuel onto a house.

### Special syllable structure

Some ideophones in Gyeli are further phonologically marked by a closed final syllable structure. As such, ideophones form an exception to a general rule of open syllables in the language (§2.3). Closed syllables in ideophones frequently end in /m/, but also voiceless obstruents such as /f/ or /k/. Most of them are monosyllabic, as in (74).

- (74) wòm 'depiction of (sudden) silence'  
ùf 'depiction of sound when something catches fire suddenly'  
gbìm 'depiction of putting or falling down of a person or object'  
bààm 'depiction of closing or finishing something'

There are also disyllabic ideophones whose second syllable is closed, ending in the nasal /m/, as shown in (75).

- (75) pfütùm 'depiction of sound when jumping into water'  
pùdùm 'depiction of falling into mud or throwing stone into water'  
ntòndòm 'depiction of monkeys jumping in trees'

Most of these closed syllable ideophones occur without reduplication. In these cases, they typically depict some sort of suddenness (sudden silence, suddenly catching fire) or an endpoint of an event (falling, closing, hitting water). There are, however, also a few examples of closed syllable ideophones which involve reduplication such as *wùf wùf* 'depiction of walking mice'.

The other unusual syllable type found in ideophones is that of a consonantal nucleus. Examples are given in (76). The voiceless bilabial in *p p p p* 'depiction of smoking pipe' is produced with an ingressive airstream, imitating the inhaling when smoking.

- (76) m̩ m̩ m̩ m̩ 'depiction of someone mumbling to himself'  
p p p p 'depiction of smoking pipe'

### 3.5.2 Morphosyntactic properties of ideophones

In terms of word class, ideophones have been assigned to different parts of speech in the literature, depending on the language. Dwyer & Moshi (2003: 173) provide examples from different African languages where ideophones are categorized, for instance, as verbs, adjectives, interjectionals, special classes, but most commonly as adverbs. They further specify that ideophones

often differ syntactically from the rest of the grammar. 1) usually occur either before or after a sentence; 2) often don't fit into any of the standard categories for parts of speech. (p. 174)

These generalizations also apply in Gyeli. Gyeli ideophones constitute a word class on their own as characterized by their syntactic independence, i.e. outside of the syntactic phrase. Possible positions where ideophones are found are (i) at the end of an intonation phrase, (ii) independently, i.e. outside of an intonation phrase, and (iii) as complements in complement clauses.

## Ideophones at the end of intonation phrases

Ideophones in Gyeli frequently occur at the end of an intonation phrase as in (77) and (78). In these cases, ideophones are similar to adverbs in their position and their function, namely depicting the manner in which an action or event happens.

- (77) *yóò mùdâ dígé mísi ndéééé*  
*yóò m-ùdâ dígé-H m-ísì ndéééé*  
 so N1-woman watch-R ma6-eye IDEO:staring  
 ‘So the woman looks with her eyes [depiction of staring].’

(78) *bá ké ndáà nà télé mákùndù má kùrà*  
 ba-H ke-H ndáà nà télé-H H-ma-kündù má kùrà  
 2-PRS go-R also COM put-R OBJ.LINK-ma6-clay.house 6:ATT Ø7.electricity  
**ké-ké-ké-ké-ké**  
**ké-ké-ké-ké-ké**  
 IDEO:repeated.placement  
 ‘They also go and put up electricity poles for clay houses [depiction of putting the electricity poles along the road].’

In contrast to adverbs, ideophones also occur in constructions with the deictic element *mpù* ‘like this’, as shown in (79).

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- (79) *yóò Nzàmbí njí mpù bâââââ njí dígè mpù*  
yóò Nzàmbí njí-H mpù bâââââ njí dígè mpù  
so Ø1.PN come-R like.this IDEO:walking.far come look like.this  
'So Nzambi comes like this [depiction of walking a long distance], comes looking like this.'

#### Ideophones as *nâ* complements

Similarly, the same sort of signaling happens when ideophones are used as complements in *nâ* clauses, as illustrated in (80).

- (80) *Nzàmbí, màbóò nkweéè dé nâ vósì*  
Nzàmbí ma-bóò nkweéè dé nâ vósì  
Ø1.PN ma6-breadfruit Ø3.basket LOC COMP IDEO:pouring  
'Nzambi pours the breadfruit into the basket.'

This type of construction is parallel to reported speech, as discussed in Güldemann (2008). For more information on Gyeli complement constructions and reported speech, see §8.2.2.1.

#### Syntactic independence of ideophones

Gyeli ideophones occur independently from an intonation phrase, rather forming an intonation phrase on their own. In this, they differ from adverbs which cannot occur as independent intonation phrases. In (81), the ideophone occurs before the intonation phrase it refers to in the discourse. The ideophone is separated from the following intonation by a short pause.

- (81) *gbí-gbí-gbí-gbí-gbí à múà nà bábè tí wúmbé wè*  
gbí-gbí-gbí-gbí-gbí a múà nà bábè tí wúmbé-H wè  
IDEO:roaming 1SG.PST1 PROSP COM Ø7.illness NEG want-R die  
'[depiction of disease roaming in his body] He was about to be sick, not wanting to die.'

Intonationally independent ideophones can also follow the intonation phrase they are semantically linked to in the discourse, as shown in (82).

- (82) *wé dyúwó mpù bàmìntùlè bógá bá tsígè*  
 we-H dyúwó-H mpù ba-míntùlè bógá ba-H tsígè  
 2SG-PRS hear-R like.this ba2-mouse 2-other 2-PRS take.off  
**tsùk-tsùk-tsùk**  
 tsùk-tsùk-tsùk  
 IDEO:rustling  
 ‘You hear like this the other mice take off [depiction of noise made by mice].’

In addition to intonational breaks, the end of an intonation phrase can be indicated by the tonal melody. In (82), it is the L tone on *tsígè* ‘take off’, which shows the end on the intonation phrase. If the ideophone was part of the same intonation phrase, the final tone on *tsígè* would be H.

## 3.6 Pronouns

Gyeli has different types of pronouns, i.e. grammatical free morphemes that can replace a noun phrase. The different pronominal paradigms arise from the pronouns’ differing syntactic functions and distributions. I distinguish subject pronouns from non-subject pronouns. The latter are used in object and adjunct function. For the reader’s convenience, I gloss them simply as OBJ. Gyeli has further interrogative pronouns, possessor pronouns, and a reflexive pronoun *médé* ‘self’ that follows subject and non-subject pronouns. Table 3.20 illustrates all pronoun paradigms and, for comparison of forms, the verbal STAMP marker (§3.9.1). Most paradigms can be subdivided into speech act participants (1SG, 1PL, 2SG, and 2PL), which are not marked for gender agreement, and non-speech act participants (third person), which are marked for one of the nine agreement classes.

As described in detail in §3.6.4, possessor pronouns reference the possessor by their pronominal root. The pronominal root is the same for all non-speech act participants, as indicated by 3SG and 3PL in Table 3.20. The possessee is referenced by an agreement prefix, which is listed for each agreement class as well. Some paradigms are specified for tones and marked as such, for instance subject and non-subject pronouns. In contrast, STAMP markers and possessor pronouns have different tonal patterns, depending on the tense/aspect/mood/polarity category they encode or the possessee agreement class.

Generally, agreement class 2 pronouns are also used for impersonal reference. For instance, active clauses with the impersonal *ba* pronoun are preferred over passive constructions (§4.2.4.2). This pronoun can also be used in impersonal

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Table 3.20: Pronoun paradigms

Paradigm	Singular	Plural
Subject pronouns	1SG <i>mè</i> 2SG <i>wè</i> cl.1 <i>nyè</i> cl.3 <i>wú</i> cl.5 <i>lí</i> cl.7 <i>yí</i> cl.9 <i>nyì</i>	1PL <i>bí</i> 2PL <i>bé</i> cl.2 <i>bá</i> cl.4 <i>mí</i> cl.6 <i>má</i> cl.8 <i>bé</i>
STAMP markers	1SG <i>me</i> 2SG <i>wε</i> cl.1 <i>a/nyε/nu</i> cl.3 <i>wu</i> cl.5 <i>le</i> cl.7 <i>yi</i> cl.9 <i>nyi</i>	1PL <i>ya</i> 1PL <i>bwa</i> cl.2 <i>ba</i> cl.4 <i>mi</i> cl.6 <i>ma</i> cl.8 <i>be</i>
Non-subject pronouns (OBJ)	1SG <i>m̂e</i> 2SG <i>ŵe</i> cl.1 <i>nŷe</i> cl.3 <i>ŵ-̂</i> cl.5 <i>l-̂</i> cl.7 <i>y-̂</i> cl.9 <i>ny-̂</i>	1PL <i>b̂i</i> 2PL <i>b̂e</i> cl.2 <i>b-̂</i> cl.4 <i>my-̂</i> cl.5 <i>m-̂</i> cl.8 <i>by-̂</i>
Possessor pronouns	1SG <i>-̂a</i> 2SG <i>-ɔ</i> cl.1 <i>w-ε</i> cl.3 <i>w-</i> cl.5 <i>l-</i> cl.7 <i>y-</i> cl.9 <i>ny-</i>	1PL <i>-isi/usi</i> 2PL <i>-ine/une</i> cl.2 <i>b-awo</i> cl.4 <i>mi-</i> cl.6 <i>m-</i> cl.8 <i>bi-</i>
Interrogative pronouns	<i>nzá</i> ‘who’ <i>gyí</i> ‘what’	<i>bànzá</i> ‘who’
Reflexive pronoun <i>médé</i> ‘self’		

relative clauses, expressing ‘who’ in the subordinate clause even if the referent of the main clause is expressed by a different agreement/person class (§8.2.1).

### 3.6.1 Subject pronouns

Subject pronouns are rarely used in Gyeli, with only 17 occurrences in the corpus, since subject noun phrases are mostly expressed by a noun or entirely dropped, leaving only the STAMP marker (§3.9.1) as portmanteau morpheme that expresses subject agreement on the predicate. Subject pronouns are used for subject focus of, mostly, speech act participants. Non-speech act participants are focused through other information structure strategies (§7.3).

Table 3.21 provides the subject pronoun forms for both speech and non-speech act participants. All subject pronouns are specified for tone (unlike the STAMP markers, which take their tonal marking from the tense-mood category they encode). Most persons have an H tone pronoun, with the exceptions of the first and second person singular and the pronouns of agreement classes 1 and 9.

Table 3.21: Subject pronouns

	Singular	Plural
Speech act participants	1SG <i>mè</i>	1PL <i>bí</i>
	2SG <i>wè</i>	2PL <i>bé</i>
Non-speech act participants (3 <sup>rd</sup> person)	cl.1 <i>nyè</i>	cl.2 <i>bá</i>
	cl.3 <i>wú</i>	cl.4 <i>mí</i>
	cl.5 <i>lí</i>	cl.6 <i>má</i>
	cl.7 <i>yí</i>	cl.8 <i>bé</i>
	cl.9 <i>nyí</i>	

While many subject pronouns are segmentally identical to the STAMP markers of their person/class (see Table 3.20 for comparison), there are a few exceptions which clearly show that subject pronouns form a distinct paradigm. These exceptions include the first and second person plural, and the pronoun of agreement class 1. To indicate this distinction in the glosses, I mark subject pronouns with ‘SBJ’, while the STAMP marker is only marked for its agreement class/person, as in (83) where subject pronoun (in bold) and STAMP marker differ in their form.

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- (83) *dɔ̄ bí yá táálé bē yàlànè àà*  
       dɔ̄         bí     ya-H  táálé-H  bē  yàlànè      àà  
       so[French] 1PL.SBJ 1PL-PRS begin-R 2PL respond[Bulu] EXCL  
       ‘So we start to respond to you, mhm.’

Other subject pronouns are segmentally identical to their STAMP marker and might only differ tonally, depending on the tense-mood category, as in (84).

- (84) *ah mbúmbù wɛ wé télé núnđè*  
       ah  mbúmbù  wɛ     wɛ-H  télé-H  núnđè  
       EXCL ∅1.namesake 2SG.SBJ 2SG-PRS stand-R 1-ANA  
       ‘Ah namesake, is it you who is standing there?’

Thus, although the agreement class 2 subject pronoun *bá* is segmentally identical to its STAMP marker, the two forms differ due to the FUTURE marking on the STAMP marker in (85).

- (85) *bá báà bù mpàgò*  
       bá  báà  bù  mpàgò  
       2.SBJ 2.FUT break ∅3.road  
       ‘THEY will build a road.’

The subject pronoun always occurs in subject position and always precedes the STAMP marker. If the subject is preceded by a fronted object, as for instance an interrogative pronoun in (86), the object pronoun will precede both the subject pronoun and STAMP marker.

- (86) *gyí bí yá tfúgà yá tfúgá nà gyí*  
       gyí  bí     ya-H  tfúgà  ya-H  tfúgá-H  nà  gyí  
       what 1PL.SBJ 1PL-PRS suffer 1PL-PRS suffer-R COM what  
       ‘What do we suffer, we suffer from what?’

There are certain words that can enter between the subject pronoun and the STAMP marker. These are, for instance, the contrastive marker *-gà* (§4.1.2.4) that attaches to the subject pronoun, as in (87).

- (87) *yóò Nzàmbí nyègà à kék̄ dígè mísi*  
       yóò Nzàmbí nyε-gà  a  kék̄  dígε  m-ísì  
       so  ∅1.PN  1.SBJ-CONTR 1.PST1 go.COMPL watch ma6-eye  
       ‘So this Nzambi has gone and was thinking very hard [lit. he watched with his eyes].’

Other nominal modifiers, such as *bɔ́ɔ* ‘other’ in (88) or *ndáà* ‘also’ in (89) occur between the subject pronoun and the STAMP marker.

- (88) *bí bɔ́ɔ yá bígé mpá'á wá vé*  
       bí b-ɔ́ɔ ya-H bígε-H mpá'á wá vé  
       1PL.SBJ 2-other 1PL-PRS develop-R Ø3.side 3:ATT which  
       ‘How will we others [in contrast to other Gyeli villages] make progress?’
- (89) *èsé bée ndáà bèyá làwó fàlà*  
       èsé bée ndáà bèya-H làwɔ-H fàlà  
       is.it[French] 2PL.SBJ also 2PL[Kwasio]-PRS speak-R Ø1.French  
       ‘Isn’t it, you (pl.), you also speak French.’

### 3.6.2 Non-subject pronouns

Gyeli has a paradigm of non-subject pronouns which are used for object and oblique noun phrases. They are glossed as “OBJ”. They are significantly more frequent in the corpus than subject pronouns, counting 99 occurrences.

As shown in Table 3.22, the non-subject index forms for 1SG, 1PL, 2SG, 2PL, as well as cl. 1 are segmentally identical to their subject counterparts. All the other non-subject pronouns, namely agreement classes 2 through 9, differ structurally in that they have a non-subject pronoun root -*ɔ̄* that takes an agreement prefix. All non-subject pronouns are specified for an HL tone, which is a distinctive feature when compared to subject pronouns.

Table 3.22: Non-subject pronouns

	Singular	Plural
Speech act participants	1SG <i>m̄ɛ</i>	1PL <i>bí/bíȳɛ</i>
	2SG <i>w̄ɛ</i>	2PL <i>b̄ɛ</i>
Non-speech act participants	cl.1 <i>nȳɛ</i> cl.3 <i>w-ɔ̄</i> cl.5 <i>l-ɔ̄</i> cl.7 <i>y-ɔ̄</i> cl.9 <i>ny-ɔ̄</i>	cl.2 <i>b-ɔ̄</i> cl.4 <i>my-ɔ̄</i> cl.6 <i>m-ɔ̄</i> cl.8 <i>by-ɔ̄</i>

Non-subject pronouns that serve as objects occur in all object positions discussed in §7.2 and §7.3. The basic position is after the verb, as in (90) and (91).

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- (90) *bwáá lá bɔ̄*  
 bwáá-H lá-H b-ɔ̄  
 2PL-PRS tell-R 2-OBJ  
 ‘You tell them!’
- (91) *byɔ̄ bé vɛ́ biī màpè’è*  
 byɔ̄ be-H vɛ́-H biī ma-pè’è  
 8.OBJ 8-PRS give-R 1PL.OBJ ma6-wisdom  
 ‘They give us wisdom.’

Non-subject pronouns serving as objects can also be dislocated to the left edge of the clause, as in (92). In this marked position (91) as well as in the in-situ focus position in (92), the pronoun is optionally lengthened for emphasis.

- (92) *yɔ̄ò mɛ́ wúmbé́ wû*  
 yɔ̄ò mɛ-H wúmbé-H wû  
 7.OBJ 1SG-PRS want-R there  
 ‘That is what I want there.’

The first person plural often occurs with the special form *bíyè* in the corpus, as in (93). This seems even more emphatic than the lengthened form *biī*. The data is not sufficient, however, to pinpoint the exact distribution and functional difference between the two emphatic forms. The first person plural is the only person category that has such a suppletive emphatic form.

- (93) *bvúlè́ bá ntéglé́ ndáà bíyè*  
 bvúlè́ ba-H ntéglé-H ndáà bíyè  
 ba2.Bulu 2-PRS bother-R also 1PL.OBJ  
 ‘The Bulu bother us, too.’

Non-subject pronouns also occur in obliques, as in (94).

- (94) *á nyùlénýúlé́ kɔ̄fí nà yɔ̄*  
 a-H nyùlɛ-nýulɛ-H kɔ̄fí nà y-ɔ̄  
 1-PRS drink-HAB-R Ø7.coffee COM 7-OBJ  
 ‘He usually drinks coffee with it [sugar]’

Finally, non-subject pronouns are used as an information structure strategy after nominal subjects to mark subject focus, as in (95).

- (95) *ngündyá tè nyâ bé nyî*  
*ngündyá tè nyâ bë-H nyî*  
 $\emptyset$ 9.raffia there 9.OBJ be-R 9.DEM.PROX  
'The raffia there, IT is that.'

Just like subject pronouns, they can take the contrastive marker -gà to indicate switch-reference or mark in-situ focus, as shown in §4.1.2.4.

### 3.6.3 Interrogative pronouns

In addition to subject and non-subject pronouns, Gyeli also has two interrogative pronouns: *nzá* ‘who’ for human referents and *gyí* ‘what’ for non-human and inanimate referents.<sup>29</sup> These interrogative pronouns replace a nominal NP, which is shown in (96) and (97), respectively. In (96), the interrogative replaces the subject NP *m-ùdû* ‘man’ while, in (97), the interrogative *gyí* replaces the object NP *má-jíwó* ‘water’. In that sense, they behave like personal pronouns. Both interrogatives are used in all noun phrase environments, namely as subjects, objects, and obliques.

- (96) a. *[mùdû] à nyé mùdâ*  
*m-ùdû a nyê-H m-ùdâ*  
*N1-man 1.PST1 see-R N1-woman*  
'The/a man saw the/a woman.'
- b. *nzá à nyé mùdâ*  
*nzá a nyê-H m-ùdâ*  
*who 1.PST1 see-R N1-woman*  
'Who saw the/a woman?'
- (97) a. *mùdû á nyùlé [májíwó]*  
*m-ùdû a-H nyùle-H H-ma-jíwó*  
*N1-man 1-PRS drink-R OBJLINK-ma6-water*  
'The/a man drinks water.'
- b. *gyí mùdû á nyùlé*  
*gyí m-ùdû a-H nyùle*  
*what N1-man 1-PRS drink*  
'What does the man drink?'

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<sup>29</sup> Although many animals are grammatically classified within the same “animate” gender 1/2 as human referents, all animals are referred to with the non-personal interrogative pronoun *gyí*.

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Interrogative pronouns in oblique phrases are shown with the comitative marker *nà* in (98) and (99).

- (98) a. *mùdû à ké mákítì [nà Ádà]*  
          m-ùdû a   kè-H m-àkítì      nà Ádà  
          N1-man 1.PST1 go-R ma6-market COM Ø1.PN  
          ‘The/a man went to the market with Ada.’
- b. *nà nzá mùdû à ké mákítì*  
       nà nzá m-ùdû a   kè-H m-àkítì  
       COM who N1-man 1.PST1 go-R ma6-market  
       ‘With whom did the man go to the market?’
- (99) a. *mùdû à ké mákítì [nà túù]*  
       m-ùdû a   kè-H m-àkítì      nà túù  
       N1-man 1.PST1 go-R ma6-market COM Ø7.axe  
       ‘The/a man went to the market with an axe.’
- b. *nà gyí mùdû à ké mákítì*  
       nà gyí m-ùdû a   kè-H m-àkítì  
       COM what N1-man 1.PST1 go-R ma6-market  
       ‘With what did the man go to the market?’

*nà nzá ‘with whom’* is interesting in that *nzá* seems to take a plural marker if the expected answer is more than one person, as shown in (100). Since the prefix *bà-* comes with an L tone, it seems to behave like either a noun class or agreement prefix. Since *nzá* only occurs with humans, the prefix is invariably class 2 *bà-*, therefore it is difficult to test whether the prefix belongs to a noun or a modifier.

- (100) a. *mùdû à ké mákítì [nà Ádà nà Mambì]*  
       m-ùdû a   kè-H m-àkítì      nà Ádà nà Mambì  
       N1-man 1.PST1 go-R ma6-market COM Ø1.PN COM Ø1.PN  
       ‘The/a man went to the market with Ada and Mambi.’
- b. *nà báñzá mùdû à ké mákítì*  
       nà bà-nzá m-ùdû a   kè-H m-àkítì  
       COM 2-who ba1-man 1.PST1 go-R ma6-market  
       ‘With whom did the man go to the market?’

### 3.6.4 Possessor pronouns

Possessor pronouns in Gyeli consist of a root indicating the possessor and a prefix that agrees with the possessee, as shown in (101).

- (101) a. *m-ùdì w-â*  
           N1-man 1-POSS.2SG  
           ‘your (sg) man’  
 b. *mi-nkwé my-áwɔ*  
       mi4-basket 4-POSS.3PL  
       ‘their baskets’

#### Possessor roots

Table 3.23 shows the possessor roots. While most possessor roots are used for all agreement classes, there are both segmental and tonal changes depending on the phonological shape of agreement prefixes and the agreement class affiliation respectively.

Table 3.23: Basic possessor roots

	Singular	Plural
1	-ã	-isi (-usi)
2	-ɔ	-ine (-une)
3	-ε	-awɔ

Some possessor roots are influenced in their segmental form by the shape of the possessee agreement prefix. The first and second person plural are subject to variation if the possessee belongs to class 1 or 3. Then, the first high front vowel used in all other agreement classes turns into a high back vowel as an assimilation to the agreement prefix *w-* in class 1 and 3. The contrast between the two root shapes is illustrated in (102).

- (102) a. *gyà y-ísi*  
           7.music 7-POSS.1PL  
           ‘our music’  
 b. *m-wánɔ w-ùsí*  
       N1-child 1-POSS.1PL  
       ‘our child’

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The agreement class that the possessor root takes also determines the tonal pattern of the root. The tonal pattern of the first and second person singular are the same in every agreement class, as shown in Table 3.24. The vast majority of agreement classes take an H tone in the third person singular and an HH pattern for the plural possessor roots. Classes 1 and 9, however, are different: the third person singular has a falling HL tone and the plural persons are LH.

Table 3.24: Tonal patterns of possessor pronouns

Person	Basic tonal pattern		Exceptions: cl. 1 and 9	
	Singular	Plural	Singular	Plural
1	-â	-ísi (-úsí)	-â	-ìsí (-ùsí)
2	-ô	-íné (-úné)	-ô	-ìné (-ùné)
3	-é	-áwó	-ê	-àwó

In natural text, as opposed to elicitation, third person singular possessor pronouns are often lengthened, as shown in (103).

- (103) èé    lûngà    yá    sá    wéè    yóò    yîi  
 èé    lûngà    yá    sá    w-ê    y-óò    yîi  
 EXCL Ø7.grave 7:ATT Ø1.father 1-POSS.3SG 7-OBJ 7.COP  
 ‘Right, his father’s grave is over there.’

### Possessee agreement prefixes

Possessor pronouns index the possessee by means of an agreement prefix. Table 3.25 lists the prefixes for the various agreement classes.

Prefixes of classes 4 and 8 ending in a high front vowel are assimilated to the pronominal root. If the root starts with a high front vowel /i/ as for the first and second person plural (-ísi and -íné), the vowel of the prefix is deleted:

- (104) class 4:  
 mi- + -ísi → misí ‘our’  
 mi- + -íné → míne ‘your (PL)’
- (105) class 8:  
 bi- + -ísi → bísi ‘our’  
 bi- + -íné → bíne ‘your (PL)’

Table 3.25: Possessee agreement prefixes

AGR class	AGR prefix
1	w-
2	b-
3	w-
4	mí-
5	l-
6	m-
7	y-
8	bí-
9	ny-

For the other roots starting in different vowels, the prefix vowel is assimilated and becomes a glide:

(106) class 4:

- |            |   |      |   |              |             |
|------------|---|------|---|--------------|-------------|
| <i>mi-</i> | + | -â   | → | <i>myâ</i>   | 'my'        |
| <i>mi-</i> | + | -ô   | → | <i>myô</i>   | 'your (SG)' |
| <i>mi-</i> | + | -é   | → | <i>myé</i>   | 'his/her'   |
| <i>mi-</i> | + | -áwó | → | <i>myáwó</i> | 'their'     |

(107) class 8:

- |            |   |      |   |              |             |
|------------|---|------|---|--------------|-------------|
| <i>bi-</i> | + | -â   | → | <i>byâ</i>   | 'my'        |
| <i>bi-</i> | + | -ô   | → | <i>byô</i>   | 'your (SG)' |
| <i>bi-</i> | + | -é   | → | <i>byé</i>   | 'his/her'   |
| <i>bi-</i> | + | -áwó | → | <i>byáwó</i> | 'their'     |

I assume that possessee agreement prefixes of agreement classes 2 through 8 are tonally specified with an H tone, even if their vowel is deleted in front of the vowel-initial possessor stem, while those for agreement classes 1 and 9 have an associated L tone. This explains the tonal differences for the third person singular and the first and second person plural.

### 3.6.5 Reflexive pronoun *médé*

The reflexive pronoun *médé* 'self' is used both as a reflexive and an emphatic function. With the reflexive function, the reflexive pronoun is restricted to the object and adjunct positions.

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In object noun phrases, *médé* ‘self’ directly follows the object pronoun, indicating identity between the subject and the object, as in (108) for all animate person categories.<sup>30</sup>

- (108) a. *mé nyé mē médē*  
mε-H nȳ-H m̄- médē  
1SG-PRS see-R 1SG.OBJ self  
'I see myself.'
- b. *wé nyé wē médē*  
wε-H nȳ-H w̄- médē  
2SG-PRS see-R 2SG.OBJ self  
'You (sg.) see yourself.'
- c. *á nyé nyē médē*  
a-H nȳ-H nȳ- médē  
1-PRS see-R 1SG.OBJ self  
'S/he sees her/himself.'
- d. *yá nyé bî médē*  
ya-H nȳ-H b̄- médē  
1PL-PRS see-R 1PL.OBJ self  
'We see ourselves.'
- e. *bwá nyé bê médē*  
bwa-H nȳ-H b̄- médē  
2PL-PRS see-R 2PL.OBJ self  
'You (pl.) see yourselves.'
- f. *ba nyé bâ médē*  
ba-H nȳ-H b̄- médē  
2-PRS see-R 2-OBJ self  
'They see themselves.'

The reflexive pronoun can appear in subject position, as in (109). This construction, however, is pragmatically more marked, as subjects are typically topics (§7.3) and as such less marked. With the reflexive pronoun in subject position, the lines between reflexive and emphatic function become more blurred.

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<sup>30</sup>The other non-speech act participant categories, namely agreement classes 3 through 9, all adhere to the same pattern.

- (109) *mè médé mé nyé m̄ē*  
       me médé me-H nyê-H m̄ē  
       1SG self 1SG-PRS see-R 1SG.OBJ self  
       ‘ME, I see myself.’

It is also grammatical to drop the reflexive pronoun altogether and only use the object pronoun, as in (110). For the first and second person singular and plural, it is inferred that the subject and object are coreferential. For third persons, however, the use of the object pronoun alone would lead to the interpretation that subject and object are not coreferential. Therefore, *médé* ‘self’ must be used in these environments. The use of the reflexive pronoun is also preferred over the object pronoun alone with the first and second person, probably for the parallel structure with the third person reflexive marking.

- (110) *mè mé nyé m̄ē*  
       me me-H nyê-H m̄ē  
       1SG 1SG-PRS see-R 1SG.OBJ self  
       ‘I see myself.’

Reflexive pronouns are also used in adjunct position, as shown in (111).

- (111) *mè nzí sâ yî púù yá m̄ē médē*  
       me nzí sâ yî púù yá m̄ē médē  
       1SG PROG.PST do 7.DEM.PROX Ø7.reason 7:ATT 1SG self  
       ‘I was doing this for myself.’

With an emphatic function, the reflexive pronoun can be used in all kinds of noun phrases: subject, object, and adjunct. Typically, *médé* ‘self’ follows a pronoun, as with the subject pronoun in (112) and in the adjunct in (113).

- (112) *bímbú lé mámbòngò mâ wè médē dígê médē*  
       bímbú lé ma-mbòngò mâ wè médē dígê médē  
       Ø5.amount 5:ATT ma6-plant 6.DEM.PROX 2SG.SBJ self look.IMP self  
       ‘The amount of these plants, yourself, look yourself,’
- (113) *àà ndáwò dé tù nyè médē támé*  
       àà ndáwò dé tù nyè médē támé  
       1.COP Ø9.house LOC inside 1. SBJ self alone  
       ‘He is in his house all by himself.’

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Unlike with its reflexive function, the reflexive pronoun can also occur after other parts of speech than pronouns when used emphatically. In (114), for instance, it occurs after the finite verb form, referring to the subject. Given that other words, such as the finite verb form in this example, can enter between the subject and reflexive pronoun, I analyze *médé* ‘self’ as a free morpheme.

- (114) à múà      ***médé*** nyá mùdi  
a múà      médé nyá m-ùdì  
1 be.almost self real n1-person  
'He was himself a real (old) man.'

*médé* ‘self’ also follows nouns (instead of pronouns), as in (115) where it follows the left-dislocated object noun.

- (115) sá      ***médé*** mè nzí      sâ yî  
sá      médé me nzí      sâ yî  
Ø7.thing self 1SG PROG.PST do 7.DEM.PROX  
'The thing itself, I was doing this.'

## 3.7 Other pro-forms

Other pro-forms substitute other elements than nouns on the phrasal, clausal, or sentential level. In this section, I describe interrogative pro-forms, pro-adverbs, the pro-clausal tag question marker *ngáà*, and pro-sentence forms.

### 3.7.1 Interrogative pro-forms

I treat interrogative pro-forms separately from interrogative pronouns *nzá* ‘who’ and *gyí* ‘what’ (§3.6.3) which clearly replace a noun phrase. In contrast, interrogative pro-forms can replace a range of word classes or phrases. For instance, *líní* ‘when’ might stand instead of an adverb *tê* ‘now’ or a complex oblique noun phrase *mbvû lâ* ‘last year’.

Interrogative pro-forms differ in their structural complexity. Simple forms only include the interrogative word. Complex forms require the interrogative form to occur in a special construction, either with the locative preposition *é* or in a noun + noun attributive construction.

### 3.7.1.1 Simple interrogative pro-forms

Simple interrogative pro-forms are used in questions to replace either a noun phrase or a temporal adverb. They occur independently as free morphemes. Gyeli has three pro-forms, as listed in (116), that occur in simple interrogative constructions.

- (116) a. líní ‘when’  
       b. vé ‘where’  
       c. ná ‘how’

The interrogative pro-form *líní* ‘when’ exclusively occurs in simple constructions, no matter if it occurs at the beginning or the end of the question phrase, as shown in (117).

- (117) a. *mùdû à ké màkítì [nàkùgúù]*  
          m-ùdû a   kè-H ma-kítì      nà-kùgúù  
         N1-man 1.PST1 go-R ma6-market SIM-Ø7.evening  
         ‘The/a man went to the market yesterday.’
- b. *líní mùdû à ké màkítì*  
       líní   m-ùdû a   kè-H ma-kítì  
       when N1-man 1.PST1 go-R ma6-market  
       ‘When did the man go to the market?’
- c. *mùdû à ké màkítì líní*  
      m-ùdû a   kè-H ma-kítì      líní  
      N1-man 1.PST1 go-R ma6-market when  
      ‘When did the man go to the market?’

The main use of *líní* ‘when’ is in temporal adverbial clauses (§8.2.3.1) to express simultaneity. In fact, its use as an interrogative pro-form is rare, even if possible, as shown in (117). When a question asks for a temporal adjunct in the answer, speakers prefer to use complex interrogatives, which can be translated as ‘what day’ and ‘what time’, as discussed in the next section.

In contrast to *líní* ‘when’, the other two interrogative pro-forms *vé* ‘where’ and *ná* ‘how’ only appear in simple constructions if they are used in-situ at the end of the phrase, as illustrated in (118) and (119).

- (118) *é ná mwánò nùù vé*  
      é   ná   m-wánò nùù   vé  
      LOC how N1-child 1.COP where  
      ‘What! Where is the child?’

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- (119) kó mbúmbù nyé nzí lèmbò dyùù bâ fámû bá  
       kó mbúmbù nyé nzí lèmbo dyùù b-ô fámii bá  
       EXCL Ø1.namesake 1.SBJ PROG.PST know kill 2-OBJ Ø1.family 2:ATT  
       bùdî           ná  
       b-ùdî           ná  
       ba2-person how

'Oh namesake, how could he kill them, the family of people?'

If they are used phrase initially, however, they obligatorily occur in a complex construction with the preposition *é*, as discussed in the following.

#### 3.7.1.2 Complex interrogative pro-forms

Complex interrogative words can be complex in different ways. They can be formed with (i) the locative preposition *é* (§3.10.1) or (ii) a noun + noun attributive construction (§5.5).

Gyeli has two interrogative pro-forms that are constructed with the locative preposition *é* preceding the interrogative form: *é ná* 'how' and *é vé* 'where'. Examples of both interrogatives that require a temporal and a manner adjunct in the answer are given in (120) and (121), respectively. Ungrammatical examples stem from elicited grammaticality judgments.

- (120) a. *mùdû à ké [mákítì]*  
       m-ùdû a kè-H ma-kítì  
       N1-man 1.PST1 go-R ma6-market  
       'The/a man went to the market.'  
     b. *é vé m-ùdû à ké*  
       é vé m-ùdû a kè-H  
       LOC where N1-man 1.PST1 go-PST  
       'Where did the man go?'  
     c. \* *vé m-ùdû à ké*  
       vé m-ùdû a kè-H  
       where N1-man 1.PST1 go-PST  
       'Where did the man go?'

- (121) a. *mùdû à ké mákítì [nà màtúà]*  
       m-ùdû a kè-H ma-kítì nà màtúà  
       N1-man 1.PST1 go-R ma6-market COM Ø1.car  
       'The/a man went to the market by car.'

- b. *é ná mùdû à kékí mákítì*  
   é ná m-ùdû a kékí-H ma-kítì  
   LOC how N1-man 1.PRS go-R ma6-market  
   ‘How did the man go to the market?’
- c. \* *ná mùdû à kékí mákítì*  
   ná m-ùdû a kékí-H ma-kítì  
   how N1-man 1.PRS go-R ma6-market  
   ‘How did the man go to the market?’

The complex form *é ná* ‘how’ is also used as a greeting in (122)

- (122) *mbúmbù    é    ná*  
       mbúmbù    é    ná  
       Ø1.namesake LOC how  
       ‘Namesake, how is it?’

The second option for complex interrogatives are interrogative pro-forms such as *vé* ‘which’ and *níyè* ‘how many’, which occur as the second constituent in an attributive construction with a noun and an attributive marker, as in (123) and explained in detail in §5.5.5.

- (123) a. *lèfû    lé    vέ*  
       le-fû    lé    vέ  
       le5-day 5:ATT which  
       ‘Which day?’
- b. *máfû    má    níyè*  
       ma-fû    má    níyè  
       ma6-day 6:ATT how.may  
       ‘How many days?’

Besides asking for nominal entities or their quantities in the answer, these interrogatives systematically combine with temporal nouns such as *dúwò* ‘day’ or *wùlà* ‘time, hour’ in order to form temporal interrogative constructions.

### 3.7.2 Pro-adverbs *mpù* and *ndènáà*

The pro-adverbs *mpù* and *ndènáà* generally refer to the manner of an event and are translated with ‘like this’. The semantic difference between the two pro-forms is not clear. They seem to have a very similar distribution in the corpus and

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speakers state that they can be used interchangeably. However, *mpù* is significantly more frequent in the corpus with 24 occurrences in comparison to six occurrences of *ndènáà*.

Both pro-adverbs signal a non-verbal gesture or part of the communication that is happening simultaneously to speech time. In (124), the speaker is communicating the number of his children by showing two fingers; *mpù* is signaling this non-verbal gesture.

- (124) *bwánò mpù [gesture showing 2]*  
b-wánò mpù<sup>b</sup>-child like.this  
'that many children [gesture showing 2].'

Similarly, in (125), *ndènáà* indicates that the greeting is ongoing between the speech act participants.

- (125) *mé sùmélé bê ndènáà*  
mε-H sùmélε-H bê ndènáà  
1SG-PRS greet-R 2PL.OBJ like.that  
'I greet you like this.'

*mpù* often introduces the use of ideophones, as in (126).

- (126) *yóò Nzàmbí njí mpù bââââ njí dígè mpù*  
yóò Nzàmbí njí-H mpù bââââ njí dígé mpù  
so Ø1.PN come-R like.this IDEO:walking far come look like.this  
'So Nzambi comes like this [depiction of walking a long distance], comes looking like this.'

The deictic reference of pro-adverbs can also be anaphoric rather than signaling an ongoing or immediately following non-verbal communicative event. This is the case in (127), for instance, where *ndènáà* summarizes the situation that the speaker has elaborated previously.

- (127) *bon pilì yí báàlá nà bè ndènáà ndènáà ndáà ná*  
bon pilì yi-H báàlā-H nà bè ndènáà ndènáà ndáà ná  
good[French] when 7-PRS repeat-R COM be like.that like.that also still  
'So, when it continues and is still like this and like that.'

As (127) and (128) show, *mpù* and *ndènáà* ‘like this’ can both occur directly after the finite verb, as expected for an adverb. While *mpù* is often followed by an object, this is not the case for *ndènáà* in the corpus. Speakers state, however, that it would be perfectly grammatical.

- (128) *wé dyúwó mpù bàmintùlè bógá bá tsígé*  
       we-H dyúwɔ-H mpù ba-míntùlè bó-gá ba-H tsíge  
       2SG-PRS hear-R like.this ba2-mouse 2-other 2-PRS take.off  
       *tsùk tsùk tsùk*  
       tsùk-tsùk-tsùk  
       IDEO:rustling  
       ‘You hear like this the other mice take off [depiction of noise of mice].’

*Mpù*, unlike *ndènáà*, is often preceded by the preposition *é*, as in (129).

- (129) *yóò Nzàmbí dígé mísi é mpù*  
       yóò Nzàmbí dígɛ-H m-ísi é mpù  
       so Ø1.PN look-R ma6-eye LOC like.this  
       ‘So Nzambi looks with the eyes like this.’

Neither the specific function of *é* in combination with *mpù* nor its distribution are clear, however.

### 3.7.3 Pro-clausal *ngáà*

The pro-clausal tag question particle *ngáà* is used to verify the truth value of a clause in leading polar questions (§7.4.1), as in (130). It is extra-clausal as evidenced by a phonetic break that separates *ngáà* from the main clause and its ability to occur by itself, for instance as a response to an interlocutor’s statement. A *ngáà* response by itself expresses either surprise, a truth verification ('is that right?', 'really?'), or agreement ('isn't that right!', 'really!').

- (130) *ngáà wé nyé mpù*  
       ngáà we-H nyê-H mpù  
       Q(tag) 2SG-PRS see-R like.this  
       ‘Right, you see that?’

*ngáà* appears both at the beginning of the question, as in (130), or at the end of it, as in (131).

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- (131) *wé*      *nyé*      *mpù*      *ngáà*  
wé-H      nyé-H mpù      ngáà  
2SG-PRS see-R like.this Q(tag)  
'You see that, don't you?'

The pro-clausal particle is used in both affirmative and negated questions. An example of the latter is given in (132).

- (132) *wèé*      *nyélé*      *mpù*      *ngáà*  
wèé      nyélé-H mpù      ngáà  
2SG.NEG.PRS see-NEG like.this Q(tag)  
'You don't see that, do you?'

Pro-clausal *ngáà* is also used independently on its own as a response to a statement, expressing surprise or verifying the truth value of the statement, comparable to English 'really?' or 'is that true?'.

In affirmative questions, Gyeli also uses French loanwords or code-switching.<sup>31</sup> In (133), *èsé* taken from French *est-ce* 'is it' is used as tag question marker. There seems to be a preference to use it phrase initially.

- (133) *èsé*      *béé*      *ndáà bèyá*      *làwó*      *fàlà*  
èsé      béé      ndáà bèyá-H      làwó-H fàlà  
is.it[French] 2PL.SBJ also 2PL[Kwasio]-PRS speak-R Ø1.French  
'Isn't it, you (pl.) also, you speak French.'

In contrast, *nòò* from French *non* 'no' is used phrase finally with the same function, as in (134).

- (134) *béé*      *ndáà bèyá*      *làwó*      *fàlà*      *nòò*  
béé      ndáà bèyá-H làwó-H fàlà      nòò  
is.it[French] 2PL.SBJ also 2PL[Kwasio]-PRS speak-R Ø1.French  
'You (pl.) also, you speak French, isn't it?'

#### 3.7.4 Pro-sentence forms

Pro-sentence forms replace an entire sentence. They are typically answers to polar questions (§7.4.1), making a statement about its truth value. They can, however, also occur as response to a statement that the speaker agrees or disagrees

<sup>31</sup>The status of these French words in Gyeli is not clear at the moment.

with. Gyeli has several pro-sentence forms for each agreement and disagreement signal. (135) provides a list of pro-forms that signal agreement. These different pro-forms seem to correlate with pragmatic and semantic differences. *éè* seems to be the regular way to say ‘yes’, while *èhéé* is used more emphatically to signal strong agreement. The exact use of the other pro-forms is less well understood.

- (135) a. *éè* ‘yes’
- b. *áà* ‘yes’
- c. *èè* ‘yes’
- d. *éé* ‘yes’
- e. *m̄m̄m̄* ‘yes’
- f. *èhéé* ‘yes’

When asked for the translation of ‘yes’, speakers would answer with (135a). In natural speech as in the corpus, however, a range of other agreement signaling pro-forms are used. They all have in common that they only consist of a long vowel or nasal. The tonal melody and vowel length is crucial in distinguishing agreement from disagreement, as the segmentally similar but tonally different pairs in, for instance, (135d) and (136b) show. Agreement signals have long segments with either a falling or L or H tone, as in (135a) through (135d). (135e) and (135f), which are tonally identical, are used for emphatic agreement, as in English ‘exactly!’. Also *yà*, or its emphatic form *yáà*, has been observed in the corpus. These forms are likely loanwords from German.<sup>32</sup>

There are fewer pro-forms for disagreement than for agreement. The default form is *tòsâ* in (136a), which is derived from the negative polarity item *tò* (§3.8.4) and the noun *sâ* ‘thing’.

- (136) a. *tòsâ* ‘no’
- b. *ɛ'ɛ* ‘no’
- c. *m'm'* ‘no’

The other two forms in (136b) and (136c) are identical in their tonal pattern. They also differ from agreement forms in their relative brevity. Disagreement forms are never lengthened, but rather short. In (136b) and (136c), the medial glottal stop reinforces the impression of short segments.

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<sup>32</sup>Some German loanwords from colonial times (until 1918) are still widespread in the area, for instance also in Mabi. These include, for instance, *dunkel* ‘dark’ and *Dummkopf* ‘idiot’, although Cameroonians are not always sure about their meaning.

## 3.8 Elements of the nominal phrase

In this section, I describe all the elements that occur in a noun phrase, apart from the noun, which has been discussed in §3.1. As a basic classification criterion, I distinguish nominal modifiers that agree with the head noun and those that do not, i.e. which are invariable.

Agreeing elements in the Gyeli noun phrase differ in the form of agreement encoding. For some parts of speech, agreement is achieved through a prefix. This is the case for all elements discussed in §3.8.1 and §3.8.2. Other elements, such as demonstratives in §3.8.3.1 and attributive markers in §3.8.3.2, show agreement through an unbound agreeing morpheme that differs across different agreement classes.

Invariable modifiers, i.e. elements that do not agree with the head noun, differ in their position relative to the noun. Some invariable modifiers precede the head noun (§3.8.4), some occur post-nominally (§3.8.5). The structure of the noun phrase and its various types are presented in Chapter 5 as well as the gender and agreement system.

### 3.8.1 Modifiers with agreement prefix

Gyeli has five patterns of agreement prefixes, as shown in Table 3.26. Agreement prefixes attach to a variety of agreement targets, including numerals and some

Table 3.26: Agreement prefixes of nominal modifiers

AGR class	-vúdû 'one'	-fúsí 'different'	-éssé 'all'	-ó(né)gá 'other'	numerals '2' through '5'
1	m-	m-	w-	n-	
2	bà-	bà-	b-	b-	bá-
3	m-	∅-	w-	w-	
4	mì-	mì-	my-	my-	mí-
5	lè-	lè-	l-	l-	
6	mà-	mà-	m-	m-	má-
7	∅-	∅-	y-	y-	
8	bì-	bì-	by-	by-	bí-
9	m-	∅-	ny-	ny-	

quantifiers.<sup>33</sup> All modifiers in Table 3.26 follow the head noun.

While agreement prefixes of specific agreement classes are often similar in their shape, there are differences that define distinct agreement patterns. The agreement patterns for *-vúdû* ‘one’ and *-fúsì* ‘different’ are only distinguished in agreement classes 3 and 9. The agreement patterns for *-ésè* ‘all’ and *-áz(né)gá* ‘other’ differ in their agreement class 1 prefix. For semantic reasons, agreement prefixes for plural numerals only ever allow plural agreement prefixes. They are different from other agreement patterns in that they are the only ones to take an H tone prefix; agreement prefixes of all other patterns that have a tone bearing unit always have an L tone.

Some differences can be explained on a phonological basis, namely vowel deletion or assimilation in the prefix if the following stem starts with a vowel. This is, for instance the case with class 2 *bà-* before consonants in comparison to class 2 *b-* before vowels. Differences in prefix shape that are conditioned by phonological rules are not taken as evidence for different agreement patterns. In the following, I present each prefix agreement pattern and the lexical stems that take it.

### 3.8.1.1 *-vúdû* ‘one, same’

*-vúdû* can denote both the cardinal numeral ‘1’ and the deictic modifier meaning ‘same’. It is distinct from the agreement pattern of the other agreeing numerals ‘2’ through ‘5’ in the L tone on CV- prefixes.

As the cardinal numeral ‘1’, *-vúdû* logically only occurs with singular entities it modifies. If it is used in order to express identity of entities, however, *-vúdû* also takes an agreement prefix for plural classes, as shown in Table 3.27.

### 3.8.1.2 *-fúsì* ‘different’

*-fúsì* ‘different’ follows the noun it modifies just as the other modifiers that show agreement through a prefix. Examples for *fúsì* ‘different’ in different agreement classes are provided in Table 3.28.

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<sup>33</sup>These nominal modifiers could be argued to constitute adjectives on the basis of their agreement prefixes. Adjectives are, however, usually taken to be ‘lexical’ (or content) words, according to Rijkhoff (2002: 121), and describe properties such as “size, weight, color, age, and value”. In Gyeli, they do not take agreement prefixes, as described in §3.3. At the same time, these modifiers do not pattern with nouns either. There are, however, some nouns that function as quantifiers, as described in §5.5.1.4.

Table 3.27: AGR-*vúdū* ‘one/same’ in various agreement classes

cl. 1	mùdì	<b>m</b> -vúdû	'one/same person'
cl. 2	bùdì	<b>b</b> a-vúdû	'same people'
cl. 3	nk�	<b>m</b> -v�d�	'one/same basket'
cl. 4	mi-nkw�	<b>m</b> �-v�d�	'same baskets'
cl. 5	le-d�nd�	<b>l</b> �-v�d�	'one/same sparrow'
cl. 6	ma-d�nd�	<b>m</b> �-v�d�	'same sparrows'
cl. 7	s�ng�	<b>�</b> -v�d�	'one/same cat'
cl. 8	be-s�ng�	<b>b</b> �-v�d�	'same cats'
cl. 9	nd�w�	<b>m</b> -v�d�	'one/same house'

Table 3.28: AGR-*fúsi* ‘different’ in various agreement classes

cl. 1	mùdì	<b>m</b> -fúsì	'a different person'
cl. 2	bùdì	<b>b</b> à-fúsì	'different people'
cl. 3	nkɛ̄	∅-fúsì	'a different basket'
cl. 4	mi-nkwɛ̄	<b>m</b> ì-fúsì	'different baskets'
cl. 5	le-dündà	<b>l</b> è-fúsì	'a different sparrow'
cl. 6	ma-dündà	<b>m</b> à-fúsì	'different sparrows'
cl. 7	síngì	∅-fúsì	'a different cat'
cl. 8	be-síngì	<b>b</b> è-fúsì	'different cats'
cl. 9	ndáwò	∅-fúsì	'a different house'

### 3.8.1.3 -ɛsɛ ‘all’

The universal quantifier *ésé* ‘all’ agrees with the head noun through an agreement prefix. Universal quantifiers express totality and contain items such as ‘all’ and ‘every’ (Zerbian & Krifka 2008: 394). Table 3.29 provides examples of the quantifier for all agreement classes showing the agreement prefix in bold. The agreement prefix for ‘all’ is the same as the possessee agreement of possessor roots. As most other modifiers, ‘all’ follows the head noun.

In Gyeli, *ésè* ‘all’ is typically used with plural nouns. Also singular forms can, however, be modified by *-ésè* ‘all’ in a specific context, which is also shown in Table 3.29. This special context requires a situation where a typical singular entity consists of or is cut up into several parts. Taking the example of a cat, *singi yésè* ‘all the cat’ would mean that a cat is cut up into different parts, but then all

Table 3.29: AGR-éṣè ‘all’ in various agreement classes

cl. 1	mùdì	w-éṣè	‘all (the parts of) the person’
cl. 2	bùdì	b-éṣè	‘all people’
cl. 3	nkwě	w-éṣè	‘all (the parts of) the basket’
cl. 4	mi-nkwě	my-éṣè	‘all baskets’
cl. 5	le-dündá	l-éṣè	‘all (the parts of) the sparrow’
cl. 6	ma-dündà	m-éṣè	‘all sparrows’
cl. 7	síngì	y-éṣè	‘all (the parts of) the cat’
cl. 8	be-síngì	by-éṣè	‘all cats’
cl. 9	ndáwò	ny-éṣè	‘all the house’

the parts are used, which is different from meaning ‘the whole cat’ (§3.8.5.3), as shown in (137).

- (137) a. *síngì y-éṣè*  
           ∅7.cat 7-all  
           ‘all (the parts of) the cat’
- b. *síngì mánjímò*  
           ∅7.cat whole  
           ‘the whole cat (in its entirety)’

### 3.8.1.4 -́(né)gá ‘(an)other’

The full form ‘other’ in careful speech is -́négá. In fast speech, however, a shortened form AGR-ógá is used where *né* is omitted. The option to omit *né* is indicated by the brackets in Table 3.30.

### 3.8.1.5 Anaphoric marker *ndé*

The anaphoric marker *ndé* signals reference to an entity that has been mentioned before in the discourse. It occurs in two variants: (i) with an agreement prefix and (ii) as the stem only without an agreement prefix. The variant with agreement prefix is more frequent in the text corpus with almost six times more agreeing than free stem forms. A natural text example of *ndé* with an agreement prefix is given in (138).

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Table 3.30: AGR-*́* (*né*) *gá* ‘other’ in various agreement classes

cl. 1	mùdì	<b>n</b> -́(né)gá	‘another person’
cl. 2	bùdì	<b>b</b> -́(né)gá	‘other people’
cl. 3	nké	<b>w</b> -́(né)gá	‘another basket’
cl. 4	mi-nkwé	<b>my</b> -́(né)gá	‘other baskets’
cl. 5	le-dùndà	<b>l</b> -́(né)gá	‘another sparrow’
cl. 6	ma-dùndà	<b>m</b> -́(né)gá	‘other sparrows’
cl. 7	síngì	<b>y</b> -́(né)gá	‘another cat’
cl. 8	be-síngì	<b>by</b> -́(né)gá	‘other cats’
cl. 9	ndáwò	<b>ny</b> -́(né)gá	‘another house’

- (138) *bèdewò bínđè byò mé ló njì lébélè bédewò bà wè*  
 be-déwò bí-ndè byò mε-H ló njì lébélè H-be-déwò bà wè  
 be8-food 8-ANA 8.OBJ 1-PRS RETRO come follow be8-food AP 2SG.OBJ  
 ‘That (aforementioned) food, I have come to look for the food at your place.’

Anaphoric markers have their own set of agreement prefixes, as summarized in Table 3.31, which occur with no other part of speech.

Table 3.31: Agreement prefixes of the anaphoric marker *ndé*

AGR class	Prefix form
1	nú-
2	bá-
3	wó-
4	mí-
5	lé-
6	má-
7	yí-
8	bí-
9	nyí-

I view these agreement prefixes as grammaticalized from demonstratives (§3.8.3.1). First, the prefixes are segmentally identical to the proximal demonstrative paradigm involving a plain vowel (as opposed to the long vowels of the distal par-

adigm). The tonal pattern differs, however, since the prefix that attaches to *ndè* has an H tone rather than a falling tone as in the proximal paradigm.

Second, demonstratives and the anaphoric marker are functionally and semantically related. They both serve to pick out referents from a set of entities. The anaphoric marker can be understood as a specification of general demonstratives in that it points the addressee to a referent that is not spatially distant, but that has come up in the discourse before. This specification seems, however, optional since both demonstratives in anaphoric contexts and anaphoric markers can appear independently of each other.

Another possibility would be to analyze the CV morph as an attributive marker. As shown in §3.8.3.2, many of the attributive markers across different agreement classes have a CV shape with a plain vowel and an H tone. Most attributive markers link a noun to a second constituent that could be another noun or another part of speech, such as an adjective or interrogative pronoun, as discussed in §5.5. Thus, this analysis would also make sense syntactically. Arguments against this explanation, however, concern the form of some attributive markers and their distribution. First, the attributive marker forms of agreement classes 1, 3, 7, and 9 differ from the CV shape element found with *ndè*. For instance, in agreement class 1, the attributive marker is *wà*, while *ndè* would be preceded by *nú-*; in agreement class 7, the attributive marker is *yá*, but *ndè* is preceded by *yí-*. Second, there are examples where *ndè* plus its preceding CV morph follow a true attributive, as shown in (139). This makes it clear that the morph cannot be an attributive marker.

- (139) *mùdì      wà      núnđé      dígé      mísi.*  
       m-ùdì      wà      nú-ndè dígé-H m-ísì  
       N1-person 1:ATT 1-ANA look-R ma6-eye  
       ‘That (aforementioned) person thinks very hard [lit. looks with his eyes].’

Unlike other nominal modifiers that always agree with their head noun, the anaphoric marker can also appear with its stem only. When following an identificational marker, *ndè* occurs without an agreement prefix, as shown in (140), which was uttered at the end of a story.

- (140) *kàndá      wé ndè*  
       kàndá      wé ndè  
       Ø7.proverb ID ANA  
       ‘The story is this.’

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The anaphoric marker *ndé* also appears as a bare stem after nouns, as in (141), which is a response to a question about the chief.

- (141) àà kfúmá ***ndé*** wà Nlúnzò  
 àà kfúmá ndé wà Nlúnzò  
 ECXL Ø1.chief ANA 1:ATT Ø1.PN  
 ‘Ah, that chief from Nlunzo!'

#### 3.8.1.6 Agreeing plural numerals

Numerals may, depending on the language, form various numeral series such as enumeratives, cardinal, ordinal, or distributive numerals. In Gyeli, only a few cardinal numerals agree with the noun, namely *-vúdū* ‘1’ (§3.8.1.1) and the numerals from ‘2’ through ‘5’, which have a different agreement pattern and are discussed in this section. Generally, cardinal numerals are used attributively with nouns when counting items.<sup>34</sup>

The (cardinal) numerals *-báà* ‘2’, *-láálè* ‘3’, *-nâ* ‘4’, and *-tánè* ‘5’ agree with their head noun. As enumeratives, i.e. in general counting without referring to a specific entity, the class 8 prefix *bí-* is used. The agreement prefixes of agreeing numerals and some examples are listed in Table 3.32.<sup>35</sup>

Table 3.32: Agreement prefixes of modifying numerals

AGR class	AGR prefix	Example	Gloss
2	<b>bá-</b>	<i>b-ùdì bá-báà</i>	‘two people’
4	<b>mí-</b>	<i>mi-nkwê mí-báà</i>	‘two baskets’
6	<b>má-</b>	<i>ma-kí má-báà</i>	‘two eggs’
8	<b>bé-</b>	<i>be-síngì bé-báà</i>	‘two cats’

All agreement prefixes on the agreeing numerals come with an H tone, in contrast to noun class prefixes and agreement prefixes of other modifiers (see §3.8.1).

<sup>34</sup>Gyeli numerals do not belong to one uniform category. There are monomorphemic (simple) and polymorphemic (complex) numerals. Even simple numerals do not belong to one category in terms of parts of speech, but can be classified into three types: (i) agreeing modifiers *-vúdū* ‘1’ (§3.8.1.1) and numerals from ‘2’ through ‘5’ (this section), (ii) invariable modifiers (§3.8.5.1), and (iii) nouns (§5.5.1.4). Complex numerals constitute either a coordination construction or a noun + modifier NP or a combination of the two.

<sup>35</sup>Since all the numerals that take agreement markers are inherently plural, singular class prefixes are never used.

One could argue that these agreement prefixes should not be analyzed as such, but may rather constitute attributive markers (§3.8.3.2) which have the same shape and tone as these prefixes. This is unlikely, however, because enumeratives always require a default prefix even though they are not modifying any noun. It is thus more likely to assume that numerals take a default prefix rather than a default attributive marker in a headless construction. Further, also the genitive marker takes H tone prefixes (§3.8.2.1).

The cardinal numerals from ‘2’ through ‘5’ invariably follow the head noun, as shown in (142).

- (142) a. *b-ùdâ bá-báà*  
           ba2-woman 2-two  
           ‘two women’  
       b. *b-ùdâ bá-láálè*  
           ba2-woman 2-three  
           ‘three women’  
       c. *b-ùdâ bá-nâ*  
           ba2-woman 2-four  
           ‘four women’  
       d. *b-ùdâ bá-tánè*  
           ba2-woman 2-five  
           ‘five women’

The same noun phrase structure is used in the formation of complex numerals that involve an underlying arithmetic operation of multiplication. In this case, the agreeing numeral will follow a nominal base numeral, as shown in (143), to form multiples of the base.

- (143) a. *màwúmò mábáà*  
           ma-wúmò má-báà  
           ma6-ten 6-two  
           ‘twenty [10 x 2]’  
       b. *màwúmò máláálè*  
           ma-wúmò má-láálè  
           ma6-ten 6-three  
           ‘thirty [10 x 3]’

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- c. *bibwúyà*    *bínâ*  
bi-bwúyà    bí-nâ  
bi8-hundred 2-four  
'four hundred [100 x 4]'
- d. *bátódyínì*    *bátánè*  
ba-tódyínì    bá-tánè  
ba2-thousand 2-five  
'five thousand [1000 x 5]'

Agreeing numerals ‘2’ through ‘5’ can never modify singular nouns for semantic reasons. They therefore lack any singular counterparts. I still distinguish them from modifiers discussed in the next section since those modifiers do occur with singular forms.

#### 3.8.2 Modifiers with plural agreement only

There are two modifiers in Gyeli, the genitive marker *ngá* and *nyá* ‘big’, which never take an agreement prefix for singular agreement classes, but require them for plural classes. Based on this characteristic, I classify them as a special subtype of modifiers. They differ, however, in many other properties. First, the genitive marker *ngá* only occurs in noun + noun constructions (§5.5), following the head noun it modifies. In contrast, *nyá* ‘big’ precedes the head noun and is, together with the invariable negative polarity item *tò*, the only element that can precede the head noun. The genitive marker *ngá* and *nyá* ‘big’ also differ in the tonal pattern of their agreement prefixes: *ngá* takes an H tone CV prefix, while agreement prefixes of *nyá* are underlyingly toneless.

##### 3.8.2.1 Genitive marker *ngá*

Gyeli has a split genitive/attributive system, using different sets of associativity markers depending on the status of the head noun. In Bantu studies, these markers are also called associative or connective markers (Van de Velde 2013). The genitive marker *ngá* is used instead of an attributive marker (§3.8.3.2) if the second constituent in a noun + noun construction is a proper name, as illustrated in (144). This highlights the special status of proper names in contrast to common nouns (§3.1.2.2).

- (144) a. *ndáwò*    *ngá* *Àdà*  
Ø9.house GEN Ø1.PN  
'Ada's house'

- b. *ndáwò nyà m-bvùlè*  
 Ø9.house 9:ATT N1-Bulu  
 ‘the Bulu<sup>36</sup> man’s house’

Further, the genitive marker is used in the interrogative pronoun constructions such as *pú’ù ngá nzá* ‘for whom’ when the answer could potentially be a proper name. In question words where something else than a proper name is expected as an answer, as in *pú’ù yá gyí* ‘for what’, the attributive is used.

The genitive marker only takes an agreement marker if the preceding possessee noun occurs in the plural. If *ndáwò* ‘house’ in (144) was in its plural form, the example would change as in (145) with a plural marker on *ngá*.

- (145) a. *mà-ndáwò má-ngá Ádà*  
 ma6-Ø9.house 6:GEN Ø1.PN  
 ‘Ada’s houses’
- b. *mà-ndáwò má m-bvùlè*  
 ma6-house 6:ATT N1-Bulu  
 ‘the Bulu man’s houses’

If it is singular, however, the genitive marker takes a default form *ngá*. Table 3.33 shows the agreement pattern of genitive markers with the non-agreeing singular forms in the left and the agreeing plural forms in the right column.

Table 3.33: Agreement marking of genitive markers

Singular classes	Plural classes
cl. 1 <i>ngá</i>	cl. 2 <i>bá-ngá</i>
cl. 3 <i>ngá</i>	cl. 4 <i>mí-ngá</i>
cl. 5 <i>ngá</i>	cl. 6 <i>má-ngá</i>
cl. 7 <i>ngá</i>	cl. 8 <i>bé-ngá</i>
cl. 9 <i>ngá</i>	

The agreement prefix, although it seems to be identical with the attributive marker, belongs prosodically to the genitive word *ngá*. In contrast, following speakers’ intuitions, the attributive marker is prosodically an independent word.

<sup>36</sup>Bulu describes a neighboring ethnic group to the Bagyeli as well as their language which is classified as Bantu A74.

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I therefore do not view agreeing plural forms of the genitive linker as constructions containing both attributive and genitive markers. Instead, the H tone agreement prefixes are parallel to those used with agreeing plural numerals.

There is another logical possibility to explain the H tone on the agreement prefix, namely leftwards high tone spreading from the *-ngá* root. I rule this possibility out for two reasons. First, high tone spreading from the right to the left does occur in Gyeli, but it seems to be restricted to the verbal domain (as with underlyingly toneless verb extension morphemes, which are discussed in §2.4.2.1). Therefore, it seems unlikely that the H tone from the *-ngá* root would spread leftwards onto the prefix.

Second, contrasting cases of L tone CV- agreement prefixes that occur with other modifiers, such as *-vúdú* ‘same, one’ and *-fúsì* ‘different’, suggest that the CV- agreement prefixes for the genitive marker (and numerals from ‘2’ through ‘5’) are indeed specified for an H tone. The other modifiers also start with an H tone stem, but they still have CV- agreement prefixes that surface with an L tone. There could be a rule that H tone spreading is restricted to a certain class of agreement targets, but given these two arguments, it seems unlikely. The ultimate proof against H tone spreading, namely checking what happens with the CV- prefixes if the stem starts with an L tone, is not testable because all modifier roots that take an H tone CV- agreement prefix (*-ngá* and the numerals ‘2’ through ‘5’) start with an H or HL mora, but never with an L.

#### 3.8.2.2 *nyá* ‘big’

*-nyá* meaning ‘big’, ‘important’, ‘luxurious’, ‘beautiful’ could qualify as an adjective since it denotes a property of a noun. The semantic difference between *nyá* ‘big’ and the adjective *nénè* ‘big’ is that the second typically refers to size as in (146a). *nyá*, however, talks more about the value as demonstrated in (146b). In Cameroonian French, value is often translated with size so that a *grand panier* ‘big basket’ could, besides referring to the size, also talk about its value.

- (146) a. *nkwě wá nénè*  
Ø3.basket 3:ATT big  
'a/the big basket'
- b. *nyá nkwě*  
big Ø3.basket  
'a/the important/beautiful/luxurious basket'

Agreement of *nyá* is only marked if the head noun comes in a plural form. If the head noun is singular, *nyá* is invariable as shown in Table 3.34. This behavior is similar to the genitive marker discussed in §3.8.2.1.

Table 3.34: *nyá* in various agreement classes

Singular classes			
cl. 1	nyá	m-ùdì	‘important person’
cl. 3	nyá	nkwě	‘great basket’
cl. 5	nyá	le-dündá	‘big sparrow’
cl. 7	nyá	lé	‘great tree’
cl. 8b	nyá	bwálè	‘beautiful canoe’
cl. 9	nyá	ndáwò	‘luxurious house’
Plural classes			
cl. 2	ba-nyá	b-ùdì	‘important people’
cl. 4	mi-nyá	mì-nkwě	‘great baskets’
cl. 6	ma-nyá	mà-dündá	‘big sparrows’
cl. 8a	be-nyá	bè-lé	‘great trees’

Another particularity is the syntactic position of *nyá*, preceding the noun whereas basically all other modifiers follow the noun.

### 3.8.3 Modifiers with agreeing free morpheme

There are two nominal modifiers in Gyeli which do not express agreement with the head noun through a prefix that attaches to a root that is consistent across different agreement classes, but that have free agreeing morphemes which differ across agreement classes. This is the case for demonstratives and for the attributive marker.

#### 3.8.3.1 Demonstratives

Gyeli has two sets of demonstratives distinguishing different degrees of distance between the speaker and the object or person he or she is talking about. One set of demonstratives, the proximal demonstratives, refers to objects or persons close to the speaker. Distal demonstratives are employed when the object or person in question is further away from the speaker (but not necessarily close to the addressee).

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Proximal and distal demonstratives are formally distinguished by different tonal patterns and vowel lengthening of the distal pronouns. Table 3.35 contrasts the two sets of demonstratives. While proximal demonstratives end in a simple vowel with a falling HL tonal pattern, distal demonstratives all have a lengthened vowel with an H tone.

Table 3.35: Gyeli demonstratives

	proximal	distal
1	<i>nû</i>	<i>núú</i>
2	<i>bâ</i>	<i>báá</i>
3	<i>wô</i>	<i>wôó</i>
4	<i>mî</i>	<i>míí</i>
5	<i>lê</i>	<i>léé</i>
6	<i>mâ</i>	<i>máá</i>
7	<i>yî</i>	<i>yíí</i>
8	<i>bî</i>	<i>bíí</i>
9	<i>nyî</i>	<i>nyíí</i>

Both proximal and distal demonstratives follow the noun they modify in a noun phrase as shown in (147).

- (147) a. *m-ùdì nû*  
           N1-man 1.DEM.PROX  
           ‘this man’
- b. *m-ùdì núú*  
           N1-man 1.DEM.DIST  
           ‘that man’

These demonstratives are also used as presentational or identificational markers in non-verbal predicates of the pattern ‘This is a house.’ Such constructions are discussed in §7.1.

#### 3.8.3.2 Attributive markers

Attributive markers constitute another class of function words that agree with their head noun. In Bantu studies, they are also called genitive, connective, or associative markers (Van de Velde 2013). Gyeli has a split system with a “genitive”

paradigm marking possessors that are expressed by proper names in the second constituent (§3.8.2.1) and an “attributive” paradigm marking all other nominal associativity constructions.

Attributive markers serve as a linking element between a noun and typically another noun, as shown in (148). They also link a noun to an adjective, verb, interrogative, or numeral, as described in §5.5.

- (148) a. *síngì yá jií*  
           Ø7.cat 7:ATT Ø7.forest  
           ‘wildcat [lit. cat of the forest]’  
       b. *lè-lɔ́ lé síngì*  
           le5-ear 5:ATT Ø7.cat  
           ‘the cat’s ear’

Attributive markers are also used in relative clauses, as exemplified in (149) and discussed in detail in §8.2.1.

- (149) a. *síngì yá yí kwè*  
           Ø7.cat 7:ATT 7.PRS fall  
           ‘the cat that falls’  
       b. *síngì yá mé nyê*  
           Ø7.cat 7:ATT 1SG.PRS see  
           ‘the cat that I see’

Meeussen (1967), and later Van de Velde (2013: 219), posit that the canonical form for Bantu attributives is AGR-*a*, a root -*a* which is preceded by an agreement prefix. Many Gyeli attributives follow this canonical form. Exceptions to this tendency are found, however, in classes 4, 5, and 8 which come with high and mid vowel roots rather than with -*a*, as shown in Table 3.36. For this reason, I do not segment attributive markers in glosses, but generally use the colon “:ATT”. Attributive markers in Gyeli typically have an H tone, except for those of classes 1 and 9, which both come with an L tone.

### 3.8.4 Prenominal invariable modifiers

Elements that can occur prenominally in Gyeli are restricted in number and distribution. In simple noun phrases, only *nyá* ‘big’ (§3.8.2.2) and *tò* ‘any’ (§3.8.4.1) can precede the noun. *nyá* ‘big’ agrees with the head noun only if the noun is plural, otherwise it is invariable; *tò* ‘any’ is always invariable. Other prenominal elements precede second constituents in noun + noun constructions, serving

Table 3.36: Attributives in the different agreement classes

AGR class	ATT marker
1	wà
2	bá
3	wá
4	mí
5	lé
6	má
7	yá
8	bé
9	nyà

as connectors. They also differ in their agreement behavior ranging from agreeing elements such as the attributive marker (§3.8.3.2) to those that only agree with plural nouns as the genitive marker (§3.8.2.1) and the invariable similative marker (§3.8.4.2). I discuss the two invariable prenominal elements in the following, namely the negative polarity item *tò* and the similative marker *ná*.

#### 3.8.4.1 Negative polarity item *tò* ‘any’

The negative polarity item *tò* ‘any’ does not agree with the head noun, as shown in (150). *tò* ‘any’ never agrees, no matter if it precedes a singular or plural noun. In that, it differs from the genitive marker *ngà* (§3.8.2.1), which agrees with plural nouns.

- (150) a. *mèé nyé-lé [tò m-ùdi]*  
 1SG.PRS.NEG see-NEG any N1-person  
 ‘I don’t see anyone.’
- b. *mèé nyé-lé [tò b-ùdi]*  
 1SG.PRS.NEG see-NEG any ba2-person  
 ‘I don’t see any people.’

The use of *tò* in negated sentences is grammatically not obligatory, as shown in (151), where the same sentence as in (150a) occurs without *tò* ‘any’. Semantically, however, there is a difference in that no person at all is seen in (150a), while (151) negates a specific, known person.

- (151) *mèé nyé-lé m-ùdi*  
 1SG.PRS.NEG see-NEG N1-person  
 ‘I don’t see the person.’

### 3.8.4.2 Similative marker *ná*

The similative marker *ná* occurs both as a free morpheme and a prefix. The free morpheme *ná* functions as a predicative marker that is restricted to naming constructions, linking the noun *jínò* ‘name’ with a proper name, as shown in (152). It is distinct from other copula forms discussed in §4.1.1.1 and is labelled as a “similative” marker for its segmental identity with the similative prefix, which is more productive and more obviously denotes similarity (§4.1.1.1).

- (152) *èè mè jínò ná Màmà*  
 èè mè j-íñò ná Màmà  
 yes 1SG le5-name SIM Ø1.PN  
 ‘Yes, my name is Mama.’

The free similative marker is invariable, even if the noun + noun construction has plural constituents. As illustrated in (153), number has to be identical in the first and second constituent, but the connecting similative marker *ná* does not change.

- (153) *bà míñò ná Màmà nà Màmbì*  
 bà m-íñò ná Màmà nà Mambì  
 2 ma6-name SIM Ø1.PN CONJ Ø1.PN  
 ‘Their names are Mama and Mambi.’

### 3.8.5 Postnominal invariable modifiers

Most modifiers in Gyeli occur after the noun. This is also true for most non-agreeing modifiers, such as invariable numerals and some quantifiers.

#### 3.8.5.1 Invariable numerals

Gyeli has monomorphemic cardinal numerals which do not agree with the noun, as shown in (154). As such, they might be thought of belonging to the same category of adjectives (§3.3). In contrast to adjectives, however, they never occur in a construction involving an attributive marker.

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- (154) a. *b-ùdâ ntùs*  
ba2-woman six  
'six women'  
b. *b-ùdâ mpúèrē*  
ba2-woman seven  
'seven women'  
c. *b-ùdâ lòmbi*  
ba2-woman eight  
'eight women'  
d. *b-ùdâ rèbvùá*  
ba2-woman nine  
'nine women'

#### 3.8.5.2 Quantifier *bvùbvù* 'many, much'

*bvùbvù* 'many, much' is a quantifier that does not agree with the head noun.<sup>37</sup> It is not sensitive to a mass/count distinction and occurs both with countable and uncountable nouns alike, as shown in (155a) and (155b).

- (155) a. *b-ùdî bvùbvù*  
ba2-people many  
'many people'  
b. *mà-jíwó bvùbvù*  
ma6-water much  
'much water'

This quantifier has a nominal counterpart in agreement class 9 which can be used in a noun + noun attributive construction (§5.5.1.4). The nominal quantifier has a different tone pattern, as shown in 156.

- (156)  *bvùbvù nyà b-ùdî*  
Ø9.multitude 9:ATT ba2-people  
'many people'

<sup>37</sup>Under a formal-semantic concept, Zerbian & Krifka (2008: 388) define 'many' as an *intersective* quantifier, belonging to those "quantifiers whose truth conditions can be given in terms of the intersection of the noun meaning and the predicate meaning." Other intersective quantifiers are, for instance, 'several', 'few', 'a certain/other', 'some' or 'no'. The authors state that most intersective quantifiers in Bantu languages agree with their head noun. This is not true for Gyeli, which has a range of non-agreeing quantifiers (or uses attributive constructions (§5.5.1.4) in order to express quantifiers such as 'many' or 'few').

*bvúbvù nyà* seems to be the more marked form which occurs less frequently than the invariable modifier. Possible meaning differences are subtle; speakers claim that both mean the same and can be used in the same contexts.

### 3.8.5.3 Quantifier *mànjìmò* ‘whole, entire’

*mànjìmò* ‘whole, entire’ is another invariable quantifier that follows the head noun, as in (157). Despite the similarity to the nominal modifier *njímò wá* ‘a certain’ and something that looks like a class 6 prefix, *mànjìmò* is not a noun since it lacks noun properties such as the possibility to be modified by, for instance, demonstratives or possessive pronouns, or entering a noun + noun attributive construction as the head.

- (157) a. *púsí      mànjìmò*  
           Ø7.bottle whole  
           ‘the whole bottle’
- b. *ndáwò      mànjìmò*  
           Ø9.house whole  
           ‘the entire house’
- c. *bè-síngì      mànjìmò*  
           be8-cat whole  
           ‘the entire cats’

*mànjìmò* is sensitive to a mass/count distinction in that it does not appear with uncountable nouns, neither liquids nor granular aggregates, as shown in (158). Using *mànjìmò* with mass nouns requires a specification of the physical entity, for instance a bottle as in (158c).

- (158) a. \* *mà-tàngò      mànjìmò*  
           ma6-palm.wine whole  
           ‘the whole palm wine’
- b. \* *ndísi      mànjìmò*  
           Ø3.rice whole  
           ‘the entire rice’
- c. *púsí      (yá)      má-vúdò      mànjìmò*  
           Ø7.bottle 7:ATT ma6-oil whole  
           ‘a whole bottle of oil’

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In contrast to the singular form of granular aggregate mass nouns, which cannot occur with *mànjímɔ̄*, their plural counterpart allows for its use as in (159). In this case, however, it is understood that the noun comes in packaged entities, for instance in sachets or bags, or that different types of the noun are involved.

- (159) *mi-ndísì mánjímɔ̄*  
mi4-rice whole  
'the whole rice [all of its types or packages]'

## 3.9 Elements of the verbal complex

In this section, I describe the elements that occur in a verbal predicate other than the verb, which has been outlined in §3.2. These elements include the subject-tense-aspect-mood-polarity (STAMP) marker and two verbal particles that follow the inflected verb form.

### 3.9.1 The subject-tense-aspect-mood-polarity marker

The subject-tense-aspect-mood-polarity (STAMP) marker, following terminology coined by Anderson (2011b, 2015), is a clitic directly preceding the inflected verb form. As a portmanteau morpheme, it encodes subject agreement as well as tense, mood, aspect, and negation. Table 3.37 shows the basic segmental shape of the STAMP marker in the different agreement classes, omitting the tonal pattern which changes across tense-mood, aspect, and negation categories. There are three different forms of the STAMP marker for agreement class 1. *a* is the basic, unmarked form. *nyɛ* seems to be an instance of interference from Kwasi, but as Gyeli speakers use it so regularly, they mostly view it as part of their language. *nu* seems to be related to the demonstrative form and may be used as a more marked form for reference tracking.

Table 3.37: Segmental forms of the STAMP marker in different AGR classes

1SG	2SG	1PL	2PL	1	2	3	4	5	6	7	8	9
me	wɛ	ya	bwa	a/	ba	wu	mi	le	ma	yi	be	nyi
				nyɛ/								
				nu								

The tonal pattern and sometimes vowel length of the STAMP marker change across different tense-mood categories, as shown in Table 3.38, which lists the STAMP markers' form and surface tones for all agreement classes in all tense-mood (TM) categories (CAT). In combination with specific tonal patterns of the verb, the STAMP marker tones instantiate basic tense-mood distinctions, as discussed in §6.2.1.

Table 3.38: Patterns of STAMP markers in different AGR classes and TM categories

TM CAT	1SG	2SG	1PL	2PL	1	2	3	4	5	6	7	8	9
PRS	mé	wé	yá	bwá(á)	á/nyé/ nú	bá	wú	mí	lé	má	yí	bé	nyí
INCH	mèé	wèé	yàá	bwàá	àá	bàá	wùú	míí	lèé	màá	yíí	bèé	nyíí
FUT	<b>mèè</b>	<b>wèè</b>	<b>yáá</b>	<b>bwáá</b>	àà/báá <b>nyéé/</b> <b>núú</b>	wúú	míí	lèè	máá	yíí	béè	nyíí	
PST1	me	we	ya	bwa(a)	a/ nye/ nu	ba	wu	mi	le	ma	yi	be	nyi
PST2	mèè	wèè	yàá	bwàá	áà/nyéé/ núú	báá	wúú	míí	lèè	máá	yíí	béè	nyíí
IMP	—	—	yá	—	—	—	—	—	—	—	—	—	—
SBJV	mé	wé	yá	bwá(á)	á/nyé/ nú	bá	wú	mí	lé	má	yí	bé	nyí

The FUT category has an exceptional tonal pattern for certain agreement classes, which are marked in bold. The vowel of the second person plural is either pronounced with a long or a short vowel if the tone is not a contour tone, i.e. if it is either H or L.

Class 1 has *a* as a basic form and an alternate form *nye*.<sup>38</sup> At the same time, *nye* is identical with the non-subject pronoun of agreement class 1. Both forms are equally used and speakers state that both are part of the Gyeli language, although the *a* form is more frequently found in texts. Also, agreement class 1 has a third alternate form, namely *nu* which is identical with the class 1 demonstrative. It can, however, also be used as a STAMP marker with the specific tonal pattern for each tense-mood category. In this, the class 1 STAMP marker is exceptional

<sup>38</sup>This form could originate from Kwasio.

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because demonstratives of other agreement classes cannot function as a STAMP marker.

#### Toneless PAST 1 category

I suggest that, underlyingly, the L surface form of the PST1 category is tonally not specified and only surfaces phonetically as L. This is comparable to other grammatical morphemes such as noun class prefixes or verbal derivation morphemes as discussed in §2.4.1.3. I view this phonetically L form as a tonally underspecified default form because it does not only occur in the PAST 1 category, but also serves as general default form in other tense-mood categories when these are combined with true auxiliaries encoding aspect (§6.3.1). It further provides the basic form from which the PRESENT category is derived with an H tone. Consequently, in the glossing of examples, the surface L STAMP markers are represented as being toneless in the underlying line. PRS STAMP forms are underlyingly represented as toneless STAMP markers which receive an H tone, characterizing this category.

#### Tone pattern in the FUTURE category

As shown in Table 3.38, the general pattern for the FUTURE is a long vowel with an HL tonal melody. While in other tense-mood categories the tonal and vowel length pattern is the same for each agreement class, in the FUTURE, the first and second person singular as well as the class 1 STAMP marker deviate from this pattern, having a long vowel with an L tonal melody, as in (160).

- (160) a. mèè dè 'I will eat'  
b. wèè dè 'you will eat'  
c. àà/nyèè dè 's/he will eat'

The STAMP marker precedes the finite verb, but is not part of the verb as it can, in fast speech, be assimilated or even omitted in certain tense-mood categories. I outline both cases in turn.

#### STAMP marker assimilation

Depending on the morphophonological shape of the STAMP marker, this clitic can undergo assimilation with preceding vocalic material in fast speech. This applies mainly to the agreement class 1 STAMP marker whose segmental material consists of the vowel *a*. Given that it is not preceded by a consonant, unlike the STAMP

markers of all other agreement classes, it can assimilate with the final vowel of a preceding verb or noun.

An example of STAMP marker assimilation with both preceding verbs and nouns is provided in (161). In the first instance, the STAMP marker assimilates to the verb *nji* ‘come’ of the preceding phrase. Thus, STAMP marker assimilation in fast speech is not restricted to in-phrase assimilation, but can also cross phrase boundaries.

- (161) à      *njâ*      *dyùmɔ́ bùdàà*      *dyùmɔ́*      *bùdàà dyùmɔ́*      *bùdàà*  
       a      nji-H    a      dyùmɔ́-H b-ùdì      a      dyùmɔ́-H b-ùdì  
       1.PST1 come-R 1.PST1 heal-R    ba2-person 1.PST1 heal-R    ba2-person  
*dyùmɔ́ bùdì*  
       a      dyùmɔ́-H b-ùdì  
       1.PST1 heal-R    ba2-person  
       ‘He came, he was healing people.’

In the other assimilation instances in (161), the STAMP marker assimilates to the nominal object *bùdi* ‘people’, also of the previous phrase. In both cases, the final vowel of the noun is elided while the vowel of the STAMP marker surfaces. At the same time, the tone of the omitted vowel survives, as seen with the contour tone on [nji + à] → /njâ/. In the second instance, while vowel quality is assimilated to the STAMP marker, both tone and vowel length survive, surfacing in a long vowel: [bùdì + à] → /bùdàà/.

### STAMP marker assimilation with proper names

As seen in the previous example, in STAMP marker assimilation it is usually the preceding vocalic material of a noun or verb that is deleted. This is different for STAMP marker assimilation with proper names. Proper names do not change their vowel quality, but assimilate tonally to the class 1 STAMP marker whose vocalic material is being elided, as shown in (162).

- (162) a. *Màmbì á kwè* → /Màmbí kwè/  
       Mambì a-H kwè  
       Ø1.PN 1-PRS fall  
       ‘Mambi falls.’
- b. *Màmbì áá kwè* → /Màmbíí kwè/  
       Mambì áá kwè  
       Ø1.PN 1.INCH fall  
       ‘Mambi is at the beginning of falling.’

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Tonal changes on the proper name do not depend on tonal or phonological patterns of the name, but are controlled by the noun's feature of being a proper name (§3.1.2.2). The fact that proper names receive special morphosyntactic treatment in Gyeli is also seen in the split genitive system (§3.8.2.1).

If the proper name's final tone and the STAMP marker's tone are identical, there is no tonal or vocalic surface change, but the STAMP marker simply is elided, as shown in (163a) for the proper name *Màmbì* ending in an L tone and a following L STAMP marker and, in (163b), the proper name *Biyá* ending in an H tone in combination with a PRS H tone STAMP marker.

- (163) a. *Màmbì à kwé* → /*Màmbì kwé/*  
Màmbì a kwè-H  
Ø1.PN 1.PST1 fall-PST  
'Mambi fell.'
- b. *Biyá á sàgà* → /*Biyá sàgà/*  
Biyá a-H sàga  
Ø1.PN 1-PRS frighten  
'Biyang is frightened.'

These cases are thus rather instances of STAMP marker omission than STAMP marker assimilation, which leads to the next section on STAMP marker omission.

#### STAMP marker omission

Under certain circumstances, the STAMP marker can be elided rather than assimilated. STAMP marker omission requires some conditions. First, the clause has to be either in the PRESENT or the RECENT PAST, as in (164),<sup>39</sup> while the other tense-mood categories (§6.2.1) exclude STAMP marker omission. The parentheses indicate that the use of the STAMP marker is optional while a lack of parentheses indicates that the STAMP marker has to be used obligatorily.

- (164) a. *kálé (nú) kwè* → /*kálé kwè/*  
kálé nu-H kwè  
Ø1.sister 1-PRS fall  
'The sister falls.'

<sup>39</sup>In this example, the class 1 STAMP marker takes the alternate shape of the demonstrative rather than the default shape *a*. The shape of the class 1 STAMP marker does not, however, influence the possibility of its omission.

- b. *kálé* (*nù*) *kwé* → /*kálé kwé*/  
 kálé nu kwé  
 Ø1.sister 1.PST1 fall  
 ‘The sister fell (recently).’
- c. *kálé* *núù* *kwé* → \*/*kálé kwé*/  
 kálé núù kwé-H  
 Ø1.sister 1.PST2 fall-PST  
 ‘The sister fell (a long time ago).’
- d. *kálé* *nùù* *kwè* → \*/*kálé kwè*/  
 kálé nùù kwè  
 Ø1.sister 1.FUT fall  
 ‘The sister will fall.’
- e. *kálé* *nùú* *kwè* → \*/*kálé kwè*/  
 kálé nùú kwè  
 Ø1.sister 1.INCH fall  
 ‘The sister starts to fall.’

Second, a nominal subject has to surface, excluding, however, all nouns with a CV noun class prefix, as in (165), and plural subject nominals, as in (166).<sup>40</sup> (This is parallel to the potential omission of the attributive marker discussed in §5.5.1.1, which has similar conditioning factors.)

- (165) a. *lèndzólè* *lé* *kwè* → \*/*lèndzólè kwè*/  
 le-ndzólè le-H kwè  
 le5-tear 5-prs fall  
 ‘The tear falls.’
- b. *màndzólè* *má* *kwè* → \*/*màndzólè kwè*/  
 ma-ndzólè ma-H kwè  
 ma6-tear 6-prs fall  
 ‘The tears fall.’

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<sup>40</sup>Potential STAMP marker omission was checked for a range of nouns, controlling for different tonal and phonological patterns, noun class affiliation, number, animacy, and different verbs. For simplicity, I only contrast two nouns in their singular and plural form, both belonging to gender 5/6. Most nouns in this gender have a CV prefix in both class 5 and class 6, but preceding a vowel-initial stem, the prefix only consists of a consonant, providing a good testing ground for different phonological environments.

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In (165), both examples are excluded from STAMP marker omission, based on the CV noun class prefix. In contrast, in (166) with consonantal noun class prefixes, only the plural noun in (166b) does not allow STAMP marker omission, but its singular counterpart in (166a) does allow it.

- (166) a. *jáwè*                    (*lé*) *kwè* → / *jáwè kwè*/  
             j-áwè                  le-H kwè  
             le5-goliath.frog 5-PRS fall  
             ‘The goliath frog falls.’
- b. *máwè*                    *má* *kwè* → \*/*máwè kwè*/  
             m-áwè                  ma-H kwè  
             ma6-goliath.frog 6-PRS fall  
             ‘The goliath frogs fall.’

At the same time, these two examples also illustrate that animacy does not play a role, neither does general noun class affiliation since both examples belong to gender 5/6.

The STAMP marker can also be elided with more complex noun phrases such as noun + possessive constructions, as in (167). The tense reading comes from the ABSOLUTE COMPLETIVE marker *mò* (§3.9.2.1), which is restricted to the RECENT PAST.

- (167) *nyè nâ [só wój]NP nòj mò mwánò*  
        nyε nâ     só            w-ój        nòj-H mò m-wánò  
        1 COMP Ø1.friend 1-POSS.2SG take-R PRF 1-child  
        ‘She [says] ‘Your friend has taken the child.”

There are also examples in the corpus showing that noun + noun attributive constructions may occur without a STAMP marker, as in (168). The tense reading of this utterance is ambiguous. As STAMP marker omission only occurs in PRESENT and RECENT PAST, this narrows possible interpretations down. In (168), formal marking allows both tense interpretations. Through common ground, however, it is clear that it has to be the PRESENT since all participants know that the road has not been built yet.

- (168) *mé dyúwó nâ [mpágó wá pódè]NP lá vâ*  
        mε-H dyúwɔ-H nâ mpágó wá pódè là-H vâ  
        1SG-PRS hear-R COMP Ø3.street 3:ATT Ø1.port pass-R here  
        ‘I hear that the road to the port passes [will pass] here.’

Third, the STAMP marker can also be elided when the subject noun phrase is expressed by a pronoun, as in (169) with the interrogative pronoun *nzá* ‘who’. The tense reading in this example comes from the shape of the PROGRESSIVE auxiliary, which has a different form for the PAST (§6.3.1.1).

- (169) *nzá nzíi mê nyê*  
*nzá nzíi mê nyê*  
 who PROG.PRS 1SG.OBJ see  
 ‘Who is seeing me?’

In a quotative index, which signals reported discourse, both the nominal subject and the STAMP marker can be elided, as shown in (170), where a STAMP marker would normally precede *kì* ‘say’.

- (170) *à kék̩ nyî pè dyúwɔ à dígéè à díg-â*  
*a kék̩ nyî pè dyúwɔ a dígéè a dígéè*  
 1.PST1 go.PRF enter there on.top 1.PST1 watch.PRF 1.PST1 watch.PRF  
*dígéè kì nâ nzá nyé mê*  
*a dígéè kì nâ nzá nyé-H mê*  
 1.PST1 watch.PRF say COMP who see-R 1SG.OBJ  
 ‘He went inside there on top and watched and watched and watched.  
 [He] says: “Who sees me?”’

Following Güldemann (2008: 105), not encoding the speaker in a quotative index is permissible in some languages since the speaker “is normally the central character in a given discourse context” so that “such a participant tends to assume the minimum force of reference, and in some languages this is zero expressed”.

### 3.9.2 Verbal particles

There are two other elements that appear in the Gyeli verbal complex, namely particles that follow the finite verb form. This includes the ABSOLUTE COMPLETIVE marker *mɔ* and the verbal plural marker *nga*.

#### 3.9.2.1 ABSOLUTE COMPLETIVE *mɔ*

The ABSOLUTE COMPLETIVE marker, glossed as COMPL, is a clitic that attaches to the inflected verb form. It has two variants, namely a postverbal particle *mɔ*, as in (171a), and a long nasalized vowel with a falling HL tone (171b). The latter is said to be more typical Gyeli, but *mɔ* is also productively used.<sup>41</sup>

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<sup>41</sup>It can be excluded that *mɔ* is a loan form from Mabi since the cognate form in Mabi is *mà*.

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- (171) a. *bà kwèĺ̩ mɔ̄ yɔ̄*  
          ba   kwèĺ̩-H mɔ̄   y-ɔ̄  
          2.PST1 cut-R   COMPL 7-OBJ  
          ‘They have (already) cut it.’
- b. *bà kwèĺ̩ɔ̄ yɔ̄*  
          ba   kwèĺ̩ɔ̄   y-ɔ̄  
          2.PST1 cut:COMPL.R 7-OBJ  
          ‘They have (already) cut it.’

The variant with the final lengthened and nasalized vowel is the contracted form of *mɔ̄*. The segmental nasal has been deleted, but nasality survived on the lengthened vowel. Also, the tonal pattern of the realis-marking H plus the L tone *mɔ̄* is maintained.

While there are some verbs, as in (171), which can take both the *mɔ̄* form and the contracted form, other verbs can only take one or the other. *lámbo* ‘trap’, for instance, can only take the contracted form as in (172a), while the non-contracted form in (172b) is judged as ungrammatical. It seems to be lexically determined whether a verb takes one or the other or both forms.

- (172) a. *mè lámbɔ̄ɔ̄ kù*  
          me lámbɔ̄ɔ̄   kù  
          1SG trap.R.COMPL Ø1.rat  
          ‘I have (already) trapped the rat.’
- b. \* *mè lámbó mɔ̄ kù*  
          mè lámbó-H mɔ̄   kù  
          1SG trap-R   COMPL Ø1.rat  
          ‘I have (already) trapped the rat.’

There is a tendency for semi-auxiliaries, such as *kè* ‘go’ and *sílə* ‘finish’, to only occur with the contracted ABSOLUTE COMPLETIVE form, while *dyúwɔ* ‘hear’ has only been observed to occur with the full form *mɔ̄*.

I consider *mɔ̄* a free morpheme rather than a verbal suffix since tonal inflection of past tense and/or realis mood (§6.2) through the grammatical H tone happens on the preceding verb. If *mɔ̄* was a suffix, it would be the suffix (and the preceding toneless verbal derivation morphemes) that would take the grammatical H tone in non-final position. This, however, is not the case, as (173) shows.

- (173) *mè lùngá mò bvùbvù*  
 me lùnga-H mò bvùbvù  
 1SG grow-R COMPL lots  
 'I have (already) grown lots.'

There is no other element that can occur between the verb and the verbal particle. With verbs that require the comitative marker *nà* (§3.2.2.1), for instance, *nà* follows the verbal particle, as in (174).

- (174) *nà wè làdó mò nà ngâ*  
 nà wε làdɔ-H mò nà ngâ  
 Q 2SG.PST1 meet-R COMPL COM Ø1.healer  
 'Have you ever/already met the healer?'

### 3.9.2.2 Verbal plural particle (*n*)*ga*

The verbal plural particle *ga* and its variant *nga* pluralize addressees in an IMPERATIVE construction (§6.2.1.6). The particle occurs with the first and second person plural. Just like the ABSOLUTE COMPLETIVE marker *mò*, the verbal plural particle directly follows the finite verb. The two particles never co-occur since they are restricted to different tense-mood categories. (175) shows examples of the second person plural with the variant *ga*; (176) includes examples with the variant *nga*.

- (175) a. dê *gà* 'eat (2PL)!'  
 b. kê *gà* 'go (2PL)'  
 (176) a. lâ *ngà* 'count (2PL)'  
 b. gyàgâ *ngà* 'buy (2PL)'  
 c. sîlê *ngà* 'finish (2PL)'!

The first person plural, which also involves the use of the verbal plural particle, has the same structure as the second person plural, just with the addition of the first person plural STAMP marker *yá*, as shown in (177) and (178).

- (177) a. *yá dê gà* 'let's eat!'  
 b. *yá kê gà* 'let's go'  
 (178) a. *yá lâ ngà* 'let's count'  
 b. *yá gyàgâ ngà* 'let's buy'  
 c. *yá sîlê ngà* 'let's finish'

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In terms of the distribution of *ga* versus *nga*, it seems that *ga* is the default case that is used with most verbs. *nga*, in contrast, appears definitely when a monosyllabic verb ends in a nasal vowel as it is the case with *lâ* ‘read, count’, as in (178a). Nasal vowels are, however, not the only factor that triggers the plural particle to surface with a nasal since *nga* is also found with di- and trisyllabic verbs which do not end in a nasal vowel, as shown in (178b).

There also seems to be a certain degree of free variation since both *ga* and *nga* can occur with the same verb form, as in (179). During elicitations, speakers noted that both versions are equally good.

- (179) a. dê **gà** ‘eat (2PL)’  
b. dê **ngá** ‘eat (2PL)’

*ga/nga* always follows the finite verb, as can be seen in the contrast between the positive and the negated cohortative forms (§6.3.1.7) in (180). In both cases, the verbal particle pluralizes the subject. In (180a), the finite verb is *gyàgâ* ‘buy’ in a simple predicate. In contrast, (180b) shows a complex predicate where the finite verb is the negation auxiliary *tí*. The verbal plural particle follows the auxiliary, preceding the lexical verb.

- (180) a. yá      **gyàgâ** **ngá** *békálàdè*  
yá      gyàgâ    nga békálàdè  
1PL-PRS buy.IMP.PL be8-book  
‘Let’s buy books!’  
b. yá      **tí**      **ngá** *gyàgà békálàdè*  
ya-H    tí      nga gyàgà H-be-kálàdè  
1PL-PRS NEG.R PL buy    OBJ.LINK-be8-book  
‘Let’s not buy books!’

I consider *ga/nga* as a particle rather than a suffix that attaches to the finite verb of an IMPERATIVE construction. If the particle was a suffix, one would expect it to take the HL tone that is characteristic of the IMPERATIVE category. Instead, the particle is underlyingly toneless, behaving like toneless CV- noun class prefixes. Phrase finally, *ga/nga* surfaces as L, as shown in (175) and (176). If a nominal object follows, however, *nga* “steals” the object-linking H tone (§7.2.1.2), which would otherwise surface on the noun class prefix in (180a). In that case, *be-kálàdè* surfaces with an L tone on the prefix. The same is true when the particle is followed by *wámíyé* ‘quickly’, as in (181).

- (181) *tí    ngá            dè wámíyè*  
       tí    nga-H        dè wámíyè  
       NEG PL-OBJLINK eat fast  
       'Don't (2PL) eat fast.'

If *nga* precedes a non-finite verb in a complex predicate, however, no H tone attaches, as shown in (182).

- (182) *sílê            ngà nyî    vâ*  
       sílê        nga nyî    vâ  
       finish.IMP PL enter here  
       'Enter (2PL) here [one after the other until everybody is in the house].'

The H tone on *nga* in (180b) is therefore not from the object-linking H tone, but originates from the H tone on the preceding auxiliary *tí*. The object-linking H tone in this case attaches to the prefix of the nominal object.

### 3.10 Adpositions

Following Hagège (2010), adpositions mark the relationship between a predicate, sentence, or non-predicative noun and an element that is governed by the adposition. This governed element is often a noun phrase, but may also include other word classes in Gyeli, as I will show below for the locative preposition *é* that combines with certain adverbs. Gyeli has both prepositions (§3.10.1) and postpositions (§3.10.2).

In Gyeli, I formally distinguish adpositions from elements of the noun phrase (§3.8) such as the genitive marker (§3.8.2.1) and the attributive marker (§3.8.3.2), based on agreement behavior and distributional differences. While adpositions are non-inflecting words, genitive and attributive markers agree with their head noun. As genitive and attributive markers modify nouns, they can appear with any noun phrase (subject, object, adjunct). In contrast, adpositions are almost exclusively restricted to oblique phrases (with the exception of the associative plural marker *bà* discussed in §3.10.1.4).<sup>42</sup>

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<sup>42</sup>The defining criteria to distinguish arguments and adjuncts include word order and tonal behavior (§7.2.1).

### 3.10.1 Prepositions

Gyeli has a limited set of prepositions, including only one locative preposition *é*. Also the comitative marker *nà*, *tí* ‘without’, and the associative marker *bà* fall into this category.

#### 3.10.1.1 Locative marker *é*

The preposition *é*<sup>43</sup> is most frequently used to accompany a locative adverb as discussed in §3.4.1 and listed in (183).

- (183) a. *é vâ* ‘here’
- b. *é wû* ‘there (medial)’
- c. *é pè* ‘there (distal)’
- d. *é bà* ‘to, at’

Further, the preposition *é* can precede a noun in a locative context as in (184).

- (184) a. *é tísònì* ‘in town’
- b. *é nkòlé* ‘on the line’

Semantically, *é* is used as a locative preposition when the described location is about any spatial relation except containment. Spatial containment relations are expressed by the postposition *dé* as discussed in §3.10.2.1.

It is possible that *é* is also used as a directional preposition, as in (185), which shows two lexical options of saying ‘I go to town’, differing in the noun used for the landmark. Due to phonological assimilation, however, it is not possible to clearly prove the presence of the locative marker in this environment since the preposition is identical with the final vowel of the verb, in which case the locative preposition would be deleted in its surface form.

- (185) a. *mé ké mâ*  
*mé kè-H-é? m-â*  
*1SG.PRS go-R-LOC? ma6.sea*  
‘I go to town.’<sup>44</sup>

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<sup>43</sup>The corresponding preposition in Mabi is *á*.

<sup>44</sup>From the perspective of the village Ngolo, the town Kribi is located towards the sea line. Therefore, speakers most frequently refer to the direction of the sea when they talk about the town.

- b. *mé ké tísɔnì*  
 mé kè-H-é tísɔnì  
 1SG.PRS go-R-LOC? Ø7.town  
 'I go to town.'

In a case such as in (186), it is thus not clear if the H tone on the noun class prefix comes from an underlying locative marker *é* or if the noun is treated as an object receiving an object-linking H tone (see §7.2.1).

- (186) *mé ké mánkɛ*  
 mé kè-H-é ma-nkɛ  
 1SG.PRS go-R-LOC? ma6-field  
 'I go to the fields.'

### 3.10.1.2 Comitative marker *nà*

In keeping with Bantu terminology, I call the comitative preposition *nà* a marker. This preposition broadly expresses association between nominal entities or a referent and a predicate. As such, it is often translated as 'with', as in (187).

- (187) *mùdâ ké nà nyè mánkɛ*  
 m-ùdâ kè-H nà nyè H-ma-nkɛ  
 n1-woman go-R COM 1 OBJLINK-ma6-field  
 'Woman, go with her to the fields.'

The comitative marker is used in conjunction with the verb *bè* 'be' to form *bè nà* 'be with' > 'have' to express possession, as in (188).

- (188) *mè kí bè nà tsídí*  
 mè kí bè nà tsídí  
 1SG.PST1 NEG[Kwasio] be COM Ø1.meat  
 'I didn't have any meat.'

*nà* is used in an instrumental sense, as in (189).

- (189) *mè vùlś pémbs nà ntfúmò*  
 mè vùlś-H pémbs nà ntfúmò  
 1SG.PST1 cut-R Ø7.bread COM Ø3.knife  
 'I cut the bread with a knife.'

Extended uses of the instrumental sense are given in (190) through (192).

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- (190) *nyègà*      *váà nyègá*      *tsíyé sâ*      *nà máléndí*  
       nyε-gà      váà nyε-gá      tsíyé sâ      nà ma-léndí  
       1.SBJ-CONTR here 1.SBJ-CONTR live-R only COM 6-palm.tree  
       ‘Him here, he lives only from palm trees.’
- (191) *mè* *múà*      *wè nà nzà*  
       me múà      wè nà nzà  
       1SG be.almost die COM Ø9.hunger  
       ‘I’m about to die from hunger.’
- (192) *à*      *múà*      *á*      *ké jií*      *dé tù*      *nà ndzí*      *gyâ*  
       a      múà      a-H kè-H jií      dé tù      nà ndzí      gyâ  
       1.PST1 be.almost 1-PRS go-R Ø7.forest LOC inside COM Ø9.path Ø7.length  
       ‘He was about to go into the forest, on the long path’

With some verbs, the use of *nà* is lexicalized (§3.2.2.1), as in (193), where the combination of *njì* ‘come’ and the comitative yields the meaning ‘bring’.

- (193) *é*      *pè*      *nâ*      *á*      *njíyè*      *mê*      *nà*      *yŷ*  
       é      pè      nâ      a-H njíyε      mè      nà y-ŷ  
       LOC there COMP 1-PRS come.SBJV 1SG.OBJ COM 7-OBJ  
       ‘so that she bring me that [food]’

The comitative also coordinates noun phrases, as in (194), where *nà* links a subject pronoun and a noun + possessive pronoun construction.

- (194) *bá*      *nà*      *mùdâ*      *wê*  
       bá      nà m-ùdâ      w-ŷ  
       2.SBJ COM 1-woman 1-POSS.3SG  
       ‘they and his wife’

Finally, the comitative marker *nà* is frequently used in temporal or spatial adjuncts using the non-finite form *pámɔ* ‘arrive’.<sup>45</sup>

- (195) *èhè*      *báà*      *bù*      *mpàgó*      *nà*      *pámò pè*      *Kyièngè*  
       èhè báà bù mpàgó nà pámo pè Kyièngè  
       EXCL 2.FUT break Ø3.road COM arrive over.there Ø7.PN  
       ‘Yes, they will build a road up to Kienge [river and name for the town  
       Kribi].’

<sup>45</sup>Since *pámɔ* is uninflected and does not carry any person marking, and it seems to be used as a fixed expression, I consider *nà* as a comitative rather than a verb phrase coordinating conjunction.

### 3.10.1.3 *tí* ‘without’

The preposition *tí* ‘without’ is the negative counterpart to the comitative *nà*. It is used, for example, in (196).

- (196) *mé ké tísònì tí wé*  
       mé kè-H tísònì tí wé  
       1SG.PRS go-R Ø7.town without 2SG.OBJ  
       ‘I go to town without you.’

The use of *tí* as a preposition is a derived function from its primary status as a negative auxiliary (§6.3.1.7).

### 3.10.1.4 Associative plural marker *bà*

The associative plural marker *bà*<sup>46</sup> is a preposition that marks not only the relationship between a governed element to a predicate or sentence, as is the case for the other prepositions described above, but also to a non-predicative noun. *bà* is segmentally identical with the agreement class 2 subject pronoun and denotes a group of related people when used with a noun, as in (197) and (198). The relationship that is marked in these instances is that between the governed nominal and an abstract group of referents that is not identical with the governed nominal, but associated to it.

- (197) *mé ké jiyò vé yá bà fàmí wâ*  
       mε-H kè-H jiyɔ vé ya-H bà fàmí w-â  
       1SG-PRS go-R stay where 1PL-PRS AP Ø1.family 1-POSS.1SG  
       ‘Where will I live, we with my family?’

(198) is similar to (194), but differs in that no comitative marker is used. The tonal pattern of *ba* also differs: as the associative plural, *bà* has an L tone, as a subject pronoun, it has an H tone.

- (198) *bà mùdâ wà nû*  
       bà m-ùdâ wà nû  
       AP N1-woman 1:ATT 1.DEM.PROX  
       ‘the people/family of this woman’

*bà* is also used in the same way as the other prepositions described above, linking the governed element to a predicate or sentence. In these cases, the as-

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<sup>46</sup>Creissels (2016) provides an in-depth discussion of the associative plural marker in Tswana (Bantu S31) from a historical and typological perspective.

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sociative plural marker *bà* often precedes a non-subject pronoun and expresses directionality towards human entities, as in (199).<sup>47</sup>

- (199)    *mé       ló       njì      bàgyɛ̂              bà wɛ̂*  
        mε-H    ló       njì      ba-gyɛ̂              bà wɛ̂  
        1SG.PRS RETRO come ba2-stranger AP 2SG.OBJ  
        ‘I just came as a guest to you.’

Other directionals that typically require a preposition in English, such as ‘go up’, ‘go down’, or ‘go around’, are expressed by verbs in Gyeli, as illustrated in (200). Therefore, they do not include further adpositions.

- (200)    a. *mé       bédégá nkùlé*  
            1SG.PRS ascend Ø3.hill  
            ‘I go up the hill.’
- b. *mé       sìlegá    nkùlé*  
            1SG.PRS descend Ø3.hill  
            ‘I go down the hill.’
- c. *mé       ké vyàmbèlè nkùlé*  
            1SG.PRS go surround Ø3.hill  
            ‘I go around the hill.’

#### 3.10.2 Postpositions

Gyeli has a few postpositions which mostly express location. I distinguish three groups. The first and most frequent category includes *dé* ‘in/on’ and *tù* ‘inside’ which can co-occur. The second category comprises simple locative postpositions that cannot combine with any other postposition and that are clearly derived from location nouns. The third group consists of only one temporal postposition *wɛ̂*, which cannot combine with other adpositions either, but which differs from group two postpositions in that it is not derived from nouns.

##### 3.10.2.1 Combinable postpositions *dé* ‘in/on’ and *tù* ‘inside’

The locative postpositions *dé* ‘in/on’ and *tù* ‘inside’ generally encode a spatial relation of CONTAINMENT. Most commonly, both postpositions co-occur where *dé* directly follows the noun and *tù* follows *dé*, as shown in (201).<sup>48</sup>

<sup>47</sup>This is similar to the French use of *chez* ‘to’ that is used for human goals.

<sup>48</sup>It is possible that *dé* was diachronically a preposition to *tù* ‘inside’, which may have been a noun originally.

- (201) a. *ndáwò dé tù*  
       ∅9.house LOC inside  
       ‘in the house’  
 b. *mìnkí dé tù*  
       ∅1.pot LOC inside  
       ‘in the pot’

Examples of the co-occurrence of both postpositions from natural text are provided in (202) and (203).

- (202) *bónégá báà ná jíi dé tù*  
       b-ónégá báà ná jíi dé tù  
       2-other 2.COP still ∅7.forest LOC inside  
       ‘The others are still in the forest.’
- (203) *àà ndáwò dé tù nyè médé támé*  
       àà ndáwò dé tù nyè médé támé  
       1.COP ∅9.house LOC inside 1 self alone  
       ‘He is in the house all by himself.’

Both postpositions can, however, occur without the other one while maintaining their meaning of spatial CONTAINMENT, as in (204) and (205). The exact semantic difference between constructions with both postpositions, only *dé*, or only *tù* is not clear at this point and likely requires a systematic study of postposition combinations with a large set of different nouns as spatial reference points. Generally, it seems, however, that the component of CONTAINMENT is stronger with *tù* ‘inside’.

- (204) a. *ndáwò dé*  
       ‘in the house’  
 b. *mìnkí dé*  
       ‘in the pot’
- (205) a. *ndáwò tù*  
       ‘inside the house’  
 b. *mìnkí tù*  
       ‘inside the pot’

In contrast to *tù* ‘inside’, *dé* can also describe spatial relations of CONTACT as in (206).

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- (206) *ns᷑ wúù w᷑ nyúl᷑ dé*  
       ∅3.worm 3.COP 2s ∅9.body LOC  
       ‘The worm is on your body.’

I therefore gloss *dé* more generally as LOC while *tù* has the more specific meaning ‘inside’. *dé* as a locative postposition is not only formally but also semantically distinct from the locative preposition *é*, which I also gloss as LOC, but which lacks the connotation of CONTAINMENT. Cases of *dé* as encoding CONTACT rather than CONTAINMENT may have some semantic similarity with the locative preposition *é* in §3.10.1.1, although *é* seems to mark close proximity rather than contact.

Examples of the locative postposition *dé* only that come from natural text are given in (207) through (209).

- (207) *mbúmbù lèbvúú léè nlémò dé*  
           mbúmbù le-bvúú léè nlémò dé  
           N1.namesake le5-anger 5.COP Ø3.heart LOC  
           ‘The namesake is angry [lit. has anger in his heart]’

As (208) shows, *dé* can also be used to indicate directionality rather than location.

- (208) Nzàmbí màbòò nkwegé dé ná vósi  
           Nzàmbí ma-bòò nkwegé dé ná vósi  
       ∅1.PN   ma6-breadfruit ∅3.basket LOC COMP IDEO:pouring  
           ‘Nzambi pours the breadfruit into the basket.’

The same is true for figurative directionality with the verb *vídega dé* ‘turn into’ in (209).

- (209) *míntángáné mí múà vidiègà dé*  
           mi-ntángáné mi-H múà vidièga dé  
           mi4-white.person 4-PRS be.almost turn LOC  
           ‘They are about to turn into white people.’

Examples of the sole use of *tù* ‘inside’ as postposition in natural text is less frequent, but attested as in (210).

- (210) *bùdì*      *ba*      *sílē̂́*      *mē*      *wè* *ndáwò*      *tù*      *vâ*  
       b-ùdì      ba      sîlê̂́      mē      wè ndáwò      tù      vâ  
       ba2-person 2.PST1 finish.COMPL 1SG.OBJ die Ø9.house inside here  
       ‘The people have all died here inside the house.’

### 3.10.2.2 Simple locative postpositions

Some of the locative nouns described in §5.5.1.5 can also be used as locative postpositions. They behave like the postposition *dé* as explained in §3.10.2.1, but differ in their degree of grammaticalization. In contrast to the locative postposition *dé*, these other locative postpositions are clearly used as nouns and as such their meaning is obvious. (211) lists the various nouns that can be also used as postpositions. In contrast to attributive constructions involving two nouns (§5.5), the locative postpositions juxtapose the two nouns without the attributive marker.

- (211) a. ndáwò dyúwò ‘on top/over the house’ < dyúwò ‘top’  
       b. ndáwò sí ‘under the house’ < sí ‘ground’  
       c. ndáwò písè ‘behind the basket’ < písè ‘back’  
       d. ndáwò sò ‘in front of the house’ < sò ‘front’  
       e. ma-ndáwò témó ‘between the houses’ < témó ‘middle’

### 3.10.2.3 Temporal postposition *wê*

Gyeli has one temporal postposition *wê*, which follows time denoting nouns as in (212).

- (212) a. ménó wê ‘in the morning’  
       b. dùwò wê ‘in the day’  
       c. kùgúù wê ‘in the evening’  
       d. bvùlé wê ‘at night’

A natural text example is given in (213).

- (213) *yá sàgà ménó wê nyéè má*  
       ya-H sàga ménó wê nyéè H-ma-pà má  
       1PL-PRS be.surprised 7Ø.morning in see.SBJV OBJ.LINK-ma6-paw 6:ATT  
       *njìbù má bwámó ndáwò dé tù*  
       njìbù ma-H bwámó-H ndáwò dé tù  
       Ø1. antelope 6-PRS come.out-R Ø9.house LOC inside  
       ‘We are surprised in the morning to see traces of an antelope which  
       come out of the house.’

## 3.11 Conjunctions

Conjunctions are used in complex clauses and link phrases and clauses, resulting in coordination (§8.1) or subordination (§8.2). Conjunctions that link the same type of clause or phrase are referred to as “coordinators”. Subordinating conjunctions include complementizers and adverbializers.

### 3.11.1 Coordinators

Gyeli has three coordinators, as shown in (214).

- (214) a. nà ‘and’ (§8.1.1)  
b. kânà/nânà ‘or’ (§8.1.3)  
c. ndí ‘but’ (§8.1.4)

More details and examples are given in the respective sections.

### 3.11.2 Subordinators

The most frequent subordinator in Gyeli is the complementizer *nâ* that links a complement clause to the main clause, as discussed in §8.2.2.1. The subordinator *ká* ‘if’ introduces conditional clauses, which are more free with respect to their position before or after the main clause, as discussed in §8.2.3.2.

## 3.12 Minor word classes

This last section includes all minor parts of speech, ranging from connectors in non-verbal sentences—copulas and the identificational marker *wé*—to question marker, and extrasentential elements.

### 3.12.1 Copulas

A copula links two elements, namely the subject and the predicate, in a non-verbal clause (§7.1.1). In Gyeli, the copula agrees with the head noun. The agreeing copula is formally identical to the STAMP marker (§3.9.1) and takes a long vowel with an HL default tonal pattern. Exceptional person categories, including the first and second person singular and the agreement class 1 copula, have a long vowel with an L tone, as shown in Table 3.39.

Table 3.39: Copula forms across agreement classes

	Singular	Plural
Speech act participants	1SG <i>mèè</i>	1PL <i>yáà</i>
	2SG <i>wèè</i>	2PL <i>bwáà</i>
Non-speech act participants (3 <sup>rd</sup> person)	cl.1 <i>àà/nùù</i>	cl.2 <i>báà</i>
	cl.3 <i>wúù</i>	cl.4 <i>míi</i>
	cl.5 <i>léè</i>	cl.6 <i>máà</i>
	cl.7 <i>yíi</i>	cl.8 <i>béè</i>
	cl.9 <i>nyíi</i>	

### 3.12.2 Identificational marker *wé*

Another element used in non-verbal clauses is the identificational marker *wé*, which links a subject to a demonstrative or deictic adverb. Unlike the copula, however, a non-verbal clause with *wé* can also just consist of a subject and the identificational marker. Both constructions are described with examples in §7.1.2.

### 3.12.3 Question markers

Gyeli has two question markers: *nà* and *nànâ*. The first generally signals a question, while the second is emphatic and is thus pragmatically marked. Examples and a more detailed discussion are provided in §7.4.1.

### 3.12.4 Sentential modifiers

Sentential modifiers include *ná* ‘again, still’, *líí* ‘not yet’, and *ndáà* ‘also’. They are distinguished from adverbs (§3.4) in that sentential modifiers usually occur immediately after the finite verb form, which is not possible for adverbs in complex predicate constructions, as adverbs rather appear at both the left and the right edge of a sentence. §7.2.3 gives more information about the function of sentential modifiers within a clause.

### 3.12.5 Extrasentential elements

The Gyeli corpus contains a number of extrasentential elements. I roughly distinguish interjections from exclamations. Interjections are words that do not relate to the rest of the sentence in a grammatical way. They are, however, lexical words.

### 3 Parts of speech

Exclamations, in contrast, are not considered as lexical words, but rather sounds that convey attitudes and emotions.

#### 3.12.5.1 Interjections

Most (recognizable) interjections used in Gyeli are loanwords from French.<sup>49</sup> Interjections have a discourse structuring function and often appear at the beginning of an intonation phrase, as in (215).

- (215) *dɔ̄*      *sí*      *nyâ̄*      *nyî̄ bû̄lè*      *yá Ngô̄ló*  
*dɔ̄*      *sí*      *ny-â̄*      *nyî̄ bû̄lè*      *yá Ngô̄ló*  
so[French] Ø9.ground 9-POSS.1SG 9:COP Ø7.old.camp 7:ATT Ø3.PN  
'So [French: *donc*], my land is the old settlement of Ngolo.'

Pragmatically, interjections are also used to reinforce common ground, as in (216) where the speaker acknowledges that he and the addressee are on the same page.

- (216) *voilà*      *wè̄è*      *njî̄*      *nà njî̄*      *wè̄è*      *njî̄*      *nà njî̄*  
voilà      wè̄è      njî̄      nà njî̄      wè̄è      njî̄      nà njî̄  
ok[French] 2SG.COP Ø9.path CONJ Ø9.path 2SG.COP Ø9.path CONJ Ø9.path  
'Exactly, you are on the right track.'

Even though the Bagyeli of Ngolo report that their French is, if at all, very limited, they are all able to use these French interjections, as well as *allez* 'come on' and *alors* 'so, then'.

#### 3.12.5.2 Exclamations

Exclamations reveal the speaker's attitude and emotion towards a situation, usually encoding agreement, disagreement, surprise, or getting the addressee's attention. All exclamations can be manipulated in terms of their length. A longer sound (and often increased volume) correlates with higher emotional intensity.

A widely used exclamation in the area (not only in Gyeli) is *éékè*, which signals general surprise about either a positive or negative event. In (217), *éékè* is a reaction to a character in a story who wants to eat a child. The exclamation refers potentially to both the narrator's attitude and the reaction of the woman in the story whose child will be eaten.

<sup>49</sup>It is possible that I classify some local interjections with exclamations since their meaning is generally hard to describe for speakers and the difference between a lexical word and an emotion encoding sound is possibly not always very clear.

- (217) *éékè mùdâ à gyéé*  
 éékè m-ùdâ a gyéé  
 EXCL N1-woman 1.PST1 cry.COMPL  
 ‘Oh, the woman cried.’

Exclamations are also frequently used in reported discourse, as in (218).

- (218) *yòò bá kí nâ éékè*  
 yòò ba-H ki-H nâ éékè  
 so 2-PRS say-R COMP EXCL  
 ‘So they say that [exclamation of surprise]!’

Another frequent exclamation is áá or áà or àà. The tonal pattern seems to depend, at least partially, on the distance between speaker and addressee, with an H tone indicating distance and an L tone proximity. áá has been observed to occur often to introduce a question, as in (219) and (220). It seems comparable to the English exclamation ‘oh!’ expressing surprise or desire.

- (219) *áá gyí wé ló njí gyésò*  
 áá gyí wε-H ló njí gyésò  
 EXCL what 2SG-PRS RETRO come look.for  
 ‘Ah, what have you just come to look for?’

- (220) *áá bii mändáwò má zì, yáà mɔ fúàlà bwé*  
 áá bii ma-ndáwò má zì yáà m-ɔ fúala bwé  
 EXCL 1PL.OBJ ma6-house 6:ATT Ø7.tin[Bulu] 1PL.FUT 6-OBJ end receive  
*lèwùlà lé vé*  
 le-wùlà lé vé  
 le5-hour 5:ATT which  
 ‘Ah, us, tin houses, when will we receive them?’

àà is also used in addressing someone and getting the addressee’s attention.

- (221) *mè biyé làwò nâ àà bwánò bâ*  
 me biyε-H làwɔ nâ àà b-wánò b-â  
 1SG in.vain? speak COMP EXCL ba2-child 2-POSS.1SG  
 ‘I say in vain: “ah, my children . . .”’

The H tone on áá in (222) indicates that mother and father are far away from the speaker.

### 3 Parts of speech

- (222) áá nyáò                    áá tág  
       áá nyá-ò                    áá tá-ò  
     EXCL N1-mother-VOC EXCL N1-father-VOC  
     ‘Oh mother, oh father!’

A similar function of attention seeking and address is found with óóó in (223) and é in (224), comparable to English ‘hey!’.

- (223) nyé nâ óóó mùdâ  
       nyε nâ óóó m-ùdâ  
       1 COMP EXCL N1-woman  
     ‘He [said]: “Oh, wife!”’

- (224) é mwánò wâ dyúwò  
       é m-wánò w-â dyúwò  
       EXCL N1-child 1-POSS.1SG on  
     ‘Hey, about my child!’

Exclamations with a clear negative connotation are yééé as a sound of disappreciation and kééé (with varying length). The latter expresses outrage and strong disapproval, as in (225) where the speaker expresses his indignation after learning that his child had been eaten by his friend.

- (225) nyé nâ kéééé  
       nyε nâ kéééé  
       1 COMP EXCL  
     ‘He [says]: “What!”’

This exclamation can also be used less strongly in a pejorative way, as in (226). Here, kééé shows the belittling attitude of the speaker towards his children.

- (226) nyé nâ kééé bwánò bâ mè sîlêé bô dyùù  
       nyε nâ kééé b-wánò b-â mε sîlêé b-ô dyùù  
       1 COMP EXCL ba2-child 2-POSS.1SG 1SG finish.COMPL 2-OBJ kill  
     ‘He [says]: “Ha, my children, I have already killed them all”’

# 4 Morphology

This chapter covers two broad aspects of Gyeli morphology. In the first part, I outline the forms and types of bound morphemes. These serve as ingredients to form words either through inflection, derivation, or composition. I follow Haspelmath & Sims' (2010) textbook definitions of these terms. Inflection is the morphological process of producing word forms of a lexeme. Inflectional morphemes in Gyeli express grammatical categories such as agreement, tense, mood, negation, and objecthood. As such, inflectional morphemes do not change the lexeme's part of speech. Many of the inflectional morphemes are syntactically required and thus appear obligatorily. Additionally, their attachment is fully productive and predictable. Inflection is discussed along with the morpheme types in part one of this chapter.

In contrast, derivational affixes create new lexemes that belong to the same word family. A derived lexeme can belong either to the same word class or a different one than its source lexeme. Derivational morphemes are syntactically optional. Also, it is lexically specified which lexeme can take which derivational affix. As such, attachment of derivational affixes is less predictable. Finally, composition is a type of word formation that combines lexemes from different word families. In Gyeli, compounds typically include two lexical morphemes. Derivation and composition processes are discussed in the second part of this chapter.

## 4.1 Morpheme types

In this section, I give an overview of the types of affixation morphemes found in the Gyeli language. I limit the discussion to overt non-root morphemes. That is, all morphemes discussed in this section are overt,<sup>1</sup> bound, and grammatical. Thus, lexical roots are not discussed here, but in Chapter 3. The same holds for non-overt morphemes, such as portmanteau morphemes like, for instance, the subject-tense-aspect-mood-polarity (STAMP) marker and certain copulas. These

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<sup>1</sup>I do not consider null-forms here that are found in some nouns and agreement targets. To be consistent with noun class and agreement marking, however, I do represent them in glosses.

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portmanteau morphemes are free and occur as words in their own right, as presented in Chapter 3.

I organize the presentation through the opposition between derivational and inflectional morphemes with a distinction between those that precede the lexical root (prefixes) and those that follow the root (suffixes). Gyeli has a total of 44 affixes, 15 (34.1%) of which are derivational, as listed in Table 4.1, and 29 (65.9%) of which are inflectional affixes, as shown in Table 4.2.<sup>2</sup>

Table 4.1: Frequency of derivational affixes by form and function

Prefixes			Suffixes		
Forms	Function	POS	Forms	Function	POS
<i>ná-</i>	SIM	N, ADJ	(-èdè)	NOM	N
( <i>nà-</i> )	adverbializer	ADV	-a	NOM	N
			-H	NOM	N
			-á/-â	NOM	N
			-a	EXT	V
			-ala	EXT	V
			-ele	EXT	V
			-ega/-aga	EXT	V
			-ɛsɛ	EXT	V
			-wɔ	EXT	V
			-bɔ/-wɔ	EXP	V
			-ke/ge	EXP	V
			-lc	EXP	V
Total: 2	2	3	13	3	2

Table 4.1 and Table 4.2 present the functions associated with each affix, either for derivational affixes—for instance, as a nominalization or verb extension suffix—or for inflectional affixes such as noun class prefixes, and the part(s) of speech each affix derives. While derivational morphemes are mostly suffixes which attach to verbs, inflectional morphemes are mostly prefixes that are linked to noun class and agreement marking.<sup>3</sup>

<sup>2</sup>The derivational forms in parentheses, *nà-* and -èdè, are minor and non-productive forms.

<sup>3</sup>Noun class and agreement prefixes often have alternate forms that are phonologically conditioned. In Table 4.2, I count a form and its alternate as only one form in order to not artificially increase the number of forms.

Table 4.2: Frequency of inflectional affixes by form and function

Prefixes			Suffixes		
Forms	Function	POS	Forms	Function	POS
<i>m-</i>	n.cl. , AGR	N, MOD	<i>-lε</i>	NEG	V
<i>n-</i>	n.cl., AGR	N, MOD	<i>-gā</i>	CONTR	SBJ
<i>ba-/b-</i>	n.cl.	N	<i>-o</i>	VOC	N, ADV
<i>mi-</i>	n.cl.	N	<i>-H</i>	TM	STAMP, V
<i>le-/d-</i>	n.cl.	N			
<i>ma-/m-</i>	n.cl.	N			
<i>be-</i>	n.cl.	N			
<i>w-</i>	AGR	OBJ, POSS, MOD			
<i>nú-</i>	AGR	ANA			
<i>bà-/b-</i>	AGR	OBJ, MOD			
<i>bá-</i>	AGR	POSS, ANA, NUM, GEN			
<i>wó-</i>	AGR	ANA			
<i>mì-/my-</i>	AGR	OBJ, MOD			
<i>mí-/my-</i>	AGR	POSS, ANA, NUM, GEN			
<i>lè-/l-</i>	AGR	OBJ, MOD			
<i>lé-/l-</i>	AGR	POSS, ANA			
<i>mà-/m-</i>	AGR	OBJ, MOD			
<i>má-</i>	AGR	POSS, ANA, NUM, GEN			
<i>y-</i>	AGR	OBJ, MOD			
<i>yí-</i>	AGR	POSS, ANA			
<i>bì-/by-</i>	AGR	OBJ, MOD			
<i>bí-</i>	AGR	POSS, ANA, NUM, GEN			
<i>ny-</i>	AGR	OBJ, POSS, MOD			
<i>nyí-</i>	AGR	ANA			
H-	OBJLINK	N			
Total: 25	3	7	4	4	5

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With regard to the ratio of prefixes to suffixes across derivational and inflectional affixes, prefix forms are higher in number than suffixes. The 27 prefixes constitute 61.4% of all affixes, while there are only 17 suffixes. Many inflectional prefix forms are segmentally identical, for example *mi-*, *mì-*, and *mí-*. They differ, however, in their tonal specification and thus must be formally distinguished.

Prefixes map onto a higher number of functions than suffixes. Most prefixes encode agreement and/or noun class.<sup>4</sup> In addition to these most frequent functions, there is also an object-linking H tone and the derivational prefixes *ná-* and *nà-*. Most suffix forms are functionally derivational extension or expansion morphemes.<sup>5</sup> Other derivational suffixes serve as nominalization morphemes. Inflectional suffixes include a negator, contrastive and vocative markers, and also an H tone suffix that marks various tense and mood categories.

Cross-linguistically, it is not typical that contrastive or vocative suffixes appear as inflectional morphemes. In Gyeli, they differ from the other inflectional affixes since they are not obligatory. In order to make this distinction, I call them “markers”. I still consider them as inflectional morphemes, however, for two reasons. First, unlike the derivational affixes, they do not form new lexemes, i.e., they do not have an entry in the lexicon. Second, their attachment is completely predictable, unlike derivational affixes. For example, every subject and object pronoun can take the contrastive marker *-gà* (but not every verb can take a causative derivational suffix).

Nine different parts of speech take some form of prefix, two with derivational and seven with inflectional prefixes, but most prefixes attach to nouns. Prefixes are generally restricted to the domain of the noun phrase. The two derivational prefixes occur with nouns, adjectives, and adverbs. Inflectional agreement prefixes attach to the diverse category of nominal modifiers (§3.8), object and possessor pronouns as well as anaphoric and genitive markers and numerals. In contrast, suffixes span five different word classes within both noun and verb phrases. Nominalization and vocative suffixes attach to nouns. Extension, expansion, negation, and tense-mood suffixes attach to verbs. The remainder of suffixes attach to subject pronouns, adverbs, and the subject-tense-aspect-mood-polarity (STAMP) marker.

In the following, I will briefly outline the various categories of prefixes and suffixes grouped by function, focusing on their form patterns. Depending on the complexity of forms, some discussions might be more detailed, for instance on

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<sup>4</sup>The relation between noun class, agreement class, and grammatical number is discussed in §5.2.

<sup>5</sup>See §4.1.2.2 for the difference between extension and expansion suffixes.

nominalization suffixes (§4.1.2.1). In contrast, other forms are straightforward, for instance verbal expansions, but their semantics are more complex. In this case, I keep the formal discussion short and elaborate further in §4.2.

### 4.1.1 Prefixes

A noun stem can maximally take three prefixes, as illustrated in (1).

- (1) OBJECT-LINKING H TONE – NOUN CLASS – SIMILATIVE – STEM

The prefix that is closest to the stem is the simulative marker *ná-*. This can be preceded by a plural noun class prefix and an object-linking H tone.

Gyeli has four different functional types of prefixes: the derivational prefixes *ná-* (the simulative marker) and *nà-*, and the inflectional noun class, agreement, and object-linking H tone prefixes.

#### 4.1.1.1 Derivational prefixes

Gyeli has two derivational prefixes, *ná-* and *nà-*, which are segmentally identical, but differ tonally and functionally. The derivational simulative marker *ná-* forms a functional category on its own expressing the meaning ‘like’. The prefix is related to the free morpheme *ná* which serves as a simulative marker in noun + noun naming constructions, as discussed in §3.8.4.2. Words with the prefix *ná-* are (historically) derived from either a verb or noun or are synchronically opaque. The application of *ná-* results in common nouns, proper names, and some adjectives, as shown for each type in (2).

- (2) a. *ná-gyàlē* ‘breastfeeding woman [lit. like nursing period]’ (common noun)  
     b. *Ná-nzê* (Nanzé) ‘female name [lit. like panther]’ (proper name)  
     c. *ná-vyû* ‘black [lit. like blackened]’ (adjective)

The *ná-* simulative marker is the most lexicalized prefix in the language since its use is not productive. Instead, it is lexically specified which nouns and adjectives occur with this marker. Especially in the case of nouns with the *ná-* prefix, one could even argue that the prefix is synchronically frozen to the lexical stem since, in many instances, the meaning of the lexical stem is opaque. There are several reasons, however, why I consider *ná-* a prefix and not part of the lexical stem. First, nouns with the *ná-* prefix are structurally different from other common nouns. If one counted *ná-* as part of the nominal stem, some of these

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stems would have a syllable length of four syllables. As discussed in §2.3.2.3, however, the maximum syllable length in stems is three syllables (and even this is dispreferred, accounting for only 10% of the nouns in the database). Second, the *ná-* prefix occurs quite frequently and regularly, especially in the derivation of female names from male names and in adjectives. This suggests that there is a formal pattern (rather than just a random CV syllable shape). Third, there is a clear function attributed to *ná-*, namely that of expressing similarity, as shown in the examples in (2). Derivation with the prefix *ná-* is discussed in greater detail in §4.2.2.

The other derivation morpheme *nà-* is a minor and little productive prefix that derives adverbs from nouns. There are only two known instances, illustrated in §4.2.3. As this prefix has a different phonological form and a distinct derivation function from the similitative prefix *ná-*, I analyze it as a prefix on its own.

### 4.1.1.2 Noun class prefixes

Noun class prefixes are inflectional morphemes that attach only to common nouns (but not proper names). There are eleven different overt forms which can be grouped into six underlying categories, based on phonological conditioning. The forms and their alternates are listed in Table 4.3.<sup>6</sup>

Table 4.3: Noun class prefix forms

Noun class form	Alternate form	Phonological condition of alternate
m-	n-	assimilation of place of articulation
ba-	b-	before stem-initial vowel
mi-	m-	before stem-initial vowel
le-	d-	before stem-initial vowel
ma-	m-	before stem-initial vowel
be-	-	

Noun class prefixes fill the second of three possible prefix slots in nouns, potentially preceded by the object-linking H tone (see §4.1.1.4) and followed by a similitative marker (see §4.1.1.1).

It is an inherent property of each noun which noun class prefix(es) the noun can take. Some noun forms do not take any overt prefix at all. Since noun class

<sup>6</sup>The prefix *be-* does not have a listed alternate form because there is no known instance of a noun using this prefix and having a stem-initial vowel.

prefixes are part of the gender and agreement system which operates on a morphosyntactic rather than solely morphological level, these prefixes are discussed in greater detail in §5.2.3 where their forms are organized according to noun and agreement classes. In the context of gender and agreement, I also view a null-form as a category, but since it is not overt, I do not list it as a morpheme in this section.

#### 4.1.1.3 Agreement prefixes

Like noun class prefixes, agreement prefixes are inflectional bound morphemes. They attach to six different agreement targets: nominal modifiers, object and possessor pronouns, anaphoric markers, numerals, and genitive markers.<sup>7</sup> In contrast to nouns, agreement targets have only one prefix slot. Gyeli has 19 agreement prefix forms, as listed in Table 4.4. All except two agreement prefixes mark only one agreement class. For instance, the CV prefix *ba-* and its phonological (*b-*) and tonal (*bà-* and *bá-*) variants always encode agreement class 2.

Most agreement classes have two sets of agreement prefixes distinguished by an L versus an H tone. The L tone forms and the consonantal prefix *y-* attach to object pronouns and nominal modifiers. The H tone prefixes generally mark possessor pronouns and anaphoric markers. The plural classes 2, 4, 6, and 8 also mark numerals and the genitive marker with an H tone prefix.

There are two prefixes which mark several agreement classes across different parts of speech. As the distribution does not apply to entire word classes, most notably nominal modifiers, the details of agreement prefixes marking several agreement classes with specific agreement targets are given in Table 4.5.

#### 4.1.1.4 The object-linking H tone

Some morphemes in Gyeli are not segmental, but solely tonal. This is the case for the H tone that attaches to the left of common nouns in certain contexts.<sup>8</sup> In terms of its function, this H tone prefix marks a noun as the object. Where there is more than one object, only the object closest to the verb is marked by the object linker. As such, it is an inflectional morpheme that is obligatorily in this

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<sup>7</sup>These word classes are not the only agreement targets in Gyeli, but they are the parts of speech that mark agreement by means of a prefix. Other agreement targets have free forms which are described as parts of speech in Chapter 3; all agreement targets are listed in §3.1.1 and §5.2.1.

<sup>8</sup>Proper names do not take an object-linking H tone, which is tied to the fact that proper names do not usually take noun class prefixes. Therefore, the object-linking H tone does not have a toneless TBU to attach to.

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Table 4.4: Agreement prefixes across agreement targets and agreement classes

Prefix form	POS	Agreement class
<i>m-</i>	MOD	1, 3, 9
<i>w-</i>	OBJ, POSS, MOD	1, 3
<i>n-</i>	MOD	1
<i>nú-</i>	ANA	1
<i>bà-/b-</i>	OBJ, MOD	2
<i>bá-</i>	POSS, ANA, NUM, GEN	2
<i>wó-</i>	ANA	3
<i>mi-/my-</i>	OBJ, MOD	4
<i>mi-/my-</i>	POSS, ANA, NUM, GEN	4
<i>lè-/l-</i>	OBJ, MOD	5
<i>lé-/l-</i>	POSS, ANA	5
<i>mà-/m-</i>	OBJ, MOD	6
<i>má-</i>	POSS, ANA, NUM, GEN	6
<i>y-</i>	OBJ, MOD	7
<i>yí-</i>	POSS, ANA	7
<i>bì-/by-</i>	OBJ, MOD	8
<i>bí-</i>	POSS, ANA, NUM, GEN	8
<i>ny-</i>	OBJ, POSS, MOD	9
<i>nyí-</i>	ANA	9

Table 4.5: Prefixes marking multiple agreement classes

AGR prefix	Pronouns		Nominal modifiers			
	OBJ	POSS	-vúdû ‘1’	-fúsì ‘different’	-ésè ‘all’	-ónégá ‘other’
<i>m-</i>	-	-	cl. 1, 3, 9	cl. 1	-	-
<i>w-</i>	cl. 3	cl. 1, 3	-	-	cl. 1, 3	cl. 3

environment. I call this prefix “object-linking H tone” and gloss it as ‘OBJLINK’, as shown in (3).

- (3) *nkè nyì nzí sílē̂ bédéwò.*  
 nkè nyi nzí sílē̂ H-be-déwò  
 Ø9.field 9 PROG.PST finish.COMPL OBJLINK-be8-food  
 ‘The field was already running out of food.’

The object-linking H tone only appears on otherwise toneless CV- shape noun class prefixes, but is not realized on null-form or consonantal noun class prefixes.<sup>9</sup> More examples of the object-linking H tone and information on its function in marking grammatical relations is provided in §7.2.1.2.

#### 4.1.2 Suffixes

Gyeli suffixes can be categorized into seven different functions: nominalization, extension and expansion, negation, contrast, direct address, and a tense-mood marking. I will outline each of these types in the following, discussing extension and expansion suffixes together since their function is the same (but they differ in the level of productivity). Derivational suffixes are outlined only briefly in this section before their fuller discussion in §4.2, while inflectional suffixes are outlined in greater length here.

##### 4.1.2.1 Nominalization suffixes

Gyeli has four nominalization suffixes, as shown in Table 4.6. *-a*, the tonal morpheme *-H*, and *-èdè* derive full deverbal nouns. *-a* and *-èdè* are in complementary distribution, with *-èdè* occurring in deverbal nouns of gender 1/2 and *-a* everywhere else. *-èdè* is, however, occurs infrequently, as most deverbal nouns in gender 1/2 do not take nominalization suffixes.

The fourth suffix, *-á/-â*, is productively used in the derivation of nominalized past participles (§4.2.1.7), as in (4). The tonal pattern of an H tone or a falling tone is phonologically determined by the tone on the lexical root. An H tone lexical root takes a falling *-â* nominalization suffix, while an L tone verb stem takes an H suffix *-á*. This makes it a distinct pattern from the *-H* and *-a* suffixes in full deverbal nouns, whose tonal patterns seem lexically specified and not conditioned by phonology.

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<sup>9</sup>Object nouns with null-form and consonantal noun class prefixes are completely unchanged; no downstep phenomena could be observed.

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Table 4.6: Nominalization suffixes

Nominalization suffix	POS	Productivity	Co-occurrence
-a	full deverbal noun	medium	with -H
-H	full deverbal noun	medium	with -a
-èdè	full deverbal noun	low	none
-á/-â	nominalized past participle	high	none

- (4) a. tsíbɔ ‘grind’ > n-tsíb-â ‘ground (thing)’  
 b. tálε ‘begin’ > n-tál-â ‘begun (thing)’  
 c. gyàgà ‘buy’ > n-gyàg-á ‘bought (thing)’  
 d. jí ‘open’ > n-jíy-á ‘opened (thing)’

In contrast to nominalized past participles, not all full deverbal nouns take a nominalization suffix. In fact, they frequently do not use any nominalization suffix at all. In these cases, the noun class marker that is used with the verb stem is the only nominal marker, as shown in (5). The toneless TBUs of the verb stem are specified for L tones in the nominal forms.

- (5) a. bwàlε ‘be born’ > ma-bwàlè ‘birth’  
 b. gyè’elε ‘pray’ > ma-gyè’élè ‘prayer’  
 c. dò ‘negotiate’ > ma-dò ‘negotiation’

It is lexically specified which nouns take a nominalization suffix and also if the noun will take both the suffix -a and the tonal suffix -H, as shown in (6), or just one of them.

- (6) a. tálε ‘begin’ > ma-tál-á ‘beginning’  
 b. díge ‘look’ > ma-díg-á ‘vision’  
 c. dílε ‘bury’ > ma-díl-á ‘funeral’  
 d. líbεlε ‘show’ > ma-líbél-á ‘appearance, showing’  
 e. tfúdɔ ‘pinch’ > tfúd-á ‘pinch (n.)’  
 f. tsílɔ ‘write’ > n-tsíl-á ‘hand writing’

While the suffixes -a and -H most often occur together, there are also cases where only -H or only -a is used, as shown in (7).

- (7) a. tèmbowɔ ‘set (sun)’ > ma-tèmbówó ‘sunset’

- b. sòsi 'be happy' > ma-sòsí 'joy'
- c. dígε 'look, watch' > ma-dígà 'vision'

There are some constraints on the occurrence of *-a*. In terms of phonological constraints, the suffix only attaches to stems that end in /ɛ/ or /ɔ/, as shown in (6).<sup>10</sup> As for its distribution over various genders, *-a* is only used in non-agentive deverbal nouns, excluding nominalizations in gender 1/2 (§4.2.1.1).

Nominalized forms in gender 1/2 rarely take any nominalization suffixes. The only nominalization suffix in this gender is *-èdè*, which is in complementary distribution with *-a*. *-èdè* is not found in other genders and/or with non-agentive nouns. There are only two known occurrences of the *-èdè* suffix in the lexical database, which are listed in (8).

- (8) a. gyámbɔ 'cook' > n-gyámb-èdè 'cook (n.)'  
 b. gyímbɔ 'dance' > n-gyímb-èdè 'dancer'

The *-èdè* suffix might be a more marked form for agentive nouns in order to disambiguate between other nominalized forms. An example is the verb *gyímbɔ* 'dance' and the derived noun *n-gyímbɔ* 'sorcerer'. In this instance, *-èdè* might be used to distinguish *n-gyímbɔ* 'sorcerer' from *n-gyímb-èdè* 'dancer'. §4.2.1 gives a more detailed account of nominalization processes.

#### 4.1.2.2 Extension and expansion suffixes

Extension and expansion suffixes are derivational suffixes which derive verbs from other verbs, changing their valency. The difference between extension and expansion lies in the suffix's relative level of productivity. Extension morphemes are synchronically productive, while expansion morphemes are not. Gyeli has six extension and three expansion morphemes, as listed in Table 4.1. Each of them is discussed in detail in §4.2.4.

#### 4.1.2.3 Negation suffix *-lε*

There are two suffixes *-lε*, which are homophonous but have two distinct functions. One is a derivational expansion suffix (§4.2.4.7) and the other is an inflectional negation suffix. Both suffixes can co-occur, as shown in (9). In these instances, the negation suffix follows the expansion suffix, as expansion suffixes generally follow the verb root, while the negation suffix attaches to the verb stem.

<sup>10</sup>Nouns derived from verbs with other final vowels such as /i/, /o/, and /a/ never undergo vowel change.

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- (9) *té-le-le*  
place-EXP-NEG  
'to not place something'

As a negation suffix, *-le* productively attaches to all verb stems in the present tense, as exemplified in (10). Tonal changes depend on the verb's stem tones and are discussed in detail in §6.2.3.1.

- (10) a. gyámbó 'cook' → gyámbó-*lē* 'not cook'  
b. kòla 'add' → kólà-*lē* 'not add'

In other tenses, auxiliary negation verbs (§3.2.2.3) are used that contain the suffix *-le*.

### 4.1.2.4 Contrastive marker *-gà*

The morpheme *-gà* is an inflectional suffix that attaches to subject pronouns, as shown in (11), and to object pronouns, as in (12).

- (11) *wé ké nà nyê nkɔ̄wáká nyègà à nzíí wê*  
we-H kè-H nà nyê nkɔ̄wáká nyè-gà a nzíí wê  
2SG-PRS go-R COM 1 equal.sharing 1.SBJ-CONTR 1 PROG.PRS 2SG.OBJ  
*vá̄ké sâ mpù*  
vá̄ké sâ mpù  
go[Bulu] do like.this

'You go with him equally sharing, he tries to trick you [lit. he is going to do you like this].'

- (12) *mé nyé wègà*  
me-H nyé-H wê-gà  
1SG-PRS see-R 2.SG-CONTR  
'I see YOU/you, too.'

*-gà* serves to track referents and, in terms of information structure, indicates a switch of topics, as explained in §7.3.1.1. The suffix appears to be derived from the nominal modifier *-j(né)gá* 'other', as discussed in §3.8.1.4.

#### 4.1.2.5 Vocative marker *-o*

All proper names can take the vocative suffix *-o*, for instance as in *Mìnsém-o* or *Màmá-o*. The suffix attaches to the noun without undergoing assimilation; thus a final vowel of the noun stem does not delete. The tone of the suffix depends on speaker proximity. If the addressee is close to the speaker, the suffix has an L tone, if the addressee is further away, it has an H tone. The vocative suffix is not exclusively restricted to proper names, but can also be used with common nouns. These occurrences are, however, limited to common nouns expressing a relation that can be used as address, such as *nyá-ò* ‘mother’ and *tá-ò* ‘father’. The vocative can also attach to the locative adverb *wê* ‘there’, as shown in (13), where it also combines with the distal H tone.

- (13) *mùdì kí tátɔ wúó*  
       m-ùdì   kí   tátɔ   wú-o-H  
       N1-person NEG scream there-VOC-DIST  
       ‘Nobody scream over there!’

#### 4.1.2.6 Tense-mood H tone suffix

An H tone suffix attaches to the subject-tense-aspect-mood-polarity (STAMP) marker and verbs in certain tense-mood categories. The STAMP marker takes the H tone suffix to mark PRESENT and SUBJUNCTIVE, while verbs take the H tone suffix to encode RECENT PAST and REMOTE PAST. These processes are described in detail in §6.2.1.

## 4.2 Derivation and compounding

Having discussed the different morpheme types and their distribution, I now turn to describing the language’s word formation processes. This includes nominalization, verbal derivation, and compounding.

### 4.2.1 Nominalization

Nominalization is a word formation process in which nouns are formed from lexemes of other word classes. In Gyeli, the source word class for nominaliza-

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tion is generally restricted to verbs, at least for the derivation processes that are synchronically transparent.<sup>11</sup>

Formally, there are several means to derive a derived noun:

- (i) prefixation of a noun class prefix
- (ii) prefixation of the similitive marker *ná-*
- (iii) suffixation of *-a/-èdè* and/or *-H*
- (iv) suffixation of *-á/-â*

Based on how these means are systematically used and combined, three different types of nominalized forms can be created. First, there are those which are full nouns, assigned to a gender. Their prefixation pattern is based on assigned gender. A subset of these also take nominalization suffixes, namely *-èdè* in gender 1/2 and *-a* in all other genders. In all genders except 1/2, the nominalization suffix can be a tonal morpheme *-H*, which can attach to the stem directly or occur in combination with the suffix *-a*. Second, there are defective nouns, which are nominalized participles. These always manifest prefixation of a nasal prefix *N-* and suffixation of *-á/-â*. Third, there are derived forms with *ná-*, producing nouns and adjectives. These always manifest prefixation of *ná-*, but never segmental nor tonal suffixation.

What all three nominalization types have in common is that they take some sort of prefix. Full deverbal nouns are assigned to different genders, including genders 1/2, 3/4, 5/6, 6, 7/8, and 8. Depending on the gender they are assigned to, affixation of a noun class prefix is predictable. For instance, full deverbal nouns in gender 1/2 will always take a nasal noun class prefix in the singular and the noun class prefix *ba-* in the plural. Nominalized past participles always take a homorganic nasal prefix while nouns derived with the similitive always take the *ná-* prefix.

In contrast to prefixation, suffixation is more diverse across the different types of nominalization. Nouns derived with *ná-* never take a suffix, while nominalized past participles predictably take the suffix *-á/-â*, depending on the tonal pattern of the verb stem, which determines the tonal pattern of the suffix. L tone stems trigger the *-á* suffix, while H tone stems result in the *-â* suffix. Full deverbal nouns only sometimes take a suffix, which can be either a segmental or a tonal suffix or

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<sup>11</sup>In nominalizations with the similitive marker *ná-*, the derivation process is rather opaque so that the derivational source of most derived forms is synchronically not recognizable, as discussed in §4.2.2.

a combination of both. As explained in §4.1.2.1, the suffixes *-èdè* and *-a* occur in deverbal nouns of different genders. Their attachment seems lexically specified. The tonal suffix *-H* occurs in full deverbal nouns of all genders except for gender 1/2. The *-H* suffix spreads across all toneless TBUs of a verb, namely all syllables after the first one (see §2.4.1.3). In deverbal nominalization, all the tones become lexicalized, i.e. there are no toneless TBUs in noun stems. The verbal toneless units lexicalize either as an L, as in (14a) or an H, as in (14b).

- (14) a. ma-bwàlè ‘birth’ < bwàlè ‘give birth’
- b. ma-sòsí ‘happiness’ < sòsí ‘be happy’

Given the variability in segmental and tonal suffixation with full deverbal nouns, I will present each affix according to the category it derives. I first present full deverbal nouns that are assigned to gender 1/2, 3/4, 5/6, 6, 7/8, or the transnumeral gender 8. (For more information on genders, see §5.2.4.) Gender assignment seems largely meaning driven. For instance, deverbal agentive nouns are assigned to gender 1/2 while event nouns are found in the transnumeral gender 6. Generally, deverbal nouns are found in all major genders except for gender 9/6. I then discuss nominalized participles as a type of defective noun. Forms derived with the prefix *ná-* include both nouns and adjectives, and are discussed separately in section §4.2.2. I also treat this type of nominalization separately because (i) nouns with *ná-* only use limited nominalization means, excluding suffixation and tone change, and (ii) their derivational source is significantly more opaque than that of other derived nouns.

#### 4.2.1.1 Deverbal agentive nouns in gender 1/2

Deverbal nouns in gender 1/2 semantically designate a human or other animate entity as an agent. These agentive nouns typically describe the ‘doer’ of an action. As animate entities, they are countable in Gyeli and thus always come with a plural form of the *ba* noun class, as described in §5.2.3.<sup>12</sup>

All deverbal nouns in gender 1/2 take a nasal prefix in the singular and the prefix *ba-* in the plural. The systematic attachment of a nasal prefix in the singular is remarkable since most nouns of agreement class 1 do not take any prefix at all (see §5.2.3). The type of nasal prefix in class 1 depends on the phonological properties of the noun’s stem-initial consonant (§2.1.2.3). If the stem starts with a bilabial consonant, the nasal will be a labial nasal /m/ as in (15).

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<sup>12</sup>Nouns for humans are also found in other genders in Gyeli, but gender 1/2 is the human class in Proto-Bantu and many other Bantu languages synchronically. Also, in Gyeli most humans are assigned to gender 1/2.

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### (15) m- prefix

- a. m-bédò ‘climber’ < bédə ‘climb’
- b. m-bwàlè ‘parent’ < bwàlè ‘be born’

On the other hand, if the consonant is an alveolar consonant, it will be an alveolar nasal /n/ as in (16).

### (16) /n/- prefix

- a. n-sálè ‘maker’ < sále ‘make (v.t.)’
- b. n-dilè ‘undertaker’ < díle ‘bury’
- c. n-jì ‘opener’ < jì ‘open’

Finally, if the consonant is a velar, as in (17), the nasal will be a velar nasal /ŋ/.<sup>13</sup>

### (17) /ŋ/- prefix

- a. n-gyàgà ‘buyer’ < gyàga ‘buy’
- b. n-kòlè ‘helper’ < kòle ‘help’
- c. n-kwáálè ‘spy (n.)’ < kwáálè ‘spy (v.)’

Most deverbal nouns in gender 1/2 do not take any nominalization suffix, but retain the original verb stem, as shown in (18) with the examples displaying different final vowels of /a/, /ɛ/, and /ɔ/.

- ### (18)
- a. n-gyàgà ‘buyer’ < gyàga ‘buy’
  - b. n-kòlè ‘helper’ < kòle ‘help’
  - c. n-tsìlò ‘writer’ < tsilò ‘write’
  - d. n-jíbò ‘sb. who closes’ < jibò ‘close’
  - e. n-gyìmbò ‘sorcerer’ < gyìmbò ‘dance’

All known deverbal nouns in gender 1/2 that do not take a nominalization suffix are disyllabic. In the examples in (18), this is obvious since the verb stem is disyllabic as well. There are, however, also cases where a disyllabic version of a monosyllabic verb is, at least synchronically, not used in the language, as in (19). The derived noun is still disyllabic, receiving the non-productive extension -le which is discussed in §4.2.4.7. Trisyllabic derived nouns without an extension suffix are not known.

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<sup>13</sup>In general orthography, however, I do not distinguish alveolar and velar nasals, as explained in Chapter 2.

- (19) a. n-dèlè ‘eater’ < ?dèlə ‘eat (?)’ < dè ‘eat’  
       b. n-kèlè ‘walker’ < ?kèlè ‘walk (?)’ < kè ‘walk’

Another opaque exception to the general retention of the verb stem is (20). Not only is the derivation process not clear, also the final vowel of the noun changes to /i/. There are no other nouns that follow this pattern.

- (20) n-jíbí ‘thief’ < ? < jíwɔ ‘steal’

When suffixation of deverbal nouns in gender 1/2 occurs, it is always with -èdè, but never -a or -H). Examples of this are given in (21).

- (21) a. n-gyámbèdè ‘cook (n.)’ < gyámbo ‘cook’  
       b. n-gyìmbèdè ‘dancer’ < gyìmbo ‘dance’

#### 4.2.1.2 Deverbal nouns in gender 3/4

Deverbal nouns in gender 3/4 are less frequent than those in gender 1/2 or 6. They are, however, formally very similar to nominalized past participles, discussed in §4.2.1.7. All of them take a nasal prefix (in class 3), they all take the nominalization suffix -a, and disyllabic nouns also take the tonal nominalization suffix -H on the final vowel, as shown in (22). This pattern is distinct from nominalized past participles, since lexical stems with an H tone take the -H suffix. Nominalized past participles surface with a final HL if the stem is H.

- (22) a. n-tsìl-á ‘hand writing’ < tsìlɔ ‘write’  
       b. n-sàl-á ‘crevice’ < sàlɔ ‘cut lengthwise’  
       c. n-lvúm-á ‘fork’ < lvúmɔ ‘sting’

In contrast to nominalized past participles, deverbal nouns in gender 3/4 are full nouns including a plural form with the noun class prefix *mi-* in addition to the singular form with a nasal prefix. They occur in all nominal environments, as described in §3.1, while nominalized participles do not.

Unlike deverbal agentive nouns of gender 1/2, deverbal nouns in gender 3/4 are not restricted to a disyllabic pattern. As (23) shows, there are also instances of mono- and trisyllabic derived nouns. In these cases, the change to an H tone on the final vowel does not apply.

- (23) a. n-lâ ‘story’ < lâ ‘tell’  
       b. n-sá’àwà ‘repeated movement (e.g. leaves)’ < sá’àwa ‘move repeatedly, fidget’

#### 4.2.1.3 Deverbal nouns in gender 5/6

Deverbal nouns in gender 5/6 seem to be rare, just like those in gender 3/4. They all take the gender's noun class prefixes, *le-* in the singular class 5 and *ma-* in the plural class 6. There are no known instances of segmental nominalization suffix attachment and nouns generally retain the final vowel of the verb, as shown in (24).

- (24) a. le-jilò 'weight' < jilò 'be heavy'  
b. le-dà 'pond, source, well' < dà 'draw water'

An exception to the final vowel is presented in (25) where the derivation path is opaque. The final vowel of the synchronically existing verb and the derived noun do not match.

- (25) le-sù'ù 'waterfall' < ?sù'ù 'pour (?)' < sùbè 'pour out'

Deverbal nouns in gender 5/6 are either bi- or trisyllabic with the noun class prefix and a mono- or disyllabic verb stem. There are instances where the verb stem is trisyllabic, as in (26), but in the derived noun, the first and second verb syllables are merged.

- (26) le-fwálá 'end, border, summit' < fúala 'end (RECIP)'

The example in (26) presents the only known instance of a tonal nominalization suffix -H in this gender; all other examples surface with a final L tone.

#### 4.2.1.4 Deverbal event nouns in gender 6

A vast number of deverbal nouns are assigned to the transnumeral gender 6. Semantically, deverbal nouns in this gender represent an event, as examples in (27) through (29) show (with the exception of *ma-nyâ* '(breast) milk' which is in this gender for its status as a liquid mass noun). Formally, all deverbal nouns in this gender take the noun class prefix *ma-* and are uncountable, lacking a singular counterpart in class 5. They differ, however, with respect to suffixation of the segmental nominalization suffix *-a* and the tonal suffix *-H*. Since these nominalization suffixes occur independently of each other, there are four different classes of deverbal event nouns in class 6. (27) shows those that do not take any nominalization suffix, surfacing with a lexicalized final L tone in the noun stem.

- (27) a. ma-sâ 'game, playing' < sâ 'make, do'  
b. ma-bwâsâ 'thoughts' < bwâsa 'think'

- c. ma-nyànò ‘pain’ < nyàno ‘hurt’
- d. ma-nyâ ‘(breast)milk’ < nyâ ‘suckle, lick’
- e. ma-gyè’élè ‘prayer’ < gyè’elè ‘pray’
- f. ma-dò ‘negotiation, discussion’ < dò ‘negotiate, discuss’
- g. ma-bwàlè ‘birth’ < bwàlè ‘be born’ < bwà ‘give birth’

Example (28) shows affixation with the segmental nominalization suffix *-a*, but without *-H*.

- (28) ma-díg-à ‘vision’ < díge ‘look, watch’

Vice versa, there are nouns that take only the tonal nominalization suffix, as in (29).

- (29) a. ma-pámó ‘appearance, rise’ < pámo ‘appear’  
 b. ma-tèmbówó ‘sun set’ < tèmbowó ‘set (sun)’  
 c. ma-sòsí ‘joy’ < sòsí ‘be happy’

The fourth class comprises those nouns that take both the segmental nominalization suffix *-a* and tonal nominalization suffix *-H*, as in (30). (30c) further illustrates that it is possible to derive four-syllable nouns (including the noun class marker).

- (30) a. ma-tál-á ‘beginning’ < tálè ‘begin’  
 b. ma-dil-á ‘funeral’ < díle ‘bury’  
 c. ma-líbel-á ‘showing, appearance (of moon)’ < líbelè ‘show’

#### 4.2.1.5 Deverbal nouns in gender 7/8

Gender 7/8 also hosts deverbal nouns. They take the noun class markers of their classes, namely Ø for class 7 and *be-* in class 8. All examples presented here have a plural form, even abstract nouns such as *tfúgà*, *be-tfúgà* ‘suffering, sufferings’ or *kwàlē* ‘love’, *be-kwàlē* ‘love (for different things/people)’.

Within deverbal nouns of gender 7/8, there are several formal subclasses, determined by the presence or absence of a segmental and/or tonal nominalization suffix. Examples in (31) neither take the segmental suffix *-a* nor the tonal suffix *-H*, but are formally identical to the verb they are derived from.

- (31) a. sálè ‘work (n.)’ < sálè ‘make, do (v.t.)’  
 b. tfúgà ‘suffering’ < tfúga ‘suffer’

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In contrast, (32) exhibits cases where the tonal suffix -H is used without the segmental nominalization suffix *-a*.

- (32) a. sá ‘thing’ < sâ ‘make, do’  
b. kwàlē ‘love (n.)’ < kwàlè ‘love (v.)’

In (33), both -H and the segmental nominalization suffix *-a* attach.

- (33) tfúd-á ‘pinch (n.)’ < tfúdɔ ‘pinch (v.)’

Finally, there are cases where the derivation process is synchronically not clear. In (34a), the source of *ndè* that is attached to *kè* ‘walk’ is unknown. In (34b), it seems that there might have been another verb form from which the noun has been derived, but which does not exist synchronically anymore.

- (34) a. këndè ‘walk (n.)’ < kè ‘walk (v.)’  
b. lògò ‘curse (n.)’ < ? < lùà ‘curse (v.)’

### 4.2.1.6 Deverbal nouns in gender 8

There are also nominalized forms in inquorate genders (§5.2.5) such as gender 8, which lack a singular counterpart, as in (35). This is based on the status of gender 8 nouns as mass nouns.

- (35) a. be-déwò ‘food’ < dè ‘eat’  
b. be-jii ‘anger’ < jíga ‘be angry’  
c. be-kili ‘slyness, guile’ < kílowò ‘be vigilant’

### 4.2.1.7 Nominalized past participles

The nominalized past participle is the most productive type of derivation, more productive than full deverbal nouns or derived verbs which are discussed in §4.2.4. In the database of 377 verbs, 325 (86%) allow for a nominalized participle.<sup>14</sup> It seems that the only restriction includes verbs of saying or intransitive verbs such as *dyúà* ‘swim’ or *siss* ‘be happy’. Grammatical properties of nominalized past participles, such as their syntactic restriction to the predicate position in copula constructions, as well as their status as nouns in terms of parts of speech are discussed in §3.1.2.4. Semantically, they encode resultativity, as shown in (36).

<sup>14</sup>Frequencies of derived verbs such as reciprocal, passive, or causative are provided in Table 4.7 in §4.2.4.

- (36) a. n-kòl-á ‘helped person/thing’ < kòla ‘help (v.)’  
      b. n-dvùb-á ‘soaked person/thing’ < dvùba ‘soak’  
      c. n-gyámb-â ‘cooked person/thing’ < gyámbo ‘cook (v.)’  
      d. n-tfúmb-â ‘wrinkled thing’ < tfúmba ‘wrinkle (v.)’

The derivation of nominalized participles involves prefixation of a nasal and suffixation of *-a*. Unlike the nominalization suffix with full deverbal nouns, the tonal pattern of the nominalized past participle suffix is determined by the tone pattern of the lexical stem, as shown in (37) for disyllabic verbs. If the stem tone is L, the suffix will take an H tone. If the stem tone is H, the suffix will take an HL tone.

- (37) a. n-dvùb-á ‘soaked person/thing’ < dvùbo ‘soak’  
      b. m-bòg-á ‘enlarged person/thing’ < bòge ‘enlarge’  
      c. n-jímb-â ‘lost person/thing’ < jimbé ‘lose’  
      d. n-sél-â ‘peeled thing’ < séló ‘peel’

In fact, two syllables is the minimum requirement of length for nominalized past participles. In this, it differs from full deverbal nouns such as *n-jí* ‘eater’ which is derived from *dè* ‘eat’. The nominalized participle form, however, is *n-jiy-á* ‘(be) open’, as shown in (40). Monosyllabic verb stems keep their final vowel in the first syllable and attach the suffix *-a* as the second syllable, inserting an epenthetic consonant between the two vowels. The potential epenthetic segments mainly include *y*, *w*, and *ng*, which each occur in about a third of the monosyllabic verbs; there are a few exceptional cases which take *l*, *s*, or *n*. Only the insertion of *ng* as epenthetic consonant is mostly predictable.<sup>15</sup> It occurs in verbs that start with a nasal consonant and/or that have a nasalized vowel, as shown in (38).

- (38) a. ndàng-á ‘crossed thing’ < ndà ‘cross’  
      b. n-làng-á ‘passed person/thing’ < là ‘pass’  
      c. n-láng-â ‘read thing’ < lâ ‘read’  
      d. nyíng-â ‘entered thing’ < nyî ‘enter’

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<sup>15</sup>There are a few exceptions, e.g. *má’â* ‘accuse’ is not derived with *ng*, but with *g* in *mágâ* ‘(be) accused’, despite the nasal. The glottal stop seems to have more weight than the nasal, but other exceptions exist as well that do not appear to have an obvious explanation, for instance *nyág-á* ‘(be) defecated’ as derived from *nyàâ* ‘defecate’.

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The insertion of *g* is predictable if the monosyllabic verb contains a glottal stop. There are, however, many instances of *g* insertion which are not predictable, for instance in *n-tsìg-á* '(be) alive', derived from *tsìè* 'live', as opposed to *n-tsíy-â* '(be) cut' which is derived from *tsiè* 'cut'.

- (39) a. *n-kwàg-á* 'ground thing' < *kwà* 'grind'  
b. *n-dvùg-á* 'hurt person/thing' < *dvùò* 'hurt'  
c. *n-kág-â* 'rolled up thing' < *ká'â* 'roll up'  
d. *m-pág-â* 'dug out person/thing' < *pá'â* 'dig out'

Further examples of *y* insertion are given in (40).

- (40) a. *m-wèy-á* 'dead person/thing' < *wè* 'die'  
b. *n-jìy-á* 'opened person/thing' < *jì* 'open'  
c. *n-kwéy-â* 'fallen person/thing' < *kwê* 'fall'  
d. *m-véy-â* 'given person/thing' < *vê* 'give'

Finally, nominalized past participles can also have three syllables. In this case, the tonal pattern is exceptional in that the suffix does not change according to the lexical stem tone, but is the same for all derived forms: the second TBU surfaces as H and the third TBU surfaces as HL, as shown in (41).

- (41) a. *m-bélán-â* 'used person/thing' < *bélane* 'use'  
b. *n-lébál-â* 'followed person/thing' < *lèbelə* 'follow'  
c. *n-súmál-â* 'greeted person' < *súmələ* 'greet'  
d. *m-víyál-â* 'touched person/thing' < *víyala* 'touch'

### 4.2.2 Derivation with similitative *ná-*

The similitative prefix *ná-* derives common and proper names as well as adjectives. In this, it differs from other nominalization markers discussed in §4.2.1 which only derive common nouns. Formally, derivation with *ná-* functions the same way for adjectives, common, and proper names.<sup>16</sup> In all cases, the only derivation marker is the prefix *ná-*.

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<sup>16</sup>While in most cases the derivational source is synchronically opaque, it still does not look as if there is any final vowel change to -á or tone change of the final vowel, as often found in deverbal nominalization.

Derivation with the similiative marker *ná-* is more diverse in its derivational source than nominalization processes discussed in §4.2.1. In most cases, the derivational source is, in fact, synchronically opaque.<sup>17</sup> There are some clear cases, however, where the derivational source is a noun, as for instance in the proper name *Ná-nzé* which is derived from *nzé* ‘leopard’. There are also derived forms which likely arose from diachronic stative verbs, which are, however, not used presently anymore, as with the adjectives in (42). Especially the cross-linguistically uncommon “lightened” and “darkened” color categories suggest a change of state and make a verbal source likely.

(42) *ná-* with adjectives

- a. *ná-vyû(vyû)* ‘black [lit. like blackened]’
- b. *ná-bè(bè)* ‘red [lit. like reddened]’
- c. *ná-mbàmbàlà* ‘white [lit. like whitened]’
- d. *ná-yê(yê)* ‘lightened color [lit. like bleached out]’
- e. *ná-pfû(pfû)* ‘darkened color [lit. like darkened]’

Further evidence for a verbal derivation source comes from Cheucle (2014: 382), who analyzes the Proto-A80 particle <sup>°</sup>*na-* as a deverbal morpheme.<sup>18</sup>

Nouns derived with *ná-* include both common and proper names. As for *ná-*-derived common nouns, they all belong to gender 1/2 and their similiative prefix can be preceded by the plural noun class prefix *ba-*, as shown in (43). As a CV-shape noun class prefix, *ba-* also then allows for the attachment of the object-linking H tone, as discussed in §4.1.1.4. In contrast, singular noun forms with the similiative marker never take a noun class prefix or object-linking H tone. This is as expected, since the first syllable is already specified for tone. Semantically, common nouns derived with *ná-* consist mostly of animals, especially insects.

(43) *ná-* with common nouns

- a. *ná-búnjâ, ba-ná-búnjâ* ‘bed bug’
- b. *ná-mìnsógè, ba-ná-mìnsógè* ‘palm rat’
- c. *ná-mángò(mángò), ba-ná-mángò(mángò)* ‘male Agama lizard’
- d. *ná-yûyû, ba-ná-yûyû* ‘vertigo’

<sup>17</sup>See §4.1.1.1 for why *ná-* should still be viewed as a derivational morpheme.

<sup>18</sup>According to her data, <sup>°</sup>*na-* is synchronically a lot more productive in Bekwel (A85). Also, colors in Bekwel are preceded by this morpheme. Cheucle (2014: 138) views Bekwel color terms as nouns while the potential verbal source seems unclear.

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With proper names, *ná-* only occurs in female names, deriving them from male names, as illustrated in (44).

(44) *ná-* with proper names

- a. Ná-nyémbá (female name) > Ngýémbá (male name)
- b. Ná-ntùngù (female name) > Ntùngù (male name)
- c. Ná-yímá (female name) > Yímá (male name)
- d. Ná-bàmù (female name) > Bámù (male name)

In terms of frequency, the prefix *ná-* is found with eight common nouns in the 875-entry noun database, which is less than 1%. The similitative marker is relatively more widespread among proper names, with 16 occurrences—one third of a sample of about 50 female proper names. The similitative marker occurs with half of the 12 adjectives. These include all five color terms as well as *ná-tí* ‘straight’.

### 4.2.3 Adverbial derivation with *nà-*

The prefix *nà-* derives adverbs, as shown in (45). These are the only two examples contained in the lexical database, but the class of adverbs is small in the first place.

(45) *nà-* with adverbs

- a. nà-ménó ‘tomorrow’ > ménó ‘morning’
- b. nà-kùgúù ‘yesterday’ > kùgúù ‘evening’

The adverbializing derivation prefix differs from derivations with the similitative prefix *ná-* phonologically in its tonal pattern and functionally in that *nà-* derives adverbs. The derivational source in adverbial derivation is always a noun.

### 4.2.4 Verbal derivation

Bantu languages are known for their multitude of productive verb extensions, also known under the term “verbal derivation”. These suffixes bring about a valence change from intransitive to transitive verbs and may generally include such categories as applicatives, causatives, reversives, or reciprocals.

Table 4.7 summarizes verbal derivation morphemes in Gyeli, including both extensions and expansions, while Table 4.8 gives examples for each one. Nurse (2008) defines *extensions* as verbal “productive derivational suffixes” that “change the valency and meaning of [verb] roots” (p. 311). In Gyeli, they comprise the

forms *-ala*, *-a*, *-εsε*, *-εlε*, *-εga*, and *-ɔwɔ*. In contrast, *expansion* suffixes *-ke*, *-le*,<sup>19</sup> and *-bɔ* are not productive synchronically. They are low in number and it is difficult to match their form onto a specific function (other than being related to valency).

Table 4.7: Verbal derivation morphemes

Status	Form	Category label	# verbs
extensions	-ala	RECIPROCAL	270
	-a	PASSIVE	105
	-εsε	CAUSATIVE	89
	-εlε	APPLICATIVE	34
	-εga	AUTOCAUSATIVE MIDDLE VOICE	28
	-ɔwɔ	POSITIONAL MIDDLE VOICE	5
expansions	-ke	???	10
	-le	???	6
	-bɔ	???	1

While historically the derivational system was most likely more productive, it is synchronically determined in the lexicon whether a verb takes verb extensions and, if so, which. There is no verb that takes all possible extensions. Also, there seems to be a general tendency to reduce verb extensions. For instance, the applicative and causative are currently merging into one transitivizing category, blurring semantic distinctions.

Gyeli verb roots usually take one derivational suffix at a time, a restriction which appears related to the maximum stem length of three syllables (§2.3.2.4). There are a few exceptions, however. Within the limits of a maximum of three syllables, a verb may combine two extensions/expansions. This is, for instance, the case with passives formed from other extensions such as the causative, applicative, or positional middle voice (§4.2.4.2). Another exception to the trend of allowing only one derivation morpheme concerns the causative that may show (remnants of) combination with the applicative, (46), or the expansion morpheme *-le*, (47), again respecting the three syllable maximum of the verb stem. Examples

<sup>19</sup>It is not clear whether this suffix is related to the applicative. As shown in §4.2.4.7, there are instances of valency increase, as expected for the applicative, but also cases where the opposite happens. Also, there does not seem to be a phonological rule according to which the expansion suffix could have been reduced from the applicative form. Given the inconclusive data on a potential relation between *-le* and the applicative suffix *-εlε*, I consider *-le* as a form in its own.

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such as (46) are rare. One could likewise assume that *-s-* in (46) is an epenthetic consonant, as discussed in §3.2.1. Since */s/* as an epenthetic consonant is rare as well, however, it is possible that all of these instances stem from an original causative morpheme. Synchronously, this cannot be determined with certainty. Combinations of causative and applicative morphemes in Gyeli follow the reconstructed causative-applicative order for Bantu, as discussed by Good (2005).

- (46) *kà-s-ele*  
catch-CAUS-APPL  
'light sth. (make sth. catch fire)'

In combinations of the causative and the expansion *-le*, in contrast, the expansion morpheme precedes the causative suffix, as shown in (47). Synchronously, it is not clear what this expansion does or what its semantic function is, as I discuss in more detail in §4.2.4.7. In (47), *-le* may indicate a perfective reading:<sup>20</sup> *bwà* 'give birth' > *bwà-le* 'be born' > *bwà-l-ese* 'make give birth'.

- (47) *bwà-l-ese*  
catch-le-CAUS  
'make give birth (e.g. acting as midwife)'

Some verbs lacking the disyllabic expansion form with *-le*, still use */l/* as an epenthetic consonant in the causative form, for instance in *bâ* 'marry' > *bál-ese* 'make marry' (but having no form *bále*). In verb forms that take two different epenthetic consonants with different derivation morphemes, one of the consonants is often */l/*, which may have its origin in the expansion morpheme *-le*. Extensions derived from the *-le* form include passive and applicative, for example in *bû* 'destroy' > *búl-a* 'destroyed', while the reciprocal is formed with */y/* *búy-ala* 'destroy each other'. As stated above, however, this observation does not translate into any synchronic rule and is currently lexically specified.

As Table 4.7 shows, extension forms highly vary in the number of verbs they combine with, which may have different causes. While categories such as causative and applicative seem to have become reduced, other extensions such as *-ɔwɔ* and *-ega* are restricted semantically. *-ɔwɔ* as a positional category, for instance, only combines with semantically compatible verb roots.<sup>21</sup>

<sup>20</sup>While there is definitely a difference in valency involved as well, *bwà-le* 'be born' does not match the passive forms discussed in §4.2.4.2.

<sup>21</sup>It should also be mentioned that the numbers given in the table should not be taken as absolute. For one, despite my attempt to elicit the entire paradigm of possible extended verb forms, there is the possibility that the speaker could not think of any appropriate context and rejected a possible extended verb form on these grounds, while another speaker would have accepted a potential form. So there may actually be more forms.

Table 4.8: Examples of verbal derivation morphemes

Category	Example			
RECIPROCAL	lúnd-ala	'fill one another'	< lúndɔ	'fill (v.i.)'
PASSIVE	lúnd-a	'be filled'	< lúndɔ	'fill (v.i.)'
CAUSATIVE	lúnd-ɛsɛ	'make sth. full'	< lúndɔ	'fill (v.i.)'
APPLICATIVE	lúnd-ɛlɛ	'fill sth.'	< lúndɔ	'fill (v.i.)'
AUTOCAUSATIVE	vìd-ɛga	'turn (by itself)'	< vìdɛ	'turn sth.'
POSITIONAL	kèl-ɔwɔ	'assume hanging position'	< kèle	'hang sth.'
-KE	jí-kɛ	'burn sth.'	< jíyɛ	'burn (v.i.)'
-Lɛ	bwà-lɛ	'be born'	< bwà	'give birth'
-BO/Wɔ	jí-bo	'close'	< jí	'open'

Another issue concerns verb forms that have an extension or expansion but no synchronic underived form. I treat them as underived forms here, i.e. I do not count them as extensions in the table in order to be consistent across categories. While it is easy to recognize, for instance, a causative or applicative form, it is much harder for possible expansions such as *-ke*. As indicated in Table 4.7, there are ten instances of this morpheme serving as an expansion to an underived form. There are, however, five instances in my database where a *-ke* ending appears as an apparent underived form itself, taking yet its own extension morphemes. Synchronously, it is not possible to determine whether this *-ke* carries any morphological function or whether it is simply a random lexical form. Table 4.8 provides examples of each extension and expansion category, including the underived verb form.

In the following, I will describe each derivation morpheme and its semantic functions in a decreasing order of frequency. As discussed in §2.4, all derivation morphemes are underlyingly toneless. Therefore they are represented without tonal marking here.

#### 4.2.4.1 Reciprocal *-ala*

The verb extension *-ala* is by far the most frequent in Gyeli. Out of 377 verbs in the database, 270 (71.6%) allow for this extension, which I label as reciprocal. Further, there are eight occurrences of verb stems ending in *-ala* that do not have an underived form.

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In terms of the extension's semantic function, it has mostly a reciprocal meaning, as the examples in (48) show, which express "mutuality".

- |      |        |               |   |           |                         |
|------|--------|---------------|---|-----------|-------------------------|
| (48) | dvùò   | 'hurt (v.i.)' | > | dvùg-ala  | 'hurt one another'      |
|      | dyúwɔ  | 'hear'        | > | dyúw-ala  | 'understand each other' |
|      | gyíwɔ  | 'call'        | > | gyíw-ala  | 'call each other'       |
|      | kwàlɛ  | 'love'        | > | kwàl-ala  | 'love each other'       |
|      | tsíndɔ | 'push'        | > | tsínd-ala | 'push each other'       |
|      | bâ     | 'marry'       | > | bán-ala   | 'marry each other'      |
|      | kɛ     | 'shave'       | > | kèng-ala  | 'shave each other'      |

Beyond this reciprocal meaning, there are many instances of verbs whose semantics do not allow for a reciprocal use. In these cases, the extension *-ala* has a "togetherness" reading, as shown in (49).

- |      |       |              |   |           |                       |
|------|-------|--------------|---|-----------|-----------------------|
| (49) | nyùle | 'drink'      | > | nyùl-àlà  | 'drink together'      |
|      | kóse  | 'cough'      | > | kós-ala   | 'cough together'      |
|      | pámɔ  | 'show up'    | > | pám-ala   | 'show up together'    |
|      | tébɔ  | 'get up'     | > | téb-ala   | 'get up together'     |
|      | bwà   | 'become big' | > | bòg-ala   | 'become big together' |
|      | kwê   | 'fall'       | > | kwéy-ala  | 'fall together'       |
|      | nyî   | 'enter'      | > | nyíng-ala | 'enter together'      |

It is possible that verbs which do allow a reciprocal meaning may get a "togetherness" reading, depending on the context. This, however, needs further investigation. It is not possible to get a reciprocal causative reading, for instance 'make each other fall' for *kwéy-ala*, as the causative extension of the verb, *kù-ese* 'make fall' cannot combine with the reciprocal extension. Instead, a coordination construction with a morphological causative can be used, as in (50a), or a complement clause, as in (50b).<sup>22</sup>

- |      |    |                                       |               |              |                        |           |        |     |
|------|----|---------------------------------------|---------------|--------------|------------------------|-----------|--------|-----|
| (50) | a. | nyègà                                 | á             | <i>kùésé</i> | <i>nónégá</i>          | <i>nà</i> | nyègà  | á   |
|      |    | nyè-gà                                | a-H           | kù-ese-H     | nó-négá                | nà        | nyè-gà | a-H |
|      |    | 1.SBJ-CONTR 1-PRS fall-CAUS-R 1-other |               |              | CONJ 1.SBJ-CONTR 1-PRS |           |        |     |
|      |    | <i>kùésé</i>                          | <i>nónégá</i> |              |                        |           |        |     |
|      |    | <i>kù-ese</i>                         | <i>nónégá</i> |              |                        |           |        |     |
|      |    | fall-CAUS-R 1-other                   |               |              |                        |           |        |     |
- 'One makes the other fall and that one makes the other fall.'

<sup>22</sup> Although (50b) can be interpreted with a reciprocal meaning, the referent of *nónégá* 'other' is ambiguous, since it is not necessarily co-referential with the subject of the main clause.

- b. *bá sá nâ nónégá á kwê*  
 ba-H sâ-H nâ nô-négá a-H kwê  
 2-PRS do-R COMP 1-other 1-PRS fall  
 'They make that the other falls.'

#### 4.2.4.2 Passive *-a*

I will discuss the contrast between active and passive constructions following Siewierska's (2013) defining criteria for passive constructions which I illustrate in (51).

- (51) a. *bùdì bá tsìĺ̩ békálàdè.*  
 b-ùdì ba-H tsìĺ̩-H H-be-kálàdè  
 ba2-person 2-PRS write-R OBJLINK-be8-book  
 'People write books.'  
 b. *békálàdè bé tsìĺ̩ (nà bùdì).*  
 be-kálàdè be-H tsil-a-H nà b-ùdì  
 be8-book 8-PRS write-PASS-R COM ba2-person  
 'Books are written (by people).'

(51a) is the active, while (51b) is the contrasting passive construction. According to Siewierska (2013), "the subject of the active corresponds to a non-obligatory oblique phrase of the passive or is not overtly expressed," which is the case for the subject *bùdì* in (51a). Another characteristic of passive constructions is that their subjects correspond to the direct object in the active counterpart, as with *békálàdè* 'books'. Siewierska also points out that passive constructions are pragmatically more restricted than active constructions, which is true in Gyeli as well. Finally, she notes that passive constructions receive a special morphological marking of the verb. In the case of Gyeli, this is a final vowel *-a*, in most cases, as will be discussed below.

Generally, passive forms are far less frequent than reciprocals, with only 105 attested instances (27.9% of the verbs in the database). Speakers appear to prefer the active form with the impersonal third person plural of class 2 and are forced to use this for the majority of verbs which do not have a passive form. Morphological marking of the passive on the verb in Gyeli differs phonologically, depending on the syllable number of the verb form the passive is derived from. Passives from mono- and disyllabic roots differ from trisyllabic ones. I will discuss both in turn.

The passive in Gyeli is formed by the extension *-a*, resulting in a disyllabic verb stem if it is derived from a mono- or disyllabic verb root, as shown in (52).

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- (52) kwàlε ‘love’ > kwàl-a ‘be loved’  
 bvúà ‘break sth.’ > bvúg-a ‘be broken’  
 jì ‘open’ > jìy-a ‘be open’  
 dyû ‘kill’ > dyúw-a ‘be killed’  
 jíwɔ ‘steal’ > jíy-a ‘be stolen’  
 vìde ‘turn sth.’ > vìd-a ‘be turned’  
 bàwε ‘carry sth.’ > bàw-a ‘be carried’

All these instances have an underived form. There are, however, 36 disyllabic verbs ending in *-a* which are underived, non-passive forms. Examples are given in (53). In fact, these verbs cannot be passivized nor do they have a passive meaning. Expressing passive meaning as in (52) is not possible for them since their ending is identical with the passive suffix.

- (53) gyàga ‘buy’  
 kòla ‘add’  
 kiya ‘give’  
 bwàndya ‘despise’

For other disyllabic verb stems ending in *-a* which do not have an underived form, agentivity is less specified. The examples in (54) can be thought of as having a non-specified agent while the subject takes the semantic role of an experiencer.

- (54) vòwa ‘wake up’  
 wùsa ‘forget’  
 káká ‘shiver’  
 kánda ‘crack (v.i.; e.g. bottle or glass)’  
 sìya ‘wash, bathe sb./oneself’

Finally, a few disyllabic passive forms take a final *-ɛ* rather than the usual passive *-a* extension, as shown in (55) which lists all known instances.

- (55) bwè ‘catch’ > bùl-ɛ ‘be caught’  
 sàlɔ ‘cut lengthwise’ > sàl-ɛ ‘be cut lengthwise’  
 tìno ‘harvest tubers’ > tìl-ɛ ‘be harvested (tubers)’

These exceptions are specified in the lexicon rather than stemming from a predictable morphophonological rule.

In a few rare cases, the passive can also be formed from trisyllabic stems, i.e. from verbs which already have an extension such as the causative, applicative, or positional middle voice. In these cases, not only the final vowel changes to *-a*,

but also that of the second syllable, as shown in (56). The passive forms that are derived from applicatives *-ele* are identical with the reciprocal forms. I do not mark morpheme breaks with a hyphen for these passive forms since morpheme boundaries are not clear-cut. Rather, an extension morpheme such as *-awa* has to be considered a portmanteau morpheme, encoding both the passive via the vowels /a/<sup>23</sup> and the positional via the consonant /w/.

- |      |          |                    |   |          |                               |
|------|----------|--------------------|---|----------|-------------------------------|
| (56) | bál-ɔwɔ  | 'bend down'        | > | bálawa   | 'be bent down'                |
|      | bén-ele  | 'raise, lift sth.' | > | bénala   | 'be lifted (lift each other)' |
|      | bùm-ele  | 'hit (nail)'       | > | bùmala   | 'be hit (hit each other)'     |
|      | dyɔl-ɛsɛ | 'make laugh'       | > | dyɔłlasa | 'be made to laugh'            |
|      | pín-ɛsɛ  | 'squeeze'          | > | pínasa   | 'be squeezed'                 |

Historically, the passive extension is likely to have developed from the middle voice suffix *-aga* which is still used in Mabi as passive. In Gyeli, the velar stops got lost and the vowel contracted. In careful speech, the final *-a* is sometimes still lengthened, for instance in *gyàmbaa* 'be cooked' which is derived from *gyámbɔ* 'cook', but in fast speech and most lexemes, it surfaces as a short vowel.

The use of passive verbs is rather restricted, nevertheless. For one, many un-derived verbs do not allow for passivization, even though this would semantically be possible. Also, in terms of text frequency, even verbs that do have a passive form are rarely used.<sup>24</sup> In natural speech, the Bagyeli prefer to use an active construction with a class 2 (3<sup>rd</sup> person plural) subject as an agent, which remains semantically unspecified, as in (57).

- |      |  |              |                   |  |  |
|------|--|--------------|-------------------|--|--|
| (57) | <i>bá</i>  | <i>gyàgá</i> | <i>má-ntúà</i>    |  |  |
|      | ba-H   | gyàgá-H      | H-ma-ntúà         |  |  |
|      | 2-PRS  | buy-R        | OBJLINK-ma6-mango |  |  |
|      | 'They buy the mangoes (= the mangoes are bought).' |              |                   |  |  |

See also §7.3 for a more detailed discussion of information structure.

The passive appears to be related to two other derivation forms: the autocausative and the nominalized past participle. The passive could be the shortened form of the autocausative *-aga*, discussed in §4.2.4.5. As explained there, *-aga* is the regular passive suffix in Mabi. In Gyeli, it appears to have split into two categories: the passive and the autocausative. This can be seen in a few instances where

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<sup>23</sup>The occurrence of /a/ in the second and third syllable can be viewed as an instance of vowel harmony where the first extension vowel harmonizes with the last one.

<sup>24</sup>The passive forms discussed in this section were mainly collected by elicitation.

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the passive suffix is a lengthened vowel, as in (58). It seems lexically specified whether a verb can take the lengthened passive form. In any case, the lengthened suffix is in free variation with the default short form.

- (58) kfúde ‘cover’ > kfúd-a(a) ‘be covered’  
wàwe ‘spread’ > wàw-a(a) ‘be spread’  
gyámbɔ ‘cook’ > dyúg-a(a) ‘be cooked’  
kwèlɔ ‘cut down’ > kwèl-a(a) ‘be cut down’

In a likely scenario, the consonant /g/ has been deleted from *-aga*, developing into a lengthened passive form which still exists in a few lexemes while the synchronic default form is a short vowel.

Semantically, the shift from autocausative middle voice to passive seems natural. In both cases, the agent is not overtly expressed. The main difference seems to concern the attribution of agentivity. In the autocausative, the subject has a certain degree of agentivity, while, in the passive, the subject is clearly the patient. Given the distinct functions of passive and autocausative, quite a few verbs take both extensions. This is true for all examples in (58); others are listed in Appendix A.

The passive form is also related to the nominalized past participle described in §4.2.1.7. The difference between the two is both structural and semantic. The passive verb form is preceded by a STAMP marker, as in (59), while the nominalized past participle requires the STAMP copula (§7.1.1) that agrees with the subject, as shown in (60).

- (59) yí kèlà  
yi-H kél-a  
7-PRS hang-PASS  
'It is being hung.'

- (60) yì nkèlá  
yì n-kél-a-H  
COP NOM-hang-PASS-NOM  
'It has been hung [lit. It is a 'hung-up one'].'

The meaning difference between the two constructions is in fact aspectual. The passive construction views an event as ongoing and is incompatible with compleative aspect. In contrast, the nominalized past participle form is more resultative and compleptive.

#### 4.2.4.3 Causative *-ɛsɛ*

The causative extension morpheme *-ɛsɛ* increases the verb's valency, turning intransitive verbs into transitive and transitive verbs into ditransitive ones. Song (2013) defines causative constructions as denoting complex situations

consisting of two component events [...]: (i) the **causing event**, in which the **causer** does or initiates something; and (ii) the **caused event**, in which the **causee** carries out an action, or undergoes a change of condition or state as a result of the causer's action.

This definition becomes clearer when looking at (61) where the causer, *Màmbì* performs a causing event (teaching) and the causee, *Ada*, experiences the caused event (learning English). As a consequence, the causee, *Àdà*, does something, namely learning English which is the caused event.

- (61) *Màmbì á gyíkɛsé Àdà ngèlénè*  
*Màmbì a-H gyík-ɛsɛ-H Àdà ngèlénè*  
 $\emptyset$ 1.PN 1-PRS learn-CAUS-R  $\emptyset$ 1.PN  $\emptyset$ 1.English  
 'Mambi teaches Ada English (lit. makes Ada learn English)'

This type of morphological causative, as opposed to lexical and syntactic causatives (see Song 1996: 3), is marked on the verb by a suffix. The morphological causative is not the only causative construction found in Gyeli. Also syntactic causatives using the verb *sâ* 'make' plus the complementizer *nâ*, as in (62), are quite common.

- (62) *mé nzíí sâ nâ wé dyɔ*  
*me-H nzíí-H sâ nâ we-H dyɔ*  
 1SG-PRS PROG-R make COMP 2SG-PRS laugh  
 'I make you laugh.'

The morphological causative in Gyeli is formed by the suffix *-ɛsɛ*. 89 verbs in the database (23.6%) have a causative suffix. There are another 6 verbs with a causative ending which do not have an underived form. Examples are provided in (63).

(63)	giyɔ	'cry'	>	gìl-ɛsɛ	'make cry'
	gyimbɔ	'dance'	>	gyimb-ɛsɛ	'make dance'
	dyúwɔ	'hear, perceive'	>	dyúg-ɛsɛ	'make feel'
	nyâ	'suckle, lick'	>	nyáng-ɛsɛ	'breast-feed'
	mìnɔ	'swallow'	>	mìn-ɛsɛ	'make swallow'
	jíyɔ	'burn (v.i.)'	>	jíg-ɛsɛ	'make angry'
	lùnga	'grow (v.i.)'	>	lùng-ɛsɛ	'raise, make grow'
	gyíkɛ	'learn'	>	gyík-ɛsɛ	'teach'

Some medial consonants of underived verb forms are subject to change in verbal derivation. This is precisely the case with epenthetic consonants such as /w/ (between /u/ and /ɔ/) and /y/ (between /i/ and /ɔ/) which may be replaced by another consonant in the derived forms. In this respect, disyllabic underived verbs behave parallel to monosyllabic roots, as discussed in §3.2.1 for stem-final vowels.

While in the great majority of cases, the suffix *-ɛsɛ* expresses causativity, there are a few cases where the semantic lines between causative and applicative are blurred, as for instance with the verb *dvùbɔ* 'dip, soak'. For these, the underived verb can be used, as in (64a), or the causative, as in (64b), or the applicative form, as in (64c). The causative form in (64b) is semantically closer to an applicative. Thus, the sentence in (64b) with another verb such as *nyí* 'enter', as in (65), will take the applicative form. With *dvùbɔ* 'dip', however, the applicative has undergone semantic shift, denoting a different type of action, as shown in (64c), and the causative takes over the applicative semantics.

- (64) a. *mé dvùbɔ pèmbɔ (é kɔfí)*  
           mɛ-H dvùbɔ-H pèmbɔ é kɔfí  
           1SG-PRS dip-R Ø1.bread LOC Ø7.coffee  
           'I dip the bread in coffee.'
- b. *mé dvùbésé wê màjíwɔ*  
       mɛ-H dvùb-ɛsɛ-H wɛ ma-jíwɔ  
       1SG-PRS dip-CAUS-R 2SG ma6-water  
       'I dip you in water.'
- c. *mé dvùbélɛ beká*  
       mɛ-H dvùb-ɛlɛ-H H-be-ká  
       1SG-PRS dip?-APPL-R OBJLINK-be8-grass  
       'I weed the grass [with a rake].'

- (65) *mé nyíngélé wé màjíwó*  
 mε-H nyíng-ele-H wé ma-jíwó  
 1SG-PRS enter-CAUS-R 2SG ma6-water  
 'I insert you into water.'

The distribution and frequency of the underived versus the causative form needs further investigation. The occurrence of comparable cases in the corpus is so rare that no generalizations can be made at this point.

#### 4.2.4.4 Applicative *-ele*

The extension *-ele* is significantly rarer in Gyeli than the causative *-ese*, with only 34 (9%) instances in the database. Further, there are no verbs ending in *-ele* that have no underived form. I refer to the *-ele* suffix as "applicative", a category that is commonly found in Bantu languages.

Morphosyntactically, the applicative changes the verb's valency by increasing "the number of object arguments selected by the predicate [...] by one with respect to the basic construction" (Polinsky 2013). Peterson (1997: 278) specifies that, in applicative constructions:

thematically peripheral objects are treated in a more core or direct object manner, and in terms of discourse, they often have higher relative topicality in applicative constructions as compared to when they occur in non-applicative constructions.

Gyeli forms applicatives both from intransitive (66) and transitive (67) verbs, which seems to be the typical case in Bantu languages, according to Polinsky (2013).

- (66) nyùmbɔ 'smell (v.i.)' > nyùmb-ele 'smell sth.'  
 swásɔ 'dry (v.i.)' > swás-ele 'dry sth.'  
 bédɔ 'go up' > béd-ele 'mount sth.'  
 lúndɔ 'fill oneself' > lúnd-ele 'fill sth.'  
 sósɔ 'continue' > sós-ele 'continue with sth.'  
 jímbe 'get lost' > jimb-ele 'lose sth.'  
 bámɔ 'scold (v.i.)' > bám-ele 'scold sb.'  
 dyû 'be hot' > dyúng-ele 'heat sth.'

Further, Polinsky (2013) distinguishes applicative constructions in terms of the semantic role of the applied object, pointing out that Bantu languages typically

licence benefactive and other semantic roles. This is also true for Gyeli. Benefactive contexts usually arise with applicatives formed from transitive verbs, for instance as shown in (67) for *gyámbə* ‘prepare’. In these cases, a second object is added which often takes the role of a benefactive or an instrumental.

(67)	lúmɛ	‘send’	>	lúm-ɛlɛ	‘send to sb.’
	gyámbə	‘prepare’	>	gyámb-ɛlɛ	‘prepare for sb.’
	dyúwɔ	‘hear, perceive’	>	dyúw-ɛlɛ	‘listen’
	vísɔ	‘cover’	>	vís-ɛlɛ	‘cover sth.’
	kfùbɛ	‘provoke’	>	kfùb-ɛlɛ	‘provoke sb.’
	víðɛ	‘turn sth.’	>	víð-ɛlɛ	‘turn sth.’

Applicatives which are derived from intransitive verbs typically do not have a benefactive reading. In fact, they differ significantly in the distribution of semantic roles across arguments from applicatives that are derived from transitive verbs. The subject of the intransitive verb, which has the role of an undergoer, is expressed as the object in the applicative form, as shown in (68). In many of these instances, the applicative forms have a causative meaning.

(68)	vásɛ	‘rise (dough)’	>	vás-ɛlɛ	‘make (dough) rise’
	vè'è	‘try on clothes’	>	vè'-ɛlɛ	‘make sb. try clothes on’
	kósɛ	‘cough’	>	kós-ɛlɛ	‘make cough’

In contemporary speech, the applicative and the causative seem to be merging into one category, with the applicative most likely becoming lost, given its lower frequency in comparison to the causative. It is rare that a verb has both an applicative and a causative form. In my database, I found only five instances where a verb takes both *-ɛsɛ* and *-ɛlɛ*. In the majority of cases, a verb has a causative, but no applicative form.

It is not surprising that these two categories are merging since, semantically, there is some overlap between them. For instance, the applicative form *nyíngɛlɛ* ‘insert’, derived from *nyí* ‘enter’, may be viewed as adding an applied object to the underived verb form. On the other hand, semantically, it can also be thought of as a causative context in the sense of ‘making sth. enter’. The same is true for *dyû* ‘be hot’ which has an applicative form *dyúng-ɛlɛ* ‘heat sth.’ Again, an object is added to an otherwise intransitive verb, resulting in a reading of ‘applying heat to sth.’ At the same time, semantically, it can also be thought of as ‘make sth. hot’.<sup>25</sup>

<sup>25</sup>Bostoen & Mundeke (2011) report a similar syncretism of applicative and causative for Mbuun (Bantu B87). According to them, however, the syncretism in Mbuun is based on phonological rather than semantic grounds.

Just like the causative, the applicative extension has a periphrastic alternative to convey a same or similar meaning, as shown in (69).

- (69) *mé gyá gyá mpá'à wɔ̄*  
       me-H gyá-H gyá mpá'à w-ɔ̄  
       1SG-PRS sing-R Ø7.song Ø3.side 3-2SG.POSS  
       'I sing a song for you.'

#### 4.2.4.5 Autocausative middle voice *-ega/-aga*

The extension *-ega/-aga* appears 28 times in the verb database, which means that 7.4% of the verbs allow this extension. Further, there are four verbs with this extension which have no synchronic underived form.

In contrast to other extensions, this derivation has two variant suffixes: *-ega* and *-aga*, with each verb being specified for one or the other. The choice for one of the two suffix forms seems to be lexically specified rather than depending on phonological rules. Even though there is a tendency that *-aga* is used after the glide /j/ (*⟨y⟩* in orthography) as well as after /m/ or /mb/, there are also a few cases where *-ega* appears after these consonants. Given that their form is very similar while the function is the same, I consider these two suffixes as belonging to the same category. It is possible that the form *-aga* has its origin in the neighboring language Mabi where the suffix is used productively for passive formation. This, however, does not explain why *-ega* is used for some and *-aga* for other verbs and how the existing distribution comes about. In terms of frequency, *-ega* is found more often than its variant *-aga*, the latter appearing only nine times in contrast to *-ega* with 19 times.

The suffix variants *-ega* and *-aga* constitute one of two middle voice categories in Gyeli. I distinguish, in terms of terminology, the autocausative middle voice extension *-ega/-aga* from the “positional” middle voice suffix *-ɔwɔ*, discussed in §4.2.4.6. Unlike valency-increasing extensions, such as the applicative or causative, the middle voice constitutes a category “intermediate in transitivity between one-participant and two-participant events”, as defined by Kemmer (1993: 3).<sup>26</sup> In Gyeli, the autocausative middle voice typically denotes one-participant events. It requires only one argument (the subject), having a valency decreasing effect. The autocausative, as exemplified in (70), is accordingly intransitive,

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<sup>26</sup>Note that Kemmer (1993) primarily defines the middle voice as a semantic category which, in some languages, receives formal marking. I deviate from this notion in that I consider middle voice categories in Gyeli as formal categories which map onto certain functions.

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derived from transitive verbs. Semantically, the subject of autocausative verbs incorporates the roles of both agent and undergoer, while syntactically the agent remains under-specified. Often, a certain self-causation is implied in such events which I translate as ‘by itself’.

(70)	vìde	‘turn (v.t.)’	>	vìd-ega	‘turn (by itself)’
	wàwè	‘spread sth.’	>	wàw-ega	‘spread (by itself)’
	jìna	‘dive’	>	jìn-ega	‘sink (intr), melt (intr)’
	kfúde	‘cover sth.’	>	kfúd-ega	‘cover (by itself)’
	lèndo	‘flow’	>	lènd-ega	‘flow (by itself)’
	lége	‘singe’	>	lég-ega	‘singe (by itself)’
	tfúmbø	‘wrinkle sth.’	>	tfúmb-aga	‘get wrinkled (by itself)’
	líyo	‘clear land’	>	líy-aga	‘clear (by itself)’

Cross-linguistically, there seems to be a strong relation between middle voice and reflexive constructions. Kemmer (1993), for example, demonstrates that middle marking often evolves from reflexive constructions. Speakers indeed tend to translate autocausative middle voice forms with a French reflexive construction using *se*, for example *tfúmb-aga* ‘get wrinkled (by itself)’ would be translated as *se plier* in French. Nevertheless, I argue that the autocausative in Gyeli constitutes a basic system which is not derived from reflexive constructions. This view is parallel to Maldonado’s (2009) observation on South American languages, where middle voice also constitutes a basic system independent of reflexives.

In comparison to the autocausative suffix, Bantu reflexives are canonically expressed by an affix preceding the stem, which Meeussen (1967: 109) calls an “infix” and reconstructs as \*-í- (-jí-? -jíj-?) for Proto-Bantu. Such a prefix is not found in Gyeli. Reflexivity in Gyeli is rather expressed by object pronouns plus *médè* ‘self’ as in (71) or, in other cases, verbs carry reflexive meaning lexically as in *síya* ‘wash (oneself)’.

(71)	<i>mé</i>	<i>nyé</i>	<i>mê</i>	<i>médè</i>
	<i>mε-H</i>	<i>nyê-H</i>	<i>mê</i>	<i>médè</i>
	1SG-PRS	see-R	1SG.OBJ	self
‘I see myself’				

Given these constructions which differ formally very much from the autocausative, there is no obvious reason to assume that they are related or even that the autocausative has evolved from the reflexive. On the other hand, the autocausative is structurally more similar to the passive in Mabi, which has the extension *-aga* or may even be related to the passive extension *-a(a)* in Gyeli itself. This relationship is discussed in more detail in §4.2.4.2

#### 4.2.4.6 Positional middle voice -ɔwɔ

The extension -ɔwɔ constitutes the second type of middle voice category in Gyeli. -ɔwɔ is the least frequent verb extension in Gyeli with a total of 15 occurrences, 11 of which are part of the 377-verb database while four have not been considered for this database, as they were discovered later in the project. Out of the 11 occurrences within the database, only six (1.6%) are used productively in the sense that they have synchronically an underived verb form.

I label this category as ‘positional middle voice’ since almost all verbs with this extension describe the event of assuming a position, as illustrated in (72).<sup>27</sup>

(72)	kèlɛ	‘hang sth.’ > kél-ɔwɔ	‘assume a hanging position’
	kfúdɛ	‘cover sth.’ > kfúd-ɔwɔ	‘lie down by covering head with arms’
	kwádɔ	‘twist sth.’ > kwád-ɔwɔ	‘assume a crooked position’
	ngwáwɔ	‘bend sth.’ > ngwáng-ɔwɔ	‘bend (v.i.)’
	pwásɔ	‘flatten sth.’ > pwás-ɔwɔ	‘assume a flattened position, stretch out’

The same is true for verbs of this ending which do not seem to have a synchronic underived form, as exemplified in (73).

(73)	bál-ɔwɔ	‘bend down’
	kwàng-ɔwɔ	‘lie down on side’
	gyí-ɔwɔ	‘lean back’
	pwàngy-ɔwɔ	‘lie down stretched out (French: <i>s'allonger</i> )’
	sèngy-ɔwɔ	‘assume inclined position’

Schadeberg (2003: 75) uses the term “positional” for a stative category that talks about ‘assuming a position’ or ‘being in a position’. He reconstructs <sup>o</sup>-am- as the positional extension for Proto-Bantu which differs significantly in the segmental material -ɔwɔ in Gyeli. Nevertheless, both forms seem to carry the same meaning.

Schadeberg (2003: 76) does not consider the derivation <sup>o</sup>-am- in PB as middle voice. He mentions, however, that this extension is known to have become a passive suffix in certain Bantu languages of zone C. For languages such as Gyeli and Mabi, it seems that passive forms are more related to the autocausative middle voice category, as described in §4.2.4.5 and §4.2.4.2.

<sup>27</sup>The one known exception to posture reference is the verb *bwèd-ɔwɔ* ‘be tasty/sweet’.

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A few positional forms can further be derived to passive forms by substituting the two final vowels /ɔ/ by the passive vowel /a/, as shown in (74).<sup>28</sup>

- (74) bál-ɔwɔ ‘bend down’ → bál-awa ‘be bent down’  
pwàs-ɔwɔ ‘stretch out’ → pwás-awa ‘be stretched out’

The two middle voice categories, the auto-causative and the positional, differ not only in their extension forms, but also in their distribution of admissible subjects, and in their semantics. Subjects of the positional middle voice are typically human, at least animate, while the auto-causative allows both animate and inanimate subjects. Very often, however, subjects of auto-causative verb forms are inanimate, given that they incorporate the role of an undergoer, which for many transitive verbs such as *kfúde* ‘cover’ or *lége* ‘singe’ is typically inanimate.

In terms of semantics, the agent in auto-causative forms is underspecified, implying a certain self-causation which is possibly more metaphorical than real. For instance, when using the form *wàw-ega* ‘spread (by itself)’ with a subject such as ‘seeds’, this is generally understood as ‘the seeds spread by themselves’. In reality, they are probably spread by the wind or some other agent such as animals which is not salient enough to deserve mentioning. Thus, the subject can be treated as the agent, even though this might not be the case in the world. In contrast, the agent of positional verb forms is always identical with the subject.

A verb can have both middle voice forms. Given the low frequency of forms of both middle voice categories, there are not many examples, but one is the verb *kwádɔ* ‘twist’ which has both the auto-causative *kwád-ega* ‘get twisted, twist by itself’ and the positional *kwád-ɔwɔ* ‘assume a twisted, curved position’. The auto-causative typically has an inanimate subject, for instance a rope or a net, while the positional form has a human subject. Further, this verb has a passive form *kwád-a* ‘be twisted’. Table 4.9 shows the whole range of possible agent specifications in Gyeli.

### 4.2.4.7 Expansions

Expansions, in contrast to extensions, are not productive. They are low in frequency and do not have an obvious core function. Gyeli has three expansion suffixes which I will discuss in turn.

<sup>28</sup>Passive forms of the positional middle voice were not given for all positional verb forms. Given that passive forms are generally restricted and less frequent than logically possible, it seems that the same is true for passives of positional forms rather than assuming that these are gaps in the data, which in particular instances might be the case.

Table 4.9: Scale of decreasing expression of agentivity

Transitive →	Positional →	Autocausative →	Passive
two participants	agent=sbj	agent=sbj implied	agent=non-sbj
kwádɔ 'twist sth.'	kwádɔwɔ 'assume twisted position'	kwádega 'get twisted'	kwáda 'be twisted'

The expansion suffix *-ke* or its weakened form *-ge* is found ten times in the database as clearly derived from another verb form that is presently used in the language. There are another five verbs in the database with this ending, all of which are transitive, but which do not have an underived intransitive form.

The addition of this suffix has different effects on different verbs. In most instances, the suffix *-ke* is valency increasing, turning an intransitive verb into a transitive one, as shown in (75).<sup>29</sup>

- (75) bwà 'become big' > bò-ke 'make sth. big'  
 kàgɔ 'promise (v.i.)' > kà-ge 'promise (v.t.)'  
 lúà 'whistle' > lóñ-ge 'whistle sth.'  
 té'ɛ 'be soft' > té-ge 'soften sth.'  
 tòà 'boil (v.i.)' > tò-ke 'boil sth.'  
 bô 'lie down (v.i.)' > bú-ge 'lie sth. down'

In at least one case, the inverse happens and the expansion *-ke* serves as a valency decreasing suffix, as in (76).

- (76) bvúð 'break sth.' → bvú-ke 'break (v.i.)'

For the majority of instances where the suffix *-ke* has a valency increasing effect, this is semantically linked to a causative meaning, for instance in examples such as *bò-ke* 'make big' or *té-ge* 'soften sth.'. The *-ke* expansion is, however, distinct from the standard causative *-ese*, and not an allomorph, as some verb roots can take either suffix. For instance, the verb *jíye* 'burn (v.i.)', as shown in (77), allows *-ke* as a valency-increasing expansion. Also, the causative form *jí-g-ese* is found with the figurative meaning 'make sb. angry'.

<sup>29</sup>Some verbs with a sequence of /wa/ or /ua/ in their underived form change to /ɔ/ in the derived form, as with *bwà* 'become big' changing to *bòke* 'make big'. Whether this change happens is lexically specified and not a general phonological rule since there are verbs with the same sequences which do not change to /ɔ/, for example *bwà* 'be born' having the derived form *bwà-le* 'be born'.

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- (77) jíyε ‘burn (v.i.)’ > jí-gε ‘burn (v.t.)’  
                         > jí-g-εsε ‘make sb. angry’  
     dvùò ‘hurt (v.i.)’ > dvù-gε ‘hurt (v.t.)’  
                         > dvù-g-εsε ‘make sb. hurt’

An alternative analysis to the suffixes *-ke/ge* and *-le* would be to assume an expansion *-ε* which takes different epenthetic vowels /g/ and /l/, as described in §3.2.1. Under this view, /g/ in *jig-ε* ‘burn sth.’ would be treated as a root-final epenthetic consonant. Given the tendency for a distinct causative function with the expansion *-ke/ge*, which is not found with *-le*, I analyze *-ge/ke* and *-le* as distinct expansion morphemes rather than assuming one expansion *-ε* with different epenthetic consonants.

Another non-productive suffix is *-le*, which has only 6 derived forms in the database. *-le* is a frequent ending of disyllabic verbs, however; 21 underived disyllabic verbs end in this syllable. It is, however, uncertain whether this is a phonologically wide-spread syllable in verbs or whether historically there was a productive extension morpheme *-le*.

As with the suffix *-ke/ge*, it is difficult to pinpoint *-le*’s function. Often, it seems to be valency-increasing, transitivizing an intransitive verb form, as in (78).

- (78) vû ‘leave’ > vú-le ‘get rid of sth.’  
     jí(yɔ) ‘sit, live’ > jí-le ‘seat sb.’  
     té-bo ‘rise’ > té-le ‘place sth. upright’

In other cases, however, the *-le* suffix more seems to have a passivizing function, as in (79). Usually, passivization is achieved by the passive morpheme *-a*. In these two cases, however, no such form is available and rather the *-le* suffix is used.

- (79) bwà ‘give birth’ > bwà-le ‘be born’  
     tìno ‘harvest tubers’ > tì-le ‘be harvested’

Given these different uses of *-le*, it is not possible to provide a unified category label for this expansion.

Finally, another frequent suffix is the expansion *-wɔ/bɔ*, used with disyllabic verbs. With only two derived forms and eight verbs without a corresponding base form, the database provides few examples. This, again, makes it difficult to make generalizations about its function. It is tempting to assume a reversive category when considering (80).

- (80) jì ‘open sth.’ > jì-bo ‘close sth.’

Other examples, however, do not support this hypothesis, but rather suggest that in some cases at least, *-bɔ/wɔ* has a detransitivizing effect, as in (81).<sup>30</sup>

- (81) sò-le ‘hide sth.’ > swà-wɔ ‘hide (v.i.)’  
      té-le ‘place sth.’ > té-bɔ ‘rise’  
      láà ‘tell sth.’ > là-wɔ ‘speak’

#### 4.2.5 Zero-derivation

Zero-derivation is found in only a few domains. Almost all postpositions are zero-derived from nouns, as shown in Table 4.10.<sup>31</sup> Postpositions and their source noun do not differ in form, but in their morphosyntactic behavior and distribution, as explained in §3.10.2.2.

Table 4.10: Derivation of postpositions

Lexeme	Postposition	Nominal source
sí	‘under, down’	‘ground’
dyúwɔ	‘up, on top’	‘sky’
témɔ	‘between’	‘middle’
písè	‘behind’	‘behind, back (n.)’
sô	‘in front, before’	‘front (n.)’

In the absence of any derivational marking, one might object that it is difficult to pinpoint the grammaticalization path from noun to postposition or vice versa. The phenomenon that locative adpositions are derived from body-part and environmental landmark nouns, however, has been observed by, for instance, Kießling et al. (2008: 215) for African languages and Bowden (1992) for Oceanic languages. It is rather noteworthy that, in Gyeli, these expressions are grammaticalized as postpositions instead of prepositions, as would be expected for Bantu languages (Dryer 2013a).

Another potential case of zero-derivation includes the quantifier *bvùbvù* ‘many’ and its nominal counterpart *bvúbvù* ‘multitude’ (cl. 9). In this case, however, there is a difference in the tonal pattern. Since this is the only example, it is not clear, however, if the tonal difference marks derivation or happened by chance. It is further not clear whether the noun is the source or the derived form.

<sup>30</sup>In the two first cases, it is hard to specify which form is the derived and which is the underived form since both verbs have an expansion morpheme, but there is no monosyllabic form without a derivation morpheme.

<sup>31</sup>The only unclear case is the postposition *dé* ‘in’ for which a possible nominal source is synchronically not known.

### 4.2.6 Compounding

In comparison to derivation, compounding is a less productive word formation strategy. Gyeli has two types of compound nouns which differ in their derivation source and complexity. Most compounds are formed from a nominalized verb and its nominal complement. A few compounds are derived from two underived nouns. Both types are discussed in the following sections.

#### 4.2.6.1 Deverbal noun-noun compounds

The most productive type of compounding is comprised of a nominalized verbal root and a noun, as illustrated in (82). Most nominal compounds semantically designate an agent, as shown in (83). Accordingly, the verbal root is nominalized as a deverbal noun of gender 1/2, as described in §4.2.1.1.<sup>32</sup>

- (82) [N<sub>deverbal</sub> + N]<sub>N</sub>

The noun that follows the nominalized verb is the verb's direct argument that cannot be omitted, as the nominalized verb of these constructions on its own is ungrammatical. The complement noun, however, is “not necessarily [an object] in the traditional syntactic sense” (Schadeberg 2003). The tonal pattern of a deverbal compound, as illustrated in (83), differs from the patterns found in a verb phrase between verb and object, as discussed in §6.2.2 and §7.2.1.2. In a VP, the noun class prefix of the nominal argument takes an object-linking H tone and the final vowel of the verb takes an H tone in realis categories. In compounds, all these TBUs surface with an L tone.

- (83)
- a. mbòmè-màpô ‘messenger’  
 < bòmè ‘bark, announce’ + ma-pô ‘news’
  - b. ntsíè-bènyàgà ‘butcher’  
 < tsíè ‘cut’ + be-nyàgà ‘cows’
  - c. nlólè-mìnkòlè ‘weaver, tailor’  
 < lô ‘sew, weave’ + mi-nkòlè ‘threads’
  - d. ngyàgèsè-bèsâ ‘vendor, merchant’  
 < gyàg-ësë ‘make buy’ + be-sâ ‘things’
  - e. mbwálèsè-bùdì ‘midwife’  
 < bwà(l)-ësë ‘make give birth’ + b-ùdì ‘people’

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<sup>32</sup> A more detailed discussion of compounding in Bantu, especially in Bemba, is provided in Basciano et al. (2011).

- f. nlímbó-**màmbò** ‘connoisseur, educated person’  
 < límbo ‘know’ + ma-**mbò** ‘things’
- g. nsálè-**mànkè** ‘farmer’ < sá-lè ‘do (v.t.)’ + ma-**nkè** ‘fields’

The tonal difference between objects in a VP and complement nouns in a compound can be explained by the compounds’ lexicalization history. Rather than stemming from a nominalized VP, these compounds have their origin in a noun + noun attributive construction, as discussed in §5.5, whose first constituent is a deverbal agentive noun. This is in line with Schadeberg (2003: 87) who points out that compound “nouns may originate from a genitival (connective) [attributive] construction,” which then becomes lexicalized as a noun, as shown in (84).

(84)	<i>mbòmè</i>	<i>wà</i>	<i>màpô</i>	>	<i>mbòmè</i> Ø <i>màpô</i> >	<i>mbòmè-màpô</i>
	m-bòmè	wà	ma-pô			
	n1-announce	1:ATT	ma6-news			
	'messenger [lit. announcer of news → news-announcer]'					

Even in many synchronic attributive constructions, the attributive marker can optionally be omitted, as discussed in §5.5.1.1. In deverbal compounds, the omission of the attributive marker is no longer optional, but has become lexicalized. This lexicalization path explains why the prefix of the complement has an L tone rather than an object-linking H tone. Since the preceding attributive marker *wà* has an L tone, the following prefix surfaces as L as well (in contrast to the plural version shown in (85)). Another piece of evidence for lexicalization from an attributive construction comes from the plural formation of these compounds explained below.

There are two types of compounds, which differ in the number value of the argument nominal. In (83), all argument nouns are plural, marked by the plural noun class prefixes in bold. The number of the argument nominal has an impact on the plural formation of the compound noun. If the argument noun has a plural prefix, as in (83), its plural counterpart does not constitute a compound noun, but a noun + noun attributive construction. (85) shows the plural forms of the examples in (83). They are comprised of the plural nominalized verb, the plural argument noun and an attributive marker agreeing with the first noun that links the two constituents.<sup>33</sup>

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<sup>33</sup>I represent the noun class prefix of the nominalized verb as toneless which will take its surface tone from its syntactic environment. While the CV- noun class prefix of the second constituent is underlyingly toneless as well, it surfaces with an H tone which it acquires through high tone spreading from the preceding attributive marker.

- (85) a. ba-bòmè bá má-pô ‘messengers’  
 b. ba-tsíè bá bé-nyàgà ‘butchers’  
 c. ba-lílè bá mí-nkɔ́lè ‘weavers, tailors’  
 d. ba-gyàgèsè bá bé-sâ ‘vendors, merchants’  
 e. ba-bwálèsè bá b-ùdì ‘midwives’  
 f. ba-límbó bá má-mbò ‘connoisseurs, educated people’  
 g. ba-sálè bá má-nké ‘farmers’

The structural difference between singular compound nouns and their non-compound plural counterparts is due to their different stages in lexicalization. As described in §5.5.1.1, attributive markers can be omitted from noun + noun constructions under certain morphophonological and semantic conditions. Two plural noun constituents and a CV- shape noun class prefix on the second constituent, however, inhibit the omission of the attributive marker, explaining why the singular form is more lexicalized than its plural counterpart.

The second and less frequent type of deverbal compounds has a singular or transnumeral argument noun, as illustrated in (86).

- (86) a. nkè-nlô ‘gecko’<sup>34</sup>  
 < kè ‘shave’ + nlô ‘head’  
 b. mbúlò-mâ ‘fisherman’  
 < búlò ‘fish (v.)’ + mâ ‘sea’

In these cases, the plural counterpart remains a compound as well, as shown in (87). Rather than transforming into a noun + noun attributive construction, the compound only takes a plural noun class prefix for the nominalized verb while the second constituent remains unchanged. It thus appears that compounds with singular second constituents are more lexicalized than those with plural second constituents.

- (87) a. ba-nkè-nlô ‘geckos’  
 b. ba-búlò-mâ ‘fishermen’

As mentioned above, most compounds of the [VN] type constitute agent nouns. The only exception to this pattern I found is given in (88). Though it is still in gender 1/2, it lacks the nasal prefix in the singular.

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<sup>34</sup>It is believed that geckos eat people’s hair while they are sleeping.

- (88) tsíè-sámè, ba-tsíè-sámè ‘circumcision’  
     < tsíè ‘cut’ + nsámbò ‘penis’

Having a singular second constituent, the plural form remains a compound noun. The phonologically changed form of the argument nominal suggests that this compound is further along the lexicalization path.

#### 4.2.6.2 Underived noun-noun compounds

The second category of nominal compounds take the structure of noun + noun compounds. They differ from deverbal compounds in that their constituents are not derived. The most common lexical items involved in [NN] compounds include *mwánò* ‘child’ as a diminutive marker, as shown in (89). Semantically, the diminutive can refer both to the small size of a referent or a small amount.

- (89) a. mwánò-mùdâ ‘girl’ mwánò ‘child’ + mùdâ ‘woman’  
     b. mwánò-mùdû ‘boy’ < mwánò ‘child’ + mùdû ‘man’  
     c. mwánò-nlàwó ‘twig’ < mwánò ‘child’ + nlàwó ‘branch’  
     d. mwánò-sâ ‘little something’ < mwánò ‘child’ + sâ ‘thing’

Pluralization of such compounds requires both constituents to occur in their plural form, as shown in (90).

- (90) a. bwánò-bùdâ ‘girls’  
     b. bwánò-bùdû ‘boys’  
     c. bwánò-mìnlàwó ‘twigs’  
     d. bwánò-besâ ‘little things’

In diminutive compounds, the second constituent serves as the syntactic and semantic head. As such, agreement targets agree with the second constituent and not with the first, as shown in (91).

- (91) a. *bwánò-békúmbé    bé    bà    njí    nà    byŷ    bé    télé*  
       b-wánò-be-kúmbé bé    ba    njì-H    nà    by-ŷ be-H téle-H  
       ba2-child-be8-tin 8:ATT 2.PST1 come-R COM 8-OBJ 8-PRS stand-R  
       *màbé*  
       mà-bé  
       here-8  
       ‘The few tin roofs that they brought stand here.’

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- b. \* *bwánjò-békúmbé bá bá njí nà bɔ́ bá télé*  
     b-wánjò-be-kúmbé bá bá njí-H nà b-ɔ́ ba-H télé-H  
     ba2-child-be8-tin 2:ATT 2.PST1 come-R COM 2-OBJ 2-PRS stand-R  
     *màbá*  
     mà-bá  
     here-2

'The few tin roofs that they brought stand here.'

Underived noun-noun compounds other than diminutives seem to describe an inherent property, such as gender or size, as shown in (92). As with deverbal [NN] compounds, these compounds appear to originate in attributive constructions.

- (92) a. *só-mùdâ* 'female friend' < *só* 'friend' + *mùdâ* 'woman'  
     b. *kfúbò-dyá* 'tall chicken' < *kfúbò* 'chicken' + *dyá* 'length'

There seems to be a lexicalization scale from attributive constructions which require the attributive marker, as described in §5.5, those which optionally omit the attributive marker, and finally those constructions which have lexicalized separately as compounds without the attributive marker, as in (92). (93) shows corresponding attributive constructions. I only view the latter type as compounds. Since examples with such a meaning contrast are hard to find, examples of these compounds are few in number.

- (93) a. *só wà m-ùdâ*  
       ∅1.friend 1:ATT N1-woman  
       'the friend of the woman'  
     b. *kfúbò wà dyá*  
       ∅1.chicken 1:ATT ∅1.length  
       'the remote chicken'

Impressionistically, [NN] compounds in (89) differ structurally from the diminutive compounds in (92) with respect to their headedness. In the diminutives, the semantic and syntactic head is the second constituent, while in the other compounds, the first constituent functions as the head. The left-headed pattern might be expected from the compounds' origin in the noun + noun attributive construction. Given the limitation of examples, it is not possible at this point to explain how diminutives developed to be right-headed.

I conclude this chapter with a note on another derivation type common across Bantu languages, namely noun-to-noun derivation. As Schadeberg (2003: 82) describes, noun-to-noun derivation is commonly achieved by shifting nouns to different genders. I have not observed this in my Gyeli data. Instead, Gyeli has

#### *4.2 Derivation and compounding*

different lexical stems or diminutive compounds with *mwánɔ* ‘child’ §5.5.1.4 to encode size differences that may be expressed by different genders in other Bantu languages.



# 5 The noun phrase

## 5.1 Introduction

Noun phrases can be viewed in relation to their syntactic status within a clause as well as to their internal structure. The status of a noun phrase within a sentence relates to its function as an argument (or else, for example as an adjunct) in relation to a predicate. The internal structure relates to questions such as “What elements do noun phrases contain?” and “What is the order of these elements in a noun phrase?”

### The noun phrase on the sentence level

This latter perspective is usually assumed when defining the term “noun phrase”. A definition depends, at least to some extent, on the function that is attributed to the noun phrase. Andrews (2007: 132) points out that there are three ways to think of functions of the noun phrase, namely in terms of its pragmatic, semantic, or grammatical functions.

Pragmatic functions relate to information structure and include core notions such as “topic” and “focus”. Information structure will be discussed in §7.3 since, first, information structure has to be seen on a phrase or even discourse level. Second, focused or topicalized elements of a phrase exceed noun phrases; for instance, verbs can also be the topic or focus of a sentence.

Semantic roles are imposed on noun phrases by predicates that create a certain situation and imply certain ways in which noun phrases participate as actors in this situation. They are called “arguments” to the predicate. Andrews (2007: 135) gives the example of the verbal element *kill* that requires a participant that takes over the role of the *killer* and one that is the *killed*. Traditionally, there are general classes of semantic roles such as *agent*, *patient*, *recipient*, *experiencer* and many more.<sup>1</sup>

In terms of their grammatical functions, Dryer (2007b: 151) defines noun phrases as “syntactic constituents which serve as arguments of verbs”. They express core

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<sup>1</sup>See Jackendoff (1990), Andrews (2007), and Levin & Hovav (2005) for further readings on semantic roles.

## 5 The noun phrase

grammatical relations such as “subject” and “object”. Classes of semantic roles relate in a systematic way to grammatical roles. Thus, very often, agents are the subjects of a sentence while patients are found in the object position.

These different grammatical relations can be expressed in different ways across languages. Andrews (2007: 141) posits “three basic techniques which languages use to code syntactic functions: order and arrangement, NP-marking, and cross-referencing”. These different coding strategies will be discussed in detail in §7.

It is important to make the distinction between semantic and grammatical functions of noun phrases and be aware of their relation. In this grammatical description of Gyeli, I adopt, however, an approach that focuses on a grammatical rather than a semantic description.

### The internal structure of noun phrases

Having introduced the main functions of noun phrases on a sentence level as discussed in the literature, I now turn to noun phrases’ internal constituency. Rijkhoff (2002: 23) points out that noun phrases vary in terms of their constituency and complexity, both within and across languages.<sup>2</sup> Dryer (2007b: 151) distinguishes different types of noun phrases for a typological discussion of noun phrases across languages, ranging from simple to more complex noun phrases: (i) simple noun phrases, which contain only pronouns or nouns plus simple modifiers such as articles, adjectives, demonstratives, or numerals, (ii) complex noun phrases, which contain more complex sorts of modifiers such as genitive or possessive modifiers and relative clauses, and (iii) various types of noun phrases which lack a head noun.

Noun phrases in Gyeli can be zero-expressed, which is possible for subject noun phrases (§7.2.1.1), while the subject is cross-referenced through agreement on the STAMP marker or copula in the predicate.

Simple noun phrases include pronouns (§3.6). Pronouns can occur bare in all types of noun phrases: subject, object, and oblique. Pronouns can combine with the contrastive suffix *-gà* (§4.1.2.4) and be followed by three modifiers, as shown in (1).

- (1)    a. PRO *médé* ‘self’  
         b. PRO *-ɔ(né)gá* ‘other’  
         c. PRO *-éṣè* ‘all’

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<sup>2</sup>He further states that spoken languages (such as Gyeli) seem to be grammatically less complex than written languages, a claim that does not hold for Gyeli, which seems to be just as complex as neighboring Bantu languages that are taught at school.

Simple noun phrases also consist of bare nouns.<sup>3</sup> Gyeli does not have articles and bare nouns can occur in subject, object, and oblique noun phrases. Bare nouns can combine in simple noun phrases with elements discussed in §3.8. Gyeli is a head-initial language and almost all modifiers, both agreeing and invariable, follow the noun. There are two exceptions, however: the negative polarity item *tò* ‘any’ (§3.8.4) and *nyá* ‘big’ always precede the noun. If a simple noun phrase includes more than one postnominal modifier, the order of the modifiers is freely variable,<sup>4</sup> and there does not seem to be a particular modifier that is closer to the noun than others. The reason for this could be that multiple modifiers in simple noun phrases are highly dispreferred. Tests on modifier combinations in a simple noun phrase all stem from grammaticality judgment tests in elicitation. In natural texts, however, the only instance were two modifiers where combined in a noun phrase is given in (2).

- (2) *bèsâ bíndè byésè*  
 be-sâ bí-ndè by-ésè  
 be8-thing 8-ANA 8-all  
 ‘all these things’

Other simple noun phrases that include two modifiers (or elements that are treated like modifiers) are complex cardinal numerals which contain an underlying multiplication operation, as in (3).

- (3) a. *b-ùdì [mà-wúmò má-báà]*  
 ba2-person ma6-ten 6-two  
 ‘twenty people’  
 b. \* *[mà-wúmò má-báà] b-ùdì*  
 ma6-ten 6-two ba2-person  
 ‘twenty people’

The structure of (3a) is  $[N [N + Num]_{MOD}]_{NP}$ . While *mawúmò* ‘10s’ is a noun itself, in this construction, the entire complex numeral behaves like one postnominal modifier, without agreeing with the head noun *bùdì* ‘people’. It is not possible for the numeral NP to precede the quantified head noun, as shown in (3b).

Complex noun phrases in Gyeli include distributive constructions and noun + noun attributive constructions. Also noun phrases including relative clauses fall

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<sup>3</sup>A detailed discussion of how referents of bare nouns in Gyeli are tracked is provided in Grimm (To appear).

<sup>4</sup>It may be that a change in order results in a slightly different reading in terms of emphasis on one or the other modifier, but this was not clear from my data.

in the category of complex noun phrases, according to Dryer (2007b). As they constitute a type of subordination, they are discussed in §8.2.1. In the remainder of this chapter, I first outline the gender and agreement system of Gyeli. I then discuss complex noun phrases and conclude with a note on the semantic category of numerals.

## 5.2 The gender and agreement system

As a typical feature of a Bantu language, Gyeli has a relatively elaborate gender and agreement system. In the literature, this is often referred to as “noun class” or “concord” systems, depending on the authors’ preferences and research tradition. Authors differ substantially in their definition of key notions such as “noun class” and “gender”. Often, these terms are used interchangeably as in Heine (1982: 190):

A noun class or gender system is said to be present if the nouns of a given language are divided into classes by means of concordial agreement markers.

Aikhenvald (2003: 19), for instance, notices the widespread interchangeable use of “noun class” and “gender” and opts for adopting “noun class” as the generic term for both noun class and gender, while the term “gender” should be restricted to noun categorization systems that are sex-based, i.e. which make a distinction between grammatical *feminine* versus *masculine*. In that, she deviates from Corbett (1991), who uses the term “gender” for all agreement-based noun classification systems, both sex-based and non-sex-based systems alike.

Some authors, for instance Medjo Mv   (2011: 85), establish gender systems solely based on pairings of noun class prefixes rather than by agreement classes. This method artificially inflates the system since there are more pairings of noun class forms than agreement classes. In light of such terminological confusion, I will first clarify the terminology I use before moving on to the description of the Gyeli system. I distinguish three terms: “agreement class”, “gender”, and “noun prefix class”, based on G  ldemann & Fiedler (2019) in their straightforward approach to analyze noun categorization in a consistent way that facilitates cross-linguistic comparison.<sup>5</sup> Prefixes that mark agreement are called “agreement prefixes”, while prefixes that fall into the category of noun prefix classes are called “noun prefixes”.

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<sup>5</sup>G  ldemann & Fiedler (2019) use the term “nominal form class” for the category that I call “noun prefix class”.

### Agreement class

According to Güldemann (2000: 13), agreement class is defined by “regular morphological processes on the parts of speech that are controlled by a particular noun in a given utterance”. An agreement class thus consists of “a set of noun forms that share an identical behavior across all agreement contexts of a given system” (Güldemann & Fiedler 2019: 98). Following Corbett (1991), the parts of speech that agree with a noun are called “agreement targets”, while the noun that controls agreement on depending parts of speech is called “agreement trigger”. I label agreement classes in Gyeli by Arabic numbers, following the Bantuist tradition.

Agreement classes often conflate several grammatical features, such as gender and number. This is also true for Gyeli where the majority of nouns trigger one agreement pattern in the singular and a different pattern in the plural. There is also a transnumeral gender that lacks this singular/plural pairing and only has one agreement class.

I take Güldemann & Fiedler’s (2019: 98) approach, in contrast to Corbett (1991), who point out that it is of “no concern whether noun forms of one agreement class are of the same gender, number or any other feature”. In Gyeli, for instance, most noun forms in agreement class 8 take a *be-* prefix and encode plurality, serving as the counterpart to the singular agreement class 7. There are, however, some exceptions where the noun form does not take the *be-* prefix, does not encode plural, but singular, and does not pair with agreement class 7, but agreement class 6. Nevertheless, because the agreement pattern is the same on all targets, this noun form still belongs to agreement class 8.

### Gender

Gender cannot be established by solely investigating the noun itself and potentially its changing affixes in the singular and the plural. Rather, the gender of a noun is exclusively established by agreement phenomena. The term “gender” is widely discussed in the literature, especially by Corbett (1991: 1). He defines “gender” as “classes of nouns reflected in the behavior of associated words”, citing Hockett (1958: 231). Corbett (1991: 45) more specifically views “gender” as a “set of nouns which take the same agreements (typically a singular-plural pair)”. Güldemann (2000: 13) emphasizes that nouns are assigned to a nominal category “according to some feature that is conceptually INHERENT to a given noun” and that “noun gender refers to a more abstract item of the lexicon”. As mentioned above, it is cross-linguistically frequent, especially in Bantu languages, that gender is conflated with number. Güldemann & Fiedler (2019: 98) point out that,

analytically, gender classes “are derived by abstracting from all other agreement features”, such as number. I label genders in Gyeli by their pairing of agreement classes, as discussed below. For instance, the noun *-ùdi* ‘person’ inherently belongs to the class of nouns that triggers agreement class 1 in its singular form and agreement class 2 for the plural. It therefore belongs to gender 1/2.

The difference between agreement class and gender can be illustrated with an example from Gyeli.<sup>6</sup> A nominal root such as *-kóndyi* ‘hand’ comes in two forms, namely as *le-kóndyi* in the singular and *ma-kóndyi* in the plural. The first triggers agreement of class 5, i.e. all dependent parts of speech will show the agreement pattern which belongs to this agreement class, while the latter triggers class 6 agreement on all agreement targets. Thus, the nominal lexeme *-kóndyi* belongs to gender 5/6 which is a pairing of agreement classes 5 and 6.

### Noun prefix class

In many cases, the noun prefix reflects the agreement class that the noun triggers. For instance, the noun prefix *le-* in *le-kóndyi* ‘hand’, is identical in form with most agreement targets such as subject marking, demonstratives, or the attributive marker (as shown in Table 5.2). There are, however, also noun prefix classes which do not map onto their respective agreement classes. One example is the noun prefix class that is marked by a nasal N-. This noun prefix class is found both in agreement classes 1 and 3. At the same time, there are nouns of agreement classes 1, 3, 7, 8, and 9 that do not take any noun prefix at all. Unlike for genders and agreement classes, I refer to noun prefix classes not by numbering, but by the form of their prefix. Since gender is determined only by agreement, noun prefix classes are not decisive in establishing gender or agreement classes. Noun prefix classes therefore relate to prefix marking on the noun but do not necessarily index agreement class affiliation.

#### 5.2.1 Agreement targets of the noun

Gyeli has a range of agreement targets, both within the noun phrase and noun phrase externally, as listed in Table 5.1. Each of the agreement targets is described in detail according to their part of speech in Chapter 3, while agreement forms are listed in Table 5.2.

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<sup>6</sup>The provided example is parallel to one that Güldemann (2000: 13) quotes from Nichols (1992: 125) on Luganda.

Table 5.1: Agreement targets

Noun phrase internal	Agreement targets with agreement prefix Object pronouns Possessor pronouns Anaphoric markers -vúdú ‘one’ -fúsi ‘different’ -ésè ‘all’ -j(né)gá ‘other’ Numerals ‘2’ through ‘5’ Genitive marker <i>ngá</i> <i>nyá</i> ‘big’ Agreement targets with free agreement morpheme Subject pronouns Demonstratives Attributive markers
Noun phrase external	STAMP marker Copula

### 5.2.2 Agreement classes

Gyeli has nine agreement classes that are reflected in the morphosyntactic behavior of their agreement targets. These agreement targets and their agreement patterns are listed in Table 5.2. Parts of speech that agree with a head noun in gender (and number) mark agreement either by free agreement morphemes or by agreement prefixes. Free agreement morphemes in Gyeli include the subject-tense-aspect-mood-polarity marker (STAMP),<sup>7</sup> a copula, subject pronouns, demonstratives,<sup>8</sup> and attributive markers (§3.8.3.2), which typically link two nouns in a possessive construction and also indicate an embedding relation between a relative clause and the modified noun phrase.

Parts of speech that mark agreement through prefixes include object and possessor pronouns, anaphoric markers, nominal modifiers, the numerals ‘1’ through

<sup>7</sup>Subject marking is achieved by the subject-tense-aspect-mood-polarity (STAMP) marker. Its forms are represented without tones because the surface tone depends on the tense-mood category (§3.9.1) it encodes.

<sup>8</sup>Demonstratives have two patterns with a distinction for proximal versus distal. In Table 5.2, only the proximal demonstratives are shown as representatives of the whole paradigm.

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‘5’, and the genitive marker, which only take agreement prefixes in plural agreement classes.

Table 5.2: Agreement forms and their target parts of speech

AGR class	1	2	3	4	5	6	7	8	9
Monomorphemic agreement words									
STAMP	a/nyε/nu	ba	wu	mi	le	ma	yi	bi	nyi
COP	àà/nùù	báà	wúù	míì	léè	máà	yíì	béè	nyíì
SBJ	nyè	bá	wú	mí	lí	má	yí	bé	nyí
DEM	nû	bâ	wô	mî	lê	mâ	yî	bî	nyî
ATT	wà	bá	wá	mí	lé	má	yá	bí	nyá
Agreement prefixes									
OBJ	nyê	b-ô	w-ô	my-ô	l-ô	m-ô	y-ô	by-ô	ny-ô
POSS	w-	b-	w-	mí-	l-	m-	y-	bí-	ny-
ANA	nú-	bá-	wó-	mí-	lé-	má-	yí-	bí-	nyí-
MOD(-C)	m-	bà	m/Ø-	mì	lè	mà	Ø-	bì	m/Ø-
MOD(-V)	w/n-	b-	w-	my-	l-	m-	y-	by-	ny-
NUM, GEN	-	bá-	-	mí-	-	má-	-	bí-	-

Nominal modifiers are grouped into those whose stem is consonant-initial (MOD-C) and those that are vowel-initial (MOD-V), as this generally influences the shape of the agreement prefix. Strictly speaking, however, one would need to split the nominal modifier category up into four subtypes, one type for each of its four members (§3.8.1), since each nominal modifier differs slightly in its agreement pattern in one or two agreement classes. For simplicity, I present two broader patterns in Table 5.2, merging different agreement prefix forms in agreement classes 1, 3, and 9 for MOD-C and MOD-V, and show the details of agreement prefixes with different nominal modifiers in §4.1.1.3.

Agreement classes differ in size. Table 5.3 shows the distribution of the individual agreement classes in terms of frequency in a database of 875 nominal lexemes. The noun database stems from elicitation with the SIL comparative African 1700 word list by Roberts & Snider (2006) and from texts and other elicitations.

Table 5.3 reflects the agreement class distribution in a total of 1678 nominal forms. Assuming that each agreement class neatly pairs with a singular or plural counterpart, respectively, this would only provide 837 nominal lexemes, in contrast to 875 lexemes in the database. The discrepancy is explained by the fact that

Table 5.3: Size of agreement classes

AGR class	Frequency
1	164 9.8%
2	162 9.6%
3	170 10.1%
4	167 9.9%
5	137 8.2%
6	241 14.4%
7	306 18.2%
8	288 17.2%
9	43 2.6%
Total	1678

agreement classes do not always have a singular or plural counterpart, but there are also transnumeral classes.<sup>9</sup> It is thus worthwhile not only to show the size of the various genders as provided in §5.2.4, but also to give a general impression of agreement class size.

The agreement class with most members is class 7, followed by classes 8 and then 6. Agreement classes 1, 2, 3, and 4 are about equally numerous in members. The smallest agreement class is class 9 with only 43 members.

### 5.2.3 Noun prefix classes

Gyeli has seven major formal noun prefix classes, as defined by and labelled according to their prefix, and a minor noun prefix class “bw” which only occurs once in the noun database. Table 5.4 shows how the different noun prefix classes map onto the agreement classes. The noun prefix class “N”, for example, which is characterized by a nasal prefix covering the homorganic nasals /m/-, /n/-, and /ŋ/-, is found both in agreement classes 1 and 3. The prefixless class “Ø” occurs in agreement classes 1, 3, 7, 8, and 9. In contrast, noun prefix classes with a CV- prefix, namely “ba”, “mi”, “le”, “ma”, and “be” only map onto one agreement class.<sup>10</sup>

In glosses, I distinguish noun prefix classes and agreement classes. Head nouns

<sup>9</sup>51 nouns in the database have no singular counterpart, while only 21 have no plural form.

<sup>10</sup>Only CV- prefixes are syllabic. Nasal prefixes do not constitute syllables, as described in §2.3. As such, they do not serve as tone bearing units.

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Table 5.4: Noun prefix classes and their corresponding agreement classes

Noun prefix class	AGR class	Example
N	1	m-ùdì ‘person’
	3	n-vèwò ‘breath’
ba, (b-)	2	ba-kálé ‘sisters’, b-ùdì ‘people’
∅	1	kálé ‘sister’
	3	mbè ‘drum’
	7	síngì ‘cat’
	8	bwâ ‘medicine’
	9	tsí ‘neck’
mi	4	mi-vèwò ‘breaths’
le, (d-, j-)	5	le-máá ‘cheek’, d-úú ‘nose’, j-áwè ‘goliath frog’
ma, (m-)	6	ma-máá ‘cheeks’, m-úú ‘noses’, m-áwè ‘goliath frogs’
be	8	be-síngì ‘cats’
(bw)	8	bw-álè ‘canoe’

are thus glossed for their noun prefix class and their agreement class. For instance, *le-máá* is represented as “le5-cheek” and *síngì* as ‘∅7.cat’.

Just like agreement classes, the distribution of nouns across different noun prefix classes is not equal. Table 5.5 shows the size of each noun prefix class in the second column, based on the 875-noun database.<sup>11</sup> For instance, there are 26 nouns in the “N” noun prefix class which is only 1.5% of the total of 1678 noun forms, making the “N” class the smallest of all major noun prefix classes.<sup>12</sup> The largest noun prefix class is “∅” with 660 noun forms, which equals 39.3% of the total noun forms, followed by the “be” class with 284 (16.9%) and the “ma” class with 241 (14.1%) occurrences. I consider noun prefix class “bw” as a minor noun prefix class because it has only one occurrence in the database, namely *bw-álè* ‘canoe’ with its plural form *m-álè*.

<sup>11</sup>The total number is higher than 875 because most lexemes also have a plural form. Since some lexemes, however, lack a form in the singular or plural, the total is not simply double the amount of 875.

<sup>12</sup>In fact, deverbal nouns in gender 1/2, as discussed in §4.2.1, provide the majority of members in noun prefix class “N”, together with other human relational nouns and a few body part terms.

Table 5.5: Frequency of noun prefix classes across agreement classes

Noun prefix class	Frequency	AGR class	Frequency	% of AGR class
N	26	1.5%	1	23
			3	3
ba, (b-)	162	9.6%	2	162
∅	660	39.3%	1	141
			3	167
			7	306
			8	3
			9	43
mi	167	9.9%	4	167
le, (d-, j-)	137	8.2%	5	137
ma, (m-)	241	14.4%	6	241
be	284	16.9%	8	284
(bw)	1	.06%	8	1
Total	1678			

The right columns in Table 5.5 illustrate the noun prefix classes' relation to agreement classes. It first lists the agreement classes that occur with the different noun prefix classes. For instance, noun prefix class "N" includes nouns from agreement classes 1 and 3. The next column specifies that 23 of the 26 nouns in noun prefix class "N" come from agreement class 1, while only three come from agreement class 3. The last column then indicates the percentage of these numbers in relation to the agreement class. Thus, the 23 nouns in noun prefix class "N" constitute only 14% of its agreement class 1. (The other 86% of agreement class 1 nouns are found in noun prefix class "∅").

There are three types of relations between noun and agreement classes. First, in noun prefix classes "ba", "mi", "le", and "ma", the members of a noun prefix class and an agreement class overlap entirely: the noun prefix class only contains nouns from one agreement class and all nouns of that agreement class are found in this noun prefix class. Second, a certain agreement class is only found in one noun prefix class, but the noun prefix class also includes nouns from other agreement classes. This is the case for nouns of agreement classes 7 and 9, which have all their members in noun prefix class ∅. And third, an agreement class has nouns in several noun prefix classes. Thus, nouns of agreement classes 1 and 3 occur in both noun prefix classes "N" and "∅", and agreement class 8 members occur in noun prefix classes "∅", "be", and "bw".

### 5.2.3.1 Phonologically conditioned variants

The “ba”, “le”, and “ma” noun prefix classes have a variant which is phonologically conditioned in all cases. The vowel in their prefix is deleted if it precedes a vowel-initial stem. Thus, as (4) shows for agreement classes 2 and 6, the noun prefix takes a CV shape when it precedes a consonant-initial stem.

- (4) CV-prefix
- a. bà-mbámbé ‘ancestors’, cl. 2
  - b. bà-nyúà ‘snakes’, cl. 2
  - c. mà-léndí ‘palm trees’, cl. 6
  - d. mà-gyé ‘teeth’, cl. 6

If the stem is vowel-initial or starts with a labial glide, however, the prefix vowel is omitted and only the prefix consonant surfaces, as shown in (5).

- (5) C-prefix
- a. b-ùdû ‘men’, cl. 2
  - b. b-wánò ‘children’, cl. 2
  - c. m-éndì ‘courtyards’, cl. 6
  - d. m-ù ‘ovens’, cl. 6

In the “le” class, there is further a consonantal change from /l/ to /d/. (6) provides examples of the CV- prefix when the stem is consonant initial.

- (6) CV-prefix
- a. le-léndí ‘palm tree’, cl. 5
  - b. le-gyé ‘tooth’, cl. 5
  - c. le-bélè ‘breast’, cl. 5
  - d. le-kündí ‘mat’, cl. 5

When the stem is vowel-initial, the prefix vowel is deleted and /l/ becomes /d/, as shown in (7). The variants for vowel-initial stems are marked in parentheses while the general name of the noun prefix class is marked in bold in Table 5.4.

- (7) C-prefix
- a. d-ísì ‘eye’, cl. 5
  - b. d-ù ‘oven’, cl. 5

- c. d-éndì ‘courtyard’, cl.5
- d. d-á ‘crab’, cl. 5

There are three exceptions where one would expect /d/ as a prefix, but instead the prefix surfaces as /j/, as shown in (8).

- (8) C-prefix
- a. j-ínò ‘name’, cl. 5
  - b. j-ímbó ‘raffia palm’, cl. 5
  - c. j-áwè ‘goliath frog (*Conraua goliath*)’, cl.5

### 5.2.3.2 Noun prefix class alternations in agreement classes 1 and 3

Agreement classes 1 and 3 show two patterns in terms of their noun prefix classes. Either they take a nasal prefix from noun prefix class “N” or they lack a prefix altogether. This variation, in contrast to noun prefix classes “ba”, “mi”, “le”, “ma”, and “be”, is not phonologically conditioned, but lexically specified.

Twenty-three (14%) of the nouns in agreement class 1 have a nasal noun prefix while 141 (86%) lack a noun prefix and thus belong to the noun prefix class “Ø”. In agreement class 3, almost all nouns belong to the “Ø” noun prefix class with 167 nouns lacking a prefix and only three having a nasal prefix. Sixty-three (44.7%) nouns of agreement class 1 belonging to noun prefix class “Ø” start with a non-nasal consonant. Examples are given in (9).<sup>13</sup>

- (9)
- a. sá > ba-sá ‘father’
  - b. kálé > ba-kálé ‘sister’
  - c. kó > ba-kó ‘uncle (mother’s brother)’
  - d. só > ba-só ‘friend’
  - e. kúmá > ba-kúmá ‘chief’
  - f. tsídí > ba-tsídí ‘animal’
  - g. kfúbò > ba-kfúbò ‘chicken’
  - h. kímì > ba-kímì ‘monkey (generic)’
  - i. fû > ba-fû ‘fish’
  - j. kù > ba-kù ‘rat’
  - k. wàà > ba-wàà ‘chimpanzee’
  - l. púndí > ba-púndí ‘colobus monkey’

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<sup>13</sup>Semantically, more than 37% of nouns in class 1 that have a initial consonant and no noun prefix are loanwords; the others designate social relations and animals.

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The other 55.3% of nouns of the “Ø” noun prefix class in agreement class 1 start with a nasal consonant; in agreement class 3, almost all nouns of the “Ø” noun prefix class start with a nasal. I analyze the nasal as part of the stem when the nasal consonant is retained in plural formation, as illustrated in (10).<sup>14</sup>

- (10) No prefix (nasal retention)
- a. ntèmbó > ba-ntèmbó ‘younger sibling’, cl. 1/2
  - b. njé’ò > ba-njé’ò ‘elephant’, cl. 1/2
  - c. mbámbé > ba-mbámbé ‘ancestor’, cl. 1/2
  - d. mámé > ba-mámé ‘aunt (father’s sister)’, cl. 1/2
  - e. nlô > mi-nlô ‘head’, cl. 3/4
  - f. nkùzó > mi-nkùzó ‘widow/er’, cl. 3/4
  - g. mpàgó > mi-mpàgó ‘road’, cl. 3/4
  - h. mbvû > mi-mbvû ‘year’, cl. 3/4

Some nouns such as in (11), however, lose the nasal and replace it simply with the corresponding plural noun prefix. In these cases, the nasal is considered as a nasal noun prefix. The latter pattern is much less frequent. (10) and (11) show examples of both nasals /n/ and /m/ for classes 1 and 3. For class 3, however, no nasal retention was found with the nasal /m/.

- (11) N-prefix (no nasal retention)
- a. n-túmbà > ba-túmbà ‘older brother’, cl. 1/2
  - b. n-tì > ba-tì ‘in-law’, cl. 1/2
  - c. n-gyê > ba-gyê ‘stranger’, cl. 1/2
  - d. n-jíbí > ba-jíbí ‘thief’, cl. 1/2
  - e. m-ùdâ > b-ùdâ ‘woman’, cl. 1/2
  - f. m-ùdì > b-ùdì ‘person’, cl. 1/2
  - g. m-ùdû > b-ùdû ‘man’, cl. 1/2
  - h. m-wánò > b-wánò ‘child’, cl. 1/2
  - i. m-bwálè > ba-bwálè ‘parent’, cl. 1/2

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<sup>14</sup>Frozen noun prefixes are found in agreement classes 1, 3, and 9, and possibly also in a former class 10. Class 10, however, got lost and class 9 now pairs with class 6. Synchronically, I do not consider these frozen nasals as (double) prefixes. Frozen nasal noun prefixes are also known from other languages, for instance from the Grassfield language Oku as described by Blood (1999: 3).

- j. n-sùné > mi-sùné ‘calf’, cl. 3/4
- k. n-vèwò > mi-vèwò ‘breath’, cl. 3/4

Whether the nasal is retained in the plural form is lexically specified and not phonologically predictable. For instance, the lexemes *ntèmbó* ‘younger sibling’ and *n-túmbà* ‘older brother’ are very similar in their phonological structure. The nasal precedes a voiceless plosive /t/, syllable structure and length are similar. Nevertheless, one retains the nasal while the other does not. Further, in terms of semantics, both lexemes express kinship relations as many other nouns in both patterns do. Thus, there does not seem to be an obvious semantic rule that assigns noun prefix patterns.

Whether a noun stem starts with a nasal or a non-nasal consonant is also lexically specified and not predictable from the noun’s phonological shape. Many examples in (9) without a noun prefix (and initial nasal consonant), for instance, have a velar /k/ as stem-initial consonant while many examples in (10) and (11) show an NC-cluster where C is a labial or alveolar obstruent. This may raise the question whether the occurrence of a nasal in the first place is conditioned by features of the consonant in an NC-cluster or a stem-initial position, i.e. by its place of articulation. This hypothesis, however, can be ruled out on the basis of counter-examples. Thus, /k/, for instance, can appear without a preceding nasal as in *kfúbɔ* ‘chicken’ or with a preceding nasal as in the near minimal pair *nkùzó* ‘widow(er)’. The same is true for alveolar fricatives as in *sá* ‘father’ without and *nsá* ‘shore’ with a nasal.

Historically, the stem-initial nasal was most likely a noun prefix which got frozen onto the nominal root in most Gyeli nouns of classes 1, 3 and also 9 (which I will discuss below). This is also assumed by Hyman (2003: 50), who points out that “when a stem appears to begin with NC, the nasal may have originally been a prefix.”

In Gyeli, this phenomenon is not restricted to nouns that start with a prenasalized consonant, but is also found for nasals that precede a vowel and are not part of a NC cluster. For instance, *mámé* ‘aunt’ forms its plural with a CV- shape prefix *ba-mámé*, the initial nasal being part of the stem (instead of \**m-ámé* > \**b-ámé*). In contrast, *m-ùdi* ‘person’ treats the nasal as a prefix that gets replaced by a class 2 prefix in the plural *b-ùdi* ‘persons’. Again, it seems to be specified in the lexicon whether a nasal preceding a vowel is part of the nominal stem or a nasal noun prefix.

Synchronously, only a few nouns still have a nasal “N” prefix: 14% of the nouns in agreement class 1 (which is 22.7% of all nouns in class 1 that start with a nasal) and 1.8% of the nouns in agreement class 3. In most nouns, the nasal is now part of

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the nominal stem, which also occurs then in corresponding plural forms. Nouns of class 9, in contrast to those of classes 1 and 3, always treat initial nasals as part of the stem rather than a nasal prefix. About three quarters of class 9 nouns have a stem-initial NC cluster, which is retained in plural formation.

### 5.2.3.3 Noun prefix class pairings

Nouns differ in their singular/plural pairing patterns at the level of noun prefix class marking from the pairing patterns at the agreement class level. As Figure 5.1 shows, Gyeli has five major patterns of singular and plural pairings, three minor patterns represented by dashed lines, and one major transnumeral “ma”-class.

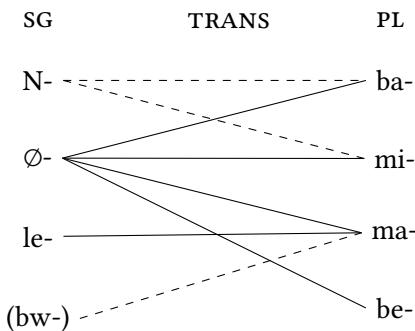


Figure 5.1: Noun prefix class pairings

Although the number of major noun prefix class pairings, including the transnumeral category, and the number of major genders is equal, the patterns in which noun prefix classes and agreement classes pair are substantially different. (For comparison, see §5.2.4.)<sup>15</sup>

Table 5.6 shows the frequency of each noun prefix class pairing. Just as noun prefix classes by themselves differ significantly in size, so do their pairings. For instance, while the smaller noun prefix class pairings such as “ $\emptyset$ ”-/“ma”- or the transnumeral noun prefix class “ma”- each cover only a little more than 4% of the noun database, the largest noun prefix class pairing, “ $\emptyset$ ”-/“be”-, constitutes a third of all noun prefix class pairings. In addition to the 37 nouns in the transnumeral “ma”-class, there are another 35 nouns that lack a singular or plural form. These are subsumed under “minor transnumerals”. Their distribution is further specified in Table 5.7.

<sup>15</sup>For both noun and agreement classes, the decision on what constitutes a major versus a minor class is based on frequency. I consider all classes as major if they represent 4% or more nouns of the database.

Table 5.6: Frequency of noun prefix class pairings

Noun prefix class pairing	Frequency	
N-/ba	23	2.6%
N-/mi-	3	0.3%
∅/ba-	139	15.9%
∅/mi-	165	18.9%
∅/ma-	40	4.6%
∅/be-	296	33.8%
le-/ma-	136	15.6%
(bw-/ma-)	1	0.1%
ma-	37	4.2%
(Minor transnumerals)	35	4%
Total	875	

### 5.2.4 The Gyeli gender system

The nine agreement classes in Gyeli form six major genders, as illustrated in Figure 5.2. The major genders are pairings of agreement classes 1/2, 3/4, 5/6, 7/8, and 9/6. Further, the language has one major transnumeral gender, which only involves agreement class 6 without a singular-plural pairing.<sup>16</sup> There are other transnumeral nouns outside of gender 6 which do not have a counterpart in the singular or plural. Based on their low frequency, however, they are discussed as inquorate genders in §5.2.5, together with other low-frequency genders such as 7/6 or 3/6.

Corbett (2013) states that the way nouns are assigned to a gender can be either strictly semantic, predominantly semantic, or based on a combination of semantic and formal criteria. In strictly semantic systems, the affiliation of a noun to a gender can be deduced from its meaning. Predominantly semantic systems have more complex assignment rules and therefore the semantic grounds on which affiliation to a gender is based are less clear. Corbett (2013: 2) notes that in these languages, “for at least some nouns there is no longer a principle for assignment which is still “live” for current speakers”. Formal criteria, both phonological and morphological, can account for noun assignment to a gender in some languages,

<sup>16</sup>The lack of a counterpart in the singular or plural ties in with mass and/or abstract nouns and countability and is discussed in §3.1.3.

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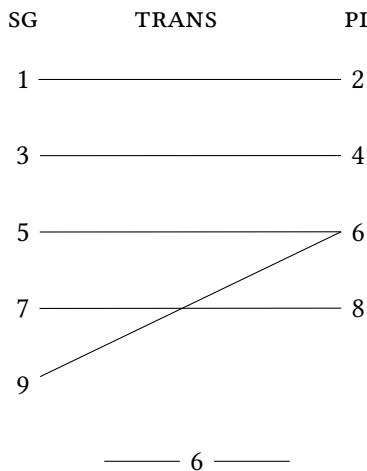


Figure 5.2: Major genders in Gyeli

but there are no gender assignment systems that are entirely form-based. Instead, formal criteria occur in combination with semantic assignment criteria (Corbett 2013: 13).

For Bantu languages, Corbett (2013: map 32) states that gender is typically assigned on both semantic and morphological grounds. In Gyeli, semantic affiliation of a noun to a certain gender is often opaque and semantic principles governing gender assignment are much less clear-cut, at least synchronically. One cannot say, for instance, that nouns designating humans belong by default to gender 1/2, which is the typical “human” gender in Bantu languages. It is true that a large part of gender 1/2 comprises humans, but words for humans are also found in almost all the other genders. The same is true for animals, body parts, tools, plants, and other semantic fields. Not one of them is exclusively found in one gender, but spread across several genders.<sup>17</sup>

There are, however, some tendencies in the mapping of nouns from different semantic fields onto the various genders, which are based on frequency. Thus, even though human nouns are found in many genders, they are most frequently and thus most typically found in gender 1/2. Most liquids are uncountable and are found in the transnumeral gender 6. Another tendency in gender assignment

<sup>17</sup>Contini-Morava (2000: 3) claims in her cognitive grammar approach to Swahili that “[n]oun classes [are] semantic in origin but [...] have lost much of their semantic coherence over time”. In order to verify whether this claim applies to Gyeli as well, much more data would be required which exceeds the limits of this grammar.

concerns loanwords, which are most frequently found in gender 1/2 and less often in gender 7/8.

The various genders differ in size, i.e. the number of members they have. Table 5.7 shows the distribution of the 875 lexemes in the nominal database across different genders, distinguishing major and inquorate genders.

Table 5.7: Frequency of genders

	Gender	Frequency	
Major genders	1/2	162	18.5%
	3/4	165	18.9%
	5/6	136	15.5%
	7/8	270	30.9%
	9/6	40	4.6%
	6	37	4.3%
Inquorate genders	7/6	24	2.7%
	7	13	1.5%
	8	12	1.4%
	9	3	0.3%
	3/6	2	0.2%
	8/6	2	0.2%
	8/8	2	0.2%
	4	2	0.2%
	1	2	0.2%
	3	2	0.2%
Total	5	1	0.1%
		875	

The largest gender is gender 7/8 with over 30% of the nouns in the database, followed by genders 3/4 and 1/2. The major genders with the least members are genders 9/6 and the transnumeral gender 6. The pairing of agreement classes 7 and 6 constitutes the largest inquorate gender, representing 2.7% of the lexemes in the noun database. Other inquorate genders with more than 1% are the transnumeral genders 7 and 8 while all other exceptional patterns are only represented between one and three times in the noun database.

In the following, I discuss each gender in turn, including the semantic fields of the nouns in a given gender and examples of these. In order to determine

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the semantic field of a noun, I coded nominal entries according to the database Haspelmath & Tadmor (2009) use in their world loanword typology. The authors distinguish 24 categories differentiating, for instance, “the physical world”, “kinship”, “animals”, “body”, “food and drink”, “clothing”, “house”, “vegetation”, “technology”, and “time”.<sup>18</sup>

### 5.2.4.1 Gender 1/2

Gender 1/2 is a fairly large gender with regard to the number of nouns that are assigned to it with 162 members out of 875 nominal lexical entries. This gender is traditionally referred to as the “human” gender in Bantu studies, but seems to have been extended to an “animate” gender in Gyeli. Only about 30% of the nouns do refer to humans (if one excludes agentive deverbal nouns). Most of these human nouns designate kinship and a few social relations, as shown in (12) and (13). In comparison to other genders containing human nouns, however, gender 1/2 contains the vast majority.

(12) Kin relations

- a. sá/ba-sá ‘father’
- b. nyâ/ba-nyâ ‘mother’
- c. n-túmbà/ba-túmbà ‘older male relative’
- d. ntèmbó/ba-ntèmbó ‘younger sibling’
- e. kálé/ba-kálé ‘older sister’

(13) Social relations

- a. só/ba-só ‘friend’
- b. n-gyê/ba-gyê ‘stranger’
- c. kfûmá/ba-kfûmá ‘chief’
- d. mbúmbù/ba-mbúmbù ‘person with the same name’
- e. ngângâ/ba-ngângâ ‘healer’

39% of the gender’s nouns belong to the semantic field of animals, both bigger and smaller, as illustrated in (14).

(14) Animals

- a. tsídí/ba-tsídí ‘animal, meat’
- b. kímì/ba-kímì ‘monkey’

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<sup>18</sup>For a complete list of all categories and their affiliated lexemes as well as their coding, see Haspelmath & Tadmor (2009: 22-34).

- c. nyû/ba-nyû ‘bee’
- d. fû/ba-fû ‘fish’
- e. nyúà/ba-nyúà ‘snake’

The remaining 30% cover a variety of semantic fields such as “food”, “clothing”, “house”, “vegetation”, or “modern world”. It is remarkable that at least more than a third of them constitute loanwords that are borrowed especially from English and French as shown in (15). They designate most often recently introduced items in the area of clothing, food, and the modern world.

(15) Loanwords

- a. sótì/ba-sótì ‘trousers (< English: shorts)’
- b. färíni/ba-färíni ‘flour (< French: *farine*)’
- c. mòné/ba-mòné ‘money’
- d. màtèlì/ba-màtèlì ‘mattress (< French: *matelas*)’
- e. ngóvìnà/ba-ngóvìnà ‘government’

Finally, the absence of a semantic field may be remarkable as well. While “body” nouns<sup>19</sup> are found with a relatively high percentage in all other genders, they are virtually absent in gender 1/2. So far, I have found only three instances, all of which designate humans that have a health condition, such as *njímì/ba-njímì* ‘blind person’, *bújì/ba-bújì* ‘mute person’, and *nój/ba-nój* ‘deaf person’. Body parts, however, are completely absent in this gender.

#### 5.2.4.2 Gender 3/4

Gender 3/4 is about the same size as gender 1/2 with 165 members out of 875 nominal lexemes. In terms of the meaning of its nouns, the gender is more diverse concerning the semantic fields it covers. The biggest part of its vocabulary belongs to the field of body parts with about 27%, examples of which are given in (16).

(16) Body

- a. nlô/mi-nlô ‘head’
- b. d-ìsi/m-ìsi ‘eye’
- c. nyùmbù/mi-nyùmbù ‘mouth’

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<sup>19</sup>The semantic field “body” not only contains body parts, but also body functions, health and disease vocabulary, and terms related to life cycles.

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- d. mò/mi-mò ‘stomach’
- e. n-sùnè/mi-sùnè ‘calf’

Examples in (17) represent the next biggest semantic field in gender 3/4 with about 14% of nouns designating objects in the “physical world”.

### (17) Physical world

- a. nsá/mi-nsá ‘shore’
- b. nkìyó/mi-nkìyó ‘wave’
- c. mpá/mi-mpá ‘island’
- d. nsé/mi-nsé ‘sand’
- e. nkúdé/mi-nkúdé ‘cloud’

Further, a relatively large part (11%) of the lexicon in gender 3/4 designates what the Loanword Database labels as “basic actions/technology”, as exemplified in (18).

### (18) Technology

- a. ntúmé/mi-ntúmé ‘walking stick’
- b. ntúmò/mi-ntúmò ‘knife’
- c. nkwě/mi-nkwě ‘basket’
- d. nkúnkúmbé/mi-nkúnkúmbé ‘bow’
- e. nkwálá/mi-nkwálá ‘machete’

Animals are also represented in this gender with more than 8%; (19) gives examples of some of them.

### (19) Animals

- a. ntsântsúgé/mi-ntsântsúgé ‘dragonfly’
- b. nsí/mi-nsí ‘African linsang’
- c. nkâ/mi-nkâ ‘colobus monkey’
- d. nkwúló/mi-nkwúló ‘cricket’
- e. mbúlò/mi-mbúlò ‘locust’

Nevertheless, the remaining 40% of nouns cover a wide range of semantic fields including “food”, “kin”, “house”, “vegetation”, “language”, and “time”, as illustrated in (20), just to name a few.

## (20) Others

- a. nkwanò/mi-nkwànò ‘honey’
- b. mbàmbà/mi-mbàmbà ‘co-wife’
- c. mbê/mi-mbê ‘door’
- d. mpìngá/mi-mpìngá ‘cassava’
- e. nlâ/mi-nlâ ‘story’
- f. mbvû/mi-mbvû ‘year’

## 5.2.4.3 Gender 5/6

Gender 5/6 is slightly smaller than genders 3/4 and 1/2 with 136 members. Like gender 3/4, it contains many body parts (21), namely 33%. The assignment of a body part noun to gender 3/4 or 5/6 seems to be arbitrary since no semantic or form-based pattern is obviously discernible.

## (21) Body

- a. d-úú/m-úú ‘nose’
- b. le-lô/ma-lô ‘ear’
- c. le-nkédé/ma-nkédé ‘hip’
- d. le-tôlè/ma-tôlè ‘navel’
- e. le-bélè/ma-bélè ‘breast’

Further, gender 5/6 contains roughly 19% animal nouns. Judging from examples such as in (22), size or habitat of an animal seem not to determine its gender affiliation since quite a range of different animals are found in this gender.

## (22) Animals

- a. le-bóndó/ma-bóndó ‘frog’
- b. d-á/m-á ‘crab’
- c. le-bwî/ma-bwî ‘hyena’
- d. le-kénó/ma-kénó ‘duiker’
- e. j-áwè/m-áwè ‘goliath frog’

Humans are also found in this gender which, according to the Loanword Database, are spread over various semantic fields such as “kin”, “social relations”, “religion”, and “body” (for the “defective” or sick humans), as exemplified in (23). Taking these different categories together, human nouns make up 9% of gender 5/6.

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### (23) Humans

- a. le-wǎ/ma-wǎ ‘twin’
- b. le-wányè/ma-wányè ‘young man’
- c. le-kàgà/ma-kàgà ‘bewitched woman’
- d. le-tóndí/ma-tóndí ‘lover’
- e. le-bùó/ma-bùó ‘cripple’

Further, gender 5/6 includes a small number of nouns belonging to the domain of “house” and the “physical world” with about 7% each and exemplified in (24) and (25) respectively.

### (24) House

- a. le-wùdè/ma-wùdè ‘cooking stone’
- b. d-ù/m-ù ‘oven’
- c. d-éndè/m-éndè ‘courtyard’
- d. d-úgó/m-úgó ‘toilet’
- e. le-yímbálí/ma-yímbálí ‘entrance’

### (25) Physical world

- a. le-nángá/ma-nángá ‘star’
- b. le-bàdà/ma-bàdà ‘ground’
- c. le-kó/ma-kó ‘stone’
- d. le-lòó/ma-lòó ‘dew’
- e. le-tó/ma-tó ‘drop’

The remaining quarter of gender 5/6 nouns is spread across semantic fields such as “vegetation”, “technology”, “quantity”, “time”, “language”, and “hunting”. (26) gives a few examples.

### (26) Other

- a. le-léndé/ma-léndé ‘palm tree’
- b. le-kúndí/ma-kúndí ‘mat’
- c. le-wúmò/ma-wúmò ‘ten’
- d. le-wùlá/ma-wùlá ‘hour, time’
- e. le-kélé/ma-kélé ‘language’
- f. le-lámbò/ma-lámbò ‘trap’

Finally, gender 5/6 contains a number of deverbal nouns which are discussed in §4.2.1.

#### 5.2.4.4 Gender 7/8

Gender 7/8a is the largest gender in terms of its affiliated nouns with 270 members. “Body” (27) and “animal” (28) nouns constitute the majority with both around 20%.

(27) Body

- a. vinó/be-vinó ‘finger’
- b. dò/be-dò ‘thigh’
- c. sé/be-sé ‘liver’
- d. kúdé/be-kúdé ‘skin’
- e. gímù/be-gímù ‘tongue’

(28) Animals

- a. nòné/be-nòné ‘bird’
- b. tàwò/be-tàwò ‘goat’
- c. mgbèmgbèmè/be-mgbèmgbèmè ‘lion’
- d. sé’è/be-sé’è ‘baboon’
- e. síngì/be-síngì ‘cat’

Around 10% each is taken up by clothing vocabulary as in (29) and “food” terms as exemplified in (30).

(29) Clothes

- a. zíngó/be-zíngó ‘short dress’
- b. túnè/be-túnè ‘scarf for carrying babies’
- c. kàbà/be-kàbà ‘long dress’
- d. tsílì/be-tsílì ‘long skirt’
- e. póòlì/be-póòlì ‘hat’

(30) Food

- a. kálá/be-kálá ‘spice’
- b. kwàndò/be-kwàndò ‘plantain’
- c. dísì/be-dísì ‘bowl’
- d. ngùó/be-ngùó ‘sugar cane’
- e. búò/be-búò ‘mortar’

Another semantic field that is represented in gender 7/8 is “vegetation” as in (31), however, only with around 6%.

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### (31) Vegetation

- a. mpànyè/be-mpànyè ‘bamboo’
- b. lé/be-lé ‘tree’
- c. làwó/be-làwó ‘branch’
- d. dùwá/be-dùwá ‘thorn’
- e. kókó/be-kókó ‘mushroom’

As in other genders as well, there is a proportion of nouns that belongs to a wide diversity of semantic fields. In gender 7/8, around a third of its member nouns constitute such a semantic diversity. Nouns of semantic fields that are represented with less than 5% cover semantic domains such as (in decreasing frequency) “language”, “physical world”, “technology”, “house”, “hunting”, “time”, “social/political relations”, “spatial relations”, and more. An example of each is provided in (32).

### (32) Other

- a. bâ/be-bâ ‘word’
- b. nkûdé/be-nkûdé ‘fog’
- c. tûù/be-tûù ‘axe’
- d. pîmáá/be-pîmáá ‘wall’
- e. bwîmò/be-bwîmò ‘net hunt’
- f. ménó/be-ménó ‘day’
- g. túmbó/be-túmbó ‘country’
- h. dyá/be-dyá ‘distance’

Finally, gender 7/8 also has a few loanwords. This is remarkable because usually loanwords are found in gender 1/2. Gender 7/8 seems to be the only other gender that also takes a few borrowed nouns, as listed in (33). Compared to gender 1/2, loanwords are, however, much less numerous in gender 7/8.

### (33) Loanwords

- a. sôbì/be-sôbì ‘soap’
- b. fûlâwà/be-fûlâwà ‘flower’
- c. súbì/be-súbì ‘soup’

There is no obvious semantic or formal pattern that assigns loanwords to gender 7/8 instead of to the default gender for loanwords, which is gender 1/2. Formally, for instance, *sóbi* ‘soap’ (gender 7/8) constitutes a minimal pair with the loanword *sótì* ‘trousers’ of gender 1/2. Both nouns belong, according to Haspelmath & Tadmor (2009), semantically to the field of “clothing and grooming”. Another example concerns trisyllabic nouns which start both with /f/ and have the same tonal pattern L H L: *fuláwà* ‘flower’ belongs to gender 7/8 while *fáríni* ‘flour’ belongs to gender 1/2. Gender 7/8 has about 10% food vocabulary, so it cannot be the case that *fáríni* ‘flour’ is not assigned to this gender because it would not fit in semantically. In return, gender 1/2 has some (although few) nouns designating “vegetation”, so again it cannot be on semantic grounds that *fuláwà* ‘flower’ is not assigned to the default loanword gender 1/2. One determining factor could be the donor language. It seems that all loanwords in gender 7/8 have an English origin. So far, I have not come across any French loanwords in this gender. In contrast, loanwords in gender 1/2 may come from both English and French. The question still remains then why some English loan nouns are assigned to gender 7/8, while the majority goes into gender 1/2.

#### 5.2.4.5 Gender 9/6

Gender 9/6 is the smallest of the major genders with only 40 members in the database of 875 nominal lexemes. Historically, Gyeli has lost agreement class 10, which agreement class 9 would pair with in most other Bantu languages. Instead, Gyeli class 9 pairs synchronically with class 6. In comparison to inquorate genders (§5.2.5), gender 9/6 has, however, still a significant number (> 4%) of members. Even more importantly, agreement class 9 always pairs with agreement class 6, while agreement classes that occur in inquorate genders pair with other classes more often than they do in major genders.

Semantically, a large part of gender 9/6 nouns (about 29%) belong to the field of “body” nouns. Examples are given in (34).

- (34) Body
  - a. nyúlê/ma-nyúlê ‘body’
  - b. mbòmbó/ma-mbòmbó ‘face’
  - c. mbvúñɔ/ma-mbvúñɔ ‘hair’
  - d. tsí/ma-tsí ‘neck’
  - e. ndzilíkɔ/ma-ndzilíkɔ ‘elbow’

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Further, a relatively big part (14%) of gender 9/6 nouns belongs to the semantic field of “language and speech” as illustrated in (35).

(35) Language

- a. ngòmò/ma-ngòmò ‘little drum (tam tam)’
- b. pó/ma-pó ‘news’
- c. tsî/ma-tsî ‘voice’
- d. mpàálé/ma-mpàálé ‘message’

Both the physical world and “house” vocabulary is represented with about 9% each and exemplified in (36) and (37) respectively.

(36) Physical world

- a. mbí’ílì/ma-mbí’ílì ‘charcoal’
- b. sí/ma-sí ‘ground’
- c. pfùdí/ma-pfùdí ‘mold’

(37) House

- a. ndáwò/ma-ndáwò ‘house’
- b. ntábò/ma-ntábò ‘washing place’
- c. ngê/ma-ngê ‘garden’

The remaining 40% of nouns belong to semantic fields such as “food”, “technology”, “motion”, “spatial relations”, “law”, “religion”, and more. Some examples representing the listed semantic domains are given in (38).

(38) Others

- a. ndzà/ma-ndzà ‘hunger’
- b. nkábé/ma-nkábé ‘paddle’
- c. ndzì/ma-ndzì ‘path’
- d. nkwáló/ma-nkwáló ‘edge’
- e. mpìndá/ma-mpìndá ‘prohibition’
- f. nkwélè/ma-nkwélè ‘witchcraft’

### 5.2.4.6 Gender 6

The transnumeral gender 6 is the smallest of the major genders with only 37 members (4.3% of nouns in the database). Semantically, it mostly includes liquid mass nouns, as exemplified in (39).

- (39) a. ma-jíwó ‘water’  
       b. ma-wâ ‘fat’  
       c. ma-nyóò ‘drink, wine’  
       d. ma-nyálè ‘urine’  
       e. ma-dyúmù ‘sperm’

Other instances of nouns in this gender cover deverbal eventive nouns, as shown in (40).

- (40) a. ma-dilá ‘funeral’ < dílë ‘bury’  
       b. ma-dígà ‘vision’ < dígë ‘watch’  
       c. ma-bwálé ‘birth’ < bwále ‘be born’

### 5.2.5 Inquorate genders

Inquorate genders are those which have so few members (i.e. less than 4% of the nominal lexemes in the database) that I prefer to treat them as exceptions rather than full-fledged genders in order not to artificially inflate the gender system. Inquorate genders in Gyeli contain the same agreement classes as major genders. Just their pairing is exceptional. For instance, agreement class 7 usually pairs with agreement class 8. In some exceptions, however, agreement class 7 pairs with class 6 and thus does not belong to the same gender as gender 7/8. Instead, it will be called gender 7/6. Inquorate genders in Gyeli are listed in Table 5.7 and will be discussed in order of decreasing member numbers.

#### Gender 7/6

The inquorate gender 7/6 has 24 members in the nominal database. It covers widely diverse semantic fields such as “body”, “vegetation”, “social relations”, “animals”, “hunting”, and “possession”. (41) provides some examples.

- (41) a. bè/ma-bè ‘shoulder’  
       b. ntúà/ma-ntúà ‘mango’  
       c. kwádó/ma-kwádó ‘village’  
       d. yílì/ma-yílì ‘viper’  
       e. wáadó/ma-wáadó ‘net (for hunting)’  
       f. mbúlá/ma-mbúlá ‘debt’

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It is likely that nouns in this minor gender stem from various classes, but they are difficult to trace back since there are no matching Proto-Bantu reconstructions. Only *bè* ‘shoulder’, out of all 7/6 nouns, can be reconstructed as \*-*bègà* according to Guthrie (1967: 154), and belonged to gender 5/6 (Meeussen 1967: 101). Other nouns such as ‘debt’ or ‘mango’ do not occur in Meeussen’s and Guthrie’s reconstructions, while *kwádó* ‘village’ in Gyeli does not seem to have any relation with the Proto-Bantu reconstructions in Guthrie (1971: 27). Likewise, it is then not clear whether the singular class of a noun has switched agreement classes or the plural class or whether both scenarios hold for different nouns.

### Gender 7

The transnumeral gender, which only contains the singular agreement class 7, is represented with 13 members in the noun database. It contains a few abstract nouns that lack a plural, as illustrated in (42).

- (42) a. sónì ‘shame’  
b. mèvâ ‘pride’  
c. sòmònè ‘complaint’  
d. ngòngòlè ‘sadness’  
e. póné ‘truth’  
f. ngwámé ‘danger’

Other nouns that only have a singular form in agreement class 7 are country names, as shown in (43).

- (43) a. fàlà ‘France’  
b. ngyàmànè ‘Germany’  
c. itálíyèn ‘Italy’

### Gender 8

There are also 12 nouns in the database which only have a form in agreement class 8, but no singular or plural counterpart. Like with the transnumeral gender 7, they include abstract nouns, as listed in (44).

- (44) a. be-bê̂́ ‘beauty’  
b. be-síyá ‘imitation’  
c. be-jii ‘anger’

- d. *be-kílì* ‘attention, cunning’

Other nouns of this gender are inherently singular (e.g. as a mass noun or a singular occurrence in the world) and lack a plural form, as it is the case with the examples in (45).

- (45) a. *vìyó* ‘fire’  
b. *vísó* ‘sun’

### Gender 9

Agreement class 9 also constitutes a transnumeral gender with three members. They are listed in (46).

- (46) a. *ngwélè* ‘witchcraft’  
b. *mpà’à* ‘vapor, fog’  
c. *bvúbvù* ‘multitude’

### Gender 3/6

Many exceptional agreement class pairings only occur a couple of times in the database. This is the case with the pairing of agreement classes 3 and 6. The only two examples that I found are shown in (47).

- (47) a. *m-bó/mà-bó* ‘arm’  
b. *n-ákó/m-ákó* ‘earwax’

This lexeme *-bó* ‘arm’ may be reconstructed to Proto-Bantu \*-*bóko* ‘arm’ which belonged to gender 15/6 according to Meeussen (1967: 102).<sup>20</sup>

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<sup>20</sup>Other nouns that Meeussen (1967: 102) classifies as gender 15/6 nouns, such as ‘leg’, ‘knee’, or ‘ear’, do not have any reflexes in synchronic Gyeli. Since many of them constitute body parts, this is, however, not surprising. Wilkins (1996), for instance, shows that especially body parts, or “parts of a person” terminology, as he labels it, are subject to semantic change that follows cross-linguistically natural tendencies. Therefore, synchronic noun stems of body parts may have an entirely different shape than the reconstructed Proto-Bantu forms. In any case, it is not possible to say that historic class 15 nouns merged systematically with class 3.

### Gender 8/6

Agreement class 8 has a few singular nouns. While the plural nouns of agreement class 8 all belong to noun prefix class “be”, the singular members of agreement class 8 do not take a prefix.<sup>21</sup> Historically, agreement class 8 nouns that do not take a prefix have probably merged from a former class 14 as the root beginning with *bw-* or *b-* suggests. This would also be in line with the plural pairing with class 6 since Meeussen (1967: 100) points out that class 14 in Proto-Bantu formed its plural with class 6. Pairings of class 8/6 are very rare in Gyeli. I only found two examples which are given in (48).

- (48) a. *bwâ/ma-bwâ* ‘medicine’  
b. *bw-álè/m-álè* ‘canoe’

### Gender 8/8

There are two other examples where the singular variant of agreement class 8 pairs with the plural class 8, as shown in (49). Although the agreement targets of this gender always have the agreement pattern of class 8, I do not view this gender as transnumeral. The reason for this is that there are two distinct noun forms for singular and plural. In this, they differ from transnumeral genders, such as gender 6, which has no singular/plural opposition in its nominal forms.

- (49) a. *bvùlé/be-bvùlé* ‘night’  
b. *bírèlè/be-bírèlè* ‘smoke’

### Other exceptional transnumeral genders

Except for agreement class 2, all agreement classes show instances where they lack either a singular or plural counterpart. For classes 1, 3, 4, and 5, this is very rare with only one or two examples each. (50) shows the two examples found for agreement class 4.

- (50) a. *mi-ngyé* ‘hunting rats (digging out their dens)’  
b. *my-é* ‘fur’

Instances where agreement class 1 does not have a plural form concern proper names of countries/continents that are inherently singular, as shown in (51).

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<sup>21</sup>There is one exception where a singular agreement class 8 noun takes a prefix of the shape *bw-*, a remnant of a former class 14. Since this is the only example, however, I do not list “bw” as a noun prefix class on its own.

- (51) a. kàmèrún ‘Cameroon’  
 b. àfríkà ‘Africa’

There are also two examples of agreement class 3 nouns that do not take a plural form in class 4. These are listed in (52).

- (52) a. bíwò ‘bad luck’  
 b. mbvú ‘white/grey hair’

Agreement class 5 only has one member that lacks a plural counterpart, as shown in (53).

- (53) dyúwò ‘sky’

### 5.3 Distributive numerals with reduplication

Distributives are series of reduplicated numerals. They serve the purpose of disambiguating sentences, such as in (54), which can have either a collective or a distributive reading.

- (54) Finn and Riley ate two apples.

In the collective reading, two apples altogether were shared between Finn and Riley whereas in a distributive interpretation, Finn ate two apples and Riley ate two apples. In English, such sentences can be disambiguated by the use of ‘each’: ‘Finn and Riley ate two apples each.’

Some languages systematically disambiguate such cases. For those languages, the most common means is reduplication of numerals. Gil (2013a) explains this common strategy by its iconic motivation. According to him, copies of the numeral correspond to multiple sets of entities.

Gyeli also uses the reduplication strategy in order to express distributive numerals. Although reduplication is a common strategy for distributive expression in the languages of the world, Rubino (2013) states that, “[t]he phonological nature of the reduplicated material varies from language to language and construction to construction”. Borchardt (2011: 118) shows that the Benue-Congo language Ikaan, for instance, uses several types of reduplication in order to express distributives. These range from full reduplications including the agreement markers to full root reduplications excluding agreement markers and partial root reduplications.

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In Gyeli, distributive numerals only display one kind of reduplication, namely full reduplication. The numeral, based on its cardinal form, is entirely copied, including its agreement prefixes, if required, and tones, as shown in (55).

- (55) *bwánò bà dé mímbàngá mímbáà mímbáà*  
       b-wánò ba dè-H mí-mbàngá mí-mbáà mí-mbáà  
       ba2-child 2.PST1 eat-R mi4-nut 4-two 4-two  
       ‘The children ate two nuts each.’

Just like cardinal numerals (§3.8.1.6), distributive numerals agree with the head noun in its agreement class if the specific numeral takes an agreement marker. The distributives that take agreement markers are exactly the same as the cardinals that do, namely ‘2’ through ‘5’. For those modifier numerals that do not take any agreement prefixes (‘6’ through ‘9’), they are entirely reduplicated, just without prefixes. Nominal nouns as well as complex numerals involving noun phrases and/or coordination are also fully reduplicated as one would expect from their cardinal form. Table 5.8 lists Gyeli distributives using the noun *mbàngá* ‘nut’ of gender 3/4 as an example.

Table 5.8: Distributive numerals

Examples of distributive numerals	Gloss
<i>mbàngá</i> <i>mvúdû mvúdû</i>	‘one nut each’
<i>mi-mbàngá</i> <i>mí-mbáà mí-mbáà</i>	‘two nuts each’
<i>mi-mbàngá</i> <i>mí-nláálè mí-nláálè</i>	‘three nuts each’
<i>mi-mbàngá</i> <i>mí-nâ mí-nâ</i>	‘four nuts each’
<i>mi-mbàngá</i> <i>mí-ntánè mí-ntánè</i>	‘five nuts each’
<i>mi-mbàngá</i> <i>ntùó ntùó</i>	‘six nuts each’
<i>mi-mbàngá</i> <i>mpúéré mpúéré</i>	‘seven nuts each’
<i>mi-mbàngá</i> <i>lòmbì lòmbì</i>	‘eight nuts each’
<i>mi-mbàngá</i> <i>rèbvùá rèbvùá</i>	‘nine nuts each’
<i>mi-mbàngá</i> <i>le-wúmò le-wúmò</i>	‘ten nuts each’
<i>mi-mbàngá</i> <i>le-wúmò ná mí-báà le-wúmò ná mí-báà</i>	‘twelve nuts each’
<i>mi-mbàngá</i> <i>ma-wúmò má-báà ma-wúmò má-báà</i>	‘twenty nuts each’
<i>mi-mbàngá</i> <i>bwúyà bwúyà</i>	‘a hundred nuts each’
<i>mi-mbàngá</i> <i>tódyínì tódyínì</i>	‘a thousand nuts each’

## 5.4 Distributive construction with *náà*

In order to express distributivity over individuals, a (countable) noun is iterated while *náà* is inserted to link the two nouns. *náà* is only used in this context and formally resembles the adverb *nâ* ‘still, again’, which, however, has a short vowel instead of a long one. The quantified noun can occur both in the singular and in the plural, as shown in (56). The use of plural nouns, as in (56b), implies a distribution over a set of entities.

- (56) a. *m-ùdì náà m-ùdì*  
           N1-person by N1-person  
           ‘each person’  
 b. *b-ùdì náà b-ùdì*  
       ba2-person by ba2-person  
       ‘each (set of) people’

Quantification by nominal iteration in the sense of ‘each’ only works for countable nouns. Thus, neither liquid mass nouns nor granular aggregates in their singular form allow for iterated quantification as shown in (57). Granular aggregates in their plural form, however, can enter such a construction that then gives the reading of ‘each set of entities of x’ as in (57c).

- (57) a. \* *màjíwó náà màjíwó*  
           ma-jíwó   náà ma-jíwó  
           ma6-water by ma6-water  
           ‘each water’  
 b. \* *ndísì náà ndísì*  
       ndísì   náà ndísì  
       ∅3.rice by ∅3.rice  
       ‘each rice’  
 c. *mìndísì náà mìndísì*  
       mi-ndísì náà mi-ndísì  
       mi4-rice by mi4-rice  
       ‘each set of packages of rice’

## 5.5 Attributive constructions

In his comparative study on Bantu attributive constructions, Van de Velde (2013) defines a “canonical” attributive construction as a dependency relation between

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two nominal constituents. It is also known as “associative” or “genitive construction” in the Bantu literature. Since in Gyeli these constructions are, however, not confined to genitive contexts, I prefer to call them “attributive constructions”.

Van de Velde (2013) describes the canonical attributive construction as HEAD (R1) - RELATOR (REL) - DEPENDENT (R2), where the relator (attributive marker) links the head noun (R1) to the dependent noun (R2). He illustrates this with an example from Kagulu (Bantu G12, Tanzania), cited from Petzell (2008: 86) in (58).

- (58) Kagulu (Bantu G12)
- m-eji<sub>R1</sub> g-a<sub>REL</sub> mu-nyu<sub>R2</sub>*  
6-water VI-ATT 3-salt  
'salt water'

Van de Velde (2013) further points out that Bantu languages are heterogeneous with respect to the way they express attributive possession structurally. There is a huge variation in terms of, for instance, the shape of the attributive marker despite its canonical shape of AGR-*a*. Also, the dependent constituent, which is typically a noun, can belong to another part of speech. This is the case for Gyeli. In terms of frequency, the dependent constituent is mostly a noun. It can, however, also belong to the category of adjectives, verbs, or interrogative words. While the part of speech of the dependent constituent may belong to various categories, the head of the construction seems always to be a noun. In the following, I will present the different construction types, organized by the part of speech of the dependent constituent.

### 5.5.1 Noun + noun

Noun + noun attributive constructions in Gyeli typically express attributive possession. This core meaning, however, is extended to other semantic properties of a noun, e.g. quantification ('a lot of cats') and location ('front of the house'). I will discuss the different domains of attributive constructions in turn, starting with the core meaning of possession.

Before turning to the different attributive constructions in Gyeli, however, I will first explore a general formal issue: the optional omission of the attributive marker. The central element of an attributive construction is the linking element, the attributive marker (§3.8.3.2 ), which gives the construction its name. Often, however, the attributive marker can be omitted, while in some cases, it is obligatory.

### 5.5.1.1 Optional omission of the attributive marker

In Gyeli, the attributive marker can in many cases be omitted optionally (which seems to be the default case) as shown in (59). In special cases, however, the attributive marker is obligatory, as in (60).<sup>22</sup>

- (59) *mínò*      (*má*) *básó*  
       m-íñò      má    ba-só  
       ma6-name 6:ATT ba2-friend  
       'the friends' names'
- (60) *jínò*      *lé*      *só*  
       j-íñò      lé      só  
       le5-name 5:ATT Ø1.friend  
       'the friend's name'

This phenomenon cannot be based on free variation, but must be conditioned by some (set of) rules since speakers are consistent in their judgments of optional omission or obligatory presence of the attributive.

The question is then what conditions are at play in the presence or absence of the attributive marker. It seems that multiple factors determine whether the attributive marker has to appear, including (i) phonological factors where a dependent noun that has a CV- shape noun prefix favors omission of the attributive and (ii) semantic factors concerning the relation between the two nouns. In the following, I will go through a number of possible determining factors and point out to what extent they influence the occurrence of an attributive marker. I will start out with phonological factors, then move on to morphological, and finally to semantic factors.

The H tone of an attributive marker spreads on to a CV- noun prefix of the dependent noun, as shown in (61) and discussed in §2.4.2.1. One could assume that if the H tone of the attributive marker spreads to the otherwise L tone prefix of the dependent noun, the tonal process might mark the dependency relation and an overt attributive marker is not necessary, as in (61a). In contrast, agreement classes that have an L tone attributive marker, where no H tone spreading occurs, might determine the obligatory use of the attributive, as would seem to be the case in (61b).

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<sup>22</sup>The attributive markers in parentheses are optional while those without brackets cannot be omitted, but must obligatorily appear.

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- (61) a. *mìnlô* (mí) *bátsídí*  
          mi-nlô   mí   ba-tsidí  
          mi4-head 4:ATT ba2-animal  
          'the heads of the animals'
- b. *nlô*       wà    *tsídí*  
       nlô       wà    tsidí  
       ∅3.head 3:ATT ∅1.animal  
       'the head of the animal'

This turns out not to be the case, however. (62) counter-exemplifies the tonal hypothesis because in (62a), there is no high tone spreading, but the use of the attributive marker is still optional, while in (62b) there is high tone spreading, but the use of the attributive marker is still obligatory.

- (62) a. *mpáà*       (wà) *nlàmbó*  
       m-páà       wà   nlàmbó  
       N1-president 1:ATT ∅3.country  
       'president of the country'
- b. *bápáà*       bá    *nlàmbó*  
       ba-páà       bá   nlàmbó  
       ba2-president 2:ATT ∅3.country  
       'presidents of the country'

In terms of syllable length, there is a tendency for monosyllabic dependent nouns to require an attributive marker rather than allowing for its omission, as in (63), compared to disyllabic dependent nouns in (64). A bit more than half of the elicited attributive constructions with monosyllabic dependent nouns behave this way.

- (63) a. *só*       wà    *ntí*  
       só       wà   n-tí  
       ∅1.friend 1:ATT N1-in.law  
       'the friend of the in-law'
- b. *básó*       bá    *ntí*  
       ba-só       bá   n-tí  
       ba2-friend 2:ATT N1-in.law  
       'the friends of the in-law'

- (64) a. só            (wà) bátí  
        só            wà    ba-tí  
        Ø1.friend 1:ATT ba2-in.law  
        'the friend of the in-laws'  
 b. básó            (bá) bátí  
        ba-só          bá    ba-tí  
        ba2-friend 2:ATT ba2-in.law  
        'friends of the in-laws'

There are, however, many exceptions, as in (65), where the dependent noun is monosyllabic, but the use of the attributive marker is still optional.

- (65) a. ndzí        (nyà) nsé  
        ndzí        nyà    nsé  
        Ø9.path 9:ATT Ø3.sand  
        'path of sand'  
 b. jinó            (lé) ntí  
        j-inó        lé      n-tí  
        le5-name 5:ATT n3-in.law  
        'the name of the in-law'

At the same time, these examples concerning syllable length could also relate to number morphology. Monosyllabic nouns are almost exclusively singular while plural nouns are almost exclusively at least disyllabic. So the question is whether a possible conditioning factor relates to syllable length, number morphology, or agreement class affiliation, as I discuss in the following.

Another factor that could determine the obligatory presence of the attributive marker is the number of the dependent noun. If the dependent noun occurs in the singular, the attributive occurrence is often (more than 50% of the elicited examples) obligatory as exemplified in (66a). In fact, out of all cases where the attributive marker is obligatory, more than 75% have a singular dependent noun. In contrast, if the dependent noun is plural, as in (66b), the use of the attributive marker is mostly optional.

- (66) a. ndzí        nyà    tawò  
        ndzí        nyà    tawò  
        Ø9.path 9:ATT Ø7.goat  
        'path of the goat'

## 5 The noun phrase

- b. *ndzí* (*nyà*) *bétáwò*  
*ndzí* *nyà* *be-táwò*  
Ø9.path 9:ATT be8-goat  
‘path of the goats’

Again, there are examples, such as in (67), where the inverse is the case.

- (67) a. *jínó* (*lé*) *dá'á*  
*j-inó* *lé* *d-á'á*  
le5-name 5:ATT le5-crab  
‘name of the crab’
- b. *jínó* *lé* *má'á*  
*j-inó* *lé* *m-á'á*  
le5-name 5:ATT ma6-crab  
‘name of the crabs’

Another hypothesis could be that attributive marker optionality is conditioned by gender or agreement class and depends on the gender or noun prefix class of the head noun or the dependent noun. This is in fact the case in many closely related languages, as described by Henson (2007) for Kol (A832),<sup>23</sup> by Beavon (2006) for Njyem (A84)<sup>24</sup> and by Heath (2003) for Makaa (A83).<sup>25</sup> For Gyeli, however, this does not seem to be the case for either the head or the dependent noun. Changing the noun prefix class of the head noun in (68) allows both optional omission of the attributive marker, as in (68a), and obligatory use of the attributive marker, as in (68b).

- (68) a. *só* (*wà*) *ngyé̂*  
*só* *wà* *n-gyé̂*  
Ø1.friend 1:ATT N1-stranger  
‘friend of the stranger’
- b. *ndzí* *nyà* *ngyé̂*  
*ndzí* *nyà* *n-gyé̂*  
Ø9.path 9:ATT N1-stranger  
‘path of the stranger’

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<sup>23</sup>Henson (2007: 113) points out for Kol that “[f]or most singular nouns, the ‘basic’ associative marker is either zero or a tonal marker”.

<sup>24</sup>Beavon (2006: 118) shows that head nouns of classes 1, 9, and 10 in Njyem occur without “associative” markers.

<sup>25</sup>As in Njyem, head nouns of classes 1, 9, and 10 in Makaa do not occur with an associative marker and are therefore zero-marked in noun + noun constructions according to Heath (2003: 341).

The same is true for the dependent noun in (69). (69a) shows a case where the attributive can be omitted, while it is obligatory in (69b).

- (69) a. só (wà) mùdâ  
       só      wà   m-ùdâ  
       Ø1.friend 1:ATT N1-woman  
       ‘friend of the woman’
- b. só      wà nkwàñò  
       só      wà nkwàñò  
       Ø1.friend 1:ATT Ø3.honey  
       ‘friend of honey’ (= somebody who likes honey)

Attributive marker omission also does not depend on whether the head noun and the dependent noun belong to the same noun prefix class. In (70), all constituents belong to noun prefix class Ø and agreement class 7. In (70a), the use of the attributive is obligatory, while in (70b), its use is optional.

- (70) a. véélá           yá   yí  
       véélá           yá   yí  
       Ø7.decoration 7:ATT Ø7.wood  
       ‘decoration of the wood’
- b. véélá           (yá)   táwò  
       véélá           yá   táwò  
       Ø7.decoration 7:ATT Ø7.goat  
       ‘decoration of the goat’

There is a tendency to omit the attributive marker when the dependent noun has a syllabic noun prefix as seen, for instance, in (61a) or (64a). This is true for more than 80% of the elicited attributive construction examples.

Further, at the intersection of phonology and morphology, there is a tendency to avoid successive identical CV morphemes, i.e. when the attributive marker and the following noun prefix have the same CV pattern as in (71). In more than 90% of these cases, speakers prefer to omit the attributive.

- (71) a. bàsó           (bá)   bátí  
       ba-só          bá   ba-tí  
       ba2-friend 2:ATT ba2-in.law  
       ‘the friends of the in-laws’

## 5 The noun phrase

- b. *jìnó*      (*lé*)    *lékă*  
      j-ìnó      lé      le-kă  
      le5-name 5:ATT le5-clan  
      'the name of the clan'

Nevertheless, there are again counterexamples, as shown in (72).

- (72) *màdyû*    *má*    *mákă*  
      ma-dyû    má    ma-kă  
      ma6-fever 6:ATT ma6-clan  
      'the fevers of the clans'

Semantics may also have an impact: it seems that the attributive marker can be omitted when the relation between the two nouns is an identity relation as with names in (73) and colors in (74).

- (73) *kwádá*    (*yá*)    *Ngòló*  
      Ø7.village 7:ATT Ø3.PN  
      'the village of Ngolo'

- (74) *nsínó*    (*wá*)    *nábèbè*  
      Ø3.color 3:ATT red  
      'the color red'

Also numeral head nouns are always followed by an optional attributive marker, as shown in (75).

- (75) a. *lèwúmò*    (*lé*)    *básó*  
      le-wúmò lé    ba-só  
      le5-ten 5:ATT ba2-friend  
      'ten friends'  
   b. *bwúyà*      (*yá*)    *básó*  
      bwúyà      yá    ba-só  
      Ø7.hundred 7:ATT ba2-friend  
      'hundred friends'  
   c. *tógyínì*      (*wà*)    *básó*  
      tógyínì      wà    ba-só  
      Ø1.thousand 1:ATT ba2-friend  
      'thousand friends'

As explained in §4.2.6.2, the absence of the attributive marker in some noun + noun constructions may be analyzed as lexicalized compounds. This becomes clear in noun + noun constructions that oppose a variant with an attributive marker to one without, as in (76) and (77).

- (76) a. só            wà      mùdâ  
           só            wà      m-ùdâ  
           Ø1.friend 1:ATT N1-woman  
           'the friend of the woman'  
 b. só-mùdâ  
     só-m-ùdâ  
     Ø1.friend-N1-woman  
     'the female friend'
- (77) a. kfúbò        wà      dyá  
       kfúbò        wà      dyá  
       Ø1.chicken 1:ATT Ø7.length  
       'the chicken that is far away'  
 b. kfúbò-dyá  
     kfúbò-dyá  
     Ø1.chicken-Ø7.length  
     'the tall chicken'

There is a difference in the semantic relation between the two nouns. The noun + noun constructions that require the attributive marker, as in (76a) and (77a), mark attributive possession. In contrast, their counterparts without the attributive marker, as in (76b) and (77b), denote attribution of a property. In cases where there is a clear meaning difference between two nouns with and without the attributive marker, I analyze the ones without the attributive marker as noun-noun compounds (§4.2.6.2).

A final factor that I consider here concerns prototypicality of use, relating to the most frequent and natural way two nouns are linked. In (78), for instance, it seems that speakers naturally think of a country usually having only one president. In this case (78a), the attributive marker can be omitted. If, however, speakers talk about several presidents, as in (78a), for instance historically successive presidents, this is a more specific usage, which requires the attributive marker.

## 5 The noun phrase

- (78) a. *mpáà*      (*wà*) *nlàmbó*  
           m-páà      wà      nlàmbó  
           N1-president 1:ATT Ø3.country  
           'president of the country'
- b. *bápáà*      *bá*      *nlàmbó*  
           ba-páà      bá      nlàmbó  
           ba2-president 2:ATT Ø3.country  
           'presidents of the country'

### 5.5.1.2 Nominal possessives

Having discussed the optional omission and obligatory presence of the attributive marker in noun + noun constructions, I will, for reasons of simplicity, not indicate anymore whether the attributive is optional or not. I now turn to semantically different noun + noun constructions. The core meaning of these is that of attributive possession. Examples of possessive noun + noun constructions are given in (79) with the head noun occurring in different noun prefix classes. The head noun expresses the possessee while the dependent noun expresses the possessor.

- (79) a. *mùdâ*      *wà*      *mùdì*  
           m-ùdâ      wà      m-ùdì  
           N1-woman 1:ATT N1-person  
           'the person's wife'
- b. *bùdâ*      *bá*      *mùdì*  
           b-ùdâ      bá      m-ùdì  
           ba2-woman 2:ATT N1-person  
           'the person's wives'
- c. *dísí*      *lé*      *mùdì*  
           d-isí      lé      m-ùdì  
           le5-eye 5:ATT N1-person  
           'the person's eye'
- d. *mísì*      *má*      *mùdì*  
           m-ísí      má      m-ùdì  
           ma6-eye 6:ATT N1-person  
           'the person's eyes'

Gyeli has a split genitive system with two distinct noun + noun linker paradigms: the attributive marker (§3.8.3.2) and the genitive marker (§3.8.2.1). The

genitive marker is used when the dependent noun is a proper name, while the attributive marker is used everywhere else, as further explained below.

Interestingly, the language does not have a typical possessive classification system, which most usually distinguishes grammatically between alienable and inalienable possession. Nichols & Bickel (2013) explain that this type of possessive classification is based on properties of the possessee. Typically, inalienable possessions concern kinship relations and body parts, while alienable possessions can be separated from the owner, for instance materials (axe, spear) or food items (mango, bread). According to the WALS map on possessive classification by Nichols & Bickel (2013), some Niger-Congo languages, such as Gbeya Bossangoa (Central African Republic), Lango and Luganda (Uganda), or Luvale (Angola), have two possessive classes with an alienable/inalienable distinction.

Gyeli does not make a grammatical distinction between alienable and inalienable possession as shown in (80). No matter whether the possessee is a kin (80a), body part (80b), or material possession (80c), the attributive marker always agrees in class with the head noun (possessee).

- (80) a. *nyâ wà mwánò*  
nyâ       wà   m-wánò  
Ø1.mother 1:ATT N1-child  
'the child's mother'
- b. *d-úú lé mwánò*  
d-úú    lé   m-wánò  
le5-nose 5:ATT N1-child  
'the child's nose'
- c. *nkwálá wá mwánò*  
nkwálá   wá   m-wánò  
Ø3.machete 3:ATT N1-child  
'the child's machete'

In Gyeli, the genitive split is conditioned by the type of possessor noun, distinguishing common nouns and proper names. If the possessor is expressed by a proper name, the genitive marker (§3.8.2.1) is used, as in (81a). If a common noun is used for the possessor instead, as in a parallel construction in (81b), the two nouns are linked by an attributive marker.

- (81) a. *mùdû ngá Nándtùngù*  
m-ùdû ngá Nándtùngù  
N1-man GEN Ø1.PN  
'Nandtoungou's husband'

## 5 The noun phrase

- b. *mùdû wà mùdâ*  
m-ùdû wà m-ùdâ  
N1-man 1:ATT N1-woman  
'the woman's husband'
- c. *màkwámó má-ngá Nándtùngù*  
ma-kwámó má-ngá Nándtùngù  
ma6-bag 6-GEN Ø1.PN  
'Nandtoungou's bags'

The genitive marker only takes an agreement prefix if the possessee head noun occurs in a plural form, as in (81c). Therefore, the genitive marker is conditioned both by the head noun's grammatical number and the dependent noun's status as common or proper noun. The dependent possessor noun determines whether an attributive or a genitive marker is used. The possessee head noun determines number/agreement class marking.

### 5.5.1.3 Properties

A semantic subcategory of possession are those noun + noun constructions that express a property of the head noun such as 'old', 'beautiful', or 'strong'. These properties are expressed by nouns in Gyeli; examples are given in (82).

- (82) a. *só wà ntúlé*  
só wà ntúlé  
Ø1.friend 1:ATT Ø3.oldness  
'old friend'
- b. *bùdâ bá béké*  
b-ùdâ bá be-béké  
ba2-woman 2:ATT be8-beauty  
'beautiful women'
- c. *mùdì wà ngvùlé*  
m-ùdì wà ngvùlé  
N1-person 1:ATT Ø9.strength  
'strong person'

The property noun + noun constructions differ structurally from nominal possessives in the role of the head noun. While in nominal possessive constructions the head noun is the possessee, in property noun + noun constructions, the head noun is rather the possessor in the unmarked case following a pattern 'a man

of strength'. The order of head and dependent noun can, however, be reversed while the basic meaning remains the same, as in (83).

- (83) a. *mùdû wà tili*  
          m-ùdû wà tili  
          N1-man 1:ATT Ø7.smallness  
          ‘small man’
- b. *tili               yá      mùdû*  
       tili               yá      m-ùdû  
       Ø7.smallness 7:ATT N1-man  
       ‘small man/smallness of man’

(83a) exhibits the unmarked order, which can literally be translated as ‘man of smallness’. (83b) is ambiguous because it can either mean ‘the smallness of the man’, referring to size, or it can refer to the man himself in the sense of ‘a midget of a man’. The reversal in the second sense seems to have pragmatic functions of irony or emphasis.

#### 5.5.1.4 Nominal quantifiers

Another use of the canonical noun + noun construction concerns expression of quantification. Some quantifiers in Gyeli are nouns and combine with the noun that they quantify as the head of the construction. Nominal quantifiers include numerals and non-numeral modifiers such as ‘many’, ‘few’, ‘a certain’, ‘some’, and partitive quantifiers such as ‘half’. Only a few quantifiers in Gyeli make a distinction between countable and non-countable nouns, by restricting the combination of certain quantified nouns with certain quantifier nouns. This is the case, for instance, with *mwánɔ* ‘little/few’, as I will show below.

##### 5.5.1.4.1 Numerals

Some monomorphemic numerals in Gyeli constitute nouns. As discussed in §5.7 on enumeratives, these are the bases of the system, namely *le-wúmɔ* ‘10’ (cl. 5), *bwúyà* ‘100’ (cl. 7), and *tódyíni* ‘1000’ (cl. 1). Being nouns themselves, they do not agree with the noun they quantify. Instead, they can become the head of a noun + noun attributive construction, as shown in (84). The two nouns are linked by an attributive marker that can optionally be omitted.

## 5 The noun phrase

- (84) a. *lèwúm̀* (*lé*) *básó*  
          le-wúm̀ lé      ba-só  
          le5-ten 5:ATT ba2-friend  
          ‘ten friends’
- b. *bwúyà*        (*yá*) *básó*  
       bwúyà        yá      ba-só  
       ∅7.hundred 7:ATT ba2-friend  
       ‘hundred friends’
- c. *tódyínì*        (*wà*) *básó*  
       tódyínì        wà      ba-só  
       ∅1.thousand 1:ATT ba2-friend  
       ‘thousand friends’

The noun + noun construction with an attributive marker is the preferred option to express nominal cardinals, which speakers would judge as “good Gyeli”. Nevertheless, speakers sometimes adopt the structure of non-nominal cardinals so that the numeral noun follows the quantified noun, as in (85). The two nouns are then juxtaposed without any attributive marker, thus copying the syntactic structure of noun + modifier numeral noun phrases (§3.8.1.6).

- (85) a. *bà-só*        *lè-wúm̀*  
       ba2-friend le5-ten  
       ‘ten friends’
- b. *bà-só*        *bwúyà*  
       ba2-friend ∅7.hundred  
       ‘hundred friends’
- c. *bà-só*        *tódyínì*  
       ba2-friend ∅1.thousand  
       ‘thousand friends’

### 5.5.1.4.2 *bvúbvù nyà* ‘many, lots of’

Many quantifiers in Gyeli are expressed by a noun + noun attributive construction. In these cases, a quantifying noun serves as the head of the construction, and the quantified noun is linked by an attributive marker that agrees with the head noun, as in (86).

- (86)  *bvúbvù      nyà      bùdì*  
       bvúbvù      nyà      b-ùdì  
       Ø9.multitude 9:ATT ba2-people  
       ‘many people’

*bvúbvù ‘multitude’ is used for both countable and non-countable nouns. (87) provides examples of quantified nouns that semantically belong to liquids or granular aggregates and that typically are not countable.*

- (87) a.  *bvúbvù      nyà      màjíwó*  
       bvúbvù      nyà      ma-jíwó  
       Ø9.multitude 9:ATT ma6-water  
       ‘lots of water’
- b.  *bvúbvù      nyà      ndísì*  
       bvúbvù      nyà      ndísì  
       Ø9.multitude 9:ATT Ø3.rice  
       ‘lots of rice’
- c.  *bvúbvù      nyà      mìnsé*  
       bvúbvù      nyà      mi-nsé  
       Ø9.multitude 9:ATT mi4-sand  
       ‘lots of (types of) sand’

Depending on the context, the quantification of mass nouns with  *bvúbvù ‘many, lots’* can also yield a type interpretation, as in (87c), where it is ambiguous whether the speaker refers to a lot of sand or several types of sand.

#### 5.5.1.4.3 *mwánò ‘a few, little’*

The counterpart of  *bvúbvù ‘many, lots’* is *mwánò* and its plural form *bwánò ‘few, little’*. The primary lexical meaning of *mwánò/bwánò* is ‘child/children’. In an attributive construction with a (countable) noun, however, it serves as a quantifier with a meaning of ‘a few’, as shown in (88a).

- (88) a.  *bwánò      bá      bákóbè*  
       b-wánò      bá      ba-kóbè  
       ba2-small 2:ATT ba2-cup  
       ‘a few cups’

## 5 The noun phrase

- b. *bwánò-bákóbè*  
b-wánò-ba-kóbè  
ba2-small-ba2-cup  
'small cups'

In contrast, in (88b), the two nouns form a compound (§4.2.6.2) without the attributive marker and *bwánò* 'child' expresses the meaning of 'small (in size)'. It thus productively serves as a diminutive marker and is, in fact, the only diminutive strategy in the language.

In some cases with countable nouns, however, the attributive marker can be omitted without resulting in a diminutive. Instead, *mwánò/bwánò* serves as a quantifier, as in (89). In these cases, I do not view the attributive-less construction as a compound.

- (89) a. *bwánò bá mántúà*  
b-wánò bá ma-ntúà  
ba2-small 2:ATT ma6-mango  
'a few mangoes'
- b. *bwánò mántúà*  
b-wánò ma-ntúà  
ba2-small ma6-mango  
'a few mangoes'

When asked what they would say for 'small mangoes', speakers state that they prefer the use of the adjective *píyò* 'small' for mangoes, as in (90). It is not clear what semantically selects for either *píyò* or *mwánò* when talking about smallness in size.

- (90) *mántúà má píyò*  
ma-ntúà má píyò  
ma6-mango 6:ATT small  
'small mangoes'

In contrast to  *bvúbvù* 'many, lots', *mwánò/bwánò* 'a few, little' is sensitive to countability distinctions. With countable nouns, the plural form *bwánò* is obligatorily used, as in (88a), since the quantified noun can only appear in the plural as the meaning of 'few' is inherently plural. For uncountable nouns, however, the singular form *mwánò* 'little' is used with a singular non-countable noun, as in (91).

- (91) a. *mwánò nsé*  
          m-wánò nsé  
          N1-small Ø3.sand  
          ‘a little bit of sand’
- b. *m-wánò ndísì*  
          N1-small Ø3.rice  
          ‘a little bit of rice’
- c. \* *m-wánò wà nsé*  
          N1-small 1:ATT Ø3.sand  
          ‘a little bit of sand’

While attributive-less constructions with quantified count nouns get a diminutive reading, referring to small size, with non-count nouns, *mwánò* does not serve as a diminutive, but as a quantifier. The quantifier construction that requires the attributive marker with count nouns is prohibited with non-count nouns, as shown in (91c).

It is possible to use the plural form of uncountable nouns, for those that have a singular/plural pairing, as shown in (92).<sup>26</sup> In these cases, the quantifying noun has to take the plural form as well. Still, in contrast to countable nouns, these constructions never take an attributive marker. The semantic difference between singular and plural forms of mass nouns such as ‘sand’ or ‘rice’ is that the plural form always gets a type-reading, involving several entities of the quantified mass noun. It seems, however, context dependent whether quantification is over the non-count noun (e.g. several entities containing a little bit of sand) or whether quantification is over the amount of entities (e.g. a few entities of sand).

- (92) a. *bwánò mìnsé*  
          b-wánò mi-nsé  
          ba2-small mi4-sand  
          ‘a few entities of sand or entities with a little bit of sand each’
- b. *bwánò mìndísì*  
          b-wánò mi-ndísì  
          ba2-small mi4-rice  
          ‘a few entities of rice or entities with a little bit of rice each’

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<sup>26</sup>Uncountable nouns cannot be quantified with numerals. They differ, however, with respect to the type of gender affiliation and number behavior of the noun. Liquids generally occur in the transnumeral gender 6, while granular aggregates often have a singular/plural pairing.

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In contrast to granular aggregates such as ‘rice’ or ‘sand’, which are uncountable but have a singular and a plural form, liquids are assigned to the transnumeral gender 6 without a singular/plural opposition in the nominal form. They behave morphosyntactically differently because, unlike in (92), the transnumeral class 6 does not allow the plural form of the quantifier noun, but requires its singular form, as shown in (93). This is remarkable since agreement class 6 is by default a plural class with respect to number marking.<sup>27</sup>

- (93) a. *m-wánjò mà-jíwó*  
N1-small ma6-water  
'little water'  
b. \* *b-wánjò mà-jíwó*  
ba2-small ma6-water  
'little water'

### 5.5.1.4.4 *njímò wá* ‘a certain, some’

Gyeli does not make any further distinctions in terms of approximate quantities other than ‘many’ and ‘a few’, i.e. additional quantifiers such as ‘a couple’ or ‘several’ do not exist. There is a means, however, to express unspecificity of both entity and number: *njímò wá* ‘a certain, some’ (translated as *quelconque* in Cameroonian French). Using this quantifier expresses that the entity is not known or specified and also its number or amount remains unspecified.

*njímò wá* is used with both singular and plural nouns, as in (94), as well as countable and uncountable nouns, as in (95). In contrast to *mwánjò/bwánjò* ‘a few, little’, which agrees in number with the quantified noun, *njímò wá* is invariable.

- (94) a. *njímò wá mùdì*  
*njímò*      *wá*      *mùdì*  
Ø3.certain 3:ATT N1-person  
'a certain person'  
b. *njímò wá bùdì*  
*njímò*      *wá*      *bùdì*  
Ø3.certain 3:ATT ba2-people  
'certain people'

<sup>27</sup>Liquid mass nouns in Gyeli show an interesting difference to Mabi, the closest relative of Gyeli, since in Mabi, ‘a little bit of water’ is expressed with the plural form of the quantifying noun as *bwá májíwó*.

- (95) a. *njìmò wá màjíwó*  
           njìmò   wá   mà-jíwó  
       Ø3.certain 3:ATT ma6-water  
       ‘certain water’
- b. *njìmò wá mínsé*  
           njìmò   wá   mi-nsé  
       Ø3.certain 3:ATT mi4-sand  
       ‘certain (types of) sand’

#### 5.5.1.4.5 *bímbú yá* ‘a quantity of’

Another quantifier that expresses unspecificity is *bímbú yá* ‘a quantity of’. In contrast to *njìmò wá* ‘a certain’, the entity is not unknown, but its number or amount is unspecified.

Just as the attributive construction with *bvúbvù* ‘many, lot’, here too, the quantifying noun serves as head in the noun + noun construction and links the quantified noun with an attributive marker that agrees with the head noun, as in (96). Also, both countable and uncountable nouns can be used with *bímbú yá*, i.e. this quantifier is not sensitive to a mass/count distinction.

- (96) a. *bímbú yá bùdì*  
           bímbú   yá   b-ùdì  
       Ø7.quantity 7:ATT ba2-people  
       ‘a certain quantity of people (some people)’
- b. *bímbú yá mājíwó*  
           bímbú   yá   ma-jíwó  
       Ø7.quantity 7:ATT ma6-water  
       ‘a certain quantity of water (some water)’

The unspecific noun quantifier can be made more specific in combination with another quantifier such as *bvúbvù* ‘many’ and *mwánò/bwánò* ‘few’, as shown in (97). Just like unspecific uses of *bímbú* ‘quantity’, as in (96), these constructions are not sensitive to a mass/count distinction, unlike *mwánò/bwánò* ‘a few’.

- (97) a. *mwánò bímbú yá bùdì*  
           m-wánò bímbú   yá   b-ùdì  
       N1-small Ø7.quantity 7:ATT ba2-people  
       ‘a small quantity of people’

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- b. *mwánò bímbú yá ndísì*  
 m-wánò bímbú yá ndísì  
 N1-small Ø7.quantity 7:ATT Ø3.rice  
 ‘a small quantity of rice’

### 5.5.1.4.6 *tsilè yá* ‘half of’

Gyeli only has few proportionality quantifiers, one of which is *tsilè yá* ‘half of’. This quantifying noun is semantically sensitive to a mass/count distinction concerning plural nouns in so far as countable nouns usually come as material entities that can be split in half. *tsilè* ‘half’ refers to material halves rather than half in terms of number, as in (98a). If ‘half’ is meant in a numerical sense, this has to be made explicit with countable nouns by adding *tâ yá* ‘number of’ to the construction, as in (98b).

- (98) a. *tsilè yá bùdi*  
 tsilè yá b-ùdì  
 Ø7.half 7:ATT ba2-people  
 ‘the half of people (their bodies)’
- b. *tsilè yá tâ yá bùdi*  
 tsilè yá tâ yá b-ùdì  
 Ø7.half 7:ATT Ø7.number 7:ATT ba2-people  
 ‘half of the people (their number)’

This distinction does not have to be made, however, for liquid mass nouns where there is only one reading for ‘half of the water’, as in (99).

- (99) *tsilè yá májíwò*  
 tsilè yá ma-jíwò  
 Ø7.half 7:ATT ma6-water  
 ‘half of the water’

Other proportionality quantifiers such as ‘a quarter’ or ‘a third’ do not exist in Gyeli, but one could further subdivide ‘a half’ by saying ‘a certain part of half’, as in (100).

- (100) *njímò wá mpá'à wá tsilè*  
 njímò wá mpá'à wá tsilè  
 Ø3.certain 3:ATT Ø3.part 3:ATT Ø7.half  
 ‘a certain part of half’

### 5.5.1.5 Nominal locatives

Another function of noun + noun constructions is to express location more specifically than just with the locative preposition *é*, as discussed in §3.10.1.1. Examples (101) through (107) list (rather exhaustively) the different locative noun + noun constructions.

- (101) on top/over  
 (é) *dy-úwɔ́ lé ndáwɔ́*  
 LOC le5-top 5:ATT Ø9.house  
 ‘on top/over the house’
- (102) under  
 (é) *sí yá ndáwɔ́*  
 LOC Ø7.ground 7:ATT Ø9.house  
 ‘under the house’
- (103) behind  
 (é) *písɛ́ yá ndáwɔ́*  
 LOC Ø7.behind 7:ATT Ø9.house  
 ‘behind the house’
- (104) in front  
 (é) *(mbómbó) sɔ́ yá ndáwɔ́*  
 LOC Ø9.face Ø7.front 7:ATT Ø9.house  
 ‘in front of the house’
- (105) next to  
 (é) *ngwálɔ́ yá ndáwɔ́*  
 LOC Ø7.side 7:ATT Ø9.house  
 ‘next to the house’
- (106) opposite  
 (é) *mwádéká yá ndáwɔ́*  
 LOC Ø7.other.side 7:ATT Ø9.house  
 ‘opposite of the house’
- (107) in the middle  
 (é) *títímá yá ndáwɔ́*  
 LOC Ø7.middle 7:ATT Ø9.house  
 ‘in the middle of the house’

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Wilkins (1996) notes that there is a cross-linguistic tendency to express many specific locatives with body part nouns. Gyeli only makes limited use of this strategy to express location. *mbómbó* ‘face’ for ‘front’ is the only instance. Instead, Gyeli extensively uses landmark nouns such as *dyúwò* ‘top’, which is also the word for ‘sky’, or *sí* ‘ground’. Also *písé* ‘back/behind’ differs from the body part ‘back’, which is *nkâ*. Some of these locative nouns can also be used postnominally as adpositions (§3.10.2.2).

### 5.5.2 Noun + adjective

Adjectives (§3.3) enter an attributive construction when combined with a noun, as shown for adjectives of value in (108) and (109). Both examples show the change in number/class of the head noun while the adjective is invariable in terms of gender and number.

- (108) a. *mwánò wà mpà*  
m-wánò wà mpà  
N1-child 1:ATT good  
'good child'  
b. *bwánò bá mpà*  
b-wánò bá mpà  
ba2-child 2:ATT good  
'good children'
- (109) a. *mwánò wà bíwò*  
m-wánò wà bíwò  
N1-child 1:ATT bad  
'bad child'  
b. *bwánò bá bíwò*  
b-wánò bá bíwò  
ba2-child 2:ATT bad  
'bad children'

These constructions are parallel to noun + noun constructions of properties, as described in §5.5.1.3. The head noun is, so to speak, the possessor of a property which is expressed either by a dependent noun or by an adjective. The same is true for properties describing size, as in (110), or colors, as in (111).

- (110) a. *mwánò wà piyò*  
          m-wánò wà píyò  
          N1-child 1:ATT small  
          ‘small child’
- b. *mwánò wà nénè*  
          m-wánò wà nénè  
          N1-child 1:ATT big  
          ‘big child’
- (111) a. *nsé wá nábèbè*  
          ∅3.sand 3:ATT red  
          ‘red sand’
- b. *nsé wá návyûvyû*  
          ∅3.sand 3:ATT black  
          ‘black sand’

### 5.5.3 Noun + verb

Less frequently, verbs can also be used in a noun + attributive construction, as in (112). Van de Velde (2013: 224) describes such constructions as deviations from the canonical dependent constituent, which are apparently found frequently in other Bantu languages such as Mongo or Ruwund.

- (112) *sá yá dè*  
          ∅7.thing 7:ATT eat  
          ‘something to eat’

### 5.5.4 Noun + adverb

Adverbs can also function as the dependent constituent in attributive constructions, as shown for temporal adverbs in (113).

- (113) a. *bèdewò bé téè*  
          be-déwò bé téè  
          be8-food 8:ATT now  
          ‘the food [that is being had] now’
- b. *nlâ wá nákùgúù*  
          nlâ wá nákùgúù  
          ∅3.story 3:ATT yesterday  
          ‘yesterday’s story’

### 5.5.5 Noun + interrogative

Gyeli has different types of noun + interrogative constructions where the interrogative serves different purposes, modifying different entities. On the one hand, the interrogative can modify the head noun that is the topic of the question, as in ‘which man?’ or ‘how many men?’. On the other hand, the head noun is used to form other complex interrogative constructions *púù yá gyí?* ‘why’, which literally means ‘what reason?’. In the following, I will outline constructions with *vé* ‘which’ and *níyè* ‘how many’ and finally turn to constructions involving *púù* ‘cause’.

#### 5.5.5.1 Selection interrogative *vé* ‘which’

The selection interrogative word *vé* ‘which’ is used as a second constituent in an attributive construction, as shown in Table 5.9.

Table 5.9: Interrogative word ‘which’ in the different agreement classes

AGR class	Noun	ATT marker	INTERR	Translation
1	m-ùdì	wà	vé	‘which person?’
2	b-ùdì	bá	vé	‘which people?’
3	nkwé	wá	vé	‘which basket?’
4	mi-nkwé	mí	vé	‘which baskets?’
5	le-lá	lé	vé	‘which fish trap?’
6	ma-má	má	vé	‘which fish traps?’
7	síngì	yá	vé	‘which cat?’
8	be-síngì	bé	vé	‘which cats?’
9	ndáwò	nyà	vé	‘which house?’

Further, *vé* ‘which’ is part of an interrogative phrase that is used to ask for a point in time. The head noun of these constructions specifies time units for the expected answer, as shown in (114).

- (114) a. *wùlà yá vé*  
           Ø7.hour 7:ATT which  
           ‘when [lit. which hour]’
- b. *d-ùwò lé vé*  
           le5-day 5:ATT which  
           ‘when [lit. which day]’

Speakers use either one of the two depending on what the expected answer would provide as a time frame, i.e. based on whether the temporal information is about a day or rather about a particular time that is measured in hours or related to a part of the day, for instance morning or night.

Interrogative constructions with *vé* ‘which’ can also function as “type” interrogative constructions. In this usage, they are more complex and include two attributives, as shown in (115).

- (115) *lèkà      lé      kálàdè    yá      vé*  
       le-kà      lé      kálàdè    yá      vé  
       le5-kind 5:ATT Ø7.book 7:ATT which  
       ‘which kind of book?’

### 5.5.5.2 *níyè* ‘how many’

The interrogative word *níyè* ‘how many’ behaves similarly to *vé* ‘which’. Semantically, however, the use of ‘how many’ is restricted to plural noun classes, which are listed in Table 5.10.

Table 5.10: Interrogative word ‘how many’ in the different agreement classes

AGR class	Noun	Attributive	Interrogative	Translation
2	b-ùdì	bá	níyè	‘how many people?’
4	mì-nkwé	mí	níyè	‘how many baskets?’
6	mà-má	má	níyè	‘how many fish traps?’
8	bè-síngì	bé	níyè	‘how many cats?’

*níyè* ‘how many’ can also be used when asking for a period of time, as shown in (116).

- (116) a. à      *ké*    [màwùlà    máláálè]  
       a      kè-H ma-wùlà má-láálè  
       1.PST1 go-R ma6-hour 6-three  
       ‘I walked for three hours’
- b. à      *ké*    **màwùlà**    **má**    **níyè**  
       à      kè-H ma-wùlà má níyè  
       1.PST1 go-R ma6-hour 6:ATT how-many  
       ‘For how many hours did he walk?’

### 5.5.5.3 *púù* ‘cause’

*púù* ‘cause’ is used as a head noun in noun + interrogative constructions. The second constituent that *púù* ‘cause’ is the head of is another invariable interrogative word, namely either *nzá* ‘who’, *gyí* ‘what’, or *vé* ‘which’. Different types of questions are formed with *púù*, ranging from causal and purpose questions to benefactives, as shown in (117).<sup>28</sup>

- (117) a. *púù yá gyí*  
 Ø7.cause 7:ATT what  
 ‘why [lit. what cause]’
- b. *púù yá vé*  
 Ø7.cause 7:ATT which  
 ‘why [lit. which cause]’
- c. *púù ngá nzá*  
 Ø7.cause GEN who  
 ‘for whom’

In order to express a question related to purpose or reason, the interrogative *gyí* ‘what’ is used as second constituent, as shown in (118).

- (118) *púù yá gyí wé gyàgá kálàdè yî*  
 púù yá gyí wé-H gyàga-H kálàdè yî  
 Ø7.cause 7:ATT what 2SG-PRS buy-R Ø7.book 7.DEM.PROX  
 ‘Why do you buy this book?’

*gyí* can also be substituted by *vé* ‘which’ for the same question, as shown in (119). The use of *gyí*, however, as in (118), is preferred. This might be because ‘which’ is a selection interrogative and thus ‘(for) which cause’ could imply that the addressee had to choose from a set of reasons. In contrast, ‘(for) what cause’ asks about a type of reason.

- (119) *púù yá vé wé gyàgá kálàdè yî*  
 púù yá vé wé-H gyàga-H kálàdè yî  
 Ø7.cause 7:ATT which 2SG-PRS buy-R Ø7.book 7.DEM.PROX  
 ‘Why do you buy this book?’

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<sup>28</sup>The genitive marker in (117c) (§3.8.2.1) belongs to a paradigm that is distinct from attributive markers (§3.8.3.2). It is used with proper names in the second constituent or in interrogative constructions where a proper name is expected as an answer.

*púù* in interrogative constructions also frequently has a benefactive meaning and speakers spontaneously translate *púù yá* as ‘for’. Typically, the benefactor is human and so the interrogative *nzá* ‘who’ is then used as second constituent, as shown in (120). Further, since the expected answer likely entails a proper name, the question ‘for whom’ always has to be formed with the genitive marker *ngá* rather than an attributive marker.

- (120) *púù ngá nzá wé gyámbó bédéwò*  
       púù   ngá nzá wε-H gyámbɔ-H H-be-déwɔ  
       ∅7.cause GEN who 2SG-PRS cook-R   OBJ.LINK-be8-food  
       ‘For whom do you cook food?’

Finally, more complex interrogative constructions can be formed with a double attributive construction, as in (121). In this example, *púù* ‘cause’ serves again as head noun of an attributive construction, while its dependent constituent *b-ùdì* ‘people’ is at the same time the head of a second attributive construction with the interrogative word *níyè* ‘how many’ as second constituent.

- (121) *púù yá b-ùdì bá níyè wé gyámbó bédéwò*  
       púù   yá   b-ùdì   bá   níyè   wε-H gyámbɔ-H  
       ∅7.cause 7:ATT ba2-person 2:ATT how many 2SG-PRS cook-R  
       bédéwɔ  
       H-be-déwɔ  
       OBJ.LINK-be8-food  
       ‘For how many people do you cook food?’

### 5.5.6 Noun + numeral: ordinal numerals

Ordinal numerals differ from cardinals in that they do not assign an attributive quantification to a noun. Their function is rather to rank the noun within a given set ('first', 'second', 'third', and so on), as discussed in Borchardt (2011: 111) for Ikaan (Benue-Congo). Stoltz & Veselinova (2013) state that ordinals can morphologically be analyzed in a “derivational dependence” to cardinals, while Greenberg (1978: 288) points out that ordinals usually have a higher degree of overt marking than cardinals.

In Gyeli, ordinals generally take the numeral root that is also found in cardinals and enumeratives, as shown in Table 5.11. In contrast to enumeratives and cardinals, however, ordinal numerals never take plural agreement prefixes, as I explain below. Ordinal numerals are syntactically more marked since they enter an attributive construction with the ranked noun as the head.

Table 5.11: Ordinal numerals

Ranked noun + ATT	Ordinal numeral	Translation
<i>kùsì wà</i>	<i>m-vúdû or mà-tálá</i>	'the first parrot'
<i>kùsì wà</i>	<i>m-báà</i>	'the second parrot'
<i>kùsì wà</i>	<i>n-láálè</i>	'the third parrot'
<i>kùsì wà</i>	<i>nâ</i>	'the fourth parrot'
<i>kùsì wà</i>	<i>n-tánè</i>	'the fifth parrot'
<i>kùsì wà</i>	<i>ntùó</i>	'the sixth parrot'
<i>kùsì wà</i>	<i>mpúèré</i>	'the seventh parrot'
<i>kùsì wà</i>	<i>lòmbì</i>	'the eighth parrot'
<i>kùsì wà</i>	<i>rèbvùá</i>	'the ninth parrot'
<i>kùsì wà</i>	<i>le-wúmò</i>	'the tenth parrot'
<i>kùsì wà</i>	<i>le-wúmò ná vúdû</i>	'the eleventh parrot'
<i>kùsì wà</i>	<i>ma-wúmò má-báà</i>	'the twentieth parrot'
<i>kùsì wà</i>	<i>bwúyà</i>	'the hundredth parrot'
<i>kùsì wà</i>	<i>tódyíni</i>	'the thousandth parrot'

While ordinal roots generally have the same form as cardinals, there is one exception. For 'first', there are two options to express this ordinal. Either it can take the shape found also in the cardinal roots, namely *-vúdû*, or it can take a suppletive form *ma-tálá* 'beginning'.

Naturally, ordinals always occur with a singular noun since an ordinal depicts one rank among a set of entities. Thus, all ordinals that require an agreement prefix take an agreement prefix in the singular. In contrast to enumeratives, the plural agreeing ordinal numerals '2' through '5' do not take the class 8 prefix *bí-* as default agreement nor a prefix that agrees with the modified noun as cardinals, but they take a nasal prefix.<sup>29</sup> The nasal prefix is always found with the ordinals for 'second', 'third', and 'fifth' and is not conditioned by the agreement class affiliation of the ranked noun. Examples contrasting ordinal and cardinal constructions of this type are given in (122) through (124).

- (122) a. *síngì yá m-báà*  
 $\emptyset$ 7.cat 7:ATT ORD-TWO  
 'the second cat'

<sup>29</sup>The nasal does not surface in *-nâ* since this root starts with a nasal itself so that the prefix nasal gets assimilated, as in (124).

- b. *bè-síngì bē-báà*  
 be8-cat 8-two  
 ‘two cats’
- (123) a. *mbê wá n-láálè*  
 Ø3.door 3:ATT ORD-three  
 ‘the third door’
- b. *mì-mbê mí-láálè*  
 mi4-door 4-three  
 ‘three door’
- (124) a. *lè-kí lé nâ*  
 le5-egg 5:ATT four  
 ‘the fourth egg’
- b. *mà-kí má-nâ*  
 ma6-egg 6-four  
 ‘four eggs’

The numeral *-vúdû* ‘1’ forms an exception in that the occurrence of the initial nasal is constrained by the agreement class affiliation of the head noun. As shown in (125), agreement classes 1, 3, and 9 of the head noun trigger the nasal prefix *m-*, while the other singular classes 5 and 7 do not take a prefix. This pattern is similar to the prefixation behavior of *-vúdû* ‘one’ as a cardinal numeral (§3.8.1.1), but differs from it in class 5 where the cardinal takes the prefix *lè-* and the ordinal a zero prefix.

- (125) a. *só wà m-vúdû*  
 Ø1.friend 1:ATT 1-one  
 ‘the first friend’
- b. *mbê wá m-vúdû*  
 Ø3.door 3:ATT 3-one  
 ‘the first door’
- c. *lè-kí lé vúdû*  
 le5-egg 5:ATT one  
 ‘the first egg’
- d. *sâ yá vúdû*  
 Ø7.thing 7:ATT one  
 ‘the first thing’

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- e. *ntémò nyà m-vúdû*  
Ø9.dream 9:ATT 9-one  
'the first dream'

Numerals that are invariable as cardinals (§3.8.5.1) also occur with their stem only as ordinals, as shown in (126).

- (126) a. *sá wà ntùs*  
Ø1.friend 1:ATT six  
'the sixth friend'
- b. *bà-sá ntùs*  
ba2-friend six  
'six friends'

Nominal numerals function just like other noun + noun attributive constructions, as shown in (127). In comparison to the cardinal use of these numerals (§5.5.1.4), the order of head and dependent noun is reversed, with the numeral noun appearing as the dependent noun in ordinal constructions.

- (127) a. *ntémò nyà lè-wúmò*  
Ø9.dream 9:ATT le5-ten  
'the tenth dream'
- b. *lè-wúmò lé má-ntémò*  
le5-ten 5:ATT ma6-dream  
'ten dreams'

## 5.6 Noun phrase coordination

Noun phrases are coordinated by means of the comitative marker *nà* (§3.10.1.2). Coordinated noun phrases can be symmetric in the parts of speech they contain, as in (128), which links two phrases with a bare noun.

- (128) *m-ùdû nà m-ùdâ*  
N1-man COM N1-woman  
'man and woman'

Noun phrase coordination can be asymmetric in terms of the parts of speech both constituents contain. In (129), for instance, a pronoun and a bare noun are coordinated.

- (129) *bá nà m-ùdâ*  
 2.SBJ COM N1-woman  
 ‘they and the woman’

Noun phrase coordination can also be asymmetric with respect to the complexity of each constituent. In (130), the first noun phrase constitutes a bare noun, while the second constituent is a noun plus modifier.

- (130) *m-ùdâ nà m-wán̂ò w-ê*  
 N1-woman COM N1-child 1-POSS.3SG  
 ‘the woman and her child’

### 5.6.1 Agreement resolution in coordinated noun phrases

In Gyeli, nouns from different genders can be coordinated. Since the subject has to be marked through the mostly obligatory STAMP marker (§3.9.1), a pre-verbal clitic, this creates a conflict in terms of number and gender agreement that is solved differently in different Bantu languages, as discussed by Downing & Marten (2019: 283). In Gyeli, the basic agreement resolution strategy is semantic, distinguishing between human and inanimate classes of nouns. Human noun conjuncts are generally referenced with a class 2 STAMP marker (*ba*). Inanimate nouns can further be divided into a default class 8 (*be*) and a more specific class 6 (*ma*), which can resolve agreement conflicts for semantically typical nouns such as fruit or liquids, as shown in Table 5.12.

Table 5.12: Animacy hierarchy in agreement resolution

ba (cl. 2)	<	be (cl. 8)	<	ma (cl. 6)
humans		animals		fruit
animals		things		liquids

When combining nouns from different animacy categories, for instance humans and things, the agreement resolution is pragmatically driven, usually by favoring the agreement marker for the more prominent conjunct, which is the one that ranks higher on the animacy hierarchy. As I will show below in the examples, there is, however, room for ambiguity and choice. For instance, animals can be indexed both with the *ba* class, underlining their animate status, and the *be* class, assigning animals to things. Also, if a conjunct that ranks lower on the

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animacy hierarchy is contextually more salient, it is permissible to use the lower ranking agreement marker.

Coordinated noun phrases with humans of various genders always resolve agreement conflicts with the class 2 STAMP marker *ba*, as shown in (131), which coordinates two human referents, one of agreement class 2 and one of agreement class 4. This is true no matter the order in which the two conjuncts appear.

- (131) a. *bùdû nà mìntàngànè bá kwê*  
           *b-ùdû nà mi-ntàngànè ba-H kwê*  
           *ba2-man COM mi4-white.person 2-PRS fall*  
           ‘The men and the white people fall.’
- b. *mìntàngànè nà bùdû bá kwê*  
           *mi-ntàngànè nà b-ùdû ba-H kwê*  
           *mi4-white.person COM ba2-man 2-PRS fall*  
           ‘The white people and the men fall.’

Agreement conflicts in Gyeli are never resolved phonologically or syntactically. For instance, (132) shows that syntactic-based partial agreement with either the first or second conjunct is not allowed.

- (132) a. \* *mìntàngànè nà bùdû mí kwê*  
           *mi-ntàngànè nà b-ùdû mi-H kwê*  
           *mi4-white.person COM ba2-man 4-PRS fall*  
           ‘The white people and the men fall.’
- b. \* *bùdû nà mìntàngànè mí kwê*  
           *b-ùdû nà mi-ntàngànè mi-H kwê*  
           *ba2-man COM mi4-white.person 4-PRS fall*  
           ‘The men and the white people fall.’

Coordinated noun phrases with animals in both conjuncts can either resolve the agreement conflict with the default human/animate STAMP marker *ba* of class 2 or with the default marker for things, *be*, for class 8. The order of the two conjuncts does not matter. Agreement with class 4 is never allowed, parallel to (132).

- (133) a. *mìnkùmbò nà bèsíngì bá kwê*  
           *mi-nkùmbò nà be-síngì ba-H kwê*  
           *mi4-crocodile COM be8-cat 2-PRS fall*  
           ‘The crocodiles and the cats fall.’

- b. *mìnkùmbò nà bèsíngì bé kwê*  
 mi-nkùmbò nà be-síngì be-H kwê  
 mi4-crocodile COM be8-cat 8-PRS fall  
 ‘The crocodiles and the cats fall.’

(134) shows two things. First, coordinated noun phrases with two singular conjuncts always require a plural class verbal subject marker. A singular STAMP marker is never allowed, as shown in (134c), no matter in which order the two conjuncts occur. Second, if the nouns of the two conjuncts belong to different animate categories, namely humans and animals, just like (133), the semantic default agreement marker can either be chosen from the human/animate class 2 or the inanimate class 8. The choice between the two seems to correlate with pragmatic salience of either one of the conjuncts.

- (134) a. *mùdû nà síngrì bá kwê*  
 m-ùdû nà síngrì ba-H kwê  
 n1.man COM Ø.7.cat 2-PRS fall  
 ‘The man and the cat fall.’
- b. *mùdû nà síngrì bé kwê*  
 m-ùdû nà síngrì be-H kwê  
 n1.man COM Ø.7.cat 8-PRS fall  
 ‘The man and the cat fall.’
- c. \* *mùdû nà síngrì á/yí kwê*  
 m-ùdû nà síngrì a-H/yi-H kwê  
 n1.man COM Ø.7.cat 1-PRS/7-PRS fall  
 ‘The man and the cat fall.’

Some combinations of inanimate things allow for a choice between default markers *be* of class 8 and *ma* of class 6, as in (135). This is the case if one of the conjuncts is a noun that is semantically typical for gender 5/6 or 6, such as fruit and liquids.

- (135) a. *mìnkwě nà mánjù má kwê*  
 mi-nkwě nà ma-njù má-H kwê  
 mi4-basket COM ma6-sweet.banana 6-PRS fall  
 ‘The baskets and the sweet bananas fall.’
- b. *mìnkwě nà mánjù bá kwê*  
 mi-nkwě nà ma-njù bá-H kwê  
 mi4-basket COM ma6-sweet.banana 8-PRS fall  
 ‘The baskets and the sweet bananas fall.’

I have not come across agreement resolution with class 4 *mi*.

### 5.6.2 Coordinated complex numerals

Just like the structure of simple noun phrases is usually restricted to a maximum of two modifiers, and even this is a rare occurrence in natural text (§5.1), the structure of noun phrases that are coordinated is generally fairly simple. One exception to this is complex numerals, especially in cardinal numeral constructions that involve a quantified head noun.

In cardinal numerals involving coordination, such as '12' (10 + 2), there are different options as to where the quantified noun can appear in the construction. First, the quantified noun can appear as the dependent noun in an attributive construction. The nominal numeral, namely the arithmetic base '10', serves as the head. Interestingly, the addend '2' occurs as the second conjunct with the dependent noun and not with the numeral noun, as shown in (136). As such, it agrees with the first conjunct, namely the quantified noun, as in (136b), and not with the numeral base.

- (136) a. [lè-wúmò lé [b-ùdì nà vúdû]]  
le5-ten 5:ATT ba2-person COM one  
'eleven people'
- b. [lè-wúmò lé [b-ùdì nà bá-báà]]  
le5-ten 5:ATT ba2-person COM 2-two  
'twelve people'

Second, the coordinated numeral in its entirety behaves like one modifier and follows the quantified noun, as shown in (137). As for agreement of the second conjunct in the coordinated numeral, the addend '2' agrees with the quantified numeral and not with the first conjunct *le-wúmò* '10', as shown in (137a).

- (137) a. [b-ùdì [lè-wúmò nà vúdû]]  
ba2-person le5-ten COM one  
'eleven people'
- b. [b-ùdì [lè-wúmò nà bá-báà]]  
ba2-person le5-ten COM 2-two  
'twelve people'

For even more complex numerals containing multiple arithmetic operations and thus a combination of numeral noun phrases (multiplication) and coordination (addition), the quantified noun is preferably integrated into the least complex

additive constituent. If, for instance, the first constituent in an addition coordination constitutes a base while the second constituent consists of a multiplication operation and thus a noun + numeral noun phrase, the quantified noun will enter the first constituent, as in (138a). If the first constituent is a product while the other is not, the quantified noun will enter the second constituent, as in (138b). If both constituents are complex, the quantified noun precedes the whole construction, as in (138c). Having the quantified numeral in the initial position is an option in any case. Every construction in (138) involves the coordination of an attributive noun + noun construction and a simple noun phrase containing a bare noun and numeral modifier.

- (138) a. *[[bwúyà yá b-ùdi] nà [mà-wúmò má-tánè]]*  
     ∅7.hundred 7:ATT ba2-person COM ma6-ten 6-five  
     ‘one hundred fifty people’
- b. *[[mà-wúmò má-báà] nà [b-ùdi bá-báà]]*  
     ma6-ten 6-two COM ba2-person 2-two  
     ‘twenty-two people’
- c. *[b-ùdi [[bi-bwúyà bé-tánè] nà [mà-wúmò má-nâ]]]*  
     ba2-person be8-hundred 8-five COM ma6-ten 6-four  
     ‘five hundred forty people’

One could investigate very complex numeral constructions and the noun they quantify more thoroughly, but this seems rather artificial since numerals, at least very complex ones, are rarely used and many speakers do not master them.

## 5.7 On the semantic category of numerals

In this section, I discuss the various parts of speech that numerals are distributed over. I also explain the mathematical structures used in forming complex numerals after providing some ethnographic notes on number use among the Bagyeli. An in-depth account of Gyeli numerals and their documentation is given in Grimm (2020).

### 5.7.1 Ethnographic notes on number use among the Bagyeli

Generally, the use of numerals varies widely among speakers in that speakers show varying competence in number use. This most likely correlates with both degree of education and regular involvement in situations where number knowledge is required, for instance regular day labor. Speakers who have never been

## 5 *The noun phrase*

to school and/or who mostly stay in the Gyeli community without closer interaction with the farming Bantu neighbor communities show a limited competence in counting and numeral use. Many speakers cannot count further than ‘10’, sometimes even that only with difficulties. Also, estimation tasks indicating the rough number of given entities seem to be difficult. Thus, many speakers cannot give an estimate of, for instance, the number of wooden sticks needed for making a fish trap, which is about 40 sticks. The Bagyeli generally do not know their age and their age judgements often seem far from reality. Exact numbers do not play any role in the traditional Bagyeli lives. Of course, the Bagyeli today have to deal with money, but even there counting is not really required since bank notes seem not to be seen as a series that can be counted, but rather as individual bank notes which have their different names and values.<sup>30</sup>

The Bagyeli, however, who have had at least basic schooling and/or are in a professional relationship with Bantu farmers do not have any problems counting even to higher numbers. In comparison to other Gyeli villages, this is very often the case in Ngolo, the language community this grammar is based on. It seems that, in the Bulu contact region, schooling is better than in other regions. This is why the children here get longer and/or more regular schooling than Bagyeli children in other language contact areas. Further, some men are (sporadically) working on the nearby palm oil and rubber plantations with Bantu farmers where they have more contact with numbers in terms of measurements, monetary value, and time. Therefore, numeral competence is comparatively high in Ngolo in contrast to, for instance, the village Bibira in the coastal Mabi region.

### 5.7.2 Arithmetic structure of the Gyeli numeral system

One typical use of numerals is counting. If counting is abstract and not referring explicitly to a certain entity, the numerals used are called enumeratives. They occur without any noun, in contrast to other numeral series such as cardinals (§3.8.1.1, 3.8.1.6, and §5.6), ordinals (§5.5.6), or distributives (§5.3).

Numerical systems have an internal structure, and I will explain the structure of the Gyeli numeral system on the basis of enumeratives, even though this is also true for other numeral series, especially for the cardinals. Morphologically, one can distinguish simple from complex numerals. Simple numerals are also called “atoms” or “basic numerals” in the literature, and denote those numerals that are

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<sup>30</sup>Nevertheless, the Bagyeli are just as competent in comparative number estimation tasks as people with a higher/literate educational background. In tasks that do not ask for the exact or rough number of some given entities, but that rather ask whether ‘one heap has more than the other’, the Bagyeli can definitely tell which one of two units contains more dots (Mous, p.c.).

monomorphemic, i.e. they cannot be split up into further numeric elements (Borchardt 2011: 25). According to Greenberg (1978: 255), every numeral system has such numerals that “receive simple lexical representation”. Gyeli simple numerals are listed in Table 5.13, opposing them to Mabi, the language that Gyeli is most closely related to.<sup>31</sup>

Functionally, simple numerals can be further subdivided in terms of their role in the formation of complex numerals. The majority of simple numerals serve as an argument that linearly changes within a sequence of a mathematic operation. For instance, the English numerals ‘21’ through ‘29’ are expressed via an addition sequence where the second argument changes linearly from ‘twenty-one’ to ‘twenty-two’ to ‘twenty-three’ and so on. A stable argument such as ‘twenty’ is a “regular reference point in series of the same arithmetic operation”, and is commonly referred to as a “base” (Borchardt 2011: 23).

The functional distinction of these two types of arguments in an arithmetic operation that helps to form complex numerals is also reflected in the morphosyntactic behavior of numeral words. Thus, bases in Gyeli, namely ‘10’, ‘100’, and ‘1000’, are nouns (§5.5.1.4), while the other simple numerals are not. The numerals ‘2’ through ‘5’ are clearly agreeing modifiers (§3.8.1.6), which take agreement prefixes. ‘1’ also agrees with the head noun, but exhibits a different agreement pattern than the numerals ‘2’ through ‘5’ (§3.8.1.1). The numerals ‘6’ through ‘9’ (§3.8.5.1) are invariable, but occur in the same position as agreeing numerals.

Enumeratives invariably take the same form since they do not agree with any head noun but occur on their own. Nevertheless, the simple numerals ‘2’ through ‘5’ require a prefix even as enumeratives, as shown in Table 5.13. They take the class 8 *bí-* agreement marker as a default plural prefix (since any number higher than ‘1’ is inherently plural). In contrast, ‘1’ and the numerals ‘6’ through ‘9’ do not take any prefix as enumeratives. The other simple numerals, i.e. the bases, are nouns. They have a singular/plural counterpart each and belong to different genders. While *le-wúmò* ‘10’ of gender 5/6 occurs with its noun prefix *le-* of class 5 in the singular, multiples of ‘10’ take the prefix *ma-* of agreement class 6. The other two nominal numerals are without noun prefixes in the singular. *bwúyà* ‘100’ belongs to gender 7/8, forming the plural with the *be-* prefix of class 8. *tódyíni* ‘1000’ is part of gender 1/2 with the plural form taking the *ba-* prefix for multiples of ‘1000’. Only the singular forms of nominal numerals occur as monomorphemic numerals. Multiples of nominal numerals, which require the plural form, only occur in complex numerals.

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<sup>31</sup>Prefixes that occur without tonal marking in the table are underlyingly toneless, as expected for noun prefixes, as opposed to agreement prefixes (§4.1.1.2).

Table 5.13: Simple enumeratives in Gyeli and Mabi

	Gyeli	Mabi
‘1’	vúdû	wúré
‘2’	bí-báà	bá
‘3’	bí-láálè	bí-lá
‘4’	bí-nâ	bí-ná
‘5’	bí-tánè	bí-tán
‘6’	ntù́	ntù́
‘7’	mpúéré	mbúéré
‘8’	lòmbì	lòmbì
‘9’	rèbvùá	rèbvùá
‘10’	le-wúmò	wúm
‘100’	bwúyà	búyà
‘1000’	tódyínì	tógínì

In contrast to monomorphemic numerals, complex numerals contain two or more numeric elements. Based on the way different numeric elements are combined, Gyeli numerals form a decimal system: complex numerals are formed in reference to ‘10’ or bases that are multiples of ‘10’. According to the *World Atlas of Language Structures* (Comrie 2013), decimals are the most widespread bases in the numeral systems of the world. While in West Africa many vigesimal systems occur in Niger-Congo languages, especially Benue-Congo, Bantu languages typically have decimal systems. Gyeli is no exception.

Functionally, Gyeli uses two types of arithmetic operations in order to form complex numerals: addition and multiplication, as illustrated in Table 5.14. The different operations are reflected in different grammatical constructions. While addition operations are expressed by coordination, multiplication operations constitute noun phrases made of a nominal noun (the base) and an agreeing or invariable simple numeral.

Numeric elements used in these operations are ordered according to language specific rules. In Gyeli, higher numeric elements occur first, the lower numeric elements second. Speaking in mathematical terms, multiplicands precede multipliers, and augends precede addends.<sup>32</sup> In the following, I will explain both the ordering of arithmetic operations and numeric elements.

<sup>32</sup>The constituents of a multiplication process are called multiplicands and multipliers. The multiplicand is the number that is multiplied by another number. This other number is called the

Table 5.14: Complex enumeratives in Gyeli

Addition → Coordination	Multiplication → Noun phrase
‘11’ le-wúmò nà vúdu	‘20’ ma-wúmò má-báà
‘12’ le-wúmò nà bí-báà	‘30’ ma-wúmò má-láálè
‘13’ le-wúmò nà bí-láálè	‘40’ ma-wúmò má-nâ
‘14’ le-wúmò nà bí-nâ	‘50’ ma-wúmò má-tánè
‘15’ le-wúmò nà bí-tánè	‘60’ ma-wúmò ntùó
‘16’ le-wúmò nà ntùó	‘70’ ma-wúmò mpúéré
‘17’ le-wúmò nà mpúéré	‘80’ ma-wúmò lòmbì
‘18’ le-wúmò nà lòmbì	‘90’ ma-wúmò rèbvùá
‘19’ le-wúmò nà rèbvùá	‘200’ be-bwúyà bí-báà
	‘2000’ ba-tódyíni bá-báà

The primary operation is addition. Starting out with the lowest base ‘10’, the first complex numeral is ‘11’, expressed as ‘10 + 1’ followed by ‘10 + 2’ and so on. This addition sequence continues as long as the addend is smaller than the augend, i.e. the base. As soon as the addend would be identical or higher in its numeric value, the base gets multiplied and thus the augend is formed by a multiplication operation. This rule holds as long as the multiplier is smaller than the multiplicand. If the multiplier were to be identical or higher in its numeric value than the multiplicand, the next higher base is used instead. The highest base used is *tódyíni* ‘1000’. Even though logically higher bases would be possible, they are not used and not part of the language. If higher numerals than multiples of thousands need to be used, for instance in a monetary context, speakers switch to French. In any case, these are amounts of money the Bagyeli do not interact with.

Both addition and multiplication operations can be combined in one numeral, making the numeral even more complex. Multiplication occurs along with addition in one numeral in order to form an additive constituent (either an augend or an addend) by a product. Multiplication processes linearly precede addition up to ‘100’. This correlates with the rule that the augend has a higher numeric value than the addend. In Table 5.15, the augend is formed by multiplication and the numeric value of the product is higher than that of the addend.

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multiplier. Likewise, addition operations comprise two arguments which form a sum. An augend is the one that another number is added to while the added number is called an addend.

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Table 5.15: Multiplication as augend (up to ‘100’)

Augend		Addend	
Multiplicand	Multiplier		
ma-wúmò	má-báà	nà bí-láálè	‘23’ ( $10 \times 2 + 3$ )
ma-wúmò	má-tánè	nà lòmbì	‘58’ ( $10 \times 5 + 8$ )
ma-wúmò	mpúèrè	nà bí-nâ	‘74’ ( $10 \times 7 + 4$ )
ma-wúmò	rèbvùá	nà vúdû	‘91’ ( $10 \times 9 + 1$ )

This situation changes once the multiplier becomes higher than the multiplicand so that the next higher base is used instead. This is the case for the numerals between ‘101’ and ‘199’ and between ‘1001’ through ‘1999’. Then the augend is simply expressed by the next higher base *bwúyà* ‘100’ or *tódyíni* ‘1000’, while the addend may be more complex, including, for instance, a product, as shown in Table 5.16.

Table 5.16: Multiplication as addend

Augend		Addend	
Multiplicand	Multiplier		
bwúyà	nà ma-wúmò	má-báà	‘120’ ( $100 + 10 \times 2$ )
bwúyà	nà ma-wúmò	ntù́	‘160’ ( $100 + 10 \times 6$ )
tódyíni	nà ma-wúmò	má-tánè	‘1050’ ( $1000 + 10 \times 5$ )
tódyíni	nà be-bwúyà	bí-tánè	‘1500’ ( $1000 + 100 \times 5$ )

The higher the base, the more complex the numeral can become. Probably the most complex numeral in Gyeli would include four additive constituents, three of which would be formed by a product, namely the multiples of the three Gyeli bases, as shown in (139).<sup>33</sup> Logically, even with these three bases, numerals could be more complex, for instance going into the hundred thousands. As I mentioned above, however, their use would be highly artificial since there is no use in Gyeli culture for such high numerals, and most speakers would not be able to form such high numerals in Gyeli.

<sup>33</sup>This example has been constructed with several “numeral-fluent” Gyeli and Mabi speakers.

- (139) *bàtɔdyínì bátánè nà bèbwúyà békáà nà màwúmò máláálè*  
 ba-tódyínì bá-tánè nà be-bwúyà bí-báà nà ma-wúmò má-láálè  
 ba2-thousand 2-five COM be8-hundred 7-two COM ma6-ten 6-three  
*nà lòmbì*  
*nà lòmbì*  
 COM eight  
 '5238 ((1000 x 5) + (100 x 2) + (10 x 3) + 8)'

Finally, multiple arithmetic operations in a Gyeli numeral do not always have to comprise a combination of multiplication and addition. It is also possible to have multiple addition processes in a numeral without involving any multiplication, as shown in Table 5.17. The inverse, however, where a Gyeli numeral consists of multiple multiplication operations without involving addition is not possible.

Table 5.17: Multiple addition operations

Addition only					
bwúyà nà	le-wúmò nà	bí-báà	'112'	(100 + 10 + 2)	
tódyínì nà	le-wúmò nà	bí-báà	'1012'	(100 + 10 + 2)	
tódyínì nà	bwúyà ná	le-wúmò nà	bí-báà	'1112'	(1000 + 100 + 10 + 2)



# 6 The verbal complex

## 6.1 Introduction

In this chapter, I describe the verbal complex and its encoding of the grammatical categories of tense, aspect, mood, and negation. Gyeli has two main verbal construction types: (i) those with a single verb, which I call simple predicates, and (ii) those with two or three verbs, which I call complex predicates. There are two subcategories of complex predicates. One is formed with a single STAMP marker (§3.9.1), an auxiliary verb, and one or two non-finite verbs. The other involves the STAMP marker and a finite form of *bè* ‘be’, which is followed by another STAMP marker and a finite verb form. I present simple predicates in §6.2 and complex predicates in §6.3.

Simple predicates occur significantly more frequently than complex predicates, as shown in Figure 6.1 for the 214 simple verbal clauses (§7) in the corpus. Complex predicates can be subdivided into those that occur with a single STAMP marker and those that have a double STAMP marker. The complex predicates with a single STAMP marker take an auxiliary and either one or two non-finite main verbs (§6.3.1 and §6.3.2). The constructions with only one main verb constitute roughly three quarters of complex predicate constructions in the corpus. Complex predicates with a double STAMP marker are formed by two constituents: (i) a STAMP marker followed by an inflected form of *bè* ‘be’ and (ii) a second STAMP marker that is identical in its reference to the first one and followed by another inflected verb form (§6.3.4).

The expression of grammatical categories such as tense, aspect, mood, and negation is achieved through multiple strategies for both simple and complex predicates, such as tonal patterns, morphological marking, and periphrastic structures including auxiliaries. Marking of tense and mood is more interdependent than aspect or negation marking: tense and mood categories form an interlocking system, as they are conjointly marked by tonal patterns. I therefore refer to them as “tense-mood (TM) categories”. The different verbal predicate structure types do not straightforwardly map onto specific grammatical categories. Instead, simple and complex predicates both encode a range of tense, mood, aspect, and negation categories. There are, however, certain tendencies in the distribution

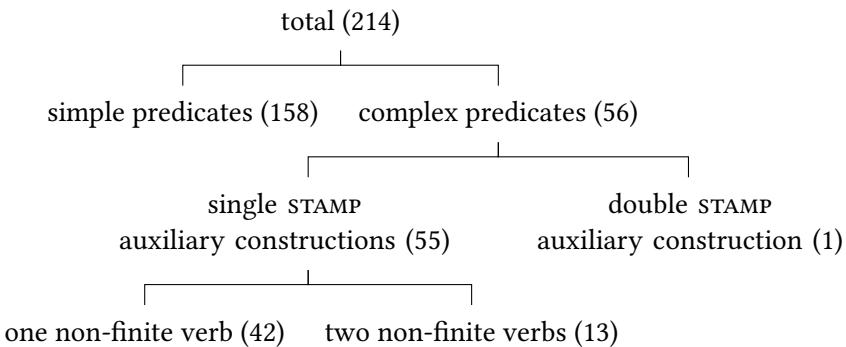


Figure 6.1: Distribution of predicate types in simple verbal clauses

of grammatical categories across predicate types. For instance, tense-mood categories are mainly encoded through simple predicates, whereas aspect and negation categories are primarily found in complex predicates.

The discussion in this section is organized according to verbal predicate type, as opposed to semantic category. Before proceeding with that analysis, I define the terminology I use for broad grammatical categories such as tense, mood, negation, aspect, and negation and provide a general discussion of their encoding in Gyeli.

## Tense

Grammatical tense, and its relation to aspect, has been extensively discussed in the literature. Comrie (1985: 9), for instance, defines tense as “grammaticalised expression of location in time”. Dahl (1985: 25) notes more precisely that “[non-relative] tenses are typically deictic categories, in that they relate time points to the moment of speech. Aspects, on the other hand, are non-deictic categories”. As Comrie (1976: 5) explains, “[a]spect is not concerned with relating the time of the situation to any other time-point, but rather with the internal temporal constituency of the one situation”. Or, as Timberlake (2007: 315) puts it: “aspect locates events (and measures their progress or change or results or liminality) in relation to an internal time”.

Gyeli is a “tense language”, since tense (and mood) marking is in several respects more prominent than aspect marking. First, aspect marking is not obligatory, whereas tense and mood are obligatorily marked. Second, no aspect category is present in every tense. Instead, most aspect categories are restricted to a specific tense-mood category in which they can occur. And third, aspect

markers do not occur in negative polarity, whereas tense markers do. Negation marking depends on different tense-mood distinctions. For example, the PRESENT category has a specific negation marking strategy while the FUTURE and the PAST each use different negation lexemes. These are, however, determined by the tense-mood categories and not by aspectual categories. Tense categories are discussed in detail in §6.2.1.

## Mood and modality

The term “grammatical mood”, as discussed by Nuyts (2016), has come to refer to a heterogeneous set of distinctions: (i) grammatical coding of modal meanings through the verb, (ii) the distinction between basic sentence types and their related illocutionary categories, and (iii) the distinction between indicative and subjunctive or between realis and irrealis.

The challenge of adopting the term *mood* is assuaged by the form-based approach taken in this grammar, since it is not necessary to specify how Gyeli encodes the general (and unclear) category of mood, but rather to examine forms and their interpretations, wherein mood simply designates a class of related types of interpretations.

Mood and modality in Gyeli are expressed through various construction types, differing in their structural complexity. The distinctions among sentences associated with different illocutionary categories are encoded by different basic tonal patterns for indicative vs. imperative or subjunctive. The distinction between realis and irrealis is encoded through additional syntactic tone patterns. Finally, grammatical coding of fine-grained modal meanings is achieved with auxiliaries and/or combinations of tense categories (future) or other mood distinctions (subjunctive).

I will refer to *mood* throughout this chapter as pertaining only to grammatical tense-mood categories whereas the term *modality* will pertain to the more specific semantic categories, such as possibility or ability. Table 6.1 gives an overview of the expression of different types of modality.

The mood distinction between realis and irrealis is presented in §6.2.1, while modality categories are described in §6.3.2.

## Aspect

Tense and aspect are often referred to as an interlocking system. It sometimes can be hard to distinguish whether a given form expresses tense or aspect since, in many languages, forms may express both at the same time. For this reason,

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Table 6.1: Modality expression and mood

Type	Mood category	
Ability/dynamic (can)	expressed by realis	→ realis H tone
Deontic (must)	expressed by realis	→ realis H tone
Possibility	expressed by irrealis (FUT)	→ no realis H tone
Bouletic	expressed by irrealis (SBJV)	→ no realis H tone

some authors (Dahl 1985; Bybee et al. 1994) prefer to investigate so-called “gram-types”, i.e. categories such as “future”, “past”, “perfective”, and “imperfective”, without attempting to group these grams into higher categories, such as tense or aspect. In my account of Gyeli tense-mood-aspect categories, I will also consider gram-type-like categories, based on their formal commonalities. I represent these categories with small capitals, for instance PROGRESSIVE or HABITUAL.

Tense-mood and aspect marking are for the most part differentiated formally. While tense-mood is mainly expressed tonally (and obligatorily) on the STAMP marker and verb, aspect marking is achieved through (optional) segmental material, mainly auxiliary verbs. Aspect marking is also significantly less frequent in the corpus (122 occurrences), compared to utterances with tense-mood marking only (369 occurrences).

Gyeli has eight aspect markers, which are presented in Table 6.2. The table contains information on the morphosyntactic status of each aspect marker, the tonal pattern of its STAMP marker, its form, its tense-mood restriction, and its function that is used in glossing examples and texts.

Table 6.2 reveals that aspect marking is structurally diverse. While most aspect categories are encoded by a true auxiliary (§3.2.2.3) in a complex predicate construction (§6.3.1), other aspect marking strategies are achieved through expanded simple predicates, which are morphologically complex, but not syntactically complex (§6.2.3).

Only grammaticalized markers are counted here as grammatical aspect markers (§3.2.2.3 and §6.3.1). There are, however, also non-grammaticalized semi-auxiliaries which can carry aspectual meaning, such as *kè* ‘go’, which can have an altrilocal meaning (i.e. the event takes place at a different location than the utterance) or *sile* ‘finish’, which can lend itself to a non-complete accomplishment reading (§6.3.2). Aspect categories are discussed both in simple predicates (§6.2.3) and complex predicates (§6.3.1).

Table 6.2: Distribution of aspect markers across morphological and syntactic constructions

	STAMP	Auxiliary form	Restrictions	Function
True auxiliary	yà	<b>nzíí</b>	special pattern 1	PROG.PRES
	yà	<b>nzéé</b>	special pattern 1	PROG.SUB
	yà, yáà	<b>nzí</b>	PST1, PST2	PROG
	yá	<b>ló</b>	PRS	RETRO
	mè, yá	<b>múà</b> ‘be’	special pattern 2	PROSP
	yà, yáà	<b>bwàá</b> ‘have’	PST1, PST2	PRF
Stem reduplication	yá	STEM-copy	PRS	HAB
Postverbal particle	yà	<b>mò/-VV</b>	PST1	COMPL

## Negation

Gyeli uses different negation markers and strategies for different grammatical categories and clausal constructions, as summarized in Table 6.3. The table also shows the frequency of each negation marker in the corpus.

Table 6.3: Negation markers

Negation marker	Status	Distribution	Frequency	
<b>Standard negation</b>				
-lé	negation suffix	Present	23	59.0%
sàlé/pálé	true auxiliary	Past tenses	4	10.3%
kálé	true auxiliary	Future	3	7.7%
<b>Non-standard clausal negation</b>				
dúù ‘must not’	modal semi-auxiliary	Subjunctive, present	2	5.1%
tí	true auxiliary	Imperative, infinitive, present (PCF focus)	7	17.9%
Total			39	

I distinguish standard from non-standard negation, following Miestamo (2005: 1) in his definition of standard negation being “the basic way(s) a language has

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for negating declarative verbal main clauses". In Gyeli, standard negation differs not only in the form of negation markers across tense categories, but also in the negation markers' morphosyntactic status. While negation in the PAST tenses and the FUTURE is syntactically marked by true auxiliaries, PRESENT negation is achieved morphologically through a suffix that attaches to the finite main verb. Non-standard clausal negation comprises two negation markers, a modal semi-auxiliary, and a true auxiliary, all of which are used in different tense-mood categories, sentence types, and information structure constructions, as outlined in detail in §6.2.3 and §6.3.1.

### 6.2 Simple verbal predicates

Simple verbal predicates consist of the STAMP marker (as discussed in §3.9.1) and a finite main verb:<sup>1</sup>

$$\text{STAMP} - \text{Verb}_{\text{finite}}$$

The combined tonal patterns of the STAMP marker and the verb instantiate tense-mood categories, as further discussed in §6.2.1. (1) shows that simple predicates can encode further grammatical information: subpattern I pertains to a verb-final H tone that attaches to the verb in certain tense-mood categories if the verb is in non-phrase-final position. The presence or absence of the grammatical H tone correlates with a realis/irrealis mood distinction.

(1)	Simple predicates:	STAMP Verb	→ Tense-Mood
	Subpattern I:	STAMP Verb(-H)	→ Realis/Irrealis
	(Subpattern II:	STAMP Verb-Suffix/Clitic	→ Aspect, Negation)

Subpattern II includes expanded simple predicates that are morphologically complex in that they involve a verbal suffix (§4.1.2.3) or verbal clitic (§3.9.2.1) encoding certain aspect and negation categories on the finite verb. Valency changing derivational suffixes, as described in §4.2.4, do not fall into this category as they are not inflectional, i.e. their occurrence is not restricted to finite verbs. (2) shows that both the negation and the derivational reciprocal suffix attach to the finite verb of the sentence.

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<sup>1</sup>The finite verb can take an inflectional suffix or postverbal clitic in accordance with its properties as a finite verb. This finite verb inflection, however, does not change the overall structure of simple verbal predicates.

- (2) a. *bá dyúlē*  
     ba-H dyû-le  
     2-PRS kill-NEG  
     ‘They do not kill.’
- b. *bá dyúwàlà*  
     ba-H dyû(w)-ala  
     2-PRS kill-RECIP  
     ‘They kill each other.’

In complex predicates with true auxiliaries, however, the negation suffix cannot attach to the main verb, whereas derivational suffixes can, as shown in (3).<sup>2</sup>

- (3) a. \* *ba nzí dyúlē*  
       ba PRS.PROG dyû-le  
       2 kill-NEG  
       ‘They are not killing.’
- b. *bà nzí dyúwàlà*  
     ba nzí dyû(w)-ala  
     2-PRS kill-RECIP  
     ‘They are killing each other.’

Another argument for verb derivational suffixes and inflectional morphology belonging to different categories comes from their distribution: aspect and negation markers are in complementary distribution and cannot co-occur, as shown in (4). Although (4a) and (4b) would be ungrammatical no matter what since they have a conflict in their tense categories (-*le* negates the present and *mò* occurs only in past tenses), (4c) illustrates that the co-occurrence of aspect and negation in a complex predicate is ungrammatical even within the same tense category.

- (4) a. \* *bá dyúlē mò*  
       ba-H dyû-le mò  
       2-PRS kill-NEG COMPL  
       ‘They have not killed.’
- b. \* *bá dyú mòlē*  
       ba-H dyû-H mò-le  
       2-PRS kill-R COMPL-NEG  
       ‘They have not killed.’

---

<sup>2</sup>The tonal pattern on the STAMP marker changes with true auxiliaries, as discussed in §6.3.1. This is accounted for in the example: the ungrammaticality does not derive from the tonal pattern but from the morphology.

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- c. \* *bà sàlé dyû mò*  
ba sàlé dyû mò  
2 NEG.PST kill COMPL  
'They have not killed.'

In contrast, derivational suffixes can combine with negation marking on finite verbs across different tenses, as illustrated in (5a), with the derivational suffix preceding the negation suffix. If the lexical verb is not the finite verb, as in (5b), then negation is encoded by the finite verb auxiliary, while the derivational suffix still attaches to the non-finite lexical verb.

- (5) a. *bá dyúwálálé*  
ba-H dyû(w)-ala-le  
2-PRS kill-RECIP-NEG  
'They do not kill each other.'
- b. *bà sàlé dyúwàlà*  
ba sàlé dyû(w)-ala  
2 NEG.PST kill-RECIP  
'They did not kill each other.'

The remainder of this section is organized as follows: I first present the most basic simple predicates, which consist only of the STAMP marker and the finite verb (§6.2.1). I then outline simple predicate subpattern I, which involves the presence or absence of a realis-marking H tone (§6.2.2) before I turn to discussing subpattern II, involving morphologically expanded simple predicates (§6.2.3).

### 6.2.1 Basic simple predicates

A remarkable feature of Gyeli is that tense-mood distinctions are entirely expressed through tone, lacking any segmental material (except for vowel lengthening in some tense-mood categories).<sup>3</sup> Consider the surface forms of the minimal pair in (6).

- (6) a. *mé dè*  
mε-H dè  
1SG-PRS eat  
'I eat.'

<sup>3</sup>Although tone also plays a central role in TAM marking in other northwestern Bantu languages, there is usually some segmental marking in those languages as well. Compare, for instance, Makasso (2012) for Basaa (A43) and Beavon (1991) for Koozime (A842).

- b. *mè dé*  
*me dé*  
 1SG.PST1 ate  
 'I ate.'

In the PRESENT in (6a), the STAMP marker has an H tone while the tone on the verb stem is L. In contrast, in (6b), the PAST form is characterized by an L tone on the STAMP marker and an H tone on the verb. Form patterns thus arise from the tonal combinations of the STAMP marker and the simple finite predicate.<sup>4</sup>

Gyeli exploits all tonal possibilities of the language in tense-mood encoding, including three different tonal patterns on verb stems and four on STAMP markers, as shown in (7). These patterns surface when the predicate is in phrase-final position.<sup>5</sup>

- (7) a. Verb tones: L, H, HL  
 b. STAMP tones: L, H, HL, LH

The combination of the verb and STAMP marker tonal patterns instantiates seven categories that mainly encode tense and mood, to varying degrees (the INCHOATIVE category also carries some aspectual meaning). While mood encoding is most obvious for the tenseless IMPERATIVE and SUBJUNCTIVE categories, the other categories also inherently belong to the realis or irrealis category, as explained in §6.2.2.

As Table 6.4 shows, the verb tone patterns express basic meaning distinctions: an L verb tone indicates NON-PAST tense-mood categories, an H tone indicates PAST tense-mood categories, and an HL pattern on the verb encodes tenseless categories. Tonal patterns on the STAMP marker then reflect more fine-grained subcategories.<sup>6</sup> While tonal patterns in a specific category are the same across persons, there is an exception in the FUTURE, which generally is characterized by an HL tone on a long STAMP marker vowel. For the first and second person singular and the STAMP marker of agreement class 1, however, the long vowel has an LL tone pattern. There are further exceptions regarding the STAMP marker tone

<sup>4</sup>Tonal patterns of the STAMP marker are different in some categories of complex predicates that use a true auxiliary, as described in §6.3.1.

<sup>5</sup>The verb tone pattern changes in some tense-mood categories that take a grammatical H tone when the verb is not in phrase-final position. This is discussed in §6.2.2.

<sup>6</sup>The STAMP marker of the IMPERATIVE category is marked in parentheses in Table 6.4, since the first person plural is the only agreement class in which the STAMP marker appears, as described in §6.2.1.6.

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in some grammatical categories: the STAMP marker is different in the morphologically marked PRESENT negation with *-le* (§6.2.3.1) and in complex predicates that contain the PROGRESSIVE markers *nzíí* or *nzéé* (§6.3.1.1), the PROSPECTIVE auxiliary *múà* ‘be almost’ (§6.3.1.3), or the negation marker *tí* when it is used in PRESENT main clauses (§6.3.1.7).

Table 6.4: Tonal patterns of tense-mood categories

Basic distinction	TM category	STAMP	Verb Stem	Verb Tone	Gloss
NON-PST	PRS	yá	dè		‘we eat’
	INCH	yàá	dè	L	‘we are at the beginning of eating’
	FUT	yáà/mèè	dè		‘we/I will eat’
PST	PST1	yà	dé		‘we ate (recently)’
	PST2	yáà	dé	H	‘we ate (a long time ago)’
tenseless	IMP	(yá)	dè		‘let’s eat!’
	SBJV	yá	déè	HL	‘may we eat’

The tenseless categories IMPERATIVE and SUBJUNCTIVE<sup>7</sup> differ from one another not only in their final vowel length, but also in the underlying tonal process which pertains to the presence or absence of High Tone Spreading (HTS) in trisyllabic verb forms. While no HTS occurs in IMPERATIVES where the penultimate syllable in trisyllabic verbs surfaces as L, HTS occurs in SUBJUNCTIVES in the same phonological environment. Thus, the penultimate syllable in trisyllabic verbs surfaces as H, as shown in Table 6.5. In contrast to the IMPERATIVE, the SUBJUNCTIVE further shows phonetic variation of the final long vowel. This vowel may occur with a glottal stop, as indicated by the apostrophe in, for instance, á d'è'e ‘may he eat’, or as a pharyngealized vowel. All these forms occur in free variation. In fast speech, there is a tendency for the vowel to be lengthened, but not pharyngealized or glottalized.

As described in §2.4.1, verb stems have one, two, or three syllables, of which only the first syllable is specified for tone. In contrast, second and third syllables are underlyingly toneless. The verb *dè* ‘eat’ used as an example in Table 6.4

<sup>7</sup>These categories are form-identical to monosyllabic HL stems and monosyllabic HL stems with a long vowel, respectively. For instance, *nyê* ‘see’ encodes both the non-finite form and the imperative form, and *ntáá* ‘climb over’ encodes both the non-finite and the subjunctive form.

thus only represents one tonal-phonological set of verbs, namely the monosyllabic ones specified with an L tone. The tonal rules that apply to the other tonal-phonological verb sets are described in §2.4.2.2. Table 6.5 further provides an overview of the tonal patterns for different phonological verb types in the different tense-mood categories.<sup>8</sup>

Table 6.5: Verb tone patterns in different TM categories by phonological verb set

TM category	L verb	HL verb	L Ø verb	H Ø verb	L Ø Ø verb	H Ø Ø verb
	<i>kè</i> ‘go’	<i>nyê</i> ‘see’	<i>gyàga</i> ‘buy’	<i>gyíbɔ</i> ‘call’	<i>vìdègà</i> ‘turn’	<i>lúmele</i> ‘send’
PRS	<i>kè</i>	<i>nyê</i>	<i>gyàgà</i>	<i>gyíbò</i>	<i>vìdègà</i>	<i>lúmèlè</i>
INCH	<i>kè</i>	<i>nyê</i>	<i>gyàgà</i>	<i>gyíbò</i>	<i>vìdègà</i>	<i>lúmèlè</i>
FUT	<i>kè</i>	<i>nyê</i>	<i>gyàgà</i>	<i>gyíbò</i>	<i>vìdègà</i>	<i>lúmèlè</i>
PST1	<i>ké</i>	<i>nyé</i>	<i>gyàgá</i>	<i>gyíbó</i>	<i>vìdégá</i>	<i>lúmélé</i>
PST2	<i>ké</i>	<i>nyé</i>	<i>gyàgá</i>	<i>gyíbó</i>	<i>vìdégá</i>	<i>lúmélé</i>
IMP	<i>kê</i>	<i>nyê</i>	<i>gyàgâ</i>	<i>gyíbô</i>	<i>vìdègâ</i>	<i>lúmèlê</i>
SBJV	<i>kéè</i>	<i>nyéè</i>	<i>gyàgáà</i>	<i>gyíbóò</i>	<i>vìdégáà</i>	<i>lúmélèè</i>

Looking at the occurrence of the different tense-mood categories in the Gyeli corpus, it becomes clear that the categories are not evenly distributed. Table 6.6 shows the frequency of each tense-mood category expressed through simple predicates in the corpus. It also specifies the mood category to which each tense-mood category belongs (§6.2.2).

There are 369 instances of simple predicates in the corpus. The vast majority (58.8%) are encoded for the PRESENT category. While PAST1 and FUTURE are still relatively frequent, the other tense-mood categories occur rarely. In the following sections, I discuss each tense-mood category with respect to its meaning and usage.

### 6.2.1.1 PRESENT

The PRESENT is the most frequent tense-mood category in the corpus for all text genres and can be viewed as the default tense-mood category in narratives. For example, in the autobiographical narrative presented in Appendix B.1, the narrator switches to the PRESENT in the tenth intonation phrase, despite having started out in the PAST 1.

<sup>8</sup>Monosyllabic HL verb stems with a long vowel, such as *láà* ‘tell’, are form-identical in their non-finite, IMPERATIVE, and SUBJUNCTIVE forms.

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Table 6.6: Frequency of tense-mood categories in the corpus

Basic distinction	TM category	Mood	Frequency	
NON-PST	PRS	realis	217	58.8%
	INCH	realis	5	1.4%
	FUT	irrealis	40	10.8%
PST	PST1	realis	69	18.7%
	PST2	realis	8	2.2%
other	IMP	irrealis	13	3.5%
	SBJV	irrealis	17	4.6%
Total			369	

In out-of-the-blue contexts, the PRESENT primarily relates to a time that is identical to speech time. Thus, the sentence in (8) is set at the time of utterance.

- (8) *mé gyámbó bédéwò*  
     mε-H gyámbɔ-H H-be-déwɔ  
     1SG-PRS cook-R   OBJ.LINK-be8-food  
     ‘I cook food.’

Within a specific context requiring common ground for the speech act participants, however, the sentence in (8) can alternatively relate to a time that follows speech time. The PRESENT can thus be used to refer to future events as well as present ones. It is hard to delimit how far into the future the PRESENT may refer, and does not seem to be categorically bounded by, for instance, time of day or even periods of multiple days. Especially when temporal adverbs or other means of time reference are used, as in (9),<sup>9</sup> the grammatical PRESENT form can extend into at least several days in the future.

- (9) *mé ké jì é Ngòló sóndò nónégá*  
     mε-H kè-H jì é Ngòló sóndò n-ónégá  
     1SG-PRS go-R stay LOC Ø7.PN Ø1.week 1-other  
     ‘I will stay in Ngolo next week.’

<sup>9</sup>The speaker was not in Ngolo when he uttered this sentence. The verb *kè* ‘go’ has an altrilocal meaning, as described in §6.3.2, and is not a grammatical means of marking future tense.

The PRESENT tense form can also be used for imperative meanings, as in (10). Formally, the PRESENT in (10a) is clearly distinct from the IMPERATIVE pattern in (10b) in terms of the presence or absence of the STAMP marker, the tonal pattern on the verb, and the realis-marking H tone in the PRESENT (see §6.2.2), which is absent in the IMPERATIVE.

- (10) a. *bwáá láá b̩*  
           bwáa-H láà-H b-̩  
           2PL-PRS tell-R 2-OBJ  
           ‘You tell them!’
- b. *láà ngá b̩*  
       láà   nga-H      b-̩  
       tell.IMP PL-OBJ.LINK 2-OBJ  
       ‘Tell them!’

The PRESENT is further used in generic contexts or for states that persist, as in (11). Here, the speaker talks about a general problem that applies to the time of utterance but also extends to an unbounded time both before and after.

- (11) *yá tfúgá nà ngündyá mpángì*  
       ya-H tfúga-H nà ngündyá mpángì  
       1PL-PRS suffer-R COM Ø9.raffia Ø7.bamboo  
       ‘We suffer from the straw, the bamboo [that is used for thatched roofs].’

While the PRESENT tense-mood category seems to be easily applied to the time at and after speech time, it extends less easily to time before the utterance. Thus, the sentence in (8) cannot be interpreted, under any circumstances, as having happened already. This correlates with the macro-distinction between NON-PAST and PAST tense-mood categories.

### 6.2.1.2 INCHOATIVE

The INCHOATIVE form refers to the entry into a state or to the beginning of an event. In the literature, the inchoative is generally assumed to be an aspectual category, which may differ in flavor depending on the language: the inchoative has been observed as part of the viewpoint aspectual system—ASPECT<sub>1</sub> in Sasse’s (2002) terms—for example by Melchert (1980) and Wichaya (2013), who gives an example for Fengshun Hakka in (12).

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- (12) Fengshun Hakka; Sinitic (Wichaya 2013: 50)
- Nai<sup>11</sup> min<sup>11</sup> phak<sup>55</sup> liau<sup>42</sup>*  
1SG understand INCH  
'I have understood.'

The INCHOATIVE has also been related to the Aktionsart of a verb (Sasse's ASPECT<sub>2</sub>) by, for instance, Botne (1983), Klein (1995), and Talmy (2007). An example is given for Russian in (13).

- (13) Russian; Slavic (Braginsky 2008: 226)
- zvezda za-sverkala<sup>PRF</sup> na nebe*  
star INCH-twinkled on sky  
'The star started twinkling in the sky.'

The Gyeli inchoative both shifts the viewpoint to the beginning of a situation and locates the situation temporally at speech time (or narration time in the case of story-telling). This is clearly the case when opposing the INCHOATIVE with other aspectual categories (see §6.3.1) in elicitation, as in (14).

- (14) a. *mèé dè*  
mèé dè  
1SG.INCH eat  
'I'm beginning to eat.'
- b. *mè nzíí dè*  
me nzíí dè  
1SG PROG.PRS eat  
'I'm eating.'
- c. *mè múà dè*  
me múà dè  
1SG PROSP eat  
'I'm about to eat.'

Speakers describe that, in (14a), the focus is on the starting point of the action: the person is just taking the first few bites of her meal. In contrast, (14b) emphasizes the ongoing character of the eating event, without specifying the exact point within the action (beginning, middle, or end). Also the PROSPECTIVE aspect, shown in (14c), differs in that the person is about to take the first bites, but has not actually started eating yet.

The example in (15) is taken from natural text and can be similarly interpreted. It is at the moment when the woman arrives at the river bank that she breaks out in tears, and the activity of crying is (theoretically) unbounded.

- (15) *ndènáà pámò lébù àá gyì*  
 ndènáà pámo H-le-bù àá gyì  
 like.this arrive OBJ.LINK-le5-river.bank 1.INCH cry  
 'Having arrived like this [without the child] at the river bank, she starts to cry.'

Activities—in terms of Vendler's (1967) classification of Aktionsarten—can also be accompanied by temporal adjuncts specifying the duration of the event, as shown in (16).

- (16) *àá bámálá tóbá mpfùmò nà pámò ménó*  
 àá bámala-H tóbá mpfùmò nà pámo ménó  
 1.INCH scold-R since Ø3.midnight CONJ arrive Ø7.morning  
 'He is starting to scold [now] at midnight and [it] will continue until the morning.'

The inchoative is also compatible with a perfective reading and can be used with punctual events, as shown in (17).

- (17) *pílò àá pándè àà kfùmàlà bédéwò bè sílēɛ*  
 pílò àá pánđe àà kfùmala bédéwò bè sílēɛ  
 when 1.INCH arrive 1.FUT find OBJ.LINK-be8-food 8 finish.COMPL  
 'When he has arrived, he will find that the food is finished.'

### 6.2.1.3 FUTURE

The FUTURE category primarily relates to a time some point after speech time. Often, it is accompanied by temporal adverbials, as in (18), where Nzambi tells the mice that they will eat the bones of the burned bodies the next day.

- (18) *àà nàménó bwáà dè, nàménó*  
 àà nàménó bwáà dè nàménó  
 EXCL tomorrow 2PL.FUT eat tomorrow  
 'Ah, tomorrow you will eat, tomorrow.'

The FUTURE category can also relate to intended acts, as in (19).

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- (19) *pílò mèè bè nyá mùdì mèè tèlè mùdà ndáwò*  
pílò mèè bè nyá m-ùdì mèè tèlè mùdà ndáwò  
when 1SG.FUT be big N1-person 1SG.FUT place great Ø9.house  
'When I grow up, I will build a great house.'

The FUTURE may also be used for promises, as in (20).

- (20) *mé kàgé wé nâ mèè njì nàménò*  
mε-H kàgε-H w̩ nâ mèè njì nàménò  
1SG-PRS promise-R 2SG.OBJ COMP 1SG.FUT come tomorrow  
'I promise you that I will come tomorrow.'

Apart from temporal reference, the FUTURE also expresses modal possibility, as in (21). The sentence in this example has two readings. In the first, the speaker is convinced that the bag will break; thus, a more temporal reading is implied. In the alternative reading, the speaker is understood to be expressing uncertainty, merely presenting the possibility that the bag might break.

- (21) *ká wé kíyá lékó'ò kwámó dè kwámó nyíi búlè*  
ká wε-H kíya-H H-le-kó'ò kwámó dè kwámó nyíi búlè  
if 2SG-PRS put-R OBJ.LINK-le5-stone Ø9.bag LOC Ø9.bag 9.FUT break  
'If you put the stone into the bag, the bag will/might break.'

Another example is given in (22), in which a possibility reading (with a universal time reference) is intended.

- (22) *ndí wé lèmbó nâ mbvúndá nyíi bvúdà nà mbvúndá*  
ndí wε-H lèmbo-H nâ mbvúndá nyíi bvúda nà mbvúndá  
but 2SG-PRS know-R COMP Ø9.trouble 9.FUT fight COM Ø9.trouble  
'But you know that violence will create more violence.'

### 6.2.1.4 RECENT PAST (PST1)

Gyeli distinguishes two PAST tense forms: the RECENT PAST (PST1) and the REMOTE PAST (PST2). The choice in using either one of the two PAST categories may depend more on subjective, attitudinal factors than on an objective deictic time reference. The RECENT PAST is the default past category. It refers to situations that happened before speech time, as in (23), where a more precise time is further specified by a temporal adverb.

- (23) *mɛ gyámbó bédéwɔ nàkùgúù*  
       mɛ gyámbó-H H-be-déwɔ nàkùgúù  
       1SG.PST1 cook-R OBJ.LINK-be8-food yesterday  
       'I cooked food yesterday.'

According to Nurse (2008: 22), many Bantu languages distinguish past tense categories such as hesternal and hodiernal past based on objective time intervals, namely days. This, however, is not the case in Gyeli. Thus, when a phrase is lacking further time specification, as in (24), it is not inferrable at what time precisely the event has transpired. The event in this sentence (visiting the Ngumba) could, based on context, be understood to have occurred earlier the same day, the day before, the week before, or even a year before speech time.

- (24) *mɛ bé ngyé̂ Ngvùmbò*  
       mɛ bè-H n-gyé̂ Ngvùmbò  
       1SG.PST1 be-R N1-guest Ø7.PN  
       'I was a guest of the Ngumba.'

Temporal proximity is not based on objectively measurable parameters, but rather relates to the speaker's attitude towards the situation and, potentially, its impact on speech time. Thus, different situations that have the same temporal distance may be judged differently and therefore coded variously as RECENT PAST or REMOTE PAST. For instance, speakers may use the RECENT PAST when reporting that they ate out with good friends the day before. In contrast, they may use the REMOTE PAST to refer to their last meal at the same temporal distance (the day before) if they have not eaten anything since then, because not eating in 24 hours would be considered a long time.

The RECENT PAST is also used in story-telling to set the scene, as in (25). Even though this autobiographical event took place many years before the telling of the story (Appendix B.1), the temporal distance is not important to the speaker at this point. Therefore, he uses the default PAST category.

- (25) *yɔ́ɔ ngå̂ nû à bé ngå̂*  
       yɔ́ɔ ngå̂ nû à bè-H ngå̂  
       so Ø1.healer 1.DEM.PROX 1.PST1 be-R Ø1.healer  
       'So, this healer was a healer.'

### 6.2.1.5 REMOTE PAST (PST2)

The REMOTE PAST category is the more marked past form, and it occurs significantly less frequently in the corpus. It refers to events that have happened rela-

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tively distantly in the past, where this notion of distance is based on the speaker's attitude rather than on objective deictic parameters. It can also have a pluperfect interpretation, although a following event at a later point in time need not be explicitly expressed. A hint for a pluperfect reading of the REMOTE PAST comes from translations into French, whereby a phrase such as *méè dé* 'I ate (a long time ago)' is generally translated by speakers with the French pluperfect *j'avais mangé* 'I had eaten'.

The sentence in (26) illustrates both the subjective time distance to the event and the pluperfect interpretation. In this example, the chief of Ngolo talks about the dangers of the Bagyeli's lifestyle and points to a scar on his face that he got from a machete. By using the REMOTE PAST, he expresses his attitude towards the injuring event as being temporally far away, but also implies that, in the meantime, things have changed again.

- (26) *mé bví nâ nkwlá wúù tfundé mē vâ*  
mε-H bvû-H nâ nkwlá wúù tfundε-H mē vâ  
1SG-PRS think-R COMP Ø3.machete 3.PST2 miss-R 1SG.OBJ here  
'I think that the machete had missed [injured] me here [and, since then,  
the wound has completely healed and only left a scar].'

The same is true for his statement in (27). Here, he talks about the former settlement before the current village of Ngolo was built. Again, it is not objectively inferable whether the speaker had settled in the former village when he was a child or a young man or even only two years ago. Using the REMOTE PAST, however, shows that in terms of relevance to the present situation, settling in the old village is rather remote.

- (27) *é pè mée tē*  
é pè mée tē-H  
LOC over.there 1SG.PST2 found-PST  
'I had originally settled over there [and since then I moved to the new  
place].'

Presumably, the REMOTE PAST is used in (28) rather than the RECENT PAST in order to stress the fact that the speaker in this folktale is too late to save his child, since it has already been devoured.

- (28) *wéè dé mwánò nòò*  
wéè dè-H m-wánò nòò  
2.PST2 eat-R N1-child no  
'You have eaten the child, haven't you?'

The tense generally used in narratives is the PRESENT. The REMOTE PAST is, however, also found in narrations, such as the Nzambi folktale, when the narrator occasionally switches from PRESENT to past, as seen in (29), where the three sentences appear in the same order in the story. (29a) starts out in the PRESENT, (29b) shows a temporal rupture using the remote past, and in (29c), the speaker switches back to the general PRESENT.

- (29) a. *yóò Nzàmbí wà núú nìyé*  
*yóò Nzàmbí wà núú nìyé*  
 so Ø1.PN 1:ATT 1.DEM.DIST return  
 ‘So that Nzambi returns [home].’
- b. *ékè! Nzàmbí wà nú áà sàlé bè nà bâ líná-á*  
*ékè! Nzàmbí wà nú áà sàlé bè nà bâ líná*  
 EXCL Ø1.PN 1:ATT 1.DEM.DIST 1.PST2 NEG.PST be COM Ø7.word when  
*pámò*  
 a-H pámò  
 1-PRS arrive  
 ‘Oh! That Nzambi had no words when he arrived.’
- c. *nyé nâ álè*  
*nyé nâ álè*  
 1 COMP allez[French]  
 ‘He [says]: “Allez! [Ok]”’

It seems that the use of the REMOTE PAST is intended to sporadically relocate the story in time and emphasize that this (fictional) story happened a very long time ago. At the same time, the narrator can use the REMOTE PAST as a means to distance himself from the story and comment about it. While the general chain of events is told in the PRESENT, the narrator’s comments about the state of the character are realized in a different tense-mood category, the REMOTE PAST in this case.

#### 6.2.1.6 IMPERATIVE

The category of IMPERATIVE is characterized by an HL tonal pattern on its ultimate syllable. For semantic/pragmatic reasons, the IMPERATIVE category is restricted with respect to the grammatical persons with which it can combine, yielding three subgroups: (i) singular forms that have no STAMP marker, but only the bare imperative verb form, (ii) plural forms which have no STAMP marker either, but a plural particle following the imperative verb form, and (iii) what

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I label as “cohortative” forms, which are almost identical to plural imperatives, with the exception that a first person plural STAMP marker with an H tone precedes the verb form. These are schematized in (30). As they all have the same verb tone pattern as well as the same negation strategy with *tí* (see §6.3.1.7), they are unified under a single category.

- (30) a. 2SG: [Ø Verb.IMP]  
b. 2PL: [Ø Verb.IMP plural]  
c. 1PL: [STAMP Verb.IMP plural]

In the following, I provide examples of each subcategory.

For second persons, the IMPERATIVE expresses requests, demands, and orders. (31) provides examples of singular imperative forms, translated with an exclamation mark. The examples cover all syllable lengths and tonal patterns found for verbs.

- (31) a. dê ‘eat (sg.)!’  
b. nyê ‘see (sg.)!’  
c. gyàgâ ‘buy (sg.)!’  
d. gyámbâ ‘cook (sg.)!’  
e. vîdégâ ‘turn (sg.)!’  
f. lúmélê ‘send (sg.)!’

In the corpus, IMPERATIVE occurrences are rare, as they are pragmatically restricted to direct communicative interactions between speech act participants, as in (32).

- (32) bímbú      lé      mámbòngò mâ      wè      médé      dígê      médé  
bímbú      lé      ma-mbòngò mâ      we      médé      dígê      médé  
Ø5.amount 5:ATT ma6-plant 6.DEM.PROX 2SG self look.IMP self  
‘The number of these plants, take a look yourself.’

In narratives, they occur in the form of reported direct speech, as in (33), where the IMPERATIVE form is, in fact, the indicator of reported discourse through a switch of the deictic perspective.

- (33) bàmbé kê      jîi      mbúmbù      mwánò sá      yí      dè  
bàmbé kê      jîi      mbúmbù      m-wánò sá      yí      dè  
sorry go.IMP ask Ø1.namesake N1-child Ø7.thing 7:ATT eat  
‘Excuse me, go and ask [my] namesake [the other Nzambi] for a little to eat.’

If the addressee of an order consists of more than one person, the plural particle *ga*, or its variant *nga*, is used, following the IMPERATIVE verb form, as in (34).

- (34) a. *dê*      *gà*  
           dê      ga  
           eat.IMP PL  
           'Eat (pl.)!'  
 b. *gyàgâ*    *gà*  
       gyàgâ    ga  
       buy.IMP PL  
       'Buy (pl.)!'  
 c. *vìdègâ*    *gà*  
       vìdègâ    ga  
       turn.IMP PL  
       'Turn (pl.)!'

Plural IMPERATIVES are less frequent than their singular counterparts in the corpus. Examples are given in (35) and (36).

- (35) *nyáà*    ***ngà*** *sílé*    *nyî*    *ndáwò*    *dé*    *tù*  
       nyáà    ngà sílé-H    nyî    ndáwò    dé    tù  
       shit.IMP PL    finish-R enter Ø9.house LOC inside  
       'Piss off, everybody go into the house!'
- (36) *sílê*      ***ngà*** *nyî*    *vâ*  
       sílê      ngà nyî    vâ  
       finish.IMP PL    enter here  
       'Enter all here.'

The cohortative describes a wish or invitation directed towards the first person plural and can be translated with English 'let's'. Examples are given in (37).

- (37) a. *yá*      *dê*      *gà*  
       ya-H    dè-HL    ga  
       1PL-PRS eat-IMP PL  
       'Let's eat!'

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- b. *yá gyàgâ gâ*  
ya-H gyàga-HL ga  
1PL-PRS buy-IMP PL  
'Let's buy [sth.]!'
- c. *yá vîdégâ gâ*  
ya-H vîdèga-HL ga  
1PL-PRS turn-IMP PL  
'Let's turn around!'

### 6.2.1.7 SUBJUNCTIVE

Examples of the SUBJUNCTIVE category in Gyeli are given in (38), in this case with the agreement class 1 STAMP marker. As outlined in §6.2.1, the final long vowel may also be glottalized or pharyngealized, as in (39).

- (38) a. á déè 'May he eat!'  
b. á nyéè 'May he see!'  
c. á gyàgáà 'May he buy!'  
d. á gyámbóò 'May he cook!'  
e. á vîdégáà 'May he turn!'  
f. á gyíkéséè 'May he teach!'

The SUBJUNCTIVE in Gyeli is often (but not exclusively) used in subordinate clauses to express (i) wishes or advice (39a), (ii) obligations (39b), or (iii) prohibitions (39c).

- (39) a. á *lâá mê nâ m  v '  bw n  b f mb *  
a-H lâå-H m  nâ m -H v '  b-w n  be-f mb   
1-PRS tell-R 1SG.OBJ COMP 1SG-PRS give.SBJV ba2-child be8-orange  
'He tells me that I should give the children oranges.'
- b. *y i  mp n g  n  w  k '  s k l *  
y i  mp n g  n  w -H k '  s k l   
7 Ø3.obligation COMP 2SG-PRS go.SBJV Ø7.school  
'It's an obligation that you go to school.'
- c. *y i  mp nd  n  w  j w '  b s *  
y i  mp nd  n  w -H j w '  H-be-s   
7 Ø9.prohibition COMP 2SG-PRS steal.SBJV OBJLINK-be8-thing  
'It's forbidden that you steal things.'

The SUBJUNCTIVE is also used to express a goal, as in (40), where the verb *dyùù* ‘kill’, which is marked for the subjunctive, is part of a purpose clause.

- (40) á lèmbó nâ bùdì báà bà múà búélè nâ bá  
 a-H lèmbo-H nâ b-ùdì báà ba múà búelè nâ ba-H  
 1-PRS know-R COMP ba2-person 2.DEM.PROX 2 PROSP fish COMP 2-PRS  
*dyúù nyê*  
*dyùù nyè*  
 kill.SBJV 1.OBJ

‘He knows that these people are about to fish [look for him] in order to kill him.’

The SUBJUNCTIVE can further be used in a consecutive context, as in (41), which lacks an animate entity that could have wishes or intentions. When translating these phrases, speakers consistently assign the French verb *vouloir* ‘want’ to the inanimate entity.

- (41) ká yí nyí mē mbò mpángì yí kùgá nâ  
 ká yi-H nyî-H mê m-bò mpángì yi-H kùga-H nâ  
 when 7-PRS enter-R 1SG N3-arm Ø7.bamboo 7-PRS can-R COMP  
*nyíi wè mbò*  
*nyíi wè m-bò*  
 enter.SBJV 2SG N3-arm

‘When it goes into my arm . . . the bamboo can sting your arm.’

The SUBJUNCTIVE expresses bouletic modality, as in (42), which concerns the speaker’s desire in relation to what is necessary or possible. Other types of modality, e.g. deontic or dynamic, are encoded by semi-auxiliaries in complex predicates §6.3.2.

- (42) mé làwɔ náà mändáwɔ má zì má kùgáà  
 me-H làwɔ-H nâ ma-ndáwɔ má zì ma-H kùgáà  
 1SG-PRS say-R COMP ma6-house 6:ATT Ø7.tin 6-PRS be.enough.SBJV  
*mē vâ*  
*mè vâ*  
 1SG.OBJ here

‘I say that there ought to be enough tin (roofed) houses here for me.’

While most SUBJUNCTIVE forms occur in a subordinate complement clause involving the complementizer *nâ* (§8.2.2.1), SUBJUNCTIVE forms can also occur in subordinate clauses without the complementizer *nâ*, as in (43).

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- (43) *yóò mé wúmbé mándáwò má zì má téwó’ɔ*  
yóò mε-H wúmbε-H H-ma-ndáwò má zì ma-H téwò’ɔ  
so 1SG-PRS want-R OBJLINK-ma6-house 6:ATT Ø7.tin 6-PRS put.SBJV  
*mē vâ ndá zì*  
mē vâ ndá zì<sup>1</sup>  
1SG.OBJ here ATT[Bulu] Ø7.tin[Bulu]  
'So I want tin (roofed) houses be put here for me, of tin.'

There are a few examples where the SUBJUNCTIVE is not restricted to a subordinate clause, but can occur in the main clause, as in (44). This construction marks a politely phrased order or invitation.

- (44) *bèyá njíi bíyè kfùmàlā*  
bèya-H njíi bíyè kfùmala  
2PL-PRS come.SBJV 1PL.OBJ find  
'You (pl.) may come to meet us.'

The SUBJUNCTIVE has its own negator *dúù* (§6.3.1.8).

### 6.2.2 The realis-marking H tone

The basic simple predicate structure carries further grammatical information through the presence or absence of a grammatical H tone that attaches to the right of verb stems in certain tense-mood categories when the finite verb is not in phrase-final position (see subpattern I STAMP - V(-H) in §6.2). It is inherent to each tense-mood category if the H tone will attach to the finite verb or not. The presence of the H tone correlates with realis categories, while its absence indicates irrealis categories, as shown in Table 6.7. The PRESENT tense is split between its affirmative constructions, which belong to the realis category, while their negative counterparts cluster with the irrealis mood.

(45) provides examples for all realis-marking tense-mood categories, where the grammatical H tone is marked in bold. The H tone that appears on the following noun is a distinct syntactic tone rather than a phonologically conditioned surface form (§7.2.1.2).<sup>10</sup>

<sup>10</sup> Grammatical verb-final H tones seem to be recurrent in Bantu languages, but have not yet found a unitary and transparent explanation. The term "metatony" is frequently used in the context of verb-final H tone phenomena (Dimmendaal 1995; Angenot 1971; Hyman & Lionnet 2012; Schadeberg 1995; Hadermann 2005; Costa & Kula 2008; Makasso 2012; Nurse 2008). The origins and functions assigned to metatonic H tones in the literature differ, however, considerably across diverse Bantu languages.

Table 6.7: Distribution of realis and irrealis categories

H tone presence → Realis	H tone absence → Irrealis
PRESENT	FUTURE
INCHOATIVE	IMPERATIVE
RECENT PAST	SUBJUNCTIVE
REMOTE PAST	PRESENT NEGATION

- (45) a. *mé wúmbé békwàndò*  
     mε-H wúmbε-H H-be-kwàndò  
     1SG-PRS want-R OBJ.LINK-be8-plantain  
     'I want plantains.'
- b. *mèé wúmbé békwàndò*  
     mèé wúmbε-H H-be-kwàndò  
     1SG.INCH want-R OBJ.LINK-be8-plantain  
     'I'm beginning to want plantains.'
- c. *mè wúmbé békwàndò*  
     mε wúmbε-H H-be-kwàndò  
     1SG.PST1 want-R OBJ.LINK-be8-plantain  
     'I wanted plantains (recently).'
- d. *méè wúmbé békwàndò*  
     méè wúmbε-H H-be-kwàndò  
     1SG.PST2 want-R OBJ.LINK-be8-plantain  
     'I wanted plantains (a long time ago).'

While the tonal change from a phrase-final L to a non-phrase final H tone is obvious in the NON-PAST categories PRESENT and INCHOATIVE, such a change is less clear in the two PAST categories, recent and remote. These categories are specified for a final H tone in verb-final positions, thereby collapsing both tense and mood marking in non-phrase final position. In terms of glossing examples, I mark phrase-final H tones on PAST verbs as 'PST', as in (46a). In non-phrase final position, however, H tones in PAST categories are marked as 'R', as in (46b), emphasizing the mood distinction.

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- (46) a. *mè gyámbó*  
           mɛ      gyámbɔ-H  
           1SG.PST1 cook-PST  
           'I cooked.'
- b. *mè gyámbó békwàndò*  
           mɛ      gyámbɔ-H H-be-kwàndò  
           1SG.PST1 cook-R    OBJLINK-be8-plantain  
           'I cooked plantains.'

Examples of the unrealis tense-mood categories are given in (47). The finite verbs in these sentences do not take the grammatical H tone; they are only inflected for their tense-mood category as basic simple predicates (6.2.1).<sup>11</sup>

- (47) a. *mèè gyámbò békwàndò*  
           mèè      gyámbɔ H-be-kwàndò  
           1SG.FUT cook    OBJLINK-be8-plantain  
           'I will/might cook plantains.'
- b. *gyámbò békwàndò*  
           gyámbɔ H-be-kwàndò  
           cook.IMP OBJLINK-be8-plantain  
           'Cook (sg.) plantains!'
- c. *mé wúmbé ná wé gyámbò békwàndò*  
           me-H  wúmbé-H ná  wé-H  gyámbɔ-H H-be-kwàndò  
           1SG-PRS want-R  COMP 2SG-PRS cook.SBJV OBJLINK-be8-plantain  
           'I want you to cook plantains.'

In the realis categories that do take the grammatical H tone, all parts of speech that follow the verb trigger the appearance of the H tone, as (48) shows. Thus, the decisive criterion is not a restriction to certain parts of speech, but rather a prohibition of the verb being intonation phrase final.

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<sup>11</sup>The second person plural and the cohortative in the IMPERATIVE category have the same tonal pattern on the verb as (47b), but the tonal structure of the object noun is different due to the postverbal plural particle. As this concerns, however, the syntactic H tone rather than the realis-marking grammatical H tone, this phenomenon is discussed in §7.2.1.2.

- (48) a. mé gyámbò ‘I cook.’
- b. mé gyámbó bé-kwàndò ‘I cook plantains.’ \_N
- c. mé gyámbó byô ‘I cook it.’ \_PRO
- d. mé gyámbó ndáà ‘I cook today.’ \_ADV
- e. mé gyámbó é kísíní dé tù ‘I cook in the kitchen.’ \_PREP
- f. mé gyámbó nà wómbèlè ‘I cook and sweep.’ \_CONJ

As shown in (48), the phrase-final verb *gyámbò* ‘cook’ surfaces with an L tone. If it is, however, followed by a noun, pronoun, adverb, preposition, or conjunction, the verb takes a final H tone. The same is true for complex predicates, as illustrated in (49). Again, if the verb *wúmbé* ‘want’ occurs phrase finally, it surfaces with an L tone. If it is followed by another element, however, in this case the non-finite main verb *gyámbò* ‘cook’, it takes a final H tone.

- (49) a. bá wúmbè ‘They want [something].’
- b. bá wúmbé gyámbò ‘They want to cook.’ \_v

It is, however, only the finite verb that undergoes tonal change. If a second, non-finite verb is not intonation phrase-final, it keeps its default tones, as shown in (50). In this example, the modal verb *wúmbé* ‘want’ takes the grammatical H tone that indicates the realis category. The final tone on *gyámbò* ‘cook’ surfaces as L.

- (50) bá wúmbé gyámbò békwañdò  
 ba-H wúmbé-H gyámbò H-be-kwàndò  
 2-PRS want-R cook OBJLINK-be8-plantain  
 ‘They want to cook plantains.’

### 6.2.3 Expanded simple predicates

Simple predicates can be expanded, making them morphologically more complex through the addition of inflectional verbal suffixes or particles, as described in §6.2 under subpattern II. This morphological expansion includes the negation suffix *-lε* (§6.2.3.1), stem reduplication expressing HABITUAL (§6.2.3.2), and the postverbal particle *mɔ* encoding COMPLETIVE (§6.2.3.3).<sup>12</sup>

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<sup>12</sup>There are other verbal suffixes used in verbal derivation (§4.2.4) that bring about a valency change. These are, however, not treated here as morphologically complex predicates—although they are considered as such by, for instance, Butt (2010: 51) on morphological causativization—due to their differing morphosyntactic behavior in Gyeli (§6.2.).

### 6.2.3.1 Negation with *-lē* in the PRESENT

In the PRESENT tense-mood category, the verbal suffix *-lē* is used in negation. I consider this suffix to be toneless since its surface tones depend on the verb stem's tonal specification. Negation with *-lē* shows structural and paradigmatic asymmetry in the sense of Miestamo's (2007): the verb stem takes its own tonal pattern under negation, the STAMP marker differs from its positive counterpart in some person categories, and the realis-marking H tone is absent, which marks PRESENT negation as an irrealis category. I first discuss the tonal pattern of the negated verb, then I describe the patterns of the STAMP marker, and finally the relation between present negation and the mood category.

The tonally specified first TBU of a verb stem (§2.4.1) determines the tonal pattern of a verb negated with the suffix *-lē*. In monosyllabic verb stems, the stem always changes to an H tone, which then also spreads to the negation suffix. (51) gives examples of verb stems with underlying L tones and (52) gives examples of monosyllabic verb stems whose tones surface as HL in their uninflected form.

- (51) L → H

- a. dè 'eat' > dé-lé
- b. kè 'go' > kē-lé

- (52) HL → H

- a. nyê 'see' > nyé-lé
- b. pê 'choose' > pé-lé

For disyllabic verbs, the determining factor for the negated surface form is the first syllable's tonal specification. If the tonal pattern of a disyllabic verb is H Ø, the H tone spreads to the second, underlyingly toneless mora of the verb and also to the negation suffix, as in (53).

- (53) H Ø → H H

- a. síndya 'change' > síndyá-lé
- b. símɛ 'respect' > símé-lé
- c. dzímbe 'get lost' > dzímbé-lé
- d. ngwáwɔ 'bend' > ngwáwɔ-lé

The same is true for trisyllabic verbs where the first mora is specified H and the two following morphemes are toneless. (54) shows that, again, the H tone from the first mora spreads to the right, all the way to the negation suffix.

- (54) H Ø Ø → H H H

- a. gyíkésə ‘teach’ > gyíkésé-lé
- b. líyələ ‘show’ > líyélé-lé
- c. lúmələ ‘send’ > lúmélé-lé
- d. súmələ ‘greet’ > súmélé-lé

The process changes if the first mora of a bi- or trisyllabic verb is specified with an L tone. In these cases, the tone on the first mora undergoes a featural change from L to H. This, however, does not affect the following toneless extension and negation suffix morphemes. These all surface as L, as shown in (55) for disyllabic verbs and in (56) for trisyllabic verbs.

- (55) L Ø → H L

- a. gyàga ‘buy’ > gyágà-lè
- b. vòwa ‘wake up’ > vówà-lè
- c. lúnga ‘grow’ > lúngà-lè
- d. tsìlɔ ‘write’ > tsílò-lè

- (56) L Ø Ø → H L L

- a. kfúbala ‘move’ > kfúbàlà-lè
- b. vìdèga ‘turn’ > vídègà-lè
- c. kàmbala ‘defend’ > kámbàlà-lè
- d. jìnəsə ‘make sth. sink’ > jínèsé-lè

(57) illustrates the verb tone asymmetries between a basic PRESENT form and its negative counterpart with an L tone verb in (57a) that changes to an H on the first TBU in the stem in (57b), while the following verbal TBUs stay L.

- (57) a. bá gìyò.

ba-H giyo

2-PRS cry

‘They cry.’

- b. bá gíyòlè.

ba-H giyo-le

2-PRS cry-NEG

‘They do not cry.’

- c. *bá límbè*  
ba-H límbε  
2-PRS pull  
'They pull.'
- d. *bá límbélē*  
ba-H límbε-lε  
2-PRS pull-NEG  
'They do not pull.'

In contrast, verb stems that are lexically specified with an H tone on the first TBU, as in (57c), stay H and spread that H tone across the following TBUs, including the negation suffix, as in (57d). This pattern also constitutes a structural asymmetry, since the basic simple predicate in the positive PRESENT surfaces as L.

As a default, the STAMP marker under PRESENT negation has the same pattern as the non-negated form, as shown for the agreement class 2 STAMP marker in (57). As with FUTURE non-negated STAMP markers, however, there are a few exceptions in certain grammatical person categories. The STAMP markers for first and second person singular as well as for class 1 take a special shape with a long vowel and rising LH pattern, as shown in (58) for the first person singular and the agreement class 1 STAMP marker.

- (58)
- a. *mé giyɔ*  
mε-H gìyɔ  
1SG-PRS cry  
'I cry.'
  - b. *mèé gíyòlè*  
mèé gìyo-lε  
1SG.NEG.PRS cry-NEG  
'I do not cry.'
  - c. *á límbè*  
a-H límbε  
1-PRS pull  
'S/he pulls.'
  - d. *àá límbélē*  
àá límbε-lε  
1.NEG.PRS pull-NEG  
'S/he does not pull.'

Other examples of PRESENT negation from natural texts are provided in (59) and (60).

- (59) *má dvúmólé mbvú mbì mbvû*  
      ma-H dvúmólé mbvú mbì mbvû  
      6-PRS produce-NEG Ø3.year like[Kwasio] Ø3.year  
      ‘They [the palm trees] don’t produce [fruit] every year.’
- (60) *mèé jílē wê bvúbvû*  
      mèé jí-lé wê bvúbvû  
      1SG.PRS.NEG ask-NEG 2SG.OBJ much  
      ‘I don’t ask you for much.’

Negation of non-verbal existential constructions (§7.1) is achieved through verbal PRESENT negation, using the verb *bè* ‘be’, as in (61).

- (61) a. *bùdì bá bélē*  
      b-ùdì ba-H bè-lé  
      ba2-person 2-PRS be-NEG  
      ‘There are no people.’ / ‘The people are not there.’
- b. *mùdì nû bélē*  
      m-ùdì nu-H bè-lé  
      n1-person 1-PRS be-NEG  
      ‘Nobody is there.’ / ‘The person is not there.’

As outlined in §3.9.1, agreement class 1 has alternate STAMP forms. Although their distribution is not exactly understood, it seems that there is a preference to use the form *nú* in the negation of existential clauses, as in (61b). Unlike the agreement class 1 negation STAMP marker *àá*, however, *nú* clusters with the default STAMP forms, carrying an H tone.

Although the PRESENT category is a realis mood characterized by a grammatical H tone on the verb in non-phrase final position, the realis-marking H tone is absent in PRESENT negation. Even if the negated verb appears in non-phrase final position, its tonal pattern does not change from the pattern outlined above for negated forms, as shown in (62).

- (62) a. *á gyágá békáládè*  
      a-H gyágá-H H-be-káládè  
      1-PRS buy-R OBJ.LINK-be8-book  
      ‘He buys books.’

- b. àá      *gyágàlè*    *békáládè*  
 àá      gyàga-le H-be-káládè  
 1.PRS.NEG buy-NEG OBJ.LINK-be8-book  
 ‘He does not buy books.’
- c. á      *dé*    *mántúà*  
 a-H    dè-H H-ma-ntúà  
 1-PRS eat-R OBJ.LINK-ma6-mango  
 ‘He eats mangoes.’
- d. àá      *délé*    *mántúà*  
 àá      dè-le H-ma-ntúà  
 1.PRS.NEG eat-NEG OBJ.LINK-ma6-mango  
 ‘He does not eat mangoes.’

Since the negated verb in (62d) surfaces with an H tone, one could assume that the H tone has merged with the realis-marking H tone. Since verbs of the pattern in (62b) do not take a verb-final H tone, however, I treat all negated verb forms in the PRESENT as having their own, fixed tonal pattern that lacks the grammatical H tone. The negated PRESENT thus belongs to the irrealis mood, which constitutes a paradigmatic asymmetry in comparison to the positive PRESENT.

#### 6.2.3.2 HABITUAL aspect by verb reduplication

Another expanded simple predicate construction involves verb stem reduplication, expressing HABITUAL aspect, as in (63). The HABITUAL relates to events that occur regularly or usually.

- (63) *mé*      *nyùlènyùlè*  
 mε-H    nyùlè-nyulè  
 1SG-PRS drink-drink  
 ‘I often drink.’

The reduplicated stem follows the original stem in the form of a suffix as opposed to constituting an independent word. Evidence for this comes from the duplicate’s tonal pattern. First, the duplicate is underlyingly toneless, while the original stem is specified for its first TBU. (64) shows that *pánde* ‘arrive’ carries its lexical H tone on the first TBU in the stem, but this lexical H tone does not appear on the toneless duplicate, which might even lose more features of the stem, such as vowel length and nasalization, as shown in (67).

- (64) *mé pánđépánđé*  
 mε-H pándε-pandε  
 1SG-PRS arrive-arrive  
 'I often arrive.'

Second, if a grammatical (or syntactic) H tone attaches to the right of the verb, it spreads across all toneless TBUs, just like in verbal extension suffixes (§4.2.4), including the second and third syllables of the original stem, as shown in (65) and (66).

- (65) *mé dílésédílésé bwánò*  
 mε-H dílēsε-dílēsε-H b-wánò  
 1SG-PRS feed-feed-R ba2-child  
 'I often give food to the children.'

- (66) *mé gyámbógyámbó bédéwò*  
 mε-H gyámbo-gyambo-H H-be-déwò  
 1SG-PRS prepare-prepare-R OBJ.LINK-8-food  
 'I regularly prepare food.'

Although the HABITUAL aspect appeared to me to be very frequent in the conversations that I observed, it is barely found in the corpus. From elicitation, however, it is clear that the HABITUAL is restricted to the PRESENT and SUBJUNCTIVE categories. An example of a SUBJUNCTIVE occurrence is given in (67) with *tāà-ta* 'tell often'.

- (67) *bampámbó bá líyèliyè nâ yá tāàtā*  
 ba-mpámbó ba-H líyε-liyε nâ ya-H tāà-ta  
 ba2-ancestor 2-PRS leave-leave COMP 1PL-PRS tell.SBJV-tell  
*békàndá                      bé      tè*  
 H-be-kàndá                      bé      tè  
 OBJ.LINK-be8-proverbs 8:ATT there  
 'The ancestors leave [the proverbs to us], so that we tell the proverbs there.'

The tonal marking of the subjunctive is on the original stem, while the duplicate is underlyingly toneless. The duplicate further loses vowel length and nasalization.

### 6.2.3.3 ABSOLUTE COMPLETIVE aspect *mò*

The verbal particle *mò* (§3.9.2) expresses ABSOLUTE COMPLETIVE aspect.<sup>13</sup> Historically, it probably stems from a serial verb construction, which Nurse (2008: 67) views as a Niger-Congo derivative from *-mala* > *-ma* ‘finish’ and which is found in many northwestern Bantu languages, e.g., Maande (A46), Himba (B30), Yanzi (B85), and Nyanga (D43) (Nurse 2008: 100). *mò* has an assimilated variant that merges with the preceding verb vowel, while adding length, nasality, and an HL tone pattern to it, as in (68b).

- (68) a. *mè lùngá mó*  
*mè lùngá mó*  
 1SG grow COMPL  
 ‘I have (already) grown up.’
- b. *mè lùngáà*  
*mè lùngáà*  
 1SG grow.COMPL  
 ‘I have (already) grown up.’

The ABSOLUTE COMPLETIVE is restricted to the recent PAST.<sup>14</sup> In the corpus, 17 occurrences of the ABSOLUTE COMPLETIVE have the uncontracted form and twelve have the contracted form. In sum, the ABSOLUTE COMPLETIVE is the most frequent aspect marker with 23.8% of all aspect markers in the corpus.

The ABSOLUTE COMPLETIVE mostly occurs with eventive verbs, as illustrated in (69) through (71).

- (69) *mínò má bùdi mà kéé* *máà vé*  
 m-ínò má b-ùdì ma kéé máà vé  
 ma6-name 6:ATT ba2-person 6.PST1 go.COMPL 6.ID where  
 ‘The people’s names have gone, where are they? [strangers come once,  
 but do not return again]’

<sup>13</sup>This category might be similar to what has been called a “iamitive” by Olsson (2013) for Southeast Asian languages. Dahl & Wälchli (2016) suggest that the iamitive category differs from the prefect in that it allows combination with statives, which is also the case in Gyeli. They note that iamitive forms are often grammaticalized from expressions for ‘already’. This is different in Gyeli, where the grammaticalization path more likely involves a verbal source (‘finish’).

<sup>14</sup>Unlike other aspectual categories, such as the PAST PROGRESSIVE form *nzí* or the PERFECT form *bwàà*, which allow both PAST tense-mood categories, the use of PST2 is prohibited for the ABSOLUTE COMPLETIVE.

- (70) *bon*      *mpɔ̃ngò*      *sílɛ́ɛ́*  
       *bon*      *mpɔ̃ngò*      *sílɛ́ɛ́*  
       OK[French] Ø7.generation finish.COMPL  
       'OK, the generation has been wiped out.'
- (71) *wɛ́*      *dyúwó*      *mò*  
       *wɛ*      *dyúwo-H* *mò*  
       2SG.PST1 hear-R COMPL  
       'Have you understood?'

Although stative verbs rarely take this aspect marker, it is still possible, as (72) shows.<sup>15</sup>

- (72) *wɛ́*      *lèmbőð*      *sâ bányá*      *màmbò*      *nâ*      *ká*  
       *wɛ*      *lèmbőð*      *sâ H-ba-nyá*      *m-àmbò*      *nâ*      *ká*  
       2SG.PST1 know.COMPL do OBJ.LINK-ba2-important ma6-thing COMP if  
       *mé*      *lúmó*      *wɛ́*      *nláà*      *nâ*  
       *mε-H*      *lúmo-H* *wɛ́*      *nláà*      *nâ*  
       1SG-PRS send-R 2SG.OBJ Ø3.message COMP  
       'You know to do the right thing so that, if I send you the message [ask  
       you for help] that...'

All of these examples have in common that the aspect marker conveys a meaning of completeness. They are usually translated into French as *déjà* 'already' by speakers. In (69), the people have completely left, in (70), the generation has completely been wiped out, and in (71), the process of understanding has to be complete in order to count as understanding. (73) shows how the ABSOLUTE COMPLETIVE compares to other aspect categories that relate to notions of completeness or perfectiveness, such as the PERFECT *bwàà* (§6.3.1.4) and the semi-auxiliary *síle* 'finish', which has a non-complete accomplishment reading (§6.3.2).

- (73) a. *mè*      *lá*      *mò*      *kálàdè*      *yíndè*  
       *mε*      *lâ-H* *mò*      *kálàdè* *yí-ndè*  
       1SG.PST1 read-R COMPL Ø7.book 7-ANA  
       'I have read this book [entirely, all of it].'

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<sup>15</sup> Another explanation for this particular occurrence of *mò* with *lèmbò* 'know' could be that this verb rather has an eventive character, along the lines of 'coming to understand'. The restricted corpus, however, does not clarify this.

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- b. *mè sile lâ kálàdè yíndè*  
     mɛ sile-H lâ kálàdè yí-ndɛ  
     1SG.PST1 finish-R read Ø7.book 7-ANA  
     'I'm done reading this book. [but not necessarily the whole book]'
- c. *mè bwàá lâ kálàdè yí-ndè*  
     mɛ bwàà-H lâ kálàdè yí-ndɛ  
     1SG have-R read Ø7.book 7-ANA  
     'I have read this book [more general/experiential].'

The example compares different aspect meanings in the situation of reading a book. If *mò* is used, the interpretation is that the book has been read entirely. Therefore, I call this aspect category ABSOLUTE COMPLETIVE. In comparison, the semi-auxiliary *sile* 'finish', also carries a completive meaning in that the person has finished reading the book. The use of *sile*, however, does not entail that the book has been read in its entirety, just that the subject has stopped reading (parts of) it. Therefore, I label this aspect NON-COMPLETE ACCOMPLISHMENT. The PERFECT use in (73c) suggests a more general and maybe experiential reading. In this way, the PERFECT has some semantic overlap with the ABSOLUTE COMPLETIVE, since experiential meaning is also expressed by *mò*, as shown in (74).

- (74) *wè lâdó mò nà káliyâ*  
     wɛ lâdɔ-H mò nà káliyâ  
     2SG.PST1 meet-R COMPL COM Ø1.sister:1SG.POSS  
     'Have you (already, ever) met my sister?'

Finally, the ABSOLUTE COMPLETIVE is used in more figurative and idiomatic ways. In (75), for instance, Nzambi's wife states that she is starving, using the ABSOLUTE COMPLETIVE for *wè* 'die', even though, obviously, she is still alive.

- (75) *nyè nàà mùdì wáá mè wéé nà nzà*  
     nyɛ nàà m-ùdi w-áá mɛ wéé nà nzà  
     1 COMP N1-person 1-POSS.1SG 1SG die.COMPL COM Ø9.hunger  
     'She [said]: "My person, I'm dead hungry".'

In the same way, speakers use the ABSOLUTE COMPLETIVE in situations of announcing their departure, as in (76), although, literally, they have not left yet.

- (76) *yóò Nzàmbí kí nà bon mè nìyé mò*  
     yóò Nzàmbí kí-H nà bon mɛ nìyé-H mò  
     so Ø1.PN say-R COMP good[French] 1SG.PST1 return-H COMPL  
     'So Nzambi says: "Good, I am returning home".'

I consider the ABSOLUTE COMPLETIVE to indicate the realis mood, since the finite verb always surfaces with a final H tone, which is characteristic of this mood category (§6.2.1 and §6.2.2). In comparison to other simple predicate constructions, the verb in the ABSOLUTE COMPLETIVE never appears phrase finally, since the ABSOLUTE COMPLETIVE marker *mò* behaves as a post-verbal element. In (77a), the grammatical H tone thus appears on the final vowel of *gyámbɔ* ‘cook’.

- (77) a. *mè gyámbó*   *mò*   *bédéwò*  
           me gyámbó-H mò      H-be-déwò  
       1SG cook-R    COMPL OBJ.LINK-be8-food  
           'I have cooked the food.'

b. *mè gyámbó*   *bédéwò*  
           me gyámbó-H    H-be-déwò  
       1SG cook:R:PRF OBJ.LINK-be8-food  
           'I have cooked the food.'

The more grammaticalized variant in (77b) also carries the H tone. Here, the verb and the COMPLETIVE marker *mò* have fused, resulting in a long final vowel that is nasalized and that reflects the tonal pattern of the *mò* variant: first the grammatical H tone and then the L tone of the postverbal aspect marker, surfacing as a long HL vowel.

## 6.3 Complex verbal predicates

According to Butt (2010: 50), “the term *complex predicate* refers to any construction in which two or more predicational elements each contribute to a joint predication”. In Gyeli, there are two types of complex predicates. I refer to the first type as complex predicates with a single STAMP marker, which include the STAMP marker, a finite auxiliary verb, and at least one non-finite lexical verb, as the template in (78a) shows. Maximally, two non-finite verbs can occur in a complex predicate, as discussed in §6.3.3. The adverb and pronominal object that appear in square brackets in the template are not part of the verbal predicate, but they can occur between the finite and the main verb. I consider the second type to be a complex predicate construction with a double STAMP marker, which has a template as in (78b).

- (78) Complex predicate types

  - a. Complex predicates with a single STAMP
    - STAMP – Auxiliary verb – [Adverb/pronominal object] – Verb – (Verb)

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### b. Complex predicates with a double STAMP

STAMP<sub>i</sub> – (Auxiliary) – *bè* ‘be’ – STAMP<sub>i</sub> – Auxiliary/Verb<sub>finite</sub> – (Verb)

Single STAMP predicates can further be subdivided into those that take only one non-finite verb and those that take two. (79) gives an example of a minimal single STAMP predicate with the verbal predicate in brackets.

- (79) *mègà* [mé lígé dè] *mwánò* wóò  
me-gà me-H lígε-H dè m-wánò w-óò  
1-CONTR 1SG-PRS stay-R eat ma1-child 1-POSS.2SG  
'As of me, I stay and eat your child.'

An example of a single STAMP predicate with the maximal number of non-finite verbs is provided in (80).

- (80) *áh* *gyí* [wé ló nji gyésò]  
áh gyí wε-H ló nji gyésò  
EXCL what 2SG-PRS RETRO come look.for  
'Ah, what have you just come to look for?'

Elements that are external to the single STAMP predicate, but which occur between the finite and the non-finite verb, such as adverbs, sentential modifiers, and object pronouns, always directly follow the finite verb form, as in (81).

- (81) [wé yàné ná gyàgà] *ndísì*  
wε-H yànε-H ná gyàga ndísì  
2SG-PRS must-H again buy Ø3.rice  
'You must again buy rice.'

If a sentential modifier is used in a three-verb single STAMP predicate, as in the combination of modal and aspectual auxiliaries in (82), the modifier will still appear after the first, inflected auxiliary. It has not been observed to appear after the second auxiliary.

- (82) *bí* *bógà* [yá wúmbé ndáà pâ nyê] *sâ* *bá*  
bí bó-gà ya-H wúmbé-H ndáà pâ nyê sâ ba-H  
1PL.SBJ 2-other 1PL-PRS want-R also PRIOR see Ø7.thing 2-PRS  
*gyílbó* *ngyùlè* *wá kùrâ*  
gyílbó-H ngyùlè wá kùrâ  
call-R Ø3.light 3:ATT Ø7.electricity  
'We others, we also want to first see the thing they call the light of electricity.'

The same is true for fronted object pronouns (§7.3.3): the object pronoun will always appear after the first auxiliary, as in (83), which contains a two-verb construction, and in (84), which contains a three-verb construction.

- (83) *bùdì [bà sílē̂k mē wè] ndáwò tù vâ*  
 b-ùdì ba sílē̂k mē wè ndáwò tù vâ  
 ba2-person 2.PST1 finish.COMPL 1SG.OBJ die Ø9.house inside here  
 ‘The people have all died here inside the house.’

- (84) *[báà sílè bî kúmbà lwɔ] mánđáwò*  
 báà sílè bî kúmba lwɔ H-ma-ndáwò  
 2.FUT finish 1PL.OBJ arrange build OBJ.LINK-ma6-house  
 ‘They will arrange for us to build houses.’

These examples show that complex predicates in Gyeli are auxiliary-headed. Anderson (2011b: 9) explains that, in auxiliary-headed languages, the auxiliary verb serves as the head, while the lexical verb is its dependent, appearing in its non-finite form. This is illustrated in, for instance, (79), where the auxiliary *lígé* ‘stay’ carries the realis-marking H tone, while *dè* ‘eat’ appears in its non-finite form. The auxiliary occupies “the position in the verb phrase that the lexical verb would occupy if it appeared alone in an inflected form” (Anderson 2011b: 10). In Gyeli, this position is directly following the STAMP marker and preceding the lexical verb. This pattern matches Dryer’s (2007c) observation that the auxiliary (generally) precedes the main verb in VO languages.

Double STAMP predicates involve two STAMP markers that share a referent. Each of the STAMP markers is followed by a finite verb form. The first verb form always includes a form of the auxiliary *bè* ‘be’, either finite as in (85a) or non-finite as in (85b), while the second involves another simple predicate or complex single STAMP predicate. The square brackets indicate the double STAMP construction.

- (85) a. *[mé̂k bé mē gyámbògyàmbò]*  
 mé̂k bè-H mē-H gyámbɔ-gyambɔ  
 1SG.PST2 be 1SG-PRS cook-cook  
 ‘I used to cook (a long time ago).’
- b. *[mē nzí bé mē nzí gyámbògyàmbò] à nzí*  
 mē nzí bè-H mē nzí gyámbɔ-gyambɔ a nzí  
 1SG PROG.PST be-R 1SG PROG.PST1 prepare-prepare 1 PROG.PST

gyímbɔ̄

gyímbɔ̄

dance

‘While I was preparing [food], he was dancing.’

Double STAMP predicates can be thought of as a combination of a single predicate (or complex predicate with single STAMP marker) with another single predicate (or complex predicate with single STAMP marker). The two finite verbs usually differ in their tense-mood encoding, thereby shifting the viewpoint in temporal reference as well as enabling combinations of tense, mood, aspect, and negation that are excluded in single STAMP constructions.

In the remainder of this chapter, I first discuss single STAMP predicates. As outlined in §3.2.2.3, auxiliaries in Gyeli differ in their degree of grammaticalization. True auxiliaries are highly grammaticalized and have no synchronic lexical meaning. They are discussed in detail in §6.3.1. In contrast, semi-auxiliaries do have a lexical meaning, as well as a different distribution from that of true auxiliaries, as described in §6.3.2. §6.3.3 presents different levels of complexity in single STAMP predicates, namely those that are morphologically and syntactically complex and those that involve two non-finite verbs. §6.3.4 describes double STAMP predicates.

### 6.3.1 Single STAMP predicates with true auxiliaries

Complex predicates with a single STAMP construction that use true auxiliaries (§3.2.2.3) involve grammaticalized auxiliaries that, unlike semi-auxiliaries, are restricted to certain tense-mood categories. This predicate type differs internally with respect to the degree of grammaticalization: highly grammaticalized true auxiliaries have synchronically no lexical meaning, whereas less grammaticalized true auxiliaries also maintain a lexical meaning. This distinction is indicated by an English gloss for the ones with a lexical meaning and a lack thereof for the ones without lexical meaning. Table 6.8 lists all true auxiliaries that are used in complex predicates with single STAMP constructions. Functionally, these auxiliaries encompass those that encode aspect and those that encode negation.

Table 6.8 further indicates the auxiliaries’ restriction to certain tense-mood categories or special constructions (e.g. subordinate clauses, infinitives). While most true auxiliaries occur within a tense-mood category that is identical to those discussed under simple predicates (§6.2.1), there are four auxiliaries that take a special pattern.

Special pattern 1 includes the PRESENT PROGRESSIVE with *nzíí*, the SUBORDINATE PROGRESSIVE with *nzéé*, and the PRESENT tense use with *tí*. This pattern is

Table 6.8: STAMP markers for different aspect markers

	STAMP example	True auxiliary	Restrictions	Function
Aspect	yà	<b>nzíí</b>	special pattern 1	PROG.PRES
	yà	<b>nzéé</b>	special pattern 1	PROG.SUB
	yà, yáà	<b>nzí</b>	PST1, PST2	PROG
	yá	<b>ló</b>	PRS	RETRO
	mè, yá	<b>múà</b> 'be'	special pattern 2	PROSP
	yà, yáà	<b>bwàá</b> 'have'	PST1, PST2	PRF
Negation	yà/yáà	<b>sàlé/pálé</b>	PST1, PST2	NEG
	yáà/mèè	<b>kálè</b>	FUT	NEG
	yá/Ø/	<b>tí</b>	IMP, INF,	NEG
	yà	<b>tí</b>	special pattern 1	NEG
	yá	<b>dúù</b> 'must not'	PRS, SBJV	NEG

characterized by a STAMP marker that surfaces with an L tone and a verb with an H tone. On the surface, this looks identical to the RECENT PAST pattern of simple predicates. Since the auxiliary, however, can never occur phrase finally, as it always requires a non-finite verb, it is not clear what underlying tone pattern the auxiliary verb has and thus whether it is indeed identical to the RECENT PAST. Given that this (on-the-surface) identical tone pattern occurs in different predicate construction types and has different functions, while the underlying tone pattern of the verb is not discernible, I consider the special pattern 1 as distinct from the RECENT PAST. All categories that take the special pattern 1 occur in PRESENT tense (*nzíí* and *tí*) or tenseless (*nzéé*) contexts. I suggest that, with these highly grammaticalized auxiliaries, the STAMP marker is deprived of the H tone that surfaces on the STAMP markers in simple predicate PRESENT. Tense information in these complex constructions is thus encoded lexically in the auxiliary, as in (86).

- (86) *mè nzíí gyámbò bédéwò*  
*me nzíí gyámbò H-be-déwò*  
 1SG PROG.PRS.R COOK OBJLINK-be8-food  
 'I am cooking food.'

To mark the difference between the RECENT PAST L tone of the STAMP marker, as in (87), and the absence of the H tone for special pattern 1 in complex predicates, I only gloss the STAMP marker in the latter for person. In contrast, the

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RECENT PAST STAMP marker is additionally glossed for the tense information it encodes.

- (87) *mè gyámbó bédéwò*  
me gyámbó-H H-be-déwò  
1SG.PST1 cook-R OBJ.LINK-be8-food  
'I cooked food.'

Special pattern 2 is only found with the PROSPECTIVE aspect *múà*. Here, the tonal pattern of the STAMP marker is comparable to that of the FUTURE, where some person categories have an exceptional tonal pattern. The first and second person singular as well as the agreement class 1 STAMP marker are different from the other agreement classes. The actual shape, however, differs between PROSPECTIVE and FUTURE STAMP markers. The PROSPECTIVE STAMP markers have all short vowels with an L tone for the exceptional (1SG, 2SG, and 1) person categories and H tones for the others. In contrast, the FUTURE STAMP markers have a long vowel, which has an L tone in the exceptional cases (1SG, 2SG, and 1) and an HL tone in the others.

Each aspect and negation category also cross-cuts with a mood category. Although there is no way to prove that a realis-marking H tone attaches to the auxiliary verb, since the auxiliary never occurs phrase finally and therefore its underlying tone pattern cannot be known, I classify the auxiliaries with a final H tone as realis mood and those with a final L tone as irrealis mood. This analysis is based on an assumed parallel behavior between semi-auxiliaries (§6.3.2) and highly grammaticalized true auxiliaries, which are thought of as mirroring the mood category of their simple predicate counterparts. As Table 6.9 shows, this is true for *dúù* 'must not', which belongs to the realis category when it occurs in the PRESENT, but to the irrealis category when it occurs in a SUBJUNCTIVE construction.

While most auxiliaries belong to the realis mood, there are a few irrealis auxiliaries characterized by their final L tone: PROSPECTIVE *múà*, FUTURE NEGATIVE *kálè*, and SUBJUNCTIVE *dúù*. Almost all auxiliaries match their simple predicate counterparts in their mood category.<sup>16</sup> The only exception is *tí*, which is the negation form of the IMPERATIVE, infinitive constructions, and certain cases of the PRESENT. While *tí* clusters with the realis mood, both the IMPERATIVE and the PRESENT negation with *-le* (§6.2.3.1) belong to the irrealis category. In the remainder of this section, I present each true auxiliary and the grammatical category it encodes.

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<sup>16</sup>I consider *múà* 'be almost' is considered to belong to the FUTURE category based on its formal and semantic proximity.

Table 6.9: Mood categories of aspect markers

Mood	True auxiliary	TM restriction	Function
REALIS	<b>nzíí</b>	special pattern 1	PROG.PRES
	<b>nzí</b>	PST1, PST2	PROG.PST
	<b>nzéé</b>	special pattern 1	PROG.SUB
	<b>ló</b>	PRS	RETRO
	<b>bwàá</b> 'have'	PST	PRF
	<b>sàlé/pálé</b> 'have'	PST1, PST2	NEG.PST
	<b>dúù</b> 'must not'	PRS	NEG
	<b>tí</b>	special pattern 1	IMP, INF, PRES
IRREALIS	<b>múà</b> 'be almost'	special pattern 2	PROSP
	<b>kálè</b>	FUT	NEG.FUT
	<b>dúù</b> 'have'	SBJV	NEG

### 6.3.1.1 PROGRESSIVE aspect *nzíí*, *nzí*, and *nzéé*

The PROGRESSIVE aspect category has three suppletive forms for different tense related categories: *nzíí* for PRESENT, *nzí* for the general PAST, i.e. both recent and remote, and *nzéé* as a tenseless dependent form.<sup>17</sup> The PROGRESSIVE forms for the PRESENT and both PAST tenses are used in main clauses, as shown in (88) with a temporal adverb in each example, and in most subordinate clauses, as in (92) and (93).

- (88) a. *mè nzíí gyámbò téè*  
           me nzíí gyámbò téè  
           1SG PROG.PRS.R cook now  
           'I'm cooking now.'
- b. *mè nzí gyámbò nákùgúù*  
       me nzí gyámbò nákùgúù  
       1SG.PST1 PROG.PST.R cook yesterday  
       'I was cooking yesterday.'

<sup>17</sup>The STAMP markers of *nzíí* and *nzéé* take a special tone pattern that does not match the tense-mood categories of simple predicates, as outlined in §6.3.1.

- c.    **méè**      **nzí**      gyámbò mbvû lâ  
       méè      nzí      gyámbò mbvû lâ  
       1SG.PST2 PROG.PST.R cook    Ø3.year pass  
       'I was cooking last year.'

In contrast, the tenseless PROGRESSIVE auxiliary *nzéé* is a dependent form that occurs in three environments: (i) in the second constituent of a complex predicate construction with a double STAMP marker (§6.3.4), (ii) in a subordinate clause where *nzéé* is the only marker of subordination (§8.2.3.5), and (iii) in a complement clauses with *nâ* (§8.2.2.1). (89) provides an instance of a complex predicate with a double STAMP marker, where the referent of the STAMP marker is identical for both constituents. As *nzéé* is generally not specified for tense, tense-mood information is encoded in the first constituent, which involves *bè* 'be'. Although the first constituent anchors the event in the FUTURE, which belongs to the irrealis mood, *nzéé* always occurs with a realis-marking H tone, irrespective of the tense-mood category of the first constituent in a complex predicate (or the matrix clause).

- (89) [mèè bè [mè **nzéé** kè]]  
       mèè bè me nzéé kè  
       1SG.FUT be 1SG PROG.SUB.R go  
       'I will be going.'

In contrast to (89), the structure in (90) is not a complex predicate, but a case of "linkless" subordination. Although, on the surface, both examples look similar, (90) is not an instance of joint predication, since the two STAMP markers refer to different entities: the second person singular in the first constituent and the first person singular in the second constituent. Another difference from (89) is that the finite verb in the first constituent is not the auxiliary *bè* 'be'. Nevertheless, the tenseless PROGRESSIVE auxiliary *nzéé* is used in this context, since both predicates share the same tense specification, anchoring the second constituent temporally at the time of the first.

- (90) ká wé pámó màwùlà lòmbì [wé kfùmàlà [mè  
       ká wé-H pámo-H ma-wùlà lòmbì wé-H kfùmàlà me  
       if 2SG-PRS arrive-R ma6-hour eight 2SG-PRS find 1SG.SBJ  
       **nzéé** gyámbò]]  
       nzéé gyámbò  
       PROG.SUB.R cook  
       'If you arrive at eight o'clock, you will find me cooking.'

*nzéé* also occurs in complement clauses with *nâ*, as in (91), in places where the SUBJUNCTIVE would be used instead if the construction were a simple predicate.

- (91) *mé sisó nâ wè nzéé gyìmbɔ*  
 mε-H sisɔ-H nâ wε nzéé gyimbɔ  
 1SG-PRS be.happy-R COMP 2SG PROG.SUB.R dance  
 'I'm happy that you are dancing.'

*nzéé* does not, however, occur in every type of subordinate clause. In relative clauses (§8.2.1), for instance, a tensed form of the PROGRESSIVE auxiliary is used instead, as in (92).

- (92) *bá dyúwɔ́ lékélè [lé wè nzíí làwɔ]*<sub>REL</sub>  
 ba-H dyúwɔ-H H-le-kélè lé wε nzíí làwɔ  
 2-PRS understand OBJ.LINK-le5-language 5:ATT 2SG PROG.PRS.R speak  
 'They understand the language that you are speaking.'

The same is true for conditional clauses (§8.2.3.2), as in (93). The reason for this is most likely that these types of dependent clauses do not necessarily anchor the time of the subordinate clause at the same time of the matrix clause, even though these times can be identical, as in (93). Therefore, the tenseless auxiliary *nzéé* is prohibited.

- (93) *[ká kééssó yi nzíí wé dyòdè]COND wé yáné kílɔwɔ*  
 ká kééssó yi nzíí wé dyòdè wε-H yáné kílɔwɔ.  
 if Ø7.peer 7 PROG.PRS 2SG.OBJ deceive 2SG-PRS must be.vigilant  
 'If somebody is deceiving you, you must be vigilant.'

The PROGRESSIVE emphasizes that an event is ongoing, as shown in (94b). In contrast, the unmarked tense-mood form in (94a) does not give any information about the internal constituency of the event.

- (94) a. *mé dè*  
 mε-H dè  
 1SG-PRS eat  
 'I eat.'  
 b. *mè nzíí dè*  
 mε nzíí dè  
 1SG PROG.PRS.R eat  
 'I'm eating.'

## 6 The verbal complex

The PROGRESSIVE in Gyeli is commonly found in questions, as in (95). While the unmarked, bare tense-mood form is also grammatically correct in questions, the PROGRESSIVE form is definitely preferred and much more frequent.<sup>18</sup>

- (95) *nzá nzíí m̄ê nȳê*  
*nzá nzíí m̄ê nȳê*  
 who PROG.PRS 1SG.OBJ see  
 ‘Who is seeing me?’

Gyeli PROGRESSIVE aspect does not seem to be restricted to any particular verb classes. Whereas English, for instance, disfavors PROGRESSIVES with verbs expressing states, in Gyeli all kinds of verbs can occur with the PROGRESSIVE. This is illustrated in (96) for a stative verb and in (97) for a (desiderative) modal verb.

- (96) *kó mbúmbù nȳe nzí lèmbò dyùù b̄â fàmìí bá*  
*kó mbúmbù nȳe nzí lèmbò dyùù b-â fàmìí bá*  
 EXCL Ø1.namesake 1.PST1 PROG know kill 2-OBJ Ø1.family 2:ATT  
*bùdì ná*  
*b-ùdì ná*  
 ba2-person how  
 ‘Oh namesake, how did you know how to kill them, the family of people?’

- (97) *m̄e nzí wúmbè nâ bwánò bâ bá bwámóò é*  
*m̄e nzí wúmbè nâ b-wánò b-â ba-H bwámóò é*  
 1SG.PST1 PROG want COMP ba2-child 2-POSS.1SG 2-PRS become.SBJV LOC  
*mpù mintángáné békúdē bé mpâ*  
*mpù mi-ntángáné H-be-kúdē bé mpâ*  
 like.this mi4-white.person OBJ.LINK-be8-skin 8:ATT good  
 ‘I wanted my children to get good skin like white people.’

In addition to describing a situation as ongoing and unbounded, the PROGRESSIVE is also used for backgrounding information, as shown in (98), which presents three chronological utterances by a speaker talking about his mother. The phrase in (98a) includes the main information, namely that the speaker’s mother is in another village (and not in Ngolo). He then explains as backgrounding information in (98b) that she went there for his brother’s funeral. In (98c), this is supplemented with further background information, namely that the brother had died there.

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<sup>18</sup>For more information on questions, see §7.4.1.

- (98) a. nyáâ̂ wâ nûú Ntâbèténdâ pè  
      nyáâ̂ w-â nûú Ntâbèténdâ pè  
      Ø1.mother 1-POSS.1SG 1.DEM.DIST Ø7.PN there  
      ‘My mother is over there in Ntabetenda [name of village].’
- b. à nzí kë lëtsíndó lé ntùmbà  
      a nzí kë le-tsíndó lé n-tùmbà  
      1 PROG.PST1 go le5-funeral.ceremony 5:ATT N1-older.brother  
      wâ  
      w-â  
      1-POSS.1SG  
      ‘She was going to my older brother’s funeral ceremony.’
- c. nógá à nzí wè wû  
      nó-gá a nzí wè wû  
      1-CONTR 1 PROG.PST1 die there  
      ‘As for him, he died over there.’

The phrase in (98c) is a particularly good illustration of the fact that, in these instances, the PROGRESSIVE form is most likely not concerned with an ongoing event, since the verb *wè* ‘die’ is typically punctual rather than ongoing.

### 6.3.1.2 RETROSPECTIVE aspect *lɔ*

The RETROSPECTIVE auxiliary is the counterpart to the PROSPECTIVE (§6.3.1.3) on the time line, looking back at the endpoint of an event that has just taken place. It is likely a loan construction from French *venir de faire quelque chose* ‘just having done something [lit. come from doing something]’, while the lexeme *lɔ* is a loan-word from Basaa (A42), with the meaning ‘come’ in Basaa. Although speakers are aware of the Basaa meaning, *lɔ* does not have any lexical meaning in Gyeli nor does it occur outside of the RETROSPECTIVE context. I therefore gloss *lɔ* only with its grammatical category instead of a lexical meaning. The RETROSPECTIVE auxiliary has only been observed to occur with eventive verbs and animate subjects in the corpus. It is restricted to the PRESENT (unlike French, where it can also be used in other tenses). Accordingly, STAMP markers carry the PRESENT H tone, as shown in (99), while the verb *lɔ* always occurs with a realis-marking H tone.<sup>19</sup> Unlike in the PROSPECTIVE, all STAMP markers carry the same tone in this aspect category, as (99a) and (99b) show.

<sup>19</sup>Since *lɔ* never occurs phrase finally in Gyeli, there is no proof of any underlying tone. I therefore gloss *lɔ* with an H tone also in the underlying form, which inherently carries the realis-marking grammatical H tone.

## 6 The verbal complex

- (99) a. *á ló dè*  
          a-H ló dè  
          1-PRS RETRO.R eat  
          ‘He has just eaten [*Il vient de manger*]’
- b. *bá ló dè*  
       ba-H ló dè  
       2-PRS RETRO.R eat  
       ‘They have just eaten.’

The distance between speech time and the time of the event is typically short. In (100), for instance, the speech time follows the event of ‘coming to look for’ immediately, while the event has ongoing affects during speech time. The addressee of the question is still present and is still looking for something.

- (100) *áh gyí wé ló njì gyéssò*  
       áh gyí wé-H ló njì gyéssò  
       EXCL what 2SG-PRS RETRO.R come look.for  
       ‘Ah, what have you just come to look for?’

Likewise, in (101), the event that is retrospectively looked at precedes the utterance time by about a few seconds.

- (101) *yá ló fwálà nà mé ló láwɔ*  
       ya-H ló fwálà nà me-H ló láwɔ  
       1PL-PRS RETRO.R end COM 1SG-PRS RETRO.R speak  
       ‘We have just finished and I have just spoken.’

There are, however, also instances in the corpus where more time has elapsed between the situation and the utterance. In (102), Nzambi’s wife comes home after having lost her child and now explains the situation to her husband, namely that the husband’s friend has taken the child in return for food. She reports that the friend had said that they don’t work hard enough to earn their food. Between the situation where the friend said this (the retrospect situation) and the time of utterance, the wife has left the friend’s home, walked all the way back to her own home, had cried, and had gotten picked up by her husband. Thus, in this case, situation and speech time are not at all proximate.

- (102) *yɔ́ò á ló kì náà é mpù wèé gyángyálé*  
*yɔ́ò a-H ló kì náà é mpù wèé gyángya-lé*  
 so 1-PRS RETRO say COMP LOC like.this 2SG.PRS.NEG work-NEG  
*bédéwò*  
 H-be-déwò  
 OBJ.LINK-be8-food

‘So he just said: “Like this, you don’t work for your food”’

The RETROSPECTIVE aspect is often viewed as PERFECT in the literature, and the example in (102) could be taken as such. As Comrie (1976: 64) states, the perfect is retrospective in that it establishes “a relation between a state at one time and a situation at an earlier time”. As shown in this section, the Gyeli RETROSPECTIVE is different from Comrie’s retrospectivity of the perfect. The Gyeli PERFECT has a distinct form, as I show in §6.3.1.4.

### 6.3.1.3 PROSPECTIVE aspect *múà*

The PROSPECTIVE marker *múà* ‘be almost’ is the only aspect category that belongs to the irrealis mood, in Gyeli which is characterized by the absence of a realis-marking grammatical H tone on the auxiliary verb, as shown in (103). It is similar to the FUTURE irrealis category also in that the STAMP markers of the first and second person singular as well as the class 1 STAMP marker show a different tonal pattern from the other agreement classes, as contrasted between (103a) and 103b.<sup>20</sup>

- (103) a. *à múà dè*  
*a múà dè*  
 1 be.almost eat  
 ‘S/he is about to eat.’
- b. *bá múà dè*  
*ba-H múà dè*  
 2-PRS be.almost eat  
 ‘They are about to eat.’

Since the PROSPECTIVE marker *múà* has a lexical meaning, ‘be almost’, I gloss *múà* with its meaning rather than the grammatical category that it encodes. This is consistent with cases where *múà* ‘be almost’ occurs in a simple predicate without another finite verb, as in (104).

<sup>20</sup>See §6.3.1 for more information on tonal patterns of the STAMP marker in complex predicates with true auxiliaries.

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- (104) *mè múa tísɔnì*  
mɛ müà tísɔnì  
1SG be.almost Ø7.town  
'I'm almost in town.'

Due to its inflectional restrictions (§6.3.1), however, I view *múa* as marking a grammatical category instead of being a non-grammaticalized semi-auxiliary (§6.3.2).

Comrie (1976: 64) describes the PROSPECTIVE as an aspect "where a state is related to some subsequent situation, for instance where someone is in the state of being about to do something". Speakers usually translate the use of this aspect marker in (103a) into Cameroonian French as *Je veux/vais déjà manger* 'I want/will already eat'. In a detailed description of the situation in (103a), speakers explain that a person would already be sitting at a table with a plate of food, being in the state of just being about to start eating.

The French modals used in translation also reflect the future orientation of the Gyeli PROSPECTIVE, similarly to what Matthewson (2012) describes for Gitksan (Tsimshianic; British Columbia, Canada) modals. This future orientation explains the affiliation to the irrealis mood. Even though in terms of alternative realities, it is highly probable that the person in (103a) will indeed engage in the described event, this is probably not the case for (105).

- (105) *mè múa wè nà nzà*  
mɛ müà wɛ nà nzà  
1SG be.almost die COM Ø9.hunger  
'I'm about to die from hunger.'

This example shows that the prospected event is not inevitable and at the point of utterance, it is not certain that it will really happen. The same is true for (106), where the beating is probable, but not certain.

- (106) *nyè náà à múa wê bíyò dé*  
nyɛ nâ a müà wɛ bíyo dɛ  
1 COMP 1 be.almost 2SG.OBJ hit today  
'He [says] that he is about to beat you today.'

The PROSPECTIVE does not seem to be restricted to any particular verb classes: it can occur with both eventive and stative verbs. Further, its subjects can be both animate and inanimate. The latter is exemplified in (107), where the speaker is talking about the port that is about to also affect the village of Ngolo.

- (107) à **múà**      *njì*      *là*      *báà*      *bù*      *mpàgó*  
       a múà      njì      là      báà      bù      mpàgó  
       1 be.almost come pass 2.FUT break Ø3.road  
       'It [the port] is about to come and pass [by here], they will build the road.'

#### 6.3.1.4 PERFECT aspect *bwàà* 'have'

The PERFECT in Gyeli is expressed by the auxiliary verb *bwàà* 'have'. This aspect category is restricted to the past tense-mood categories and can occur in both RECENT and REMOTE PAST, as shown in (108).

- (108) a. **mè**      ***bwàà***      *dè*  
       mè      bwàà-H dè  
       1SG.PST1 have-R eat  
       'I have eaten (recently).'  
       b. **méè**      ***bwàà***      *dè*  
       méè      bwàà-H dè  
       1SG.PST2 have-R eat  
       'I have eaten (long ago).'

Just like the PROSPECTIVE verb *múà*, *bwàà* can occur in simple predicates without another non-finite verb, namely when expressing identity relations, as in (109).

- (109) *yòò báNzàmbí bá tè bá*      ***bwàà***      *só*  
       yòò ba-Nzàmbí bá tè bá bwàà-H só  
       so ba2-PN 2:ATT there 2.PST1 have-R Ø1.friend  
       'So, the Nzambis there had been friends.'

The PERFECT auxiliary verb *bwàà* is rather rare, both in the corpus and in the data gathered based on Dahl's (1985) TMA Questionnaire. It is thus challenging to delimit a core meaning for this category. At the same time, the PERFECT seems to be similar to other aspects, such as the RETROSPECTIVE and ABSOLUTE COMPLETIVE, in the sense that the situation has been completed by speech time. In comparison to the RETROSPECTIVE, however, the emphasis of the PERFECT is on a relatively long period of time between the situation and speech time. The Gyeli PERFECT is usually translated into Cameroonian French with a perfect construction and the adverb *depuis* 'since', which gives the meaning of 'a long time ago'.

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Thus, the phrase in (110) is consistently translated as *Il est depuis allé rester comme ça* ‘He has since gone and stayed like that’.<sup>21</sup>

- (110) à ***bwàá*** yéé ké jì mpù  
 a bwàà-H yéé kè-H jì mpù  
 1 have-R then go-R stay like.this  
 ‘He [the other Nzambi] has gone and stood like this.’

Also data from the “EUROTYPO Perfect Questionnaire” (Dahl 2000) support the claim that *bwàà* is used when the situation is temporally distant from speech time. (111) shows two possible responses to the command ‘Don’t speak so loud, you will wake up the baby’, in which, in both cases, the person replies that the baby is already awake. For (111a), in which *bwàà* is used, speakers explain that the baby has already woken up a while ago. In contrast, the use of the ABSOLUTE COMPLETIVE in (111b) hints at the fact that he has only woken up recently.

- (111) a. à ***bwàá*** vòwà  
 a bwàà-H vòwa  
 1.PST1 have-R wake  
 ‘He has woken up already (a while ago).’  
 b. à vòwà ***mò***  
 a vòwa-H mò  
 1.PST1 wake-R COMPL  
 ‘He has woken up already (recently).’

Given that the PERFECT can occur in both PAST 1 and PAST 2 tense-mood categories, i.e. temporal distance between situation and speech time can be manipulated, a relatively long temporal distance cannot be the only information that the PERFECT encodes. Also, there are examples such as (112), where speech time and the situation are more proximate.

- (112) yóò Nzàmbí kí náà mè ***bwàá*** wé tsiyè lèkélè dé  
 yóò Nzàmbí kì-H náà mè bwàà-H wé tsiyè le-kélè dé  
 so Ø1.PN say-R COMP 1SG.PST1 have-R 2SG.OBJ cut le5-speech today

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<sup>21</sup>Despite this translation and a possible implication of anteriority, I do not label *bwàà* as past perfect, since this would require an anteriority relation to another thematically connected event in the past (Lee 2017). This other event in the past, however, is not given either in (110) or in (111a).

*nâ      m<sup>é</sup>      lígé      d<sup>è</sup> mwánò wóò*  
 nâ      m<sup>e</sup>-H      líg<sup>e</sup>-H d<sup>è</sup> m-wánò w-óò  
 COMP 1SG-PRS stay-R eat N1-child 1-POSS.2SG

'So Nzambi says, "I have cut your word today [I'm not listening to you]; I stay and eat your child".

In fact, it seems that the narrator could have instead chosen to use the RETROSPECTIVE form here, or the ABSOLUTE COMPLETIVE (§6.2.3.3). The reason for this preference of *bwàà* over other aspect forms in this context is not clear.

### 6.3.1.5 Negation with *sàlé/pálé* in the PAST

As outlined in §6.1, negation in Gyeli involves different negation markers and strategies across different tense-mood categories. For both the RECENT PAST and the REMOTE PAST categories, the negation auxiliary verbs *sàlé* and *pálé* are used. These forms seem to be freely interchangeable. Speakers state that they can both be used in the same context, and, due to a low frequency of both forms in the corpus, no difference in usage can be seen. In (113), for instance, *sàlé* occurs with the REMOTE PAST is used.

- (113) *ékè Nzàmbí wà nú áà sàlé bè nà bâ líná-á*  
*ékè Nzàmbí wà nú áà sàlé bè nà bâ líná*  
EXCL Ø1.PN 1:ATT 1.DEM.DIST 1.PST2 NEG.PST be COM Ø7.word when  
*pámò*  
a-H pámo  
1-PRS arrive  
‘Oh! That Nzambi had no words as soon as he arrived.’

In (114) and (115), the negation verb occurs with a RECENT PAST STAMP marker, which surfaces with an L tone. The STAMP markers for both PAST categories exhibit the same pattern under negation as in non-negated forms (§6.2.1).

- (114) a. *yà pálé bè nà bùdâ*  
          ya      pálé      bè nà    b-ùdâ  
       1PL.PST1 NEG.PST.R be COM ba2-woman  
          ‘We did not have any women.’

b. *yà bé nà bùdâ*  
       ya      bè-H nà    b-ùdâ  
       1PL.PST1 be-R COM ba2-woman  
          ‘We did not have any women.’

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In (115a), the sentential modifier *líi* ‘not yet’ (§7.2.3) is used, which can only occur in negated clauses. In the positive counterpart in (115b), this sentential modifier cannot occur. Instead, the positive is expressed by the ABSOLUTE COMPLETIVE aspect particle *mò* (§6.2.3.3).

- (115) a. à      **pálé**      líi      bâ  
       a      pálé      líi      bâ  
       1.PST1 NEG.PST.R not.yet marry  
       ‘He is not yet married.’
- b. à      bá      **mò**  
       a      bâ-H      mò  
       1.PST1 marry-R COMPL  
       ‘He is already married.’

Both *sàlé* and *pálé* end in *-le*, the negation suffix used also in PRESENT negation. Since the meaning of *sà-* and *pá-* is unknown synchronically, however, I do not gloss *-le* separately as a negation suffix, but treat the whole verb as a negation auxiliary.

Also, it seems that these negation auxiliaries are more grammaticalized than PRESENT negation suffix *-le* in terms of their tonal behavior. Unlike the PRESENT negation suffix, which involves special tonal patterns (§6.2.3.1), the PAST negation auxiliaries both surface with a final realis-marking H tone, as seen in (114) through (115).

Negation with *sàlé/pálé* is asymmetric with regards to its positive counterpart in several respects. First, there is a constructional asymmetry in terms of the predicate structure. The positive clause in (116a) is a simple predicate construction in which the lexical verb is tonally inflected for the realis mood. In contrast, the negated counterpart with the auxiliary *sàlé* in (116b) is a complex predicate in which finiteness marking occurs on the auxiliary and not on the lexical verb.

- (116) a. *mè*      gyámbó      bélɔ́lɔ́  
       mε      gyámbɔ́-H H-be-lòlɔ́  
       1SG.PST cook-R      OBJLINK-be8-duck  
       ‘I cooked ducks.’
- b. *mè*      **sàlé**      gyámbó      bélɔ́lɔ́  
       mε      sàlé      gyámbɔ́ H-be-lòlɔ́  
       1SG.PST NEG.PST cook      OBJLINK-be8-duck  
       ‘I did not cook ducks.’

Second, there is a paradigmatic asymmetry: all aspect categories, such as the PROGRESSIVE in (117a), are lost under negation, as shown in (117b).

- (117) a. *yà nzi dè mántuà*  
          ya      nzí     dè H-ma-ntúà  
          1PL.PST PROG.PST eat OBJ.LINK-ma6-mango  
          ‘We were eating mangoes.’
- b. *yà sàlé/pálé dè mántuà*  
          ya.PST sàlé/pálé dè H-ma-ntúà  
          1PL.PST NEG.PST eat OBJ.LINK-ma6-mango  
          ‘We did not eat mangoes.’

It is impossible to combine negation and aspect markers in a complex predicate with a single STAMP marker. It is also impossible to combine two true auxiliaries, as in (118a), nor can the PROGRESSIVE PAST auxiliary *nzí* take the PRESENT negation suffix *-lε*, as in (118b).

- (118) a. \* *yà sàlé/pálé nzí/i dè mántuà*  
          ya.PST sàlé/pálé nzí/i     dè H-ma-ntúà  
          1PL.PST NEG.PST PROG.PST eat OBJ.LINK-ma6-mango  
          ‘We were not eating mangoes.’
- b. \* *yà nzílε dè mántuà*  
          ya.PST nzí-lε             dè H-ma-ntúà  
          1PL.PST PROG.PST-NEG eat OBJ.LINK-ma6-mango  
          ‘We were not eating mangoes.’

Aspect and negation can only be combined through complex predicates with a double STAMP construction (§6.3.4).

#### 6.3.1.6 Negation with *kálè* in the FUTURE

Negation in the FUTURE is achieved through the auxiliary *kálè*. The STAMP marker patterns are identical in the positive and negative FUTURE. For the first and second person singular and agreement class 1, the STAMP marker has a long vowel with an L tone pattern, as in (119), while all other agreements classes have a long vowel with an HL pattern, as exemplified in (120).<sup>22</sup>

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<sup>22</sup>Square brackets indicate the verbal predicate.

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- (119) a. [mèè kálè ná bè nà] jí é vâ  
          mèè kálè ná bè nà jí é vâ  
          1SG.FUT NEG.FUT still be COM Ø7.place LOC here  
          'I won't have a place here anymore.'
- b. [mèè bè ná nà] jí é vâ  
          mèè bè ná nà jí é vâ  
          1SG.FUT be still COM Ø7.place LOC here  
          'I will still have a place here.'

FUTURE negation with *kálè* is asymmetric in the same ways that are described for negation with PAST *sàlé/pálé*. There is a constructional asymmetry between simple predicates in positive and complex predicates in negative FUTURE. In contrast to the PAST tenses, however, the FUTURE belongs to the irrealis mood, which lacks the realis-marking H tone on the finite verb. Despite the absence of the grammatical tone, it is clear from the position of the adverb *ná* 'still' that *kálè* in (119a) is the finite verb, while *bè nà* in (119b) is finite. The adverb always occurs after the finite verb (§6.3).

- (120) a. ká wé kíyá lékj’ò é kwámó kwámó [nyíi  
          ká wé-H kíya-H H-le-kj’ò é kwámó kwámó nyíi  
          if 2SG-PRS put-R OBJ.LINK-le5-stone LOC Ø9.bag Ø9.bag 9.FUT  
          kálè búlé]  
          kálè búlé  
          NEG.FUT break  
          'If you put the stone in the bag, the bag will not break.'
- b. ká wé kíyá lékj’ò é kwámó kwámó [nyíi  
          ká wé-H kíya-H H-le-kj’ò é kwámó kwámó nyíi  
          if 2SG-PRS put-R OBJ.LINK-le5-stone LOC Ø9.bag Ø9.bag 9.FUT  
          búlé]  
          búlé  
          break  
          'If you put the stone in the bag, the bag will break.'

The paradigmatic asymmetry regarding the loss of aspect distinctions under negation as discussed for PAST negation in §6.3.1.5 also applies with *kálè*.

### 6.3.1.7 Negation with *tí*

There are three subtypes of the negation auxiliary *tí* with respect to the shape of the STAMP marker: (i) the H tone STAMP marker *yá* precedes *tí* for the first person

plural imperative (cohortative), (ii) the STAMP marker is absent when *tí* is used for negation with second person imperatives as well as for negation in infinitival adverbial subordinate clauses (§8.2.3.4), and (iii) the STAMP marker takes special pattern 1, as described in §6.3.1 for other auxiliaries as well, when *tí* is used as a negator of a PRESENT main clause. Since *tí* occurs in various tense-mood forms and construction types, unlike other negation auxiliaries, I gloss *tí* as NEG.<sup>23</sup>

When *tí* is used with the first person plural imperative, the STAMP marker *yá* precedes the negation auxiliary *tí* with the H tone of the PRESENT category, as in (121a), which has the identical STAMP marker tone pattern as in the affirmative IMPERATIVE in (121b). In contrast to other tense-mood categories, the IMPERATIVE requires a verbal plural marker *nga* (§3.9.2) that occurs immediately after the finite verb form.

- (121) a. *yá      tí      ngá dè*  
           ya-H    tí      nga dè  
           1PL-PRS NEG.R PL eat  
           'Let's not eat!'  
 b. *yá      dē      ngà*  
           ya-H    dē      nga  
           1PL-PRS eat.IMP PL  
           'Let's eat!'

In that respect, *tí* cohortative negation is constructionally asymmetric to its positive counterpart: in the complex predicate in (121a), the auxiliary is the finite verb, whereas in the positive simple predicate counterpart, the lexical verb *dē* 'eat' is the finite verb with an IMPERATIVE tonal pattern on the verb.

Another asymmetry concerns the tonal pattern of the verbal plural marker *nga*, which surfaces as H under negation in (121a), but as L in the affirmative in (121b), a difference which can be explained by the presence or absence of high tone spreading from the preceding verb. The H tones on *nga* in (122) have different origins in the negative and the affirmative, as explained in §7.2.1.2.

- (122) a. *yá      tí      ngá gyàgà mántúà*  
           ya-H    tí      nga gyàgà H-ma-ntúà  
           1PL-PRS NEG.R PL buy    OBJLINK-ma6-mango  
           'Let's not buy mangoes!'

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<sup>23</sup>Although the PRESENT suffix *-lē* is similarly glossed -NEG, the difference between *-lē* and *tí* is obvious in glossing through their different morpheme status. *-lē* is glossed as a suffix, whereas *tí* is glossed as a free morpheme.

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- b. *yá gyàgâ ngá mántúà*  
     yá     gyàgâ   ngá-H     mántúà  
     1PL-PRS buy.IMP PL-OBJ.LINK ma6-mango  
     ‘Let’s buy mangoes!’

Negative imperatives addressed to second persons are expressed by the negation auxiliary *tí*, but lack the STAMP marker. An example for the second person singular with its affirmative counterpart is given in (123).

- (123) a. *tí dè mántúà*  
       tí     dè H-ma-ntúà  
       NEG.R eat OBJ.LINK-ma6-mango  
       ‘Don’t (sg.) eat mangoes!’
- b. *dè mántúà*  
       dè     H-ma-ntúà  
       eat.IMP OBJ.LINK-ma6-mango  
       ‘Eat (sg.) mangoes!’

Other lexical examples of the second person singular negation that follow the structure of (123a) are given in (124), without an object, and in (125), with a following object.

- (124) a. *tí dè ‘Don’t (sg.) eat!’*  
       b. *tí gyàgà ‘Don’t (sg.) buy!’*  
       c. *tí nyúlè ‘Don’t (sg.) drink!’*  
       d. *tí vìdègà ‘Don’t (sg.) turn!’*
- (125) a. *tí dè mántúà! ‘Don’t (sg.) eat mangoes’*  
       b. *tí gyàgà mántúà! ‘Don’t (sg.) buy mangoes!’*  
       c. *tí nyúlè májíwó! ‘Don’t (sg.) drink water!’*  
       d. *tí vìdègà wámíyè! ‘Don’t (sg.) turn fast!’*

An example for the second person plural with its affirmative counterpart is given in (126).

- (126) a. *tí ngá dè mántúà*  
       tí     ngá dè H-ma-ntúà  
       NEG.R PL eat OBJ.LINK-ma6-mango  
       ‘Don’t (pl.) eat mangoes!’

- b. *dê ngá mántúà*  
 dê      nga-H      ma-ntúà  
 eat.IMP PL-OBJLINK ma6-mango  
 'Eat (pl.) mangoes!'

Other lexical examples of the second person plural negation that follow the structure of (126a) are given in (127), without an object, and in (128), with a following object.

- (127) a. *tí ngá dè!* 'Don't (pl.) eat!'
  - b. *tí ngá gyàgà!* 'Don't (pl.) buy!'
  - c. *tí ngá nyúlè!* 'Don't (pl.) drink!'
  - d. *tí ngá vìdègà!* 'Don't (pl.) turn!'
- (128) a. *tí ngá dè mántúà!* 'Don't (pl.) eat mangoes'
  - b. *tí ngá gyàgà mántúà!* 'Don't (pl.) buy mangoes!'
  - c. *tí ngá nyúlè májíwó!* 'Don't (pl.) drink water!'
  - d. *tí ngá vìdègà wámíyè!* 'Don't (pl.) turn fast!'

A common use of the negation auxiliary *tí* concerns the negation of infinitives. It is characteristic of these constructions that the negated lexical verb appears in its non-finite form, i.e. without tense-mood or realis H tone marking. Furthermore, the auxiliary *tí* is not preceded by a STAMP marker in these constructions, as (129) and (130) show.

- (129) *gbí-gbí-gbí-gbí à múà nà bábè      tí wúmbè wè*  
           gbí-gbí-gbí-gbí a múà nà bábè      tí wúmbé wè  
           IDEO:roaming      1 PROSP COM Ø7.illness NEG want-R die  
           '[depiction of disease roaming in his body] He was about to be sick, not wanting to die.'
- (130) *nà ké jíí dé tù nà ndzí pámò dê      tí nyê nyê*  
           nà kè-H jíí      dé tù      nà ndzí      pámò dē      tí nyê nyê  
           COM go-R Ø7.forest LOC inside COM Ø9.path arrive today NEG see 1.OBJ  
           'And [he] goes in the forest on the path till today, without seeing him [without being seen].'

The auxiliary verb *tí* and the infinitive together function as an infinitival subordinate clause (§8.2.3.4), where the subject is supplied from the main clause.

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This negative infinitival construction with *bè nà* ‘be with’ is likely the source of the prepositional use of *tí* (§3.10.1). As (131) shows, *bè nà* ‘be with’ can also be elided, only leaving *tí* as the preposition ‘without’.

- (131) *mé nyúlé kòfí tí (bè nà) ngùé*  
me-H nyúlé-H kòfí tí bè nà ngùé  
1SG-PRS drink-R Ø7.coffee NEG be COM Ø7.sugar  
'I drink coffee without (having) sugar.'

*tí* can also be used for negation in a PRESENT main clause, as shown in (132a). This contrasts with the general PRESENT negation with the suffix *-lē* in (132b) (§6.2.3.1). The choice between standard *-lē* negation and *tí* negation in PRESENT tense main clauses relates to information structure principles and an immediate-after-verb focus position (§7.3).

- (132) a. *mè tí dè*  
me tí dè  
1SG NEG eat  
'I don't EAT.'  
b. *mèé délē*  
mèé dé-lé  
1SG.PRS.NEG eat-NEG  
'I DON'T eat.'

In negation with *tí*, the lexical verb following the auxiliary is in focus position. In contrast, standard PRESENT negation with *-lē* focuses the negation.

Impressionistically, it seems that *tí* in main clauses is often used in conjunction with the adverb *ná* ‘still’, giving a reading of ‘anymore’ under negation. This might be the case because adverbs modify lexical verbs and the lexical verb is focused in (133a). When negation is focused, as in (133b), however, the use of adverbs such as *ná* ‘still’ is also grammatical.

- (133) a. *mè tí ná dè*  
me tí ná dè  
1SG NEG still eat  
'I don't EAT anymore.'  
b. *mèé délē ná*  
mèé dé-lé ná  
1SG.PRS.NEG eat-NEG still  
'I DON'T eat anymore.'

*tí* is the only Gyeli negation marker that frequently undergoes code-switching with Kwasio in the corpus, as in (134). In Kwasio, the regular correspondence to Gyeli *tí* is *kí* or *kilè* in (135).

- (134) *mɛ kí bɛ nà tsídí*  
       mɛ   kí       bɛ   nà   tsídí  
 1SG.PST1 NEG[Kwasio] be COM Ø1.meat  
 ‘I didn’t have any meat.’

The difference between *kí* and *kilè* in Kwasio might relate to different tense categories, as in (134), in which *kí* is located in the past, whereas *kilè* in (135) encodes the present. If this is the case,<sup>24</sup> the Kwasio negation auxiliaries might encode different tense categories than Gyeli *tí*: if *kí* only substituted the form *tí* in (134), the tense reading should be present. Speakers are very clear, however, that the sentence encodes the past. Whether the Gyeli use of Kwasio negation markers is identical to their use in Kwasio in terms of tense encoding is a question that cannot be answered here.

- (135) *bá lá pámò vâ téè bà kwèlɔ̃ɔ̃ yɔ̃ kílè*  
       ba-H là-H pámo vâ téè ba kwèlɔ̃ɔ̃ y-ɔ̃ kílè  
 2SG-PRS pass-R arrive here now 2SG.PST1 cut.COMPL 7-OBJ NEG[Kwasio]  
*dyúwɔ́ tsíyà*  
*dyúwɔ́ tsíyà*  
 hear Ø1.question  
 ‘They pass and arrive here now, they cut it already without asking [lit. without hearing a question].’

### 6.3.1.8 Negation with *dúù*

The auxiliary *dúù* ‘should/must not’, although having a lexical meaning, is classified as a true auxiliary, since it is restricted to the PRESENT and SUBJUNCTIVE categories. In the PRESENT, *dúù* ‘should/must not’ takes a realis-marking H tone, as in (136a), just as its positive counterpart *yáne* ‘must’ in (136b).<sup>25</sup>

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<sup>24</sup>There is very little information on Kwasio, and Woungly’s (1971) description of negation in Ngumba does not give a concise account of the different functions of *ki* or *kile*, but it seems that, as in Gyeli, both negation markers are found in different tense categories.

<sup>25</sup>*yáne* ‘must’ is classified as a modal semi-auxiliary and discussed in §6.3.2, since it does not seem to have any tense-mood restrictions, unlike *dúù* ‘must not’.

- (136) a. *bé dúù vùù*  
 be-H dúù-H vùù  
 2PL-PRS must.not-R worry  
 'You (pl.) should/must not worry.'
- b. *bé yáné vùù*  
 be-H yáné-H vùù  
 2PL-PRS must-R worry  
 'You (pl.) should/must worry.'

*dúù* is also used in its SUBJUNCTIVE form in main clauses, as in (137a). The difference from the PRESENT forms in (136) is that *dúù* 'should/must not' lacks the realis-marking H tone. Its positive counterpart is a subjunctive construction in (137b) instead of the modal semi-auxiliary construction in (136b).

- (137) a. *bé dúù kè tísònì*  
 be-H dúù kè tísònì  
 2PL-PRS must.not.SBJV go Ø7.town  
 'You (pl.) may/should not go to town.'
- b. *bé kék tísònì*  
 be-H kék tísònì  
 2PL-PRS go.SBJV Ø7.town  
 'You (pl.) may/should go to town.'

Like the positive SUBJUNCTIVE forms, the lexically negative SUBJUNCTIVE form of *dúù* 'should/must not' is found in complement clauses, as in (138a). The affirmative counterpart is given in (138b).

- (138) a. *bùdì bà wúmbé ná bá dúù dyùù nyê*  
 b-ùdì ba wúmbé-H ná ba-H dúù dyùù nyê  
 ba2-person 2.PST1 want-R COMP 2-PRS must.not.SBJV kill 1.OBJ  
 'The people wanted that he not be killed.'
- b. *bùdì bà wúmbé ná bá dyùù nyê*  
 b-ùdì ba wúmbé-H ná ba-H dyùù.SBJV nyê  
 ba2-person 2.PST1 want-R COMP 2-PRS kill.SBJV 1.OBJ  
 'The people wanted that he be killed.'
- c. *bùdì bà sàlé wúmbé ná bá dyùù nyê*  
 b-ùdì ba sàlé wúmbé ná ba-H dyùù nyê  
 ba2-person 2.PST1 want-R COMP 2-PRS must.not.SBJV kill 1.OBJ  
 'The people did not want that he be killed.'

Rather than the negative SUBJUNCTIVE *dúù* ‘should/must not’, however, negation of the matrix clause is generally preferred, as in (138c).

### 6.3.2 Single STAMP predicates with semi-auxiliaries

The formal difference between true auxiliaries and semi-auxiliaries in Gyeli is discussed in §3.2.2.3. Semi-auxiliary verbs in Gyeli belong to three different semantic verb classes:

1. Aspectual verbs (*sílε* ‘finish’, *pâ* ‘do first’, *táale* ‘begin’, *bàga nà* ‘stop’)
2. Deictic motion/posture verbs (*kε* ‘go’, *nji* ‘come’, *lige* ‘stay’, *lâ* ‘pass’)
3. Modal verbs (*lèmbɔ* ‘can/know’, *kwàle* ‘like’, *wúmbε* ‘want’, *yáne* ‘must’)

I provide examples of each in the remainder of this section.

#### *sílε* ‘finish’

The semi-auxiliary *sílε* ‘finish’ is used aspectually in complex predicates with a NON-COMPLETE ACCOMPLISHMENT (NCA) reading.<sup>26</sup> As explained in §6.2.3.3, *sílε* ‘finish’ implies that somebody has ceased to do an activity, without entailing that the activity has been carried out to completion (unlike the ABSOLUTE COMPLETIVE *mɔ*). Thus, the question in (139) is interpreted as concerning whether the addressee is done sweeping, but not whether he or she has swept everything (the whole house or yard).

- (139) *nà wε      sílε      wòmbèlε*  
*nà wε      sílε-H    wòmbelε*  
 Q 2SG.PST1 finish-R sweep  
 ‘Have you finished sweeping?’

Besides this non-complete accomplishment implication, one of the core functions of *sílε* is to express distributivity of an event or kind. The description of palm wine in (140),<sup>27</sup> for example, involves many episodes of ‘drinking a palm tree’, namely coming back every day and harvesting the wine. This does not mean that there is not a drop of sap left in the palm trees at the end, but that the speaker will keep harvesting palm wine from the trees until he is done with these multiple actions. The same is true for (139), where the event of sweeping is composed of many episodes of moving the broom over the ground.

<sup>26</sup>Special thanks to Hana Filip for her advice on aspect category meaning and terminology.

<sup>27</sup>The occurrence of semi-auxiliaries as finite or non-finite verbs in complex predicates is addressed in §6.3.3.

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- (140) *mè nzíí kè nà vúlé lévúdû nà lèvúdû*  
       mè nzíí kè nà vúlε-H H-le-vúdû nà le-vúdû  
       1SG PROG.PRS go COM take.away-R OBJLINK-le5-one COM le5-one  
       *mé táálé sílè nyùlè*  
       mè-H táálε-H sílε nyùlε  
       1SG-PRS begin-R finish drink  
       ‘I’m taking down [palm trees] one by one, I start to drink [them] up  
       [make palm wine out of them].’

Under this distributive function, *sílε* ‘finish’ can only be used with plural subjects and only in certain contexts. For example, (141a), where the event distributes over the different participants is grammatical, whereas (141b), which has a singular subject, is ungrammatical.

- (141) a. *bà sílε kè*  
       ba sílε-H kè  
       2.PST1 finish-R go  
       ‘They have all gone.’
- b. \* *à sílε kè*  
       a sílε-H kè  
       1.PST1 finish-R go  
       ‘\*He has all gone.’

In this respect, *sílε* ‘finish’ differs from other semi-auxiliaries, which do not have a distributive function, such as *táalé* ‘start’ in (142), which allows both plural and singular participants.

- (142) a. *bà táálé kè*  
       ba táalε-H kè  
       2.PST1 begin-R go  
       ‘They began to walk.’
- b. *à táálé kè*  
       a táalε-H kè  
       1.PST1 finish-R go  
       ‘He began to walk.’

A singular participant is, however, grammatical even with *sílε* ‘finish’ if there are several events over which the aspect marker is distributing. (143) shows a

coordinated clause where the first constituent is almost identical to the ungrammatical phrase in (141b). The second constituent adds another event, however, over which *síle* can distribute, thereby making (143) acceptable.

- (143) áà    *síle*    kè nà    dvùwò    dyúwò  
       áà    síle-H    kè nà    dvùwò-H    dyúwò  
       1.PST2 finish-R go CONJ stuff-R    Ø7.top  
       'He has gone and stuffed the top [with straw],'

Other examples of *síle* as distributing over individuals are given in (144) and (145). In (144), Nzambi of the story in Appendix B.2 forces his friend's entire family to enter a house. *síle* 'finish' refers to the individual people who have to enter one after the other.

- (144) nyáà    ngà *síle*    nyî    ndáwò    dé    tù  
       nyáà    ngà síle-H    nyî    ndáwò    dé    tù  
       shit.IMP PL    finish-R enter Ø9.house LOC inside  
       'Piss off, everybody go into the house!'

In (145), the chief of Ngolo talks about his fruit trees that will be destroyed once the road for the port passes through their village. Again, *síle* does not necessarily imply that not a single tree will be left at the end, but rather points to the distributivity of destroying one tree after the other.

- (145) byésè    bëè    *síle*    ntàmànè  
       by-ésè bëè    síle    ntàmane  
       8-all    8.FUT finish ruin  
       'They will all be ruined.'

### *pâ* 'first'

Although *pâ* is consistently translated into French as *d'abord* 'first', I gloss it as 'do first', as it is clearly a semi-auxiliary verb (§3.2.2.3). *pâ* 'do first' has a prioritative aspectual meaning. It has no tense-mood restrictions, however, in the corpus, *pâ* never occurs in PAST tenses. This may have semantic/pragmatic reasons. Examples for *pâ* in the PRESENT are given in (146) and (147).

## 6 The verbal complex

- (146) *yìi pè'è nyà mwánò mìdù mé pâá ná nyô*  
 yìi pè'è nyà m-wánò m-ùdù m-e-H pâá-H ná nyô  
 7.ID Ø9.wisdom 9:ATT N1-child N1-male 1SG-PRS do.first-H again 9-OBJ  
 v̄  
 v̄  
 give

'This is the wisdom of a boy [every child knows this], I will take revenge on him.'

- (147) *wè médé pâ lígè yá ná nyè yá ké mánk̄*  
 wè médé pâ-H lígè ya-H ná nyè ya-H kè-H H-ma-nk̄  
 2SG self do.first-R stay 1PL-PRS COM 1 1PL-PRS go-R OBJ.LINK-6-field  
 'You stay first, we and her, we go to the field.'

In (148), *pâ* 'do first' occurs in the FUTURE and therefore lacks the realis-marking H tone.

- (148) *bwáà pâá ngâ dyà ná pówàlà wû*  
 bwáà pâá ngâ dyà ná pówàlà wû  
 2PL.FUT do.first PL sleep COM Ø7.calm there  
 'You (pl.) will first sleep quietly there.'

*pâ* has also been observed to occur in the IMPERATIVE form, as in (149).

- (149) *pâ bígè*  
 pâ bígè.  
 do.first.IMP develop  
 'Go on [speak] first!'

Other semi-auxiliaries that express the start or end point of an event are *táalé* 'start' and *bàga ná* 'stop doing sth.', as exemplified in (150) and (151), respectively.

- (150) *d᷑ bí yá táálé bê yàlànè àà*  
 d᷑ bí ya-H táálé-H bê yàlànè àà  
 so[French] 1PL.SBJ 1PL-PRS begin-R 2PL respond[Bulu] EXCL  
 'So we start to respond to you, mhm.'
- (151) *Tsímbò à bàgá ná bâ básigá*  
 Tsímbò a bàgá-H ná bâ H-ba-sìgá  
 Ø1.PN 1.PST1 stop-R COM smoke OBJ.LINK-ba6-cigarette  
 'Tsimbo stopped smoking.'

### Deictic motion and location verbs

Deictic motion and location verbs can serve as semi-auxiliaries, as shown in (152) through (155). The most pervasive motion verbs are *kè* ‘go’ and *njì* ‘come’. *kè* ‘go’, as in (152), always has an altrilocal meaning, i.e. the event expressed in the main verb takes place at a location different from where the speaker is at the point of utterance.

- (152) *ngùndyá mē kéké sólègà ngùndyá dyúwò*  
*ngùndyá mē-H kè-H sólèga ngùndyá dyúwò*  
*Ø9.raffia 1SG-PRS go-R chop Ø9.raffia on.top*  
‘The raffia, I go to chop the raffia on top.’

*njì* ‘come’ naturally constitutes the counterpart to this altrilocal function. Thus, it expresses that the event of the lexical verb takes place at or towards the location of the speaker, as shown in (153).

- (153) *é tè wègà wé njí sâ mbvündá é ndzí vâ*  
*é tè wè-gà wé-H njí-H sâ mbvündá é ndzí vâ*  
LOC there 2SG-CONTR 2SG-PRS come-R do Ø9.trouble LOC Ø9.path here  
‘There you, you come to make trouble on the way here.’

*líge* ‘stay’ also expresses information about the location of an event, namely that it is the same as the location of the utterance, as in (154).

- (154) *mègà mē lígé dè mwánò wóò*  
*mè-gà mè-H lígé-H dè m-wánò w-óò*  
1-CONTR 1SG-PRS stay-R eat N1-child 1-POSS.2SG  
‘As for me, I stay and eat your child.’

Finally, *là* ‘pass’ has also been observed to serve as a semi-auxiliary, as in (155).

- (155) *bá là pámò vâ téè bà kwèlɔɔ yɔ kílè*  
*ba-H là-H pámo vâ téè ba kwèlɔɔ y-ɔ kílè*  
2SG-PRS pass-R arrive here now 2SG.PST1 cut.COMPL 7-OBJ NEG[Kwasio]  
*dyúwò tsiyà*  
*dyúwò tsiyà*  
hear Ø1.question  
‘They pass and arrive here now, they cut it already without asking [lit. without hearing a question].’

### Modal verbs

Modal verbs constitute a third semantic class of semi-auxiliaries in Gyeli. (156) through (160) provide examples of various modal verbs.

- (156) *wɛ lèmbōò sâ bányá màmbò*  
 wɛ lèmbōò sâ H-ba-nyá m-àmbò  
 2SG.PST1 know.COMPL do OBJ.LINK-ba2-important ma6-thing  
 ‘You can/know to do the important things.’
- (157) *á kwàlē ná gyìmbò mánzà mésè*  
 a-H kwàlε-H ná gyìmbɔ H-ma-nzà m-éssɛ  
 1-PRS like-R still dance OBJ.LINK-ma6-dance 6-all  
 ‘He still likes to dance all dances.’
- (158) *[mé wúmbé léè] nà bâ*  
 mε-H wúmbε-H léè nà bâ  
 1SG-PRS want-R talk[Kwasio] COM 2.OBJ  
 ‘I want to talk with them.’
- (159) *bí bógà [yá wúmbé ndáà pâ nyê] sâ bá*  
 bí bó-gà ya-H wúmbε-H ndáà pâ nyê sâ ba-H  
 1PL.SBJ 2-other 1PL-PRS want-R also do.first see Ø7.thing 2-PRS  
*gyíbó ngyùlè wá kùrâ*  
 gyíbɔ-H ngyùlè wá kùrâ  
 call-R Ø3.light 3:ATT Ø7.electricity[French]  
 ‘We others, we also want to first see the thing they call the light of electricity.’
- (160) *d᷑ wɛ bùdē ná bafû wé yànē gyàgà b᷑*  
 d᷑ wɛ bùdε-H ná ba-fû wɛ-H yànε-H gyàgà b-᷑  
 so[French] 2SG be-R again ba2-fish 2SG-PRS must-R buy 2-OBJ  
 ‘So, you have fish again, you have to buy them.’

Many of the modal semi-auxiliaries are also used in the matrix clause of subordination through the complementizer *nâ* (§8.2.2.1).

#### 6.3.3 Types of complexity in single STAMP predicates

Complex predicates with a single STAMP construction can be complex in different ways. First, they can include morphological complexity through the ABSOLUTE COMPLETIVE marker *m᷑* (§6.2.3.3). Second, they can differ in the number of finite

verbs they contain (either one or two). I will discuss both cases in turn, describing which grammatical categories can combine in complex predicates with a single STAMP marker and which cannot.

The ABSOLUTE COMPLETIVE marker *mò* occurs not only in simple predicates but also in complex predicates. Unsurprisingly, *mò* (or its nasal vowel variant at the end of the verb) occurs on the finite verb, as in (161).

- (161) *ké mbúmbù bwánò bà sílēè kè vé*  
       ké mbúmbù b-wánò ba sílēè kè vé  
       EXCL Ø1.namesake ba2-child 2.PST1 finish.COMPL go where  
       ‘Ay namesake, where have all the children gone to?’

What is more remarkable is that *mò* can also occur on the first non-finite verb, as in (162). This is the case when the finite verb is the true auxiliary *nzí*, which marks PROGRESSIVE. Other true auxiliary combinations with *mò* are ungrammatical. This includes any combination with negation auxiliaries, since aspect marking is lost under negation in single STAMP constructions.

- (162) *nkè nyì nzí sílēè bédéwò*  
       nkè nyi nzí sílēè H-be-déwò.  
       Ø9.field 9 PROG.PST finish.COMPL OBJ.LINK-be8-food  
       ‘This field was already running out of food.’

Complex predicates can also vary in their syntactic complexities. Having presented multiple examples of two-verb complex predicates in §6.3.1 and §6.3.2, I show constructions with three verbs in the following. Regardless of whether a complex predicate has one or two non-finite verbs, true auxiliaries can only appear as the finite verb. An example of a true auxiliary with two non-finite verbs is given in (163).

- (163) *bónégá [bá ló sílè làwò] nâ bvúlè bá ntégélè*  
       bó-négá ba-H lí sílè làwɔ nâ bvúlè ba-H ntégélè-H  
       2-other 2-PRS RETRO finish speak COMP ba2.Bulu 2-PRS bother-R  
       **bágyèli**  
       H-ba-gyèli  
       OBJ.LINK-ba2-Gyeli  
       ‘The others have just said that the Bulu bother the Bagyeli.’

The same construction is possible with a negation auxiliary, as in (164).

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- (164) *bónégá [bà pálé sílè làwɔ]*  
 bó-négá ba pálé sílè làwɔ  
 2-other 2.PST1 NEG.PST.R finish speak  
 ‘The others have not finished speaking.’

Since semi-auxiliaries have a lexical meaning and are less grammaticalized (§3.2.2.3), they can occur as either the finite or the non-finite verb in a complex predicate. In (165), *kè* ‘go’ is the finite first verb, while in (166), it is the non-finite second verb.

- (165) *bwánò bá kálé bâ bò [bá ké sílè pándè]*  
 b-wánò bá kálé b-â bô ba-H kè-H sílè  
 ba2-child 2:ATT Ø1.older.sister 2-POSS.1SG 2.OBJ 2-PRS go-R finish  
 pánde  
 arrive  
 ‘The children of my older sister, they all arrive.’
- (166) *[mé pâ ná kè dígè] mùdì wà nû é*  
 mε-H pâ-H ná kè dígè m-ùdì wà nû é  
 1SG-PRS do.first-H again go see N1-person 1:ATT 1.DEM.PROX LOC  
 péé  
 pé-é  
 over.there.DIST  
 ‘I go first again to see this person over there.’

The same distribution applies, for instance, to the semi-auxiliary *sílè* ‘finish’ in (167) and (168).

- (167) *é vâ mè dyùwɔ nâ é vâ [yîi sílè njì búlè]*  
 é vâ mε dyùwɔ-H nâ é vâ yîi sílè njì búlè  
 LOC here 1SG.PST1 hear-R COMP LOC here 7.FUT finish come destroy  
 ‘Here, I heard that it will all become destroyed here.’
- (168) *mè nzíí kè nà vúlè lévúdû nà lèvúdû [mé*  
 mε nzíí kè nà vúlè H-le-vúdû nà le-vúdû mε-H  
 1SG PROG.PRS go COM take.away OBJLINK-le5-one COM le5-one 1SG-PRS  
 táálé sílè nyùlè  
 táálé-H sílè nyùlè  
 begin-R finish drink  
 ‘I’m taking down [palm trees] one by one, I start to drink [them] (= make palm wine out of them).’

Lexical verbs that cannot serve as semi-auxiliaries, such as *nyùle* ‘drink’ in (168), can only ever occur as the final non-finite verb in a complex predicate. In contrast, verbs that serve otherwise as semi-auxiliaries, can also appear for their lexical meaning in the final non-finite verb position of a complex predicate, as in (169).

- (169) [ba nzi kè sìlè] bédéwò<sup>2</sup>  
 ba nzi kè sílè H-be-déwò  
 2.PST1 PROG.PST go finish OBJ.LINK-be8-food  
 ‘They were coming to finish the food.’

#### 6.3.4 Double STAMP predicates with *bè* ‘be’

The second type of complex predicate comprises those that involve two STAMP markers that refer to the same entity and that both precede a finite verb form:

$$[\text{STAMP}_i - b\grave{e} \text{ 'be'} ]_1 - [\text{STAMP}_i - V]_2$$

The first constituent, which I also call the *bè* constituent, always involves the verb *bè* ‘be’. It expresses basic tense-mood and polarity distinctions, while the second constituent is specified for tense-mood and/or aspect marking. This complex predicate type thus allows the combination of tense-mood, aspect, and negation categories that cannot all be combined in simple predicates or in single STAMP complex constructions. In the following, I will show the different combinatory possibilities, which include the main combinations of (i) tense-mood with a different tense-mood category, (ii) tense-mood with aspect, and (iii) negation with aspect. These double STAMP constructions are rare in the corpus, but they are more pervasive in questionnaires such as the “EUROTYP” future and perfect questionnaires (Dahl 2000), as well as in elicitations.

##### Combinations of two tense-mood categories

Double STAMP constructions can combine different tense-mood categories, shifting the temporal perspective on events. The different temporal perspective (relative to speech time) is expressed through the tense-mood category of the verb *bè* ‘be’ in the first constituent. The time of the second constituent, indicated by square brackets, is then relative to the time anchor of the first constituent. In (170), for instance, the time perspective is moved to the FUTURE in the *bè* constituent. From this perspective, the PRESENT tense of the second constituent expresses temporal identity to the PRESENT in the *bè* constituent.

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- (170) *mèè bè [mé gyámbó bédéwò]PRES* (FUT - PRS)  
       mèè   bè   mè-H   gyámbó-H H-be-déwò  
       1SG.FUT be 1SG-PRS cook-R   OBJ.LINK-be8-food  
       'I will be cooking food.'

(171) shows that a change of the tense-mood category in the second constituent entails a change in the relation between the newly adopted time perspective and the situation. While the *bè* constituent still anchors the time perspective in the FUTURE, the situation of cooking will have been completed in the REMOTE PAST.

- (171) *mèè bè [mèè gyámbó bédéwò]PST2* (FUT - PST2)  
       mèè   bè   mèè   gyámbó-H H-be-déwò  
       1SG.FUT be 1SG.PST2 cook-R   OBJ.LINK-be8-food  
       'I will have cooked food.'

In contrast, changing the tense-mood category in the *bè* constituent simply anchors speech time at that particular reference time. In (172), the second constituent contains INCHOATIVE marking. The tense-mood category of the *bè* constituent changes, however. In (172a), it is encoded for FUTURE, whereas it is encoded for RECENT PAST in (172b).

- (172) a. *àà bè [àá gyì]INCH nàménj* (FUT - INCH)  
       àà   bè    àá    gyì    nàménj  
       1.FUT be-PST 1.INCH cry      tomorrow  
       'She will be starting to cry tomorrow.'  
       b. *à bé [àá gyì]INCH nàkùgúù* (PST1 - INCH)  
       a    bè-H   àá    gyì    nàkùgúù  
       1.PST1 be-PST 1.INCH cry      yesterday  
       'She was starting to cry yesterday.'

Impressionistically, it seems that any two tense-mood categories can be combined. (173), taken from the corpus, shows that even the two PAST categories can be combined in double STAMP constructions, a combination that might appear semantically or contextually unlikely.<sup>28</sup> Here, the *bè* constituent is encoded for the REMOTE PAST, while the second constituent appears in the RECENT PAST. The new time perspective relative to speech time is thus anchored in the REMOTE PAST, while the situation happens in the RECENT PAST, relative to the new time anchor.

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<sup>28</sup>Speakers translate this construction into Cameroonian French as *Il était étant couché...* 'he was being lying'.

- (173) áà      bé [à      bó      nà      mábádò      nyúlè]<sub>PST1</sub>  
       áà      bè-H a      bô-H nà      ma-bádò      nyúlè  
       1.PST2 be-R 1.PST1 lie-R COM ma6-open.wound Ø9.body  
       'He was being lying with open wounds on the body.'

## Combinations of tense-mood and aspect

Whereas true auxiliaries encoding aspect categories are restricted to certain tense-mood categories in single STAMP constructions (§6.3.1), aspect marking can be achieved for any tense-mood category in double STAMP complex predicates. Anchoring speech time at a certain reference point is done in the *bè* constituent while aspect marking of the described situation is bound to the second constituent. (174) illustrates this for the PROGRESSIVE aspect, which is anchored in the FUTURE in (174a) and in the INCHOATIVE in (174b).<sup>29</sup>

- (174) a. *mèè bè [mè nzéé dè]PROG* (FUT - PROG)  
           mèè      bè    me  nzéé      dè  
           1SG.FUT be  1SG PROG.SUB eat  
           'I will be eating.'

b. *mèé bè [mè nzéé dè]PROG* (INCH - PROG)  
           mèé      bè    me  nzéé      dè  
           1SG.INCH be  1SG PROG.SUB eat  
           'I start to be eating.'

Another example of the PROGRESSIVE in a double STAMP construction is given in (175), showing a combination with the REMOTE PAST.

- (175) áà      ké      [à nzéé      kè nà      gyiyɔ]<sub>PROG</sub>      (PST2 - PROG)  
       áà      kè-H      a nzéé      kè nà      gyiyɔ  
       1.PST2 go-PST 1 PROG.SUB go COM cry  
       'She left crying.'

Other aspect markers, both particles and auxiliary verbs, also occur in the second constituent of a double STAMP predicate, such as the ABSOLUTE COMPLETIVE particle *mò* in (176a) and the PROSPECTIVE auxiliary *múà* in (176b).

<sup>29</sup>The PROGRESSIVE aspect is the only aspect auxiliary that has a suppletive form *nzéé* for dependent constituents (§6.3.1.1), which has to be used in the second constituent instead of *nzí* for the PRESENT or *nzí* for the PAST categories.

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- (176) a. *mèè bè [mè lùngá mɔ]*<sub>PROG</sub> (FUT - COMPL)  
           mèè    bè    mè lùnga-H mɔ  
           1SG.FUT be  1SG grow-R COMPL  
           'I will have grown up.'
- b. *méè bē [mè múà dè]*<sub>PROG</sub> (PST2 - PROSP)  
           mèè    bè-H  mè múà  dè  
           1SG.PST2 be   1SG PROSP eat  
           'I'm at the beginning of being eating.'

### Combinations of negation and aspect

Complex predicates with a double STAMP marker also combine negation and aspect. Negation marking always appears in the *bè* constituent, which, at the same time, specifies the reference time, as in (177). Aspect is encoded in the second constituent.

- (177) a. *mèé bélé [mè nzéé dè]*<sub>PROG</sub> (PRS - PROG)  
           mèé    bé-le  mè nzéé  dè  
           1SG.PRS.NEG be-NEG  1SG PROG.SUB eat  
           'I am not eating.'
- b. *mè sàlé bè [mè nzéé dè]*<sub>PROG</sub> (PST1 - PROG)  
           mè      sàlé  bè  mè nzéé  dè  
           1SG.PST1 NEG.PST be  1SG PROG.SUB eat  
           'I was not eating.'
- c. *mèè kálè bè [mè nzéé dè]*<sub>PROG</sub> (FUT - PROG)  
           mèè    kálè  bè  mè nzéé  dè  
           1SG.FUT NEG.FUT be  1SG PROG.SUB eat  
           'I will not be eating.'

Future research is needed to explore the range of possible combinations and check whether all negation forms can combine with each aspect marker.

# 7 Simple clauses

In this chapter, I describe the different types of simple clauses in Gyeli. The distinction of simple clause types is based on their internal structure and mainly concerns different types of predicates. I first outline copula constructions including non-verbal and verbal copula elements in §7.1. I then discuss verbal clauses, grammatical relations, and basic clause types in §7.2 along with sentential modification. §7.3 is dedicated to information structure phenomena. In §7.4, I discuss special clause types, including questions, possessor raising, and comparison constructions.

## 7.1 Non-verbal and verbal copula constructions

Gyeli has copula clauses with both non-verbal and verbal copula constructions. They are typically comprised of a subject, a copula, and a predicate, which is sometimes called a “copula complement”. There are copula forms in some languages, such as *ni* in Swahili in (1), which are clearly non-verbal as they do not inflect for person, tense, aspect, or mood. In this construction, *John* is the subject, *ni* the copula, and *mkubwa* ‘big’ the predicate.

- (1) *John ni m-kubwa*  
Ø1.PN COP 1-big  
'John is big'

In English, the copula in (2) is a verbal element, although the overall clause structure is the same.

- (2) John is big

Dryer (2007a: 225) suggests that, even though the copula *is* is an inflected form of the verb *be*, the verb should not be regarded as the predicate, since *tall* takes over the function of a predicate. He notes that:

The verb *be* is more of a function word than a predicate; its function can be thought of as combining with nonverbal predicates to form what is syntactically a verbal predicate. (p.225)

Based on the argument that the clauses in (1) and (2) are structurally the same, while the parts of speech status and morphosyntactic behavior of their copula elements differ, I treat both non-verbal and verbal copulas in Gyeli within the same chapter, although in different sections. Another argument for organizing non-verbal and verbal copulas within the same clause type is that the choice of either one in Gyeli often depends on the tense, aspect, mood, and polarity category of the clause. In (3a), a non-verbal copula is used in the present, whereas a verbal copula, an inflected form of *bè* ‘be’, has to be used in (3b) for its negated version and in (3c) for the past.

- (3) a. *lènjù        léè        nábèbè*  
le-njù        léè        nábèbè  
le5-banana 5.COP red  
‘The banana is red.’
- b. *lènjù        lé        bélé        nábèbè*  
le-njù        le-H        bè-lé        nábèbè  
le5-banana 5-PRS be-NEG red  
‘The banana is not red.’
- c. *lènjù        lè        bé        nábèbè*  
le-njù        le        bè-H        nábèbè  
le5-banana 5.PST1 be-R red  
‘The banana was red.’

This is in line with Dryer’s (2007a) observation that copula constructions differ structurally and cross-linguistically in different respects. First, as (3) shows, the grammatical status of the copula can differ, even within the same language. According to Dryer (2007a: 225–227), non-verbal copulas have cross-linguistically different morphosyntactic shapes, ranging from words to clitics and affixes.

Second, Dryer points out that there are three types of predicates, namely adjectival, nominal, and locative predicates. Semantically, copula constructions encode two different types of relations, which are, according to Curnow (2001: 1–2), identity relations and classifications, as exemplified in (4).

- (4) a. Identity: ‘That man is my father.’
- b. Classification: ‘That man is a teacher.’

In Gyeli, both identity and classification relations are expressed by copula constructions. Gyeli copula constructions differ in the type of predicate and the type of copula. The predicate ranges from nominal to locative and adjective/quantifier

(the equivalent to adjectival predicates in other languages) predicates. Also, demonstratives and possessive pronouns can serve as predicates as well as deictic elements, as I will show for the various copula types below.

Gyeli has six different copula types, three of which are non-verbal and three verbal, as shown in Table 7.1. The non-verbal copula types can only be used in affirmative clauses that occur in the PRESENT. The most frequent copula in the corpus is the STAMP copula that is expressed by a special STAMP form (§3.9.1). It merges the subject and the copula in one morpheme and constitutes the most frequent of all copula constructions found in the corpus (43.7%). Another non-verbal copula is the invariable identificational marker *wé*, which represents 11.6% of the copular clauses. There are also instances where the copula is zero-expressed. This construction, however, is only found in elicitations and does not occur in the corpus. All non-verbal copulas are restricted to the PRESENT tense-mood category. If other tense-mood categories are to be encoded, as well as negation, the verbal copula *bè* ‘be’ is used.

Table 7.1: Copula types

Status	Copula element	Label	Corpus frequency	
non-verbal	STAMP form	STAMP copula (COP)	49	43.7%
	<i>wé</i>	identificational (ID)	13	11.6%
	Ø-copula		0	
verbal	<i>bè</i> ‘be’		27	24.1%
	<i>múà</i> ‘be almost’		6	5.4%
	<i>bùdé</i> ‘have’		17	15.2%
Total			112	

Two of the verbal copulas are forms of ‘be’: *bè* and *múà*. One is the more general and more frequent *bè* (24.1% of all copula constructions in the corpus) and one is *múà* (5.4%), which is also used as the PROSPECTIVE auxiliary (§6.3.1.3). *bùdé* ‘have’ is the third verbal copula. It covers 15.2% of all copular constructions and is mostly used in predicate possession of the PRESENT.

I will describe each copula type in the following, providing examples and information on its distribution. This will also show that not every copula behaves like a real copula element in every context, i.e. linking a subject to a copula complement. In some cases, some copula elements also take over functions such as presentational or existential markers that do not require a predicate and thus are then not strictly speaking copulas in all contexts.

### 7.1.1 STAMP copula

The STAMP copula (cop) takes a special form of the STAMP marker that is identical to the STAMP marker of the FUTURE tense-mood category, as discussed in §6.2.1.3. It has a long vowel with a default HL tonal pattern for all agreement classes and speech act participants, except for the first and second person singular and agreement class 1 where the long vowel takes an L tone.

The STAMP copula occurs in a wide range of predication types, as shown in detail below. As an element expressing tense and polarity, along with subject marking, it is restricted to the present tense and affirmative clauses. In other tense-mood categories and under negation, the STAMP copula is replaced by a verbal clause involving the verb *bè* ‘be’ (§7.1.4).

#### Predication types

Unlike all other copula types, the STAMP copula agrees with the subject in gender, as discussed in §5.2.1 on agreement targets. The STAMP copula can link a nominal subject to different predication types. In (5), the predicate is nominal, expressing a classification relation: Ada is a member of the set of teachers.

- (5) *Àdà àà ngèlénè* (nominal)  
     Àdà àà ngèlénè  
     Ø1.PN 1.COP Ø1.teacher  
     ‘Ada is a teacher.’

(6) and (7) provide examples where the predicate is an adjective (§3.3).

- (6) *Àdà àà mpà* (adjective)  
     Àdà àà mpà  
     Ø1.PN 1.COP good  
     ‘Ada is good.’

- (7) *bon mpòngò sílēé nà bée bànáyêyê*  
     bon mpòngò sílēé nà bée ba-náyêyê  
     good[French] Ø7.generation finish.COMPL CONJ 2PL.COP 2-bleached.out  
     ‘Good, the generation has been wiped out, and you are bleached out [white].’

In (8) and (9), the predicate is a locative noun phrase, either including a postposition such as *dé* (§3.10.2) or a noun + noun attributive construction (§5.5.1.5).

- (8) *Àdà àà ndáwò dé tù* (locative)  
   Àdà áà ndáwò dé tù  
   Ø1.PN 1.COP Ø9.house LOC inside  
   ‘Ada is inside the house.’
- (9) *bónégá báà ná písè yá ndáwò* (locative)  
   b-ónégá báà ná písè yá ndáwò  
   2-other 2.COP still Ø7.behind 7:ATT Ø9.house  
   ‘The others are still behind the house.’

In addition to these predicate types, which Dryer (2007a) views as the most common ones across languages, the STAMP copula in Gyeli can also be used with locative interrogative words (§3.7.1), as in (10), and with deictic adverbs (§3.4.1), as in (11).

- (10) *é nà mwánò nùù vé* (interrogative)  
   é nà m-wánò nùù vé  
   LOC how N1-child 1.COP where  
   ‘What! Where is the child?’
- (11) *bá yóò yíi tè* (deictic)  
   bá y-óò yíi tè  
   Ø7.word 7-poss.2SG 7.COP there  
   ‘ I understand you [lit. Your word is there].’

Also numerals (§3.8.1) and quantifiers (§3.8.5.1) can serve as the copula complement, as in (12).

- (12) *búdì báà bábabáà/bvùbvù* (numeral/quantifier)  
   b-údì báà ba-báà/bvùbvù  
   ba2-person 2.COP 2-two/many  
   ‘The people are two/many.’

Finally, the STAMP copula can also introduce reported speech in a quotative index (§8.2.2.3). Thus, in (13), the STAMP copula *báà* serves as quotative index to the direct reported speech in the copula complement, marked by square brackets.

- (13) *báà ná [wè sítê kè sâ sálé]* (complement)  
   báà ná wè sítê kè sâ sálé  
   2.COP COMP 2SG finish.IMP go do Ø7.work  
   ‘They are like, “You, go and finish the work”.’

### STAMP copula as the predicate

In the vast majority of cases, the STAMP copula functions as element linking the subject to the predicate. In a few special cases, however, there is no copula complement and the STAMP marker serves as predicate, as in (14) and (15), which represent existential clauses. According to Dryer (2007a: 241):

From a discourse point of view, the primary function of such [existential] clauses is apparently to introduce into the discourse a participant that is new to the hearer.

In English, this is often achieved with constructions involving *there is* or *there are*. Creissels (2019) provides a valuable perspective on “inverse-locational predication”, involving equivalents of English *there is* constructions. Gyeli, however, belongs to the languages that lack inverse-locational predication constructions. Instead, Gyeli expresses this type of existential construction with plain-locational predication constructions, adopting a figure-to-ground perspective.

- (14) *bèsá bínđè byésè béké ndáà*  
 be-sá bí-ndè by-ésè béké ndáà  
 be8-thing 8-ANA 8-all 8.COP also

‘There are also all these things. [way of introducing a problem]’

- (15) *lé [yá wé nyé]<sub>REL</sub> [bá gyíbó ngálé]<sub>REL</sub> yíi*  
 lé yá we-H nyé ba-H gyíbó-H ngálé yíi  
 Ø7.tree 7:ATT 2SG-PRS see 2-PRS call-R Ø7.tree.species 7.COP  
 ‘There is the tree that you see that they call *ngálé*.’

### Expression of the subject

As mentioned above, a copula links a subject to a predicate. In the previous examples, the shape of the subject was some sort of noun phrase. In (10) and (15), the subject is expressed nominally, whereas the subject noun phrase in (14) is more complex, including two modifiers. The STAMP copula can also encode subject and copula at the same time and thus can occur on its own, without a nominal noun phrase, as in (16).

- (16) *mèé lémbòlè é mpù báà ndáwò dé tù*  
       mèé      lémbo-lè   é   mpù    báà   ndáwò   dé   tù  
       1SG.PRS.NEG know-NEG LOC like.this 2.COP Ø9.house LOC inside  
       dénè  
       dénè  
       today[Bulu]

'I don't know how they are in the house today.'

This construction type is also used in generic 'it is' clauses where the subject is inanimate, but underspecified, as for instance in (17).

- (17) *yìi mpà yɔɔ wé ká yɔ dúmbó*  
       yìi   mpà yɔɔ   wé-H   ká-H   y-ɔ   dúmbó  
       7.COP good Ø7.time 2SG-PRS wrap-R 7-OBJ Ø7.package  
       'It is good when you wrap it in a (leaf) package.'

The *yìi* STAMP copula is also used in cleft sentences, as shown in §8.2.1.2.

### 7.1.2 Identificational marker *wé*

The identificational marker *wé* is invariable and does not agree with the subject. The marker occurs in two types of constructions. The primary use is as a copula, linking a subject and a predicate, as in (18).

- (18) a. *ntémbó wâ wé nû*  
       ntémbó                   w-â           wé nû  
       Ø1.younger.opposite.sex.sibling 1-POSS.1SG ID 1.DEM.PROX  
       'This is my younger brother/sister.'
- b. \* *ntémbó wâ àà nû*  
       ntémbó                   w-â           àà   nû  
       Ø1.younger.opposite.sex.sibling 1-POSS.1SG 1.COP 1.DEM.PROX  
       'This is my younger brother/sister.'

In contrast to the STAMP copula, however, *wé* links a subject only to demonstratives and anaphoric markers, while the STAMP copula does not link demonstratives nor anaphoric markers. This is why I label *wé* as an identificational marker. As Mikkelsen (2011: 1812) states for English, "[i]dentificational clauses are characterized by having a demonstrative pronoun or demonstrative phrase in the subject position". In Gyeli, the demonstrative does not occur in the subject, but in the predicate position. Nevertheless, I label *wé* as an identificational marker,

since it takes over the same function, namely identifying people, places, and the location of things. In (18), the speaker identifies his younger brother by using a deictic demonstrative, at the same time pointing to the person in question. In (19), the chief of Ngolo talks about a scar on his forehead, identifying its location and again pointing to it.

- (19) *mé bvú nâ bàmó tè yóò wé yî*  
       mε-H bvû-H nâ bàmó tè y-ɔɔ wé yî  
       1SG-PRS think-R COMP Ø7.scar there 7-OBJ ID 7.DEM.PROX  
       ‘I think, the scar there is this.’

Apart from demonstratives, anaphoric elements may also occur with the identificational marker *wé*. This can be the bare anaphoric marker *ndé* without agreement prefix (§3.8.1.5), as in (20).

- (20) *kàndá wé ndè*  
       kàndá wé ndè  
       Ø7.proverb ID ANA  
       ‘The story is this.’

Also, the anaphoric marker with an agreement prefix occurs in identificational constructions, as shown in (21).

- (21) *bâ yâ màfwálá wé yíndè*  
       bâ y-â mà-fwálá wé yí-ndè  
       Ø7.word 7-POSS.1SG ma6-end ID 7-ANA  
       ‘This is my last word.’

The second type of construction where *wé* is used is without a predicate. In (22), the parentheses indicate that the use of the demonstrative is optional. Often, the demonstrative is not expressed, so that only the subject and *wé* surface. In that sense, *wé* is not a real copula here, since it does not link a subject to another constituent. It has its origin, however, in a copula construction. Environments where *wé* is used phrase finally, i.e. without demonstrative or anaphoric marker, are usually those where the subject is a personal pronoun as in (22).

- (22) *nyè wé (nû)*  
       nyɛ wé (nû)  
       1.SBJ ID (1.DEM.PROX)  
       ‘This is him.’

Such identificational constructions show a particular structure when they involve a proper name, as in (23). Here, the personal pronoun is followed by the proper name and the identificational marker *wé* occurs phrase finally. They differ from the above examples in that *wé* is not a linking element, but rather functions as a deictic itself. In this view, it is not surprising that proper name constructions with *wé* do not involve demonstratives or anaphoric markers.

- (23) *mhm mè Nziwù wé*  
 mhm mè Nziwù wé  
 EXCL 1SG.SBJ Ø1.PN ID  
 ‘Mhm, I’m Nziwu.’

Finally, *wé* is also used in cleft constructions, as shown in (24). The structure of the identificational clause is parallel to the one in (22) without a demonstrative predicate, namely *nyè wé*, except that the subject is more complex, specifying who *nyè* is. The identificational clause is followed by a relative clause which, in this case, does not have an attributive marker to indicate the relative clause.<sup>1</sup>

- (24) *ntémbò wà mùdâ wâ nyè wé [bùdé mwánj*  
 ntémbò       wà   mùdâ   wâ       nyè wé bùdè-H m-wánj  
 Ø1.younger.sibling 1:ATT N1-woman 1-POSS.1SG 1 ID have-R N1-child  
*wà mùdâ mvúdû]REL*  
*wà m-ùdâ m-vúdû*  
 1:ATT N1-woman 1-one  
 ‘It’s my wife’s younger sister who has one girl.’

As with all other non-verbal copula types, also *wé* is restricted to the PRESENT tense-mood category.

### 7.1.3 Optional Ø-copula

In a few environments, a copula can be optionally omitted. This, however, seems to be restricted to semantic relations of identity between the subject and the predicate. Copula omission in Gyeli is grammatically optional and not grammatically conditioned, even though certain environments seem to favor omission. In all examples presented below, a copula could also be used. Environments which favor copula omission often seem to involve possessive predicates, as in (25) and (27). Both examples differ, however. In (25), the subject is a demonstrative, while the predicate is a nominal noun phrase, modified by a possessor pronoun.

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<sup>1</sup>For more information on relative clauses, see §8.2.1.

- (25) *nû* [mwánò wâ]<sub>PRED</sub>  
 nû m-wánò w-ã  
 1.DEM.PROX N1-child 1-1SG.POSS  
 ‘This is my child.’

The clause in (25) could also be expressed with a STAMP copula, although with a slightly different meaning, as shown in (26).

- (26) *núù mwánò wâ*  
 núù m-wánò wâ  
 1.COP N1-child 1-1SG.POSS  
 ‘S/he is my child.’

In contrast to (25), the predicate in (27) is a possessive pronoun, while the subject is a complex nominal noun phrase, including a demonstrative. Again, it is possible to use a copula, for instance the STAMP copula *wúù* of agreement class 3, which is deleted in fast speech.

- (27) *nkwàñò wâ* [wâ]<sub>PRED</sub>  
 nkwàñò wâ w-â  
 Ø3.honey 3.DEM.PROX 3-1SG.POSS  
 ‘This honey is mine.’

Since examples of copula omission are rare, the sample is not sufficient to make any generalizations about the difference between the use of a STAMP copula in contrast to copula omission. It may be a matter of fast and colloquial speech to omit the copula. It may also be related to information structure. The bare demonstrative as subject, as in (25), could thus introduce a new topic, while the STAMP copula may suggest that the topic is already known.<sup>2</sup>

In addition to possessive predicates, a copula can also be omitted in nominal predication when the subject is a subject pronoun, as in (28).

- (28) *mè* [nsálè gyàngó]<sub>PRED</sub>  
 mè n-sálè gyàngó  
 1.SBJ N1-doer Ø7.hunt  
 ‘I’m a hunter.’

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<sup>2</sup>It is also possible to use the identificational marker *wé* for (25), but in that case, subject and predicate would need to be reversed, making the predicate *mwánò wâ* the subject and *nû* the predicate. This construction then differs also in terms of information structure, moving the demonstrative into the focus position.

Zero copula constructions always refer to the PRESENT tense. If non-verbal predicates are to be expressed in other tense-mood categories, a verbal copula is required.

### 7.1.4 Verbal copula *bè* ‘be’

To express copular clauses in other tense-mood categories than the present or to negate them, the verbal copula *bè* ‘be’ is used. Additionally, *bè* is used in expressing predicate possession by adding the comitative marker *nà*. Each of these uses is illustrated below.

#### Tense expression with *bè* ‘be’

The verbal copula *bè* can be used in all tense-mood categories. Even though for the PRESENT tense-mood category, non-verbal copula types are usually used, *bè* can serve also as a copula in the PRESENT. This seems to mainly occur when the nominal subject is focused by an emphatically used object pronoun, as in (29) and (30).

- (29) *lûngà yá sâ wâ yô bé yíí*  
*lûngà yá sâ w-â y-ɔ bè-H yíí*  
 $\emptyset$ 7.grave 7:ATT Ø1.father 1-POSS.1SG 7-OBJ be-R 7.DEM.DIST  
‘My father’s grave is over there.’
- (30) *ngùndyá tè nyô bé nyî*  
*ngùndyá tè nyô bè-H nyî*  
 $\emptyset$ 9.raffia there 9.OBJ be-R 9.DEM.PROX  
‘That is raffia there.’

Also, special construction types can trigger the use of *bè* as copula in the PRESENT. For instance, the copula *bè* can occur as the second constituent in a verbal coordination, as in (31). In order to keep the verbal structure of the first constituent, and share the first constituent’s subject *yí* ‘it’, the copula of the second constituent is verbal as well.

- (31) *bon pílì yí báàlá nà bè ndènáà ndènáà ndáà ná*  
*bon pílì yi-H báàla-H nà bè ndènáà ndènáà ndáà ná*  
good[French] when 7-PRS repeat-R COM be like.that like.that also still  
‘So, when it continues and is still like this and like that. . .’

Another special construction type in the PRESENT where a verbal copula is chosen over the non-verbal copulas involves sentential modifiers, as illustrated in (32). Certain sentential modifiers such as *kóò* ‘still’ require an infinitival construction, as further discussed in §7.2.3.

- (32) *nà bí bésè kóò kùrâ bè dé tù*  
      nà bí b-éssè kóò kùrâ bè dé tù  
      COM 1PL.SBJ 2-all still Ø7.electricity be LOC inside  
      ‘For all of us, there ought to be electricity inside [the houses].’

Besides these special cases in the PRESENT, the verbal copula *bè* is used in other tense-mood categories. This is shown for the RECENT PAST in (33) and (34). (33) represents a nominal predicate, while (34) gives an example where the predicate is an interrogative pronoun.

- (33) *yóò ngâ nû à bé ngâ so Ø1.healer 1.DEM.PROX 1.PST1 be-R Ø1.healer*  
      yóò ngâ nû a bè-H ngâ  
      ‘So, this healer was a healer.’
- (34) *mà bé vé ma bè-H vé 6.PST1 be-R where*  
      ‘Where were they [the houses]?’

Similarly, *bè* can be used in the REMOTE PAST, as shown in (35).

- (35) *yóò Nzàmbí nógá núù bé Nzàmbí wà gyí so Ø1.PN 1-other 1.PST2 be-R Ø1.PN 1:ATT what*  
      yóò Nzàmbí nò-gá núù bè-H Nzàmbí wà gyí  
      ‘So which Nzambi was the other Nzambi?’

Finally, the verbal copula *bè* can even take the ABSOLUTE COMPLETIVE aspect marker *mà*, as shown in (36). This, however, seems to be the only possible combination of the verbal copula and aspect marking, excluding all other aspect markers (Table 6.2). Also, it is noteworthy that this construction has been observed several times with the Mabi version of the completive aspect marker *mà* as an instance of code-switching, but has never been noticed with the Gyeli form of the aspect marker *mò*.

- (36) *wú bé mà*      *bî*      *ndáwò*      *dé*      *tù*  
       wú bè-H mà      bî      ndáwò      dé      tù  
       3 be-R COMPL[Kwasio] 1PL.OBJ Ø9.house LOC inside  
       ‘[I wish] that it was already in our houses!’

### Negation with *bè*

*bè* is the only copula type that can be used in negated copula constructions. This holds for all predication types as well as for all tense-mood categories, including the PRESENT. Thus, the negated form *bélē* is used in the PRESENT, for instance with a nominal predicate, as in (37).

- (37) *mèé*      *bélē*      *mùdì*      *wà*      *lèkélè*  
       mèé      bé-lé      m-ùdì      wà      le-kélè  
       1SG.PRS.NEG be-NEG N1-person 1:ATT le5-word  
       ‘I’m not a person of many words.’

The same construction is used with adjectival predicates, as in (38).

- (38) *nkwàñò*      *wú*      *bélē*      *mpà*  
       nkwàñò      wu-H bè-le      mpà  
       Ø3.honey 3-PRS be-NEG good  
       ‘The honey is not good.’

Also deictic predicates have been found with a negated copula *bélē*, as in (39).

- (39) *nyè nâ*      *mèé*      *bélē*      *wû*  
       nyè nâ      mèé      bé-lé      wû  
       1 COMP 1SG.PRS.NEG be-NEG there  
       ‘He [says]: “I’m not there”’

Finally, there are a few constructions that lack a predicate, parallel to what has been described for the STAMP copula in §7.1.1. In (40), the negated copula expresses a negative existential clause: ‘the person is not there’. While in English, the use of ‘there’ is obligatory in these constructions, in Gyeli, the occurrence of the deictic as in (39) is optional. In (40), the deictic does not appear so that the negated form of ‘be’ serves as predicate in this case.

- (40) *mùdì*      *nú*      *bélē*  
       m-ùdì      nú      bé-lé  
       N1-person 1.DEM.DIST be-NEG  
       ‘This person is not there.’

### Predicate possession with *bè nà*

The verbal copula *bè* ‘be’ in conjunction with the comitative marker *nà* express predicate possession. Typically, the predicate is nominal in these cases. Predicate possession with *bè nà* can be used in all tense-mood categories. I provide examples for some of them in (41), namely for the PRESENT, the RECENT PAST, and the FUTURE.

- (41) a. *mé      bé    nà    nkwanò*  
me-H    bè-H nà    nkwanò  
1SG-PRS be-R COM Ø3.honey  
'I have honey.'
- b. *mè      bé    nà    nkwanò*  
me      bè-H nà    nkwanò  
1SG.PST1 be-R COM Ø3.honey  
'I had honey.'
- c. *mèè     bè nà    nkwanò*  
mèè     bè nà    nkwanò  
1SG.FUT be COM Ø3.honey  
'I will have honey.'

Encoding of predicate possession in the PRESENT is special in that it can also take other forms to express the meaning of ‘have’. While the verbal copula plus comitative marker as in (41a) is one option, the copula can also be omitted in the PRESENT so that only the comitative marker surfaces, as in (42).

- (42) *mé    nà    nkwanò*  
me-H nà    nkwanò  
1-PRS COM Ø3.honey  
'I have honey.'

Further, another verbal copula, *budé*, can be used, as discussed in §7.1.6.

*bè nà* can be used for affirmative clauses, but also in negation, thus expressing negative possession. Negation of *bè nà* constructions is achieved by regular negation patterns for the different tense-mood categories. In the PRESENT, two construction types are possible. One involves the negation suffix *-le*, as in (43).

- (43) *mèé        bélé    nà    nkwanò*  
mèé        bè-le    nà    nkwanò  
1SG.PRS.NEG be-NEG COM Ø3.honey  
'I don't have any honey.'

The second possible negation construction involves the negation particle *tí*, or, as in (44), the Mabi form *kí*, which is often used in code-switching.

- (44) *mè kí bè nà tsídí*  
 me kí bè nà tsídí  
 1SG NEG[Kwasio] be COM Ø1.meat  
 'I don't have any meat.'

Also for PAST negation, both negation words, *sàlé* and *pálé* can be used, as (45) and (46) show. The negation words precede *bè nà* as they would with any other verb.

- (45) *ékè! Nzàmbí wà nù áà sàlé bè nà bâ líná-á*  
 ékè! Nzàmbí wà nù áà sàlé bè nà bâ líná  
 EXCL Ø1.PN 1:ATT 1.DEM.DIST 1.PST2 NEG.PST be COM Ø7.word when  
*pámò*  
 a-H pámo  
 1-PRS arrive  
 'Oh! That Nzambi had no words as soon as he arrived.'
- (46) *yà pálé bè nà bùdâ*  
 ya pálé bè nà b-ùdâ  
 1PL NEG.PST be COM ba2-woman  
 'We did not have any women.'

Accordingly, negation of predicate possession in the FUTURE is achieved with the FUTURE negation word *kálè*, as shown in (47).

- (47) *mèè kálè ná bè nà jí é vâ*  
 mèè kálè ná bè nà jí é vâ  
 1SG.FUT NEG.FUT anymore be COM Ø7.place LOC here  
 'I won't have a place here anymore.'

### 7.1.5 Verbal copula *múà* 'be almost'

The verbal copula *múà* seems to be a special variety for expressing copular clauses in the RECENT PAST. As such, its use is very limited as well as its occurrence in the corpus. While the general verbal copula *bè* occurs 27 times in the corpus (that is 24.1% of all copula occurrences), *múà* only appears six times, constituting 5.4% of the copula occurrences. Also, the use of *múà* as a copula seems to depend on

speaker preference. Only one of the speakers chose *múà* over *bè*, whereas other speakers only used *múà* as PROSPECTIVE marker (see §6.3.1.3). Therefore, in all copular clauses with *múà*, *múà* could be replaced by the more general verbal copula *bè*. Examples from the corpus with *múà* as copula are given in (48) and (49).

- (48) à ***múà***      *médé nyá mùdì*  
       a *múà*      *médé nyá m-ùdì*  
       1 be.almost self real N1-person  
       'He was about to be a real (old) man.'
- (49) *mè* ***múà***      *póné wá yimbá nté wû*  
       me *múà*      *póné wá yimbá nté wû*  
       1SG be.almost Ø7.truth 3:ATT Ø7.age Ø3.size there  
       'I was really about the age of this size there [makes a gesture with hand showing his height].'

*múà* as a copular verb is, however, more restricted than *bè* in that it can only occur in the RECENT PAST. Also, negation is not possible with *múà*.

### Predicate possession with *múà nà*

The expression of predicate possession is also possible with *múà* in conjunction with the comitative marker *nà*. Again, this is restricted to the RECENT PAST, as (50) shows.

- (50) *gbí-gbí-gbí-gbí* à ***múà nà*** *bábè tí wúmbè wè*  
       *gbí-gbí-gbí-gbí* a *múà nà bábè tí wúmbè wè*  
       IDEO:roaming 1 PROSP COM Ø7.illness NEG want-R die  
       '[imitation of the disease roaming in his body] He was about to be sick, not wanting to die.'

*múà nà* cannot be directly negated, but requires the PAST negation words *sàlé* or *pálé* as in (45) and (46).

#### 7.1.6 Verbal copula *bùdé* 'have'

The verbal copula *bùdé* 'have' only expresses predicate possession. It is interchangeable with *bè* plus comitative marker *nà*, as (51) shows.

- (51) a. *bá bé nà bvúbvù*  
      ba-H bè-H nà bvúbvù  
      2-PRS be-R COM lots  
      ‘They have lots.’
- b. *bá bùdé bvúbvù*  
      ba-H bùdé bvúbvù  
      2-PRS have.R lots  
      ‘They have lots.’

The verb *bùdé* occurs 17 times in the corpus, which equals 15.2% of all copula occurrences. Out of 27 instances of *bè* as a copula, 10 occur with the comitative marker *nà*. Thus, *bè nà* constructions only constitute 11.2% of the copula constructions and are thus less frequent than predicate possession constructions with *bùdé*. Given the relatively few instances in the corpus of both constructions, it is not yet possible to determine distributional and/or semantic differences. Speakers generally state that both constructions mean the same and both can be used interchangeably.

*bùdé* differs from other verbs including the copula *bè* in its tonal behavior on the STAMP marker. Comparable to, for instance, the FUTURE tense-mood category, the first and second person singular and the STAMP marker of class 1 have a different tonal pattern, namely an L tone, than the STAMP markers of the other agreement classes, which have an H tone, as in (51b). As to the tonal shape of the verb *bùdé*, it always ends in an H tone, which suggests that it belongs to the realis mood, as discussed in §6.2.2. Since *bùdé* never occurs phrase finally, however, it is not possible to prove that its final TBU is underlyingly L. I therefore gloss the realis H tone as being inherent to the verb.

The predicates in constructions with *bùdé* are all nominal or extended nominal noun phrases, as examples (52) through (54) show. In (52), the predicate is a noun modified by a numeral.

- (52) *mè bùdé bwánò bábáà*  
      mè bùdé b-wánò bá-báà  
      1SG.SBJ have.R ba2-child 2-two  
      ‘I have two children.’

In (53), the predicate is nominal as well, followed by a comitative construction, which literally translates as ‘the Bulu has anger with me’.

- (53) *pilì wé ké nâ wé ké tókè mwánò sáyà*  
 pilì wé-H kè-H nâ wé-H kè-H tókè m-wánò sáyà  
 when 2SG-PRS go-R COMP 2SG-PRS go-R collect N1-child Ø7.thing  
*bvúlè à bùdé lèbvúú nà mē*  
 bvúlè a bùdé H-le-bvúú nà mē  
 ba2.Bulu 1 have.R OBJ.LINK-le5-anger COM 1SG.OBJ

'When you go to go gather a small thing, the Bulu is angry with me.'

*bùdé* can also occur in relative clauses, as (54) shows. Here, the relative clause modifies the object noun phrase *mwánò wóò*. The demonstrative following *bùdé* is coreferential with this object noun phrase.

- (54) *vê mê sâ mwánò wóò [wà wé bùdé nû]REL*  
 vê mê sâ m-wánò w-óò wà wé bùdé nû  
 give.IMP 1SG.OBJ only N1-child 1-POSS.2SG 1:ATT 2SG have.R 1:DEM.PROX  
 'Give me only your child that you have here.'

The distribution of *bùdé* seems to be restricted to the PRESENT tense-mood category. Given the special tonal pattern of the STAMP marker, which differs from the general PRESENT tonal pattern, tense-mood category affiliation cannot be determined by the default tonal shape. Speakers consistently translate clauses with *bùdé* with the PRESENT. The same is true for the special construction involving the Kwasio loan form of the ABSOLUTE COMPLETIVE marker *mà*. As discussed in §6.2.3.3, the Gyeli completive marker *mò/-V̄* is restricted to the RECENT PAST. In (55), however, it occurs with *bùdé* and speakers translate the sentence in the PRESENT into French as *Il a déjà une femme*.

- (55) *à bùdé mà mùdâ*  
 a bùdé mà m-ùdâ  
 1 have.R COMPL[Kwasio] N1-woman  
 'He already has a wife.'

Two explanations are possible. One could propose that *bùdé* does not belong to the PRESENT tense-mood category and constitutes a general exception. As such, it can combine with the ABSOLUTE COMPLETIVE marker *mà*. Semantically, it encodes a present perfect reading, comparable to English *have got* constructions. Alternately, one could propose that *bùdé* belongs to the PRESENT tense-mood category, despite the special tonal pattern of the STAMP marker. The co-occurrence with *mà*, which is only expected to occur in the RECENT PAST, can be explained by the potential grammaticalization of *mà* into an adverb. It is noteworthy that

*bùdé* only co-occurs with the Kwasio loan form of *mà*, but never with its own ABSOLUTE COMPLETIVE marker *mò/-V̄*. At the same time, speakers consistently translate *mà* as *déjà* ‘already’. It is thus possible that *mà* functions as an adverb rather than an aspect marker, which would explain why *mà* is not restricted to the RECENT PAST.

Finally, *bùdé* is also used in the quotative index of reported speech (see §8.2.2.3 for more information), as shown in (56) and (57). Generally, there seems to be a tendency that *bùdé* as a verb in a quotative index indicates some kind of wish or order, as both examples illustrate.

- (56) *mé mè bùdé nâ é pè é wû bèyá*  
*mé mè bùdé nâ é pè é wû bèya-H*  
 but[French] 1SG have.R COMP LOC over.there LOC there 2PL[Kwasio]-PRS  
*lw̄́ kwád́ yấ é wû*  
*lw̄́-H kwád́ y-ấ é wû*  
 build-R Ø7.village 7-POSS.1SG LOC there  
 ‘But I say that over there, there you (pl.) ought to build my village over there.’
- (57) *mè bùdé nâ á lwóngó mè mändáwò*  
*me bùdé nâ a-H lwóngó-H mè ma-ndáwò*  
 1SG have.R COMP 1-PRS build[Kwasio]-R 1SG.OBJ ma6-house  
 ‘I say that she [Nadine] ought to build me houses.’

Having outlined constructions with non-verbal predicates, I now turn to constructions with verbal predicates as well as a general discussion of grammatical relations in Gyeli.

## 7.2 Verbal clauses and grammatical relations

In this section, I first discuss the different grammatical relations found in Gyeli before describing basic clause types. I also address sentential modifiers.

### 7.2.1 Grammatical relations: definitions and diagnostics

In this section, I describe the grammatical relations in Gyeli. In doing so, I follow Dryer (1997) who argues against grammatical relations, such as *subject* and *object*, as cross-linguistic notions, but emphasizes that grammatical relations are

fundamentally language-specific. I therefore use a range of language specific formal criteria in order to determine the grammatical relations in Gyeli. These include word order, agreement, and suprasegmental noun phrase marking. Based on these criteria, I distinguish subjects, objects, and obliques in Gyeli, which I will discuss in turn. Other criteria to distinguish grammatical roles used in other languages, for instance relativization as in Japhug (Jacques 2016), do not serve as additional evidence. Similar to Eton, Bantu A71, (Van de Velde 2008: 301), passivization has a low text frequency as speakers prefer to use impersonal constructions in agreement class 2.<sup>3</sup> In addition, passivization is morphologically restricted (§4.2.4.2): less than a third of the verbs in the database allow for passivization. Although one may use passivization as an argument for subject and object roles for the verbs that allow passive morphology, as shown in the examples in §4.2.4.2, I agree with Van de Velde (2008) in not giving too much weight to passivization for syntactic argumentation.

### 7.2.1.1 Subjects

Subjects in Gyeli are formally characterized by their preverbal position in basic word order, as shown in (58) and (59), and by agreement of the STAMP marker, a preverbal clitic encoding subject agreement and other clause information such as tense-mood and negation (§3.9.1).

- (58) *yóò [mùdâ]<sub>SBJ</sub> á kè* (intransitive)  
*yóò m-ùdâ a-H kè*  
*so N1-woman 1-PRS go*  
‘So the woman goes.’
- (59) *[Nzàmbí]<sub>SBJ</sub> à bwàā mwánò* (transitive)  
*Nzàmbí a bwàā-H m-wánò*  
*Ø1.PN 1.PST1 give.birth-R N1-child*  
‘Nzambi has given birth to a child.’

As visible in these two examples, the subject has the same characteristics for intransitive and transitive verbs, both in terms of word order and agreement behavior.

The STAMP marker, *á* in (58) and *à* in (59), is a free grammatical morpheme rather than a prefix, since it can optionally be omitted in certain contexts (§3.9.1).

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<sup>3</sup>This is different in many eastern and southern Bantu languages, such as Tswana (Creissels 2007), where passivization is a good diagnostic for establishing grammatical roles.

Still, the STAMP marker is a valid diagnostic for subjecthood, since it can always be added to a nominal subject. The STAMP marker as subject agreement marker suffices as subject expression in cases where the subject noun phrase is zero expressed (before the verbal predicate in square brackets), as in (60) and (61) for intransitive and transitive verbs, respectively.

- (60) *yɔ́ɔ [á kɛ]* (intransitive)  
      yɔ́ɔ a-H kɛ  
      so 1-PRS go  
      ‘So she goes.’
- (61) *[à bwàā] mwánò* (transitive)  
      a bwàā-H m-wánò  
      1.PST1 give.birth-R N1-child  
      ‘S/he has given birth to a child.’

Another diagnostic is the form of subject pronouns, which differs from non-subject pronouns (§3.6.1 and 3.6.2), as illustrated in (62) with the subject and non-subject pronouns for agreement class 6.

- (62) a. *[má]<sub>SBJ</sub> má kwé mímpìndí* (subject)  
      má ma-H kwè-H H-mi-pìndí  
      6.SBJ 6-PRS fall-R OBJ.LINK-mi4-unripeness  
      ‘They [the bread fruit] fall unripe.’
- b. *mé nyé [mâ]<sub>OBJ</sub>* (object)  
      mε-H nyê-H mâ  
      1SG-PRS see-R 6.OBJ  
      ‘I see them [the bread fruit].’
- c. *mé njí [nà mâ]<sub>OBL</sub>* (oblique)  
      mε-H njì-H nà mâ  
      1SG-PRS come-R COM 6.OBJ  
      ‘I bring them [the bread fruit].’

(62a) shows the subject pronoun *má*, which precedes the STAMP marker. In (62b), the agreement class 6 pronoun is in object position and takes the shape *mâ*. This is the same form as the pronoun takes in obliques with the comitative marker *nà*, as in (62c).

Creissels (2005) provides a useful survey of pronominal subject and object markers and their evolutionary stages in African languages. Following his model

of three different stages in pronominal markers, Gyeli has both a stage I and a stage II pronominal marker for subjects. The stage I pronominal marker is the subject pronoun, as in (62a), which is in complementary distribution with its corresponding noun phrase and chosen for discourse structural reasons. In contrast, the stage II pronominal marker, following Creissels (2005), is the STAMP marker, as in (60), which is obligatory even (in most cases) if a nominal or pronominal subject noun phrase is present. In contrast to subjects, non-subjects, namely objects and oblique noun phrases, only have a stage I pronominal marker, as described below.

### 7.2.1.2 Objects

While subjects can uncontroversially be recognized as a grammatical relation, it is more challenging to distinguish objects from obliques. This seems to be particularly common in northwestern Bantu. For instance, Van de Velde (2008: 287) only distinguishes subjects from non-subjects in Eton (A71), since “there are no clear syntactic arguments to define grammatical relations other than subject”. This corresponds to Schadeberg’s (1995: 179) observation that:

Bantu languages recognize a type of syntactic relationship which is wider than our traditional category of object, including some but not all of our category of adjunct.

In Gyeli, however, there are means to distinguish objects from obliques, even though they differ from the typical diagnostics used in Bantu languages.

Some of the typical object diagnostics for Bantu languages such as object prefixes on the verb or passivization, as suggested by Schadeberg (1995), do not work in Gyeli. In Gyeli, objects are generally not cross-referenced on verbs. (63) shows that the verb does not take any object marking prefixes, no matter whether the object is expressed by a lexical noun phrase, as in (63a), or a pronoun, as in (63b).

- |      |  |                      |
|------|--|----------------------|
| (63) | a. <i>mé bìyɔ́ Màmbì</i><br>me-H bìyɔ́-H Màmbì <sup>1</sup><br>1SG-PRS beat-R Ø1.PN<br>'I beat Mambi.' | S V O <sub>N</sub>   |
|      | b. <i>mé bìyɔ́ nyɛ́</i><br>me-H bìyɔ́-H nyɛ́<br>1SG-PRS beat-R 1.OBJ<br>'I beat him.'                  | S V O <sub>PRO</sub> |

In contrast to preverbal object prefixes, postverbal object marking is more difficult to analyze. This is because, according to Marten & Kula (2012: 239), postverbal object markers

may in fact be normal pronouns, or pronouns in some special position with respect to the verb, or clitic pronouns with special phonological or morphological characteristics.

In Gyeli, I consider them “normal” pronouns of Creissels’s (2005) stage I. This pronoun paradigm (§3.6.2) is distinct from the subject pronoun (§3.6.1) and the STAMP clitic (§3.9.1) paradigms. It merges, however, object and oblique noun phrase roles and thus does not qualify as object diagnostic.

Another diagnostic that is often used in determining objects in Bantu is passivization. In Gyeli, passivization is a rare process that mostly shows up in elicitations, but not in natural speech. I therefore do not consider passivization a good diagnostic for objecthood, even though simple constructions such as in (64) yield the expected results. As described in §4.2.4.2, the object of an active construction, as in (64a), corresponds to the subject of a passive construction, as in (64b), while the subject of an active construction can optionally be expressed as an oblique in the passive construction.

- (64) a.  $[bùdì \quad bá]_{SBJ} \quad tsilá \quad [békálàdè]_{OBJ}$   
           b-ùdì      ba-H  tsilɔ-H  H-be-kálàdè  
           ba2-person 2-PRS write-R  OBJ.LINK-be8-book  
           ‘People write books.’
- b.  $[békálàdè \quad bé]_{SBJ} \quad tsilá \quad [(nà \quad bùdì)]_{OBL}$   
           be-kálàdè be-H  tsil-a-H       nà  b-ùdì  
           be8-book  8-PRS write-PASS-R  COM ba2-person  
           ‘Books are written (by people).’

Passivization as an object diagnostic in Gyeli is limited, however. First, passivization is a restricted morphological process, given that the possibility to form passives is lexically determined by the verb; less than one third of the verbs in the database allow for passivization. Thus, many verbs that semantically would be expected to have a passive form do not. Speakers generally prefer active constructions with unspecified agents expressed by the agreement class 2 STAMP marker *ba*. Second, while passivization might work as a diagnostic for single objects, it does not for double object constructions. The attempt to passivize both objects in a double object construction in elicitation proved to be an unnatural process and yielded dubious results.

Having ruled out some typical Bantu object diagnostics for Gyeli, I now turn to the two formal criteria that actually characterize objects in this language. These include suprasegmental marking of the object noun phrase, which I call an “object-linking H tone”, and word order. I will discuss both in turn.

### The object-linking H tone

Objects in Gyeli are marked by a syntactic H<sup>4</sup> tone that attaches to underlyingly toneless tone bearing units of the object noun, namely to CV- noun class prefixes.<sup>5</sup> I gloss this object-linking H tone as “OBJLINK”. Thus, in (65), the object receives an H tone, attaching to the noun class prefix, which is underlyingly toneless.

- (65) *wè nzíi bálè [bébá̄]OBJ*  
       we nzíi bále H-be-bá̄  
       2SG PROG.PRS keep OBJLINK-be8-word  
       ‘You are recording the story [lit. you are keeping the words].’

In contrast, in (66), the noun phrase following the verb is not marked with an H tone, indicating its status as an oblique.

- (66) *mè pàlē kè dyô [màfú málálè]OBL*  
       me pàlé kè dyô ma-fú má-lálè  
       1SG NEG.PST go sleep ma6-day 6-three  
       ‘I haven’t slept in three days.’

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<sup>4</sup>Bantu languages are well known for their inflectional melodic tones on verb stems (Odden & Bickmore 2014), yet tonal alternations that are realized after the verb, entering the syntax of the broader VP, are less studied. Tone-cases reported for some western Bantu languages, e.g. in Otjiherero R31 (van der Wal 2015), constitute a famous exception, illustrating that tonal alternations on the object noun class prefix correlate with object and information structure marking in a subset of tenses. Other phenomena that possibly include tonal alternations on postverbal material are the conjoint/disjoint distinction, broadly related to information structure distinctions in eastern Bantu (van der Wal & Hyman 2017), and “metatony” in northwestern Bantu, e.g. in Abo A42 (Hyman & Lionnet 2012), where immediate-after-verb nominal object prefixes surface H if they follow verbs ending H. In both cases, however, the tonal alternation of object nouns originates from and depends on the tonal shape of the preceding verb, which is not the case in Gyeli.

<sup>5</sup>There is one other toneless element that the syntactic object-linking H tone can be realized on, namely the verbal plural particle *nga* (§3.9.2.2), which seems to “steal” the object-linking H tone from the object.

Since the appearance of the object-linking H tone is restricted to toneless tone bearing units, namely CV- noun class prefixes, nominal objects that have no CV-prefix or pronominal objects are not marked for their object status suprasegmentally. Only a substitution test, substituting a tonally unmarked noun phrase with a noun that has a CV- noun class prefix, ultimately determines whether the noun phrase is an object or an oblique. This, however, is subject to further restrictions. As we will see below, in double object constructions, only the object that is closest to the verb is tonally marked as an object.

In Gyeli, I argue for two distinct tones, a grammatical realis-marking H tone on the verb (§6.2.2), and an object-linking H tone on the CV- noun class prefix of an object. While it is possible that the object-linking H tone has its origin in high tone spreading from the realis-marking H tone on the verb, synchronically, these two tones are distinct, as (67) shows. The object-linking H tone shows up in conjunction with the realis-marking H tone, as in (67a), but also if the verb ends in an L tone, as in (67b). The latter case makes clear that high tone spreading is not an explanation for the H tone on the object.

- (67) a. *mé gyámbó bélblò* (with realis H tone)  
       mε-H gyámbo-H H-be-lblò  
       1SG-PRS COOK-R OBJ.LINK-be8-duck  
       'I cook ducks.'
- b. *mèè gyámbò bélblò* (without realis H tone)  
       mèè gyámbo H-be-lblò  
       1SG.FUT cook OBJ.LINK-be8-duck  
       'I will cook ducks.'

Other evidence that the H tone on the object prefix cannot stem from high tone spreading comes from examples where multiple verbs occur between the realis-marking H tone and the object H tone, as in (68).

- (68) *à nzíí tálè sélò [béntùgú]<sub>OBJ</sub>*  
       a nzíí      tálè   sélò   H-be-ntùgú  
       1 PROG.PRS.R begin peel   OBJ.LINK-be8-potato  
       'S/he is starting to peel potatoes.'

The same is true when other parts of speech than verbs stand between the finite verb and the object, as for instance the adverb in (69).

- (69) *mé kwàlè kòò [bábwálè báá]*<sub>OBJ</sub>  
 mε-H kwàlε-H kòò H-ba-bwálè b-áá  
 1SG-PRS love-R always OBJ.LINK-ba2-parent 2-1SG.POSS  
 'I always love my parents.'

### Double objects and the linking H tone

The function of the linking H tone is to mark the object that is closest to the verb. This becomes apparent in constructions involving two objects. As (70) shows, a verb can be followed by two object noun phrases. Riedel & Marten (2012: 279) point out that indirect objects generally precede direct objects in Bantu languages. In Gyeli, however, there is no word order restriction as to which object is closer to the verb. (70b) illustrates that also the direct object can precede the indirect object. Further, there are no formal criteria to distinguish what is generally called a direct object from an indirect object. Therefore, I will rather refer to multiple objects as the first object, i.e. the object closer to the verb, and the second object. The crucial point is that, in Gyeli, the object that is closer to the verb is marked by the linking H tone, but not the second object.

- (70) a. *mé vé bábwálè békumbí* S V O<sub>1</sub> O<sub>2</sub>  
 mε-H v̂-H H-ba-bwálè be-fùmbí  
 1SG-PRS give-R OBJ.LINK-ba2-parent be8-orange  
 'I give the parents oranges.'
- b. *mé vé békumbí bábwálè* S V O<sub>1</sub> O<sub>2</sub>  
 mε-H v̂-H H-be-fùmbí ba-bwálè  
 1SG-PRS give-R OBJ.LINK-be8-orange ba2-parent  
 'I give oranges to the parents.'

Thus, tonally, the second object cannot be distinguished from an oblique noun phrase, as in (66), where the noun class prefix also surfaces with an L tone. In order to distinguish objects from obliques, another diagnostic is needed, namely word order.

### Word order

Riedel & Marten (2012: 279) state that:

The clearest way to distinguish adjuncts from objects in Bantu languages appears to be word order. Bantu languages generally have the word order S V O X or rather S V IO DO X, where locatives usually follow any objects, and high adjuncts, such as temporal modifiers, also follow the objects.

This generalization broadly applies to Gyeli as well, except that indirect and direct objects cannot be clearly distinguished, as noted above. Thus, it seems more accurate for Gyeli to suggest a general order of S V O<sub>1</sub> O<sub>2</sub> X<sub>n</sub>. The object slot can host any number of objects from none to two. Also the oblique position X can be filled by multiple adjuncts. Within the object slot, the order of the two objects is free. Similarly, adjuncts are also free in their relative order. Generally, however, objects are restricted to the object slot and obliques to the final X slot. This word order ultimately distinguishes objects from obliques and is illustrated in (71).

- (71) a. *mè vé [babwálè]<sub>OBJ1</sub> [befumbí]<sub>OBJ2</sub> [máfú málálè dê]<sub>X1</sub> [é tísònì]<sub>X2</sub>*  
 me vê-H H-ba-bwálè be-fumbí ma-fú má-lálè  
 1SG.PST1 give-R OBJ.LINK-ba2-parent be8-orange ma6-day 6-three  
*dê* é tísònì  
 today LOC Ø7.town  
 'I gave the parents oranges three days ago in town.'
- b. *mé vé [bífumbí]<sub>OBJ1</sub> [babwálè]<sub>OBJ2</sub> [é tísònì]<sub>X1</sub> [máfú málálè dê]<sub>X2</sub>*  
 me-H vê-H H-be-fumbí ba-bwálè é tísònì  
 1SG-PRS give-R OBJ.LINK-be8-orange ba2-parent LOC Ø7.town  
*máfú málálè dê*  
 ma-fú má-lálè dê  
 ma6-day 6-three today  
 'I gave oranges to the parents in town three days ago.'
- c. \* *mè vé [babwálè]<sub>OBJ1</sub> [máfú málálè dê]<sub>X1</sub> [befumbí]<sub>OBJ2</sub> [é tísònì]<sub>X2</sub>*  
 me vê-H H-ba-bwálè ma-fú má-lálè dê  
 1SG.PST1 give-R OBJ.LINK-ba2-parent ma6-day 6-three today  
*be-fumbí é tísònì*  
 be8-orange LOC Ø7.town  
 'I gave the parents three days ago oranges in town.'

In (71a) and (71b), the relative order of objects and obliques is reversed within the object and oblique slot, respectively. While this is permissible, moving an oblique into an object position or an object into the oblique slot, mixing objects and obliques, as in (71c), is prohibited. Thus, word order principles characterize a second object such as *befumbí* 'oranges' in (71a) as an object in comparison to the following oblique noun phrase *máfú málálè* 'three days'. Both noun phrases carry an L tone on the noun class prefix, since only the first object is marked by

the object-linking H tone. The second object, however, can be promoted to the first object position, while the oblique noun phrase can only be reversed in order with another oblique.

### 7.2.1.3 Obliques

In the previous section, I explained the formal distinction between objects and obliques that is related to an object-linking H tone and word order. In this section, I present different types of obliques, following Dryer & Gensler's (2013) definition of "oblique":

An oblique phrase is a noun phrase or adpositional phrase (prepositional or postpositional) that functions as an adverbial modifier (or "adjunct") of the verb.

(72) provides an example with multiple obliques, all of which represent different types of oblique phrases. As described in the previous section already, the order of the oblique phrases can be freely varied, provided that the obliques remain within the oblique slot and do not move to the objects' position.

(72) S V O X1 X2 X3

[ <i>bùdì</i>	<i>bógà</i>	<i>bá</i> ] <sub>SBJ</sub>	<i>gyámbó</i>	[ <i>bédéwò</i> ] <sub>OBJ</sub>	[ <i>púù</i>
b-ùdì	bó-gà	ba-H	gyámbó-H	H-be-déwò	púù
ba2-person	2-other	2PL-PRS	prepare-R	OBJLINK-be8-food	Ø7.reason
<i>yá</i>	<i>bwánɔ</i> ] <sub>X1</sub>	[ <i>kísínì</i>	<i>dé</i>	<i>tù</i> ] <sub>X2</sub>	[ <i>nà</i> <i>màsòsí</i> ] <sub>X3</sub>
yá	b-wánò	kísínì	dé	tù	nà ma-sòsí
7:ATT	ba2-child	Ø7.kitchen	LOC	inside	COM ma6-joy
'Other people prepare food for the children in the kitchen with joy.'					

X1 is an instance of a noun + noun construction expressing a benefactive oblique. X2 constitutes an adpositional noun phrase with the postposition *dé*, and X3 is a comitative phrase. I will describe different oblique phrase types in turn.

### Bare noun phrases

An oblique can have the structure of a bare noun phrase, i.e. a noun phrase without any adposition or other grammatical marker such as the comitative. A similar example of a temporal oblique is given in (73) (see also (66)).

- (73) *mègà mée dyúwó nzáà [dúwò lé tè]X*  
       mε-gà mēè dyúwɔ-H nzáà d-úwò lé tè  
       1SG-CONTR 1SG.PST2 feel-R Ø7.appetite le5-day 5:ATT there  
       ‘As for me, I had a craving [for meat] that day.’

Bare noun phrases can also encode other types of obliques, as in (74). Here, the first oblique, *bàgyɛ* ‘guest’, serves as a secondary predication relating to the subject. The second oblique is introduced by the associative plural marker and discussed below.

- (74) *mé ló njì [bàgyɛ]X1 [bà wɛ]X2*  
       mε-H ló njì ba-gyɛ bà wɛ  
       1SG-PRS RETRO come ba2-guest AP 2SG  
       ‘I just came as a guest to you.’

The oblique nouns in both (66) and (74) can clearly be identified as such, since they surface with an L tone on their noun class prefix. If they were object arguments, they would surface with an object-linking H tone.

### Purpose/benefactive *púù yá* ‘reason of’

Some nouns are consistently used in obliques. This is, for instance, the case with *púù* ‘reason’ that is used in benefactive obliques, as shown in (75).

- (75) *á gyàgá mántuà [púù yá bwánò]X*  
       a-H gyàga-H H-ma-ntuà púù yá b-wánò  
       1-PRS buy-R OBJLINK-ma6-mango Ø7.reason 7:ATT ba2-child  
       ‘He buys mangoes for the children.’

*púù yá* obliques also express purpose, as illustrated in (76).

- (76) *mé ló nòò mwánò [púù yá mábó]X*  
       mε-H ló nòò m-wánò púù yá ma-bó  
       1SG-PRS RETRO take N1-child Ø7.reason 7:ATT ma6-breadfruit 6.DEM.PROX

‘I have just taken the child in exchange for these breadfruit.’

**Manner/benefactive *mpá'à wá* ‘side of’**

While *púù* ‘reason’ seems to be the default noun for benefactive obliques, also *mpá'à* ‘side’ can be used for this function, as (77) shows.

- (77) á gyàgá mántuà [mpá'à wá bwánò]<sub>X</sub>  
       a-H gyàga-H H-ma-ntuà              mpá'à wá b-wánò  
       1-PRS buy-R OBJ.LINK-ma6-mango Ø3.side 3:ATT 2ba-child  
       ‘He buys mangoes for the children.’

While speakers state that both nouns can be used interchangeably for benefactive obliques, there seems to be a tendency that *mpá'à* ‘side’ is used if the benefactor is expressed pronominally, as in (78), even though also pronominal benefactors are allowed with *púù* ‘reason’.

- (78) á gyàgá mántuà [mpá'à wâ]<sub>X</sub>  
       a-H gyàga-H H-ma-ntuà              mpá'à w-â  
       1-PRS buy-R OBJ.LINK-ma6-mango Ø3.side 3-POSS.1SG  
       ‘He buys mangoes for me.’

Further, *mpá'à* ‘side’ is used in manner obliques, as in (79).

- (79) bí bój yá bígé [mpá'à wá vé]<sub>X</sub>  
       bí b-ój ya-H bígé-H mpá'à wá vé  
       1PL.SBJ 2-other 1PL-PRS develop-R Ø3.side 3:ATT which  
       ‘How will we others [in contrast to other Gyeli villages] make progress?’

**Obliques with the associative plural marker *bà***

Another type of oblique phrase is introduced by the associative plural marker *bà* and its functional extensions (§3.10.1.4) and expresses usually location, as in (80) and (81).<sup>6</sup>

- (80) bédéwò bénđè byô mé lí njí lélélè bédéwò [bà wê]<sub>X</sub>  
       be-déwò bé-ndè byô me-H lí njí lélélè H-be-déwò bà wê  
       be8-food 8-ANA 1-PRS RETRO come follow be8-food AP 2SG.OBJ  
       ‘It is that food that I have come to look for at your place.’

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<sup>6</sup>While associative plurals canonically co-occur with nouns whose referents are typically human, as stated by Daniel & Moravcsik (2013), the associative plural morpheme *bà* also extends to pronouns in Gyeli.

- (81) *mùdì á sómóné mùdâ [bà kfúmá wà kwádó]X*  
 m-ùdì a-H sómóné-H m-ùdâ bà kfúmá wà kwádó  
 N1-person 1-PRS complain-R N1-woman AP Ø1.chief 1:ATT Ø7.village  
 ‘The person complains about the woman at the chief of the village’s place.’

The associative plural corresponds to the French preposition *chez* ‘at’ and is consistently translated as such.

### Adpositional obliques

Adpositional obliques express location. They come in two types, namely with (i) the preposition *é* and (ii) the postposition *dé*, as described in §3.10.1.1 and 3.10.2.1, respectively. The oblique including the preposition *é* in (82) refers to some general location, corresponding to *at* in English.

- (82) *nyàá sùbɔ èsâs [é dyúwɔ]X*  
 nyàá sùbɔ èsâs é dyúwɔ  
 1.INCH pour Ø1.fuel LOC Ø7.top  
 ‘He starts pouring fuel on top.’

In contrast, the postpositional oblique in (83) rather refers to containment, i.e. a location inside the locative noun.

- (83) *bùdì bésè bà nzíí kè nà kè dé [bèjíí dé tù]X*  
 b-ùdì b-ésè ba nzíí kè nà kè dé be-jíí dé tù  
 ba2-person 2-all 2 PROG.PRS go COM go today be8-forest LOC inside  
 ‘All the people are going into the forest today.’

### Locative obliques and the H tone

Noun phrases that appear bare on the surface and express location and/or direction can also serve as obliques. In (84), the verb *kè* ‘go’, which is mostly intransitive, is followed by the location oblique *mánkê* ‘fields’. I propose that the H tone on *mánkê* ‘fields’ stems from an assimilated locative preposition *é* (§3.10.1.1), whose H tone survives on the noun class prefix.

- (84) *wè médé pâ lígè yá nà nyè yá ké [mánkê]OBL*  
 wè médé pâ-H lígè ya-H nà nyè ya-H kè-H é?-ma-nkê  
 2SG.SBJ self start-R stay 1PL-PRS COM 1 1PL-PRS go-R LOC?-6-field  
 ‘You [Nzambi’s wife], stay first, we and her [the speaker’s wife], we go to the fields.’

One might assume that the H tone on *mánkɛ̂* ‘fields’ could also be an object-linking H tone, since, in Gyeli, the verb *kè* ‘go’ might require a location argument. This possibility can, however, be excluded on the grounds that the location noun phrase clearly appears in an oblique position. In (85), the location oblique *mánkɛ̂* ‘fields’ follows another oblique noun phrase. Arguments, however, cannot appear after obliques.

- (85) *mùdâ ké [nà nyè]OBL [mánkɛ̂]OBL*  
 m-ùdâ kè-H nà nyè é-ma-nkɛ̂  
 N1-woman go-R COM 1.OBJ LOC?-ma6-field  
 ‘The woman [his wife] shall go with him to the fields.’

### Comitative obliques

A lot of oblique phrases contain the comitative marker *nà* ‘and/with’. The notion “comitative”, as used in the Bantuist tradition, should however, not lead to any terminological confusion in assuming that it has only the use of accompaniment, for it shows a broad range of uses, as I will show in the following.

One salient function of comitative obliques is accompaniment, as shown in (86) and (87). In (86), the intransitive verb *njì* ‘come’ is followed by the comitative phrase. This construction of ‘come with’ is systematically used to express ‘bring’ in English.

- (86) *é pè nà á njíyè m̄é [nà y᷑]X*  
 é pè nà a-H njíyε m̄é nà y᷑  
 LOC there COMP 1-PRS come.SBJV 1SG.OBJ COM 7-OBJ  
 ‘So that she bring me that [food].’

In (87), the comitative oblique *nà màbɔ̂* ‘with bread fruit’ is the accompaniment to the verb *dé* ‘eat’.

- (87) *nyè nà mée dé póné [nà màbɔ̂]X*  
 nyε nà mée dè-H póné nà ma-bó̂  
 1 COMP 1SG.PST2 eat-R Ø7.truth COM ma6-breadfruit  
 ‘He [says]: “I really ate [it] with breadfruit”.

The comitative oblique phrase can also have an instrumental function, as in (88).

- (88) *á ké sólègà ngùndyá [nà nkwlá]X*  
 a-H kè-H sólega ngùndyá nà nkwlá  
 1-PRS go-R chop Ø9.raffia COM Ø3.machete  
 ‘He goes to cut the raffia with the machete.’

Instrumental meaning can extend to contexts that are expressed by locatives in English. In (89), the speaker chooses to employ a comitative oblique rather than a locative oblique with the preposition *é*. This gives more of an instrumental than locative reading.

- (89) á ké jií dé tù [nà ndzí gyâ]\_x  
       a-H kè-H jií      dé tù      nà ndzí gyâ<sup>1</sup>  
       1-PRS go-R Ø7.forest LOC inside COM Ø9.path Ø7.length  
       ‘He goes into the forest using the long path.’

Another function of the oblique phrase is to express the agent role in a passive construction, as in (90).

- (90) lé yí lèyá [nà mpèwó]\_x  
       lé yi-H lèya-H      nà mpèwó  
       Ø7.tree 7-PRS uproot:PASS-R COM Ø3.wind  
       ‘The tree is uprooted by the wind.’

This structure is parallel to many verb constructions that synchronically cannot be transparently recognized as passive forms, since they lack another underived form, which does not end in *-a*.<sup>7</sup> In these instances, the oblique expresses some kind of source that is usually encoded by a prepositional phrase with *from* in English. In (91), the source of the suffering is the raffia and bamboo.

- (91) yá tfúgá [nà ngùndyá mpángi]\_x  
       ya-H tfúga-H nà ngùndyá mpángì  
       1PL-PRS suffer-R COM Ø9.raffia Ø7.bamboo  
       ‘We suffer from the straw, the bamboo [used for thatched roofs].’

In (92), the source of death is hunger.

- (92) mè múa wè [nà nzà]\_x  
       mè múa wè nà nzà  
       1SG PROSP die COM Ø9.hunger  
       ‘I’m about to die from hunger.’

Another example where the comitative oblique expresses the source is given in (93).

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<sup>7</sup>See §4.2.4.2 for more information on passive formation.

- (93) *nyègà*   *váà* *nyègá*   *tsíyé* *sáà* [*nà* *màlénđí*]<sub>X</sub> *màlénđí*   *máà*  
*nyε-gà*   *váà* *nyε-gá*   *tsíyé* *sáà*   *nà* *ma-léndí*   *ma-léndí*   *máà*  
 1-CONTR here 1-CONTR live-R only COM 6-palm.tree 6-palm.tree 6:DEM  
*mógà*  
*mó-gà*  
 6-CONTR  
 ‘Him here, he lives only from palm trees, these palm trees.’

Certain verbs such as *dílesε* ‘feed’ in (94), also require a comitative oblique phrase rather than taking a noun phrase object. In such instances, one can think of the comitative’s function either as manner or instrumental.

- (94) *Màmbì à nzí*      *dílesè* *Àdà* [*nà* *ntúà*]<sub>X</sub>  
*Màmbì a nzí*      *dílesε* *Àdà*   *nà*   *ntúà*  
 Ø1.PN 1 PROG.PST feed Ø1.PN COM Ø7.mango  
 ‘Mambi feeds Ada a mango.’

Comitative obliques may encode a stimulus, as in (95) where the snake causes fear.

- (95) *Àdà*   *á*   *sàgá*      [*nà* *nyùà*]<sub>X</sub>  
*Àdà*   a-H   *sàga*      *nà*   *nyùà*  
 Ø1.PN 1-PRS be.scared-R COM Ø1.snake  
 ‘Ada is scared of the snake.’

These sentences provide a few examples of the functional range of comitative obliques. While they seem to cover the most frequent functions, they most likely do not constitute an exhaustive list.

### 7.2.2 Basic word order

Based on the grammatical relations that I established for Gyeli in the previous section, I now discuss the basic word order in this language. According to Dryer (2007c: 73–76), basic word order can be identified through a number of criteria, such as:

1. Frequency
2. Pragmatic neutrality
3. Possible restrictions in distribution

For Gyeli, I will mostly consider frequency as determining the basic word order. Pragmatic neutrality ties in with this factor, since those constructions that are not pragmatically neutral, i.e. which take over some special topic or focus function, as discussed in §7.3, are naturally less frequent. As to possible restrictions in distribution, we will see in Chapter 8 that Gyeli generally keeps the basic word order of simple, main clauses also in dependent clauses.

Table 7.2 summarizes the frequency of each basic clause type relating to word order as found in the Gyeli corpus. “Basic clause type” includes all simple, non-dependent clauses with a verbal predicate. By definition, other clause types are excluded from this count, namely complex clauses, such as relative clauses and coordination, and clauses with non-verbal predicates. I also do not consider unfinished sentences that obviously occur in natural speech. Repeated clauses are only listed once to not artificially enlarge the corpus with one construction type. Subjects and objects include both instances of lexical noun phrases and bare STAMP markers or pronominal objects.

Table 7.2: Word order in simple clauses

	S V ( $X_n$ )	105	49.3%
Basic word order	S V O ( $X_n$ )	74	34.7%
	S V O <sub>1</sub> O <sub>2</sub> ( $X_n$ )	3	1.4%
Imperatives	Ø V ( $X_n$ )	5	2.3%
	Ø V O ( $X_n$ )	3	1.4%
Special object position	Object fronting	17	8%
	Left dislocation	6	2.8%
Total		213	

As Table 7.2 shows, the most frequent word order patterns in Gyeli are S V (49.3%) and S V O (34.7%). Intransitive constructions are more frequent than those containing an object, while double object constructions are rather rare in the corpus, representing only 1.4% of the basic verbal clauses.<sup>8</sup> Every construction type can be followed by one or more oblique phrases. As outlined in §7.2.1.3, obliques generally follow the object slot. This is also true for special word order patterns such as object fronting and left dislocation.

<sup>8</sup>Note that “V” generally represents the predicate without specifying whether the predicate is simple or complex. Thus, “V” may be comprised of 1–3 verbs; complex predicates are discussed in §6.3.

Imperatives and special object positions in Table 7.2 list exceptional patterns. First, imperative forms, except for the first person plural, lack STAMP marking. Therefore, both intransitive and transitive imperative constructions do not contain a subject, while maintaining the general word order of verb before object.

Object positions can be exceptional in various ways. Object fronting and left dislocation are pragmatically non-neutral constructions and relate to information structure. Both are discussed in more detail in §7.3. Object fronting subsumes all instances where a pronominal object precedes the simple verb or part of a multi-verb construction. In addition to the basic word order criterion of being pragmatically neutral, object fronting is further restricted in its distribution, since only pronominal objects can be fronted. As such, object fronting cannot be considered a basic word order type. The same is true for left dislocation where the lexical object noun phrase precedes the subject noun phrase (and is then pronominally taken up again *in situ*). These construction types are non-basic due to their low frequency.

Having investigated the basic word order of all grammatical relations, I now briefly discuss the relation between pairs, namely the order of subject to verb, verb to object, and object to subject. These dual relations confirm the findings of a general S V O (X) word order in Gyeli.

Table 7.3 summarizes the relative order of only two grammatical relations. The first column states the grammatical relations whose order are investigated, followed by the total number of occurrences in the corpus. For instance, there are 205 simple verbal clauses which contain a subject and a verb.<sup>9</sup> Given that there are transitive and intransitive simple verbal clauses, this total number changes for the relation between verb and object, which only has 104 occurrences in the corpus; subject to object order can be investigated for 101 instances.

In all instances, the subject precedes the verb. In relations between the verb and the object, there are two options for the relative order. In verb-object relations, the verb canonically precedes the object. This is the case for 77.9% of all verb-object relations. There are a few exceptions, however, where the object precedes the verb. This is the case in left dislocation where the nominal object noun phrase appears even before the subject and in pronominal object fronting. Due to its low frequency and special pragmatic function in terms of information structure, O V order should be considered as non-basic. In addition to this, Dryer (2007c: 80) suggests to identify basic word order based on nominal noun phrases rather than pronominal ones. The fact that nominal objects cannot be fronted further indicates the special, rather than basic, order of O V. Finally, also the relation

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<sup>9</sup>This number can also be deduced from Table 7.2 where every construction type involves a subject and an object except for the imperative constructions.

Table 7.3: Order of dual grammatical relations

Grammatical relations	Word order	Frequency	
S–V (205)	S V	205	100%
V–O (104)	V O	81	77.9%
	O V	23	22.1%
S–O (101)	S O	95	94.1%
	O S	6	5.9%

between subject and object clearly shows that subjects generally precede objects, as in 94.1% of all subject–object co-occurrences. Again, the only exception to this basic order is related to left dislocation.

In the following subsections, I will give examples of the basic word order types, namely S V, S V O, and S V O<sub>1</sub> O<sub>2</sub>. Note that obliques have been discussed in §7.2.1.3 and will not be subject to further investigation here.

#### 7.2.2.1 S V word order

Intransitive S V clauses constitute the most frequent construction type in Gyeli simple verbal clauses. In the most simple case, as in (96), the clause minimally consists of a zero expressed subject noun phrase and the simple predicate, which contains the STAMP marker (with subject reference) and a verb.

- (96) [Ø]<sub>S</sub> [á vòdà]<sub>V</sub>  
     Ø a-H vòda  
     Ø 1-PRS rest  
     ‘She rests.’

S V clauses can be more complex than that. For instance, the subject can be expressed by a lexical noun phrase and the verb may be accompanied by aspect marking, which appears postverbally in (97).

- (97) [bàNzàmbí bá tè]<sub>S</sub> [bá jílē mà]<sub>V</sub>  
     ba-Nzàmbí bá tè ba-H jílē-H mà  
     2-PN       2:ATT there 2-PRS sit-R COMPL[Kwasio]  
     ‘The [two] Nzambis there live there already.’

Also, an S V clause can be expanded by an oblique noun phrase. In (98), the oblique is a bare locative noun phrase. In addition to the oblique, the verb is also followed by the sentential modifier *sâ* ‘only’.<sup>10</sup>

- (98) [Ø]<sub>S</sub> [à      télé]<sub>V</sub>    sâ    [déndì              témó]<sub>X</sub>  
 Ø      a      téle-H    sâ    d-éndì              témó  
 Ø      1.PST1 stand-R only    le5-court yard middle  
 ‘He just stood in the middle of the courtyard.’

An S V clause can further increase in complexity through auxiliary constructions (§6.3), as in (99). In this example, the predicate consists of the RETROSPECTIVE aspectual verb *ló* ‘come’ and the non-finite verb *njì* ‘come’.

- (99) [Ø]<sub>S</sub> [mé      ló      njì]<sub>V</sub>    [bàgyê]<sub>X1</sub>    [bà wé̂]<sub>X2</sub>  
 Ø      mε-H    ló      njì    ba-gyé̂              bà wé̂  
 Ø      1SG-PRS RETRO come    ba2-stranger AP 2SG  
 ‘I just came as a guest to you.’

Also, the clause contains two oblique noun phrases, a bare noun phrase and one with associative plural marker *bà*.

### 7.2.2.2 S V O word order

S V O word order is found in the corpus in 34.7% of all simple verbal clauses. Just like S V clauses, their shape also differs in terms of complexity. The clause in (100) represents a relatively simple case with a lexical subject noun phrase, including the STAMP marker, a simple predicate, and a lexical object noun phrase.

- (100) [Màmbì]<sub>S</sub> [à      dé]<sub>V</sub>    [mántúà]<sub>O</sub>  
 Màmbì    à      dè-H    H-ma-ntúà  
 Ø1.PN      1.PST1 eat-PST    OBJ.LINK-ma6-mango  
 ‘Mambi ate mangoes.’

Both subject and object can, however, be also expressed by non-lexical noun phrases. In (101), the subject is only expressed by the STAMP marker and the object by a pronoun.

- (101) [Ø]<sub>S</sub> [bwáá      lā]<sub>V</sub>    [b̄j]<sub>O</sub>  
 Ø      bwáa-H lā-H    b-̄j  
 Ø      2PL-PRS tell-R 2-OBJ  
 ‘You tell them!’

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<sup>10</sup>Sentential modification is discussed in §7.2.3.

Unlike zero-expressed nouns, objects have not been observed to be subject to zero anaphora in simple clauses. Objects can, however, be elided in coordinated clauses, as discussed in §8.1.1.

(102) represents an example of a complex object noun phrase, containing a noun + noun attributive construction with a possessor pronoun.

- (102) [Ø]<sub>S</sub> [à nzí        kè]<sub>V</sub> [létsíndó                      lé  
       Ø    a nzí        kè    H-le-tsíndó                      lé  
       Ø    1 PROG.PST1 go    OBJ.LINK-le5-funeral.ceremony 5:ATT  
       ntùmbà            wâ]<sub>O</sub>  
       n-tùmbà            w-â  
       N1-older.brother 1-POSS.1SG  
       'She was going to my older brother's funeral ceremony.'

S V O clauses can be complex in terms of their predicate. In (103), the verb is preceded by the PROGRESSIVE aspect auxiliary.

- (103) [Ø]<sub>S</sub> [wè nzíi        bàlè]<sub>V</sub> [bébáà]<sub>O</sub>  
       Ø    we nzii-H    bàlè    H-be-báà  
       Ø    2SG PROG-PRS keep    OBJ.LINK-be8-word  
       'You are recording the story [lit. you are keeping the words].'

Finally, S V O clauses can be increased in complexity through the addition of oblique noun phrases, as with the comitative oblique in (104).

- (104) [mègà]<sub>S</sub>        [mé        lígé        dè]<sub>V</sub> [mwánò wóò]<sub>O</sub>        [nà  
       mè-gà            mè-H    lígé-H dè    m-wánò w-óò            nà  
       1.SBJ-CONTR 1SG-PRS stay-R eat    N1-child 1-POSS.2SG COM  
       màbóò]<sub>X</sub>  
       ma-bóò  
       ma6-breadfruit  
       'As for me, I stay and eat your child with breadfruit.'

### 7.2.2.3 S V O O word order

Double object constructions are rather rare in the corpus with only three instances. As discussed in §7.2.1.2, however, each object in a double object construction can occur as first or as second object. This is illustrated in example (105).

- (105) a. [Àdà]<sub>S</sub> [á libélé]<sub>V</sub> [Màmbì]<sub>O1</sub> [màtúà]<sub>O2</sub>  
           Àdà    à-H    libéle-H   Màmbì    màtúà  
           Ø1.PN  1SG-PRS show-R Ø1.PN       Ø1.car  
           'Ada shows Mambi A/THE CAR.'
- b. [Àdà]<sub>S</sub> [á libélé]<sub>V</sub> [màtúà]<sub>O1</sub> [Màmbì]<sub>O2</sub>  
           Àdà    à-H    libéle-H   màtúà    Màmbì  
           Ø1.PN  1-PRS show-R Ø1.car       Ø1.PN  
           'Ada shows MAMBI a/the car.'

Pragmatically, the second object position is the focus position. Thus, the choice of which object appears first and which second is conditioned by the information structure of the clause. In (105a), *màtúà* ‘car’ is in focus, while in (105b) it is the animate object *Màmbì*.<sup>11</sup>

Another example of lexical object noun phrases in both object positions is given in (106).

- (106) a. [Ø]<sub>S</sub> [mè vέ]<sub>V</sub> [bábwálè]<sub>O1</sub> [bèfùmbí]<sub>O2</sub>  
           Ø    mε      vέ-H    H-ba-bwálè       be-fumbí  
           Ø    1SG.PST1 give-R   OBJ.LINK-ba2-parent   be8-orange  
           'I gave the parents ORANGES.'
- b. [Ø]<sub>S</sub> [mé vέ]<sub>V</sub> [béfùmbí]<sub>O1</sub> [bàbwálè]<sub>O2</sub>  
           Ø    mε-H    vέ-H    H-be-fumbí       ba-bwálè  
           Ø    1SG-PRS give-R   OBJ.LINK-be8-orange   ba2-parent  
           'I gave THE PARENTS oranges.'

Also pronominal objects can occur either in the first or second object position, depending on which object is in focus. In (107), the lexical object noun phrases of (106) are replaced by pronouns. Each of them can occur in either the first or second object position. The second object position is, again, the focus position.

- (107) a. [Ø]<sub>S</sub> [mè vέ]<sub>V</sub> [b̪]<sub>O1</sub> [by̪]<sub>O2</sub>  
           Ø    mε      vέ-H    b-̪      by-̪  
           Ø    1SG.PST1 give-R   2-OBJ   8-OBJ  
           'I gave them [the parents] THEM [the oranges].'

<sup>11</sup>I refrain from using the terminology of “direct” and “indirect” objects in Gyeli, since they cannot be distinguished on formal grounds. As explained in §7.2.1.2, the first object, which is closer to the verb, receives an object-linking H tone if it has a CV- shape noun class prefix, whereas the second does not. When changing positions, still the first object will receive the H tone, but not the second object.

- b.  $[\emptyset]_S [m\acute{e} \quad v\acute{e}]_V [by\hat{o}]_{O1} [b\hat{o}]_{O2}$   
 $\emptyset \quad m\acute{e}\text{-H} \quad v\acute{e}\text{-H} \quad b\text{-y}\hat{o} \quad b\text{-}\hat{o}$   
 $\emptyset \quad 1\text{SG-PRS give-R} \quad 8\text{-OBJ} \quad 2\text{-OBJ}$
- 'I gave THEM [the parents] them [the oranges].'

### 7.2.3 Sentential modification

Gyeli has a range of sentential modifiers, listed in Table 7.4. They are all mono-syllabic and clearly not nouns. These modifiers are special instances of adverbs that, in contrast to adverbs (§3.4), occur in a preverbal position. As such, they show greater variability in their possible positions. In terms of their function, they modify the event described by the predicate.

Table 7.4: Sentential modifiers

<b>ndáà</b>	'also'	21	37.5%
<b>ná</b>	'again, still'	13	23.2%
<b>vèè</b>	'only, still'	8	14.3%
<b>kóò</b>	'only, still'	7	12.5%
<b>sâ</b>	'only, just'	5	8.9%
<b>líí</b>	'not yet'	2	3.6%
<b>Total</b>		56	

Sentential modifiers also play a role in information structure, relating to the expression in focus and affecting the presuppositions of the sentence. For instance, *ndáà* 'also' as an additive particle is used to "express that the predication holds for at least one alternative of the expression in focus" (Krifka 1999: 111). In contrast, exclusive particles such as *vèè*, *kóò*, and *sâ* "presuppose that the predication holds for the expression in focus, and assert that it does not hold for any alternative" (Krifka 1999: 111).

*ná* 'again, still' can be used for both verbs and other grammatical relations. Further, *vèè* and *kóò* can introduce subordinate clauses, similar to the negation particle *tí*, acting as a sequential marker. These constructions are discussed in §8.2.3.4. Finally, *líí* 'not yet' not only modifies verbs, but it is a negative polarity item. As such, it interacts with tense-mood and polarity categories, which goes beyond just modifying a verb.

The most frequent sentential modifier in the Gyeli corpus is *ndáà* 'also', constituting 37.5% of all sentential modifiers. Table 7.4 lists modifiers in decreasing

frequency. Thus, the second most frequent modifier is *ná* ‘again, still’, which is translated as *encore* into French. The modifiers *vèè*, *kòò*, and *sâ* are about equally frequent. In terms of their semantics, they are difficult to distinguish. They definitely have some overlap and speakers often state that one can be used interchangeably for the other. Typically, they are translated as either *seulement* or *toujours* into Cameroonian French. Examples of each sentential modifier and its range of use is given in the following.

### ***ndáà* ‘also’**

The sentential modifier *ndáà* ‘also’ generally serves to expand a grammatical relation in terms of information structure. It generally follows the constituent it refers to. Thus, in (108), *ndáà* follows the lexical subject noun phrase, expanding the subject topic.

- (108) The woman ate mangoes.

<i>nà</i>	[ <i>mwánà mÙdâ]</i> <sub>S</sub>	<b><i>ndáà</i></b>	<i>à nzí</i>	<i>dè</i>	<i>mántúà</i>
<i>nà</i>	<i>m-wánà</i>	<i>m-ùdâ</i>	<i>ndáà</i>	<i>a nzí</i>	<i>dè H-ma-ntúà</i>
COM	N1-child	N1-woman	also	1 PROG.PST eat	OBJ.LINK-ma6-mango
‘And the girl also ate mangoes.’					

*ndáà* also occurs directly after verbs, as in (109). In the previous clause, the speaker stated that the Bulu contest the Bagyeli’s ownership of their village. Now he expands on what else the Bulu do, namely also bother them.

- (109) *bvúlè*    *bá*    *ntégélé*    ***ndáà***    *bíyè*  
 bvúlè    ba-H ntégélé-H **ndáà** bíyè  
 ba2.Bulu 2-PRS bother-R also 1PL.OBJ  
 ‘The Bulu bother us, too.’

Further, *ndáà* is used under negation, as in (110).

- (110) *ká wèé*                *wúmbélé*    ***ndáà***    *mé*                *nòò*    *nkwê*                *wá*  
 ká wèé                wúmbé-lé **ndáà**    me-H    nòò-H    nkwê                wá  
 if 2SG.PRS.NEG want-NEG also 1SG-PRS take-R Ø3.basket 3:ATT  
*mábó’ò*  
 H-ma-bó’ò  
 OBJ.LINK-ma6-breadfruit  
 ‘If you don’t want [this] either, I take the basket with the breadfruit’

*ndáà* also occurs phrase finally, as in (111). Here, it modifies the copula complement *kùrâ* ‘electricity’, which is one of the things, among others, that the Bagyeli wish to obtain.

- (111) *yá wúmbé ndáà náà bí bógà yá pángó*  
      ya-H wúmbé-H **ndáà** náà bí b-ógà ya-H pángó-H  
      1PL-PRS want-R also COMP 1PL.SBJ 2-other 1PL-PRS PRIOR[Kwasio]-R  
      **bè ná kùrâ ndáà**  
      bè ná kùrâ ndáà  
      be COM Ø7.electricity also  
      ‘We also want that we others first also have electricity.’

### *ná* ‘again’

The sentential modifier *ná* is most often translated as *encore* into Cameroonian French, but in some contexts also as *toujours*, roughly translating to ‘still’ and ‘again’ in English. *ná* mostly occurs directly after the verb. If the clause contains a complex predicate with an auxiliary, the sentential modifier occurs between the auxiliary and the main verb, as in (112) with a modal auxiliary and (113) with an aspectual auxiliary.

- (112) *wé yàné ná gyàgà ndísì*  
      we-H yàné-H **ná** gyàgà ndísì  
      2SG-PRS must-H again buy Ø3.rice  
      ‘You must again buy rice.’
- (113) *mé pâ ná kè dígè mùdì wà nû é*  
      me-H pâ-H **ná** kè dígè m-ùdì wà nû é  
      1SG-PRS PRIOR-H again go see N1-person 1:ATT 1.DEM.PROX LOC  
      péé  
      pé-é  
      over.there.DIST  
      ‘I try again and go see this person over there.’

When *ná* follows negation, as in (114), its meaning is ‘anymore’. Thus, comparable to *ndáà* under negation, no negative polarity item is required.

- (114) *mèè kálè ná bè ná jí é vâ*  
      mèè kálè **ná** bè ná jí é vâ  
      1SG.FUT NEG.FUT anymore be COM Ø7.place LOC here  
      ‘I won’t have a place here anymore.’

In non-verbal predicates, *ná* follows the STAMP copula, as in (115).

- (115) *bónégá báà ná jií dé tù*  
 b-ónégá báà ná jií dé tù  
 2-other 2.COP still Ø7.forest LOC inside  
 ‘The others are still in the forest.’

*ná* further occurs frequently at the end of a phrase. For example, in (116), *ná* follows the object rather than the verb. While the modifier could also appear after the auxiliary, the choice of a phrase-final position in this instance is most likely related to information structure, making *bényámè* more salient. This, however, requires further investigation.

- (116) *ónóò bí bágà yá pâ jí bényámè ná*  
 ónóò bí b-ágà ya-H pâ-H jí H-be-nyámè ná  
 EXCL 1PL.SBJ 2-other 1PL-PRS start-R stay OBJLINK-be8-poor still  
 ‘Ohhh, we others will first still stay poor.’

*ná* can co-occur with other sentential modifiers, such as *ndáà* ‘also’. In this case, *ná* follows *ndáà*, as shown in (117).

- (117) *bwánò bá bùdâ bábáà èè nà mwánò wà mùdâ*  
 b-wánò bá b-ùdâ bá-báà èè nà m-wánò wà m-ùdâ  
 ba2-child 2:ATT ba2-woman 2-two EXCL COM N1-child 1:ATT N1-woman  
*nláálè ndáà ná*  
 nláálè ndáà ná  
 three also again  
 ‘Two girls, yes, and also again a third girl.’

There are a few cases where *ná* appears twice in a clause. In (118), the modifiers occurs after the auxiliary as well as phrase finally.

- (118) *áà mè nzíí ná làwò ná*  
 áà mè nzíí ná làwò ná  
 yes 1SG PROG.PRS still talk still  
 ‘Yes, I am still talking.’

Finally, *ná* can also occur preverbally, as in (119). Here, it follows the subject *wé* ‘you’ (while the other instances of *ná* in the clause follow the verb.)

- (119) *wé ná báàlá nà nyé fí nà wé ndyándyá*  
*wε-H ná báàlā-H nà nyê-H fí nà wε-H ndyándya-H*  
 2SG-PRS again repeat-R COM see-R different COM 2SG-PRS work-R  
*ná sálé é pè nà wé kòlá ná mòné*  
*ná sálé é pè nà wε-H kòla-H ná mòné*  
 again Ø7.work LOC over.there COM 2SG-PRS add-R again Ø1.money  
*nû*  
*nû*

1.DEM.PROX

'You repeat [it] again and try something else [find another work] and you work there again and you add more money.'

Instances of *ná* following the STAMP marker seem to be rather rare, however, at least rarer than *ndáà* 'also' modifying noun phrases.

### *vèè* 'only, still'

In contrast to *ndáà* 'also' and *ná* 'again', *vèè* 'only, still' generally has scope over the constituents that follow the modifier. This may either be a noun phrase, a verb, or the whole sentence. At the same time, *vèè* seems to acquire different meanings in different contexts, as we will see below. Even though it is beyond the scope of this work to disentangle the entire semantic range of sentential modifiers, it seems that *vèè* has a restrictive function when it has scope over single constituents of the sentence. In contrast, when it has scope over the whole sentence, it seems to rather function as a sequential marker connecting subsequent events and adding a dramaturgic aspect.

In (120) and (121), *vèè* appears phrase initially. In both cases, it has a restrictive meaning, which can truly be translated as 'only' in the sense of 'nothing but'.

- (120) *mè nyé kwádó yí Kúndukùndù vèè màndáwò*  
*me nyê-H kwádó yí Kúndukùndù vèè ma-ndáwò*  
 1SG.PST1 see-R Ø7.village 7.DEM.PROX Ø7.PN only ma6-house  
*má zì mâ nà mâ*  
*má zì m-â nà m-â*  
 6:ATT Ø7.tin 6-OBJ COM 6-OBJ  
 'I saw this village, Kundukundu. Only tin (roofed) houses, each of them.'

In (120), the *vèè* modifies *màndáwò* *má zì* 'tin houses' (in contrast to houses with raffia roofs). In (121), it refers to *nàménj* 'tomorrow'.

- (121) *vèè nàméní nàméní nà pámò dè*  
 vèè nàméní nàméní nà pámo dè  
 only tomorrow tomorrow COM arrive today  
 ‘I only heard promises until today [lit. Only tomorrow, tomorrow, until today].’

In (122), the modifier also appears phrase initially, but in this instance, it does not have a restrictive meaning and as such does not seem to modify the subject noun phrase. Instead, it seems to rather have scope over the whole sentence and function as a dramatic sequential marker, which is best translated as ‘suddenly’ or ‘unexpectedly’.<sup>12</sup>

- (122) *nâ bá dyúù nyê vèè mùdì nyê jääsà*  
 nâ ba-H dyúù nyê vèè m-ùdi nyê jääsà  
 COMP 2-PRS kill.SBJV 1.OBJ only N1-person 1 disappear  
 ‘That they kill him. Suddenly the person disappears.’

Another instance of a sequential function is given in (123). Here, the Nzambi story (Appendix B.2) reaches its climax where the protagonist locks his friend’s family into a house, pours fuel over the house, takes a lighter and lights it. The phrase in (123) is the last step in this chain of events, the sentential modifier *vèè* serving as a sequential marker that seems to express a dramaturgic effect at the same time.

- (123) *vèè bédè*  
 vèè bédè  
 only light  
 ‘Just light [the house].’

*vèè* can also precede adverbs that it modifies in a restrictive sense. This is the case for both (124) and (125).

- (124) *é vâ màkwèlò má fúgè vèè vâ*  
 é vâ ma-kwèlò ma-H fúgè vèè vâ  
 LOC here ma6-felling 6-PRS end only here  
 ‘Here, the felling ends, only here.’

---

<sup>12</sup>In Cameroonian French, *vèè* is still translated as *seulement* ‘only’, but the meaning of *seulement* in this case is far from being clear.

- (125) *yɔ́ò pɔ́nè vèè mpù*  
*yɔ́ò pɔ́nè vèè mpù*  
 7.COP Ø7.truth still like.this  
 'It is still true like this.'

In some instances, the modifier seems to pick out a whole verb phrase (i.e. verb plus noun phrase), while actually restricting only the noun phrase. This is the case in (126) where *vèè* precedes the verb, but in terms of its meaning, it rather serves as a restriction to the object *mímpindí* 'unripeness': in contrast to falling ripe, the palm nuts only fall unripe.

- (126) *màlénđí máà vèè kwè mímpindí*  
*ma-léndí máà vèè kwè H-mi-mpindí*  
 ma6-palm.tree 6.DEM.PROX only fall OBJ.LINK-mi4-unripeness  
 'These palm trees only fall unripe [fruit].'

*kóò* 'still, just'

The sentential modifier *kóò* has some functional and semantic overlap with both *vèè* and *sâ*. Therefore, it is hard to distinguish the functional and semantic range of these three modifiers. *kóò* has in common with *vèè* that both can be used as a sequential marker, which have scope over a whole sentence rather than single constituents. This is the case, for instance, in (127) where *kóò* links an event within a chain of events. Nzambi locks his friend's family into a house, pours fuel over the house and then takes a lighter – the following event is introduced with *vèè* as explained in (123).

- (127) *kóò nòò brikê ŵê*  
*kóò nòò brìkê w-̂ê*  
 just take Ø1.lighter[French] 1-POSS.3SG  
 '[He] just takes his lighter.'

In (128), the speaker wraps up a conversation by stating that they were three people who spoke and then finished. As such, *kóò* again more serves as a sequential marker rather than a restrictive modifier.

- (128) *kóò sîlê*  
*kóò sîlê*  
 just finish  
 'Just finish.'

As a second function, *kóò* is also used for restricting information. Thus, the statement in (129), ‘The woman bought oranges and beans for the children’ is corrected, noting that only oranges have been bought. In this case, the modifier precedes the constituent it modifies, namely *befumbí* ‘oranges’. As (129a) and (129b) illustrate, the modifier always precedes the object noun phrase, no matter whether it occurs as first or second object.

- (129) a. *tòsâ à nzí gyàgà sâ/kóò békumbí bwánò*  
           tòsâ a nzí      gyàgà sâ/kóò H-be-fùmbí      b-wánò  
           no 1 PROG.PST buy only    OBJ.LINK-be8-orange ba2-child  
           ‘[The woman bought oranges and beans for the children.—] No, she  
           bought only oranges for the children.’
- b. *tòsâ à nzí gyàgà b-wánò sâ/kóò békumbí*  
           tòsâ a nzí      gyàgà b-wánò    sâ/kóò be-fùmbí  
           no 1 PROG.PST buy    ba2-child only    be8-orange  
           ‘[The woman bought oranges and beans for the children.—] No, she  
           bought only oranges for the children.’

What this example also shows is that the modifiers *kóò* and *sâ* can be used interchangeably in this context, namely whenever *kóò* expresses restriction. Also (130) represents such a case. When Nzambi realizes that his family has been killed, he just cries (and does not do anything else).

- (130) *Nzàmbí wà nû kóò kìyà lèwê*  
       Nzàmbí wà    nû      kóò    kìya H-le-wê  
       Ø1.PN 1:ATT 1.DEM.PROX only give OBJ.LINK-le5-cry  
       ‘This Nzambi only gives a cry.’

In other contexts, *kóò* seems to be less restrictive in its function, but expresses something like ‘just’ or ‘simply’ in English. This is the case in (131), which is certainly not restrictive, since the Bagyeli state that they also wish for other improvements, for instance tin roofs.

- (131) *nà bí bésè kóò kùrâ béké dé tû*  
       nà    bí    b-ésè kóò kùrâ      béké dé    tû  
       COM 1PL.SBJ 2-all just Ø7.electricity be LOC inside  
       ‘All of us, we just want electricity inside [the houses].’

Another way of translating *kòò* into Cameroonian French is *toujours* ‘still’, which applies in examples such as (132) and (133). In both cases, the function of *kòò* is to take up a previous discourse topic and re-introduce it.<sup>13</sup>



Finally, *kój* seems to express some kind of irrealis modality, as in (134).

- (134) *kóó nyégá á làwó ndáà*  
           kóó nyé-gá a-H làwó-H ndáà  
           only 1-CONTR 1-PRS speak-R also  
           ‘If only he would speak, too.’

For a better understanding of the use and semantic range, a much larger corpus is needed as well as a more systematic investigation of sentential modifiers.

*sâ* ‘only’

The primary function of the modifier *sâ* is restrictive, as already seen in (129). *sâ* seems to only have scope over single constituents in a clause rather than over the whole sentence. It immediately precedes the constituent that it modifies. In (135), for instance, *sâ* precedes the oblique noun phrase *nâ máléndí* ‘from palm’.

<sup>13</sup>An English translation with ‘just’ also seems plausible and the exact difference between ‘just’ and ‘still’ in these contexts is hard to grasp. Speakers, however, make a difference whether they use *seulement* ‘only’ or *toujours* ‘still’ in their translations.

trees'. In terms of its meaning, *sâ* restricts the interpretation to this noun phrase, i.e. Nzambi only lives from palm trees and no other crops.

- (135) *nyègà* *váà* *nyègá* *tsíyé* *sâ* *nà* *màléndí* *màléndí* *máà*  
*nyε-gà* *váà* *nyε-gá* *tsíyé* *sâ* *nà* *ma-léndí* *ma-léndí* *máà*  
 1-CONTR here 1-CONTR live-R only COM 6-palm.tree 6-palm.tree 6:DEM  
*mògà*  
*mò-gà*  
 6-CONTR

'Him here, he lives only from palm trees, these palm trees.'

In (136), the *sâ* restricts the object interpretation and thus precedes the object noun phrase *mwánò wòj* 'your child'. Nzambi asks his friend's wife for her child in return for food. In this example, he restricts the payment for food to her child, rather than accepting money or other goods in return.

- (136) *v̄ê* *m̄ê* *sâ* *mwánò* *wòj* *wà* *w̄è* *bùd̄é* *nû*  
*v̄ê* *m̄ê* *sâ* *m-wánò* *w-òj* *wà* *w̄e* *bùd̄e-H* *nû*  
 give.IMP 1SG.OBJ only N1-child 1-POSS.2SG 1:ATT 2SG have-R 1:DEM.PROX  
 'Give me only your child that you have here.'

*sâ* can also modify adverbs, as in (137). The implicit contrast of the restriction is 'here' as opposed to some other place. Thus, the speaker emphasizes that he stays only in the same place and does not go elsewhere so that his relatives are encouraged to join him in his village.

- (137) *ká* *wé* *nyé* *m̄ê* *jíi* *sâ* *vâ* *nâ* *bá* *nzíyè* *bá*  
*ká* *wé-H* *nyé-H* *m̄ê* *jíi* *sâ* *vâ* *nâ* *ba-H* *nzíyè* *ba-H*  
 if 2SG-PRS see-R 1SG.OBJ stay only here COMP 2-PRS come.SBJV 2-PRS  
*nzíyè* *jíyò*  
*nzíyè* *jíyò*  
 come.SBJV stay  
 'When you see me staying only here, so that they come, they come to stay.'

While *sâ* is observed in the vast majority of cases to have a restrictive function, there are, however, non-restrictive uses that convey the sense of 'just/simply'. In (138), there is no restriction on the following locative noun phrase, nor on any other constituent of the phrase.

- (138) à      *télé*      sâ    *déndì*      témó  
       a      téle-H    sâ    d-éndì      témó  
       1.PST1 stand-R just le5-courtyard middle  
       'He just stood in the middle of the courtyard.'

*lií* 'not yet'

The least frequently found sentential modifier in the corpus is *lií*, which is a negative polarity item only occurring with past negation words. This is confirmed by elicitations, given the scarcity of data in the corpus. As such, it is not just simply an adverb modifying a verb, but also depends on the polarity category. Therefore, I classify it as a sentential rather than a verbal modifier.

*lií* directly follows the negation word. As such, it is the only sentential modifier whose occurrence is restricted to one position only. In (139), the modifier occurs between the negation and the main verb.

- (139) mè      *pálé*      *lií* bâ  
       mε      pále      líí bâ  
       1SG.PST1 NEG.PST yet marry  
       'I am not yet married.'

The same is true for (140), which also includes an object, but this does not affect the position of the modifier.

- (140) mè      *pálé*      *lií* dè *mántuà*  
       mε      pále      líí dè H-ma-ntúà  
       1SG.PST1 NEG.PST yet eat OBJLINK-ma6-mango  
       'I have not yet eaten the mangoes.'

*lií* has only been observed to occur with the negation word *pálé*. It is not clear whether it can occur also with the variant *sálé*.

## 7.3 Information structure

Following Güldemann et al. (2015: 156), information structure

is about how speakers structurally encode propositional content with respect to their assessment of knowledge that is (not) shared by the interlocutors in a particular communicative situation.

## Topic

I follow Dik (1997: 312) in his definition of topic and topicality who states that

Topicality concerns the status of those entities “about” which information is to be provided or requested in the discourse. The topicality dimension concerns the participants in the event structure of the discourse.

Gyeli uses a variety of strategies to express “aboutness”. In order to follow a current topic in the discourse, not only single clauses in isolation have to be examined, but also their context in the discourse so that given information can be distinguished from new or newly requested information. Therefore, I provide the discourse context of each example either by description or by a sentence in the example line.

## Focus

According to Dik (1997: 326),

The focal information in a linguistic expression is that information which is relatively the most important or salient in the given communicative setting.

Fiedler et al. (2010: 236) note that this relative importance or salience is expressed either by “introducing new information into the discourse (information focus), or by standing in explicit or implicit contrast to a set of comparable alternatives (contrastive focus)”.

Gyeli has at least three ways of expressing focus, namely a dedicated focus position that is immediately after the verb, fronting of an object pronoun to achieve predicate focus (PCF), and cleft constructions in order to express subject focus.

Gyeli uses a range of strategies to package information in clauses and discourse. The most important information structure strategies are listed in Table 7.5. Both topic and focus can be encoded in-situ, optionally through an ex-

Table 7.5: Basics of Gyeli information structure

Word order				Information structure effect
	S <sub>TOP</sub>	V	O <sub>FOC</sub>	X
O <sub>i, TOP</sub>	S	V	O <sub>PRO, i</sub>	X
X <sub>TOP</sub>	S <sub>TOP</sub>	V	O	
	S <sub>TOP</sub>	O <sub>PRO</sub>	V <sub>FOC</sub>	X
It is	S <sub>FOC</sub>	[...] <sub>REL</sub>		cleft construction → subject focus
It is	X <sub>FOC</sub>	[...] <sub>REL</sub>		cleft construction → adjunct focus

panded noun phrase. Left dislocation of object and adjunct noun phrases topicalizes these constituents. Object fronting puts the predicate into focus. And finally, cleft constructions are a focus means for subjects and obliques. Since they constitute a subordinate construction, they are discussed in §8.2.1.2.

This list is not exhaustive. For instance, prosodic means seem to be relevant as well, but this requires further research. Data on information structure stem both from the questionnaire on information structure (mainly the topic and focus translation tasks) by Skopeteas et al. (2006) and the Gyeli corpus.<sup>14</sup>

### 7.3.1 In-situ positions

Information structure roles can be encoded in-situ through basic word order. According to Guldemann et al. (2015: 159), subjects are often default topics, which conflate “topicality with the semantic role of intransitive subject/transitive agent, leaving the scope of assertion over the following material”. He goes on to explain that this results, in many languages, in a basic linear information structure order template of [[TOP] [FOC]], a generalization that also applies in Gyeli. The default focus position is immediately after the verb. According to Downing & Hyman (2014: 793), this is typical for Bantu languages where, “(most) focused constituents, including WH-elements, occur in the immediate after verb (IAV) position, while non-focal information commonly occurs in peripheral positions”.

#### 7.3.1.1 In-situ topic

In-situ subjects are either not marked at all, but zero expressed, as illustrated in §7.2.2, or they are specially marked through an extended pronominal noun phrase. The latter is the case in (141). In this example, a new topic is introduced. In the previous sentence, the speaker was talking about the team of linguists who come to his village. Now he changes the topic to the Bagyeli themselves and how they react to their visitors.

- (141) *d᷑ bí yá tāálé b᷑ yàlànè àà  
d᷑ bí ya-H tāalé-H b᷑ yàlane àà*  
so[French] 1PL.SBJ 1PL-PRS begin-R 2PL respond[Bulu] EXCL  
'[You come to find us here.] So we, we start to respond to you, mhm.'

---

<sup>14</sup>Information structure questionnaires turned out to be less successful for eliciting relevant data, since speakers strongly preferred to give one-word answers or provide pragmatically neutral answers. The corpus, however, in combination with the questionnaires, allow some reliable generalizations on information structure phenomena in Gyeli.

Also, a subject pronoun can be used with the sentential modifier *ndáà* ‘also’, as in (142). The chief of Ngolo addresses the Ngumba and Mabi speakers among the visitors. He points out that they as well, in addition to the European people in the group, also speak French (while he does not).

- (142) èsé              **béé**      **ndáà bëyá**              làwó      fàlà  
       èsé              béé      ndáà bëya-H              làwɔ-H      fàlà  
       is.it[French] 2PL.SBJ also 2PL[Kwasio]-PRS speak-R Ø1.French  
       ‘Isn’t it, you, you also speak French.’

Often, the subject pronoun is combined with the contrastive marker -gà, indicating a contrastive topic, as in (143). The speaker talks about non-governmental organizations and white people who receive money in Europe to help Africans. Assuming that other people in Africa profit from this money, he now states that the people in Ngolo also want to receive help for obtaining electricity, where the marker -gà contrasts the Bagyeli to other African communities.

- (143) **bí**      **bógà**      yá      wúmbé      ndáà pâà nyê sâ      bá  
       bí      bó-gà      ya-H      wúmbé-H ndáà pâà nyê sâ      ba-H  
       1PL.SBJ 2-CONTR 1PL-PRS want-R      also start see Ø7.thing 2-PRS  
       gyibó      ngyùlè      wá      kùrâ  
       gyibó-H ngyùlè      wá      kùrâ  
       call-R      Ø3.light 3:ATT Ø7.electricity  
       ‘[White people working for NGOs receive money in Europe.] We others,  
       we also want to first see the thing they call the light of electricity.’

The marker -gà is used in order to contrast a new subject topic from an old one. For instance, in (144), the speaker talks about the problems the Bagyeli encounter with the Bulu. He states that, if a Gyeli person goes hunting on terms of equal sharing with a Bulu person, the Bulu person in turn will deceive him.

- (144) wé      ké      nà      nyê nkòwáká      **nyègà**      à nzíí      wê  
       wé-H      ké-H nà      nyê nkòwáká      nyè-gà      a nzíí      wê  
       2SG-PRS go      COM 1      equal.sharing 1.SBJ-CONTR 1 PROG.PRS 2SG.OBJ  
       vâáké      sâ mpù  
       vâáké      sâ mpù  
       go[Bulu] do like.this  
       ‘You go with him [the Bulu] equally sharing. As for him, he is going to  
       treat you like this [tries to trick you].’

This contrast of subject topics is also illustrated in (145). Here, Nzambi offers his friend's wife bread fruit in return for her child, specifying the terms of the deal. She will get the bread fruit, while he will eat her child.

- (145) *wègà wé ké nà mô mègà mé lígé dè*  
*wè-gà we-H kè-H nà m-ɔ mè-gà mè-H lígé-H dè*  
 2SG.SBJ-CONTR 2SG-PRS go-R COM 6-OBJ 1.SBJ-CONTR 1SG-PRS stay-R eat  
*mwánò wɔ́*  
*m-wánò w-ɔ́*  
 N1-child 1-POSS.2SG  
 '[You take the bread fruit.] As for you, you take them [the bread fruit] away. As for me, I stay and eat your child.'

A final example for the marker *-gà* is provided in (146). Again, the speaker contrasts a new subject topic to an old one. The previous topic was himself where he says that he asks his friend for help. As for the friend ('you'), he does not react in the expected way, but causes trouble.

- (146) *é tè wègà wé njí sâ mbvúndá é ndzí*  
*é tè wè-gà we-H njí-H sâ mbvúndá é ndzí*  
 LOC there 2SG.SBJ-CONTR 2SG-PRS come-R do Ø9.trouble LOC Ø9.path  
*vâ*  
*vâ*  
 here  
 '[I send you the message and ask you to help me.] There you, you come to make trouble on the way here.'

### 7.3.1.2 *In-situ* focus

Focus in the immediate-after-verb position seems to be the most common focus strategy in Gyeli for objects and obliques. An example for object focus is given in (147b), which is a correction of the clause in (147a).

- (147) a. *mùdâ à dé mántuà*  
*m-ùdâ a dè-H H-ma-ntuà*  
 N1-woman 1.PST1 eat-R OBJ.LINK-ma6-mango  
 'The woman ate the MANGOES.'  
 b. *tòsâ à nzí dè ndísì*  
*tòsâ a nzí dè ndísì*  
 no 1 PROG.PST eat Ø3.rice  
 'No, she was eating RICE.'

(148) represents an example of in-situ adjunct focus. Here, the oblique noun phrase *lèwùlà lé vé* ‘when’ occurs in-situ. As explained in §7.4.1, such question noun phrases can also appear phrase initially, but the general focus position is at the end of a phrase in Gyeli.

- (148) áá bii mändáwò má zì      yáà mɔ fúàlà bwê  
       áá bii ma-ndáwò má zì      yáà m-ɔ fúala bwê  
       EXCL 1PL.OBJ ma6-house 6:ATT Ø7.tin[Bulu] 1PL.FUT 6-OBJ end receive  
*lèwùlà lé vé*  
       le-wùlà lé vé  
       le5-hour 5:ATT which  
       ‘Ah, us, as for the tin houses, WHEN will we receive them?’

### 7.3.2 Left dislocation

Left dislocation concerns both object and adjunct noun phrases that can be moved to the left edge of the sentence either in form of a nominal or pronominal noun phrase. Left dislocation is limited to noun phrases. In contrast, predicates cannot be left dislocated, keeping the STAMP clitic in-situ.

#### 7.3.2.1 Left dislocation of nominal noun phrases

One means to express topicality is left dislocation. This phenomenon applies mainly to objects. In nominal object left dislocation, an object noun phrase is left dislocated in front of the subject and later taken up again in-situ by an object pronoun. This is illustrated in (149). Previously to this phrase, the chief of Ngolo talks about how he got injured while cutting raffia for his roof. He then changes the topic from ‘raffia’ to ‘tin-roofed houses’, which is supposed to prevent future injuries related to cutting raffia. Note that the left dislocated object noun phrase usually occurs with a prosodic break, which is indicated by the comma.

- (149) áá bii mändáwò má zì      yáà mɔ fúàlà bwê  
       áá bii ma-ndáwò má zì      yáà m-ɔ fúala bwê  
       EXCL 1PL.OBJ ma6-house 6:ATT Ø7.tin[Bulu] 1PL.FUT 6-OBJ end receive  
*lèwùlà lé vé*  
       le-wùlà lé vé  
       le5-hour 5:ATT which  
       ‘Ah, us, as for the tin houses, when will we receive them?’

The same pattern applies in (150) where the speaker talks about the Bulu people. He then changes the topic from the Bulu person to the Gyeli child about whom he says that the Bulu will beat him.

- (150) *pílì mwánò, bágyèli àà nyê kè bíyò*  
       pílì m-wánò ba-gyèli àà nyê kè bíyò<sup>1</sup>  
       when N1-child ba2-Gyeli 1.FUT 1.OBJ go hit  
       ‘[The Bulu person says that he will quarrel with you [the Gyeli child].]  
       At times the Gyeli child, he will GO and HIT him.’

While in most cases the left dislocated object is expressed in-situ pronominally, it can also surface lexically, as shown in (151). The discourse context is the same as for (149) where the chief of Ngolo talks about his injury and a scar he got on his forehead. To clarify the source of his scar, he changes the topic to the raffia, which he cuts up in the trees. In (151), *ngùndyá* ‘raffia’ is left dislocated before the subject and the occurs again in its lexical form in-situ.

- (151) *ngùndyá, mé ké sólègà ngùndyá dyúwò*  
       ngùndyá me-H kè-H sólega ngùndyá dyúwò<sup>2</sup>  
       Ø9.raffia 1SG-PRS go-R chop Ø9.raffia on.top  
       ‘[I think, the machete missed me here [pointing to his forehead].] The  
       raffia, I go to chop the raffia on top [of the tree].’

Left dislocation is also used in conjunction with the sentential modifier *ndáà* ‘also’, as in (152).

- (152) *nà mántuà ndáà, à nzí dè mɔ̄*  
       nà mà-ntuà ndáà a nzí dè m-ɔ̄  
       COM ma6-mango also 1 PROG.PST eat 6-OBJ  
       ‘[The woman ate the oranges.] And she also ate mangoes.’

Left dislocation can also be achieved through pronouns that combine with an object noun phrase, as in (153). Nzambi’s wife explains to her husband’s friend that their fields are not producing enough food. She then changes the topic from the problems in food production to the food itself, which she asks the friend for.

- (153) *bédéwò bénđè byò mé lí njí lébélè bédéwò bà wê*  
       be-déwò bé-ndé b-yò me-H lí njí lébelé H-be-déwò bà wê<sup>3</sup>  
       be8-food 8-ANA 8-OBJ 1-PRS RETRO come follow be8-food AP 2SG.OBJ  
       ‘[The field is running out of food.] This food, I have come to look for the  
       food at your place.’

### 7.3.2.2 Left dislocation of pronominal noun phrases

Left dislocation of pronominal objects that, in contrast to nominal left dislocated objects, are not referenced in-situ again, is often referred to as topicalization. Thus, in (154), the object pronoun is left dislocated, but does not occur in-situ after the verb. In this example, the chief of Ngolo talks about his wishes to obtain houses with tin roofs. He finishes his statements by the summary ‘This I want’, referring to all the points he brought up about new houses in the village and tin roofs.

- (154) *yóò mé wúmbé wû*  
      y-óò mε-H wúmbε-H wû  
      7-OBJ 1SG-PRS want-R there  
      ‘[ I will build houses in Ngolo, each with a tin roof.] I want THIS there.’

In (155), he similarly talks about a topic, namely a tree that people are going to take down without even asking for permission. He concludes by summarizing the general topic of the tree: ‘This I have planted.’

- (155) *yóò yóò mè jilé mà*  
      y-óò y-óò mε jílε-H mà  
      7-OBJ 7-OBJ 1SG.PST1 place-R COMPL[Kwasio]  
      ‘This, this I have placed [there].’

While most instances of topicalization seem to involve a pronominal object, as in (154) and (155), there are also examples where a lexical object noun phrase is left dislocated, but not cross-referenced in-situ. This is the case in (156).

- (156) *nà nákündékündè ndáà, à býélé*  
      nà nákündékündè ndáà a býélε-H  
      CONJ Ø1.bean           also 1.PST1 cook-PST  
      ‘[The woman cooked rice for her child.] And she also cooked beans.’

### 7.3.3 Object pronoun fronting

The phenomenon of preverbal objects in Benue-Congo languages is extensively discussed by Güldemann (2007). Following him, I propose that the marked pre-verbal object position moves the object into an extrafocal position, resulting instead in the predicate being in focus. This hypothesis is supported by the fact that only pronominal objects can be fronted before the verb, but not lexical objects.

Pronouns usually refer to already given information and are thus less salient in terms of new or contrastive information.

Pronominal objects can be fronted in a way that they occur before a simple predicate, as in (157). While in a pragmatically more neutral clause the object pronoun *y᷑* ‘it’ would occur after the verb, it is here fronted and the predicate appears phrase finally, making it more salient in terms of information structure. Nzambi explains to his friend’s wife that her child would be very tender when one steams it, wrapped in leaves. He then emphasizes that he will EAT the child, which can be interpreted as an instance of truth value focus, highlighting the truth of his future deeds.

- (157) *m᷑᷑ y᷑ d᷑*  
 m᷑᷑ y-᷑ d᷑  
 1SG.FUT 7-OBJ eat

‘[This tender child is good when you wrap it in a leaf package.] I will EAT it [the child].’

If a clause contains a complex predicate with an auxiliary, the pronominal object under fronting appears between the auxiliary and the main verb, as shown in (158). The context is the same as in (157). Again, the protagonist of the story stresses what he is going to do with the child, namely eat it. The verb *d᷑* ‘eat’ appears in focus position, since the pronoun *ny᷑* ‘him’ is defocused.

- (158) *m᷑ l᷑g᷑ ny᷑ d᷑*  
 m᷑-H l᷑g᷑-H ny᷑ d᷑  
 1SG-PRS stay-R 1.OBJ eat  
 ‘I stay to EAT him [the child].’

A similar example is presented in (159). Again, the predicate is complex with an aspectual auxiliary verb that is followed by a pronominal object so that the main verb occurs phrase finally. Here, the speaker explains the troubles the Bagyeli encounter with their Bulu neighbors.

- (159) *ny᷑ n᷑à à m᷑ù w᷑ b᷑y᷑*  
 ny᷑ n᷑à a m᷑ù w᷑ b᷑y᷑  
 1 COMP 1 PROSP 2SG.OBJ hit  
 ‘He [the Bulu person says] that he is about to BEAT you [the Gyeli person].’

He reports that the Bulu often threaten to beat the Bagyeli. With the object pronoun *w᷑* ‘you’ in preverbal position, the verb *b᷑y᷑* ‘hit’ is in focus position.

## 7.4 Special clause types

Having investigated the basic word order in simple clauses as well as special constructions relating to information structure, I discuss some special clause types in this section. These include questions, possessor raising, and comparison constructions.

### 7.4.1 Questions

I distinguish three basic types of questions: (i) polar questions, (ii) leading questions, and (iii) constituent questions (what is also known as wh- questions for English). Generally, polar and leading questions occur in basic word order, but add a question marker either at the beginning or the end of the phrase. Constituent questions, in contrast, are more flexible with respect to the occurrence of the interrogative. I will discuss each of these types in turn, basing my analysis both on the question types questionnaire developed by Patin & Riedel (2011) as well as questions occurring in the Gyeli corpus.

#### 7.4.1.1 Polar questions with *nà(nâ)*

Polar questions typically entail a yes or no answer.<sup>15</sup> They are usually marked by the question marker *nà* or *nàñâ*, which grammatically marks a sentence as a question. The first version is the shorter default form *nà*, as shown in (160), which also has a longer emphatic form *nàñâ*, as in (161). Both only occur at the beginning of a phrase.

- (160) *nà wɛ nyé nŷê*  
*nà we nŷe-H nŷê*  
 Q 2SG.PST1 see-R 1.OBJ  
 ‘Did you see him?’

The emphatic question marker *nàñâ* in polar questions pragmatically expresses insistence or even disbelief. Thus, in (161), the speaker who asks the question rather expects the addressee to not have seen the person in question and insists on getting a true answer.

- (161) *nàñâ wɛ nyé nŷê*  
*nàñâ we nŷe-H nŷê*  
 Q 2SG.PST1 see-R 1.OBJ  
 ‘Did you really see him?’

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<sup>15</sup>Pro-sentence forms as answers to yes/no questions are discussed in §3.7.4.

Prosody does not seem to play a role in terms of indicating a question. Therefore, question markers are the only means to mark questions clearly as such, especially in polar questions that do not employ any other question indicating devices, in contrast to constituent questions, which use interrogatives. Nevertheless, the use of question markers is not obligatory, not even in polar questions, as shown in (162). In this example, it has to be clear from the context, however, that the sentence is a question. Otherwise, *nà* as in (160) has to be used.

- (162) *wè nyé nyê*  
*wè nyê-H nyê*  
 2SG.PST1 see-R 1.OBJ  
 ‘Did you see him?’

In addition to their syntactic function of marking a phrase as a question, question markers also have a pragmatic function. In contexts where it is clear that a phrase is meant as a question and *nà* is still used, the question marker serves as marking emphasis. For instance, (160) could also be translated as ‘Did you really see him?’, just as in (161). Using the longer form *nànà*, as in (161), is even more emphatic and indicates the speakers disbelief: speakers would also translate the question in (161) as ‘Are you sure that you saw him?’

*nà* can also co-occur with interrogatives, as shown in (163). *nà* is not required to indicate that the sentence is a question, since this is already achieved through the interrogative construction *púù yá gyí* ‘why’. It seems, however, that *nà* here has an emphasizing function.

- (163) *nà púù yá gyí wè pálé gyàgà mányâ*  
*nà púù yá gyí wè pálé gyàgà H-ma-nyâ*  
 Q Ø7.reason 7:ATT what 2SG.PST1 NEG.PST buy OBJ.LINK-ma6-milk  
 ‘Why didn’t you buy milk?’

#### 7.4.1.2 Leading questions with *ngáà*

The question marker *ngáà* is used for leading questions, i.e. polar questions that lead the addressee to give a specific yes or no answer, as expected by the speaker. *ngáà* roughly corresponds to *n'est-ce pas* in French and *right?* or *isn't it?* in English, which are sometimes also referred to as tag questions. I therefore gloss *ngáà* as “Q(tag)”. Just like the question marker *nànà*, *ngáà* has both a syntactic and pragmatic function. Syntactically, it encodes question marking. Pragmatically, it leads the addressee to give an expected answer. In contrast to *nà(nà)*, *ngáà* can occur both at the beginning and the end of a question, as shown in (164). The

expected answer to the questions in (164) would be *éé* ‘yes’ (or a variant thereof, as shown in §3.7.4).

- (164) a. *wè nyé nyê ngáà*  
           2SG.PST1 see 1.OBJ Q(tag)  
           ‘You saw him, didn’t you/right?’
- b. *ngáà wè nyé nyê*  
       Q(tag) 2SG.PST1 see 1.OBJ  
       ‘Right, you saw him?’

*ngáà* is used in the same form for negated questions, as shown in (165). Here, the expected answer would be *tòsâ* ‘no’.

- (165) a. *wè nyélé nyê, ngáà*  
           we nyê-lé nyê ngáà  
           2SG.PST1 see-NEG 1.OBJ Q(tag)  
           ‘You didn’t see him, did you?’
- b. *ngáà, wè nyélé nyê*  
       ngáà we nyê-lé nyê  
       Q(tag) 2SG.PST1 see-NEG 1.OBJ  
       ‘Right, you didn’t see him?’

In contrast to constituent questions, *ngáà* does not co-occur with *nà* in the same question.

#### 7.4.1.3 Constituent questions

Constituent questions are expressed by interrogatives. Subject and object questions employ the interrogative pronouns *nzá* ‘who’ for human/animate and *gyí* ‘what’ for inanimate entities (§3.6.3). Adjunct questions use a range of interrogatives such as *vé* ‘where’ and oblique noun phrases, such as *dúbò lé vé* ‘when [which day]’, *wùlà yá vé* ‘when [what time]’ and *píú yá gyí* ‘why [what reason]’ (§5.5.5). I will discuss the various constituent question types sorted by constituent, starting with subject questions.

Subject interrogative pronouns always occur in-situ, i.e. phrase initially. An example of a subject question using the human/animate interrogative pronoun *nzá* ‘who’ is given in (166).

- (166) *nzá nzí nyê Màmbì* S V O  
 nzá nzí nyê Màmbì<sup>1</sup>  
 who PROG.PST see PN  
 ‘Who saw Mambi?’

(167) provides an example for a question asking for an inanimate subject, thus using *gyí* ‘what’.

- (167) *gyí nzí bvúj kàsà* S V O  
 gyí nzí bvúj kàsà  
 what PROG.PST break Ø7.bridge  
 ‘What broke the bridge?’

As a side note, there seems to be a preference to use the PROGRESSIVE marker *nzí* in past questions, even though the meaning is not necessarily progressive. Questions can also be formed without the PROGRESSIVE marker, as in (168), but speakers would spontaneously form questions with this aspect marker. They state that questions without it are also grammatical and apparently mean the same. *nzí* therefore most likely also serves another function than PROGRESSIVE, but this needs further investigation.

- (168) *gyí bvúj kàsà* S V O  
 gyí bvúj-H kàsà  
 what break-R Ø7.bridge  
 ‘What broke the bridge?’

Other constituents besides objects have two positional options. Either, interrogatives for objects and adjuncts appear in-situ or are left dislocated to a phrase-initial position. I will first demonstrate this with object questions.

For object questions, the same interrogative pronouns are used as for subject questions. In (169), the object interrogative pronoun *nzá* ‘who’ is left dislocated to the beginning of the phrase. As (169b) shows, this also holds for negated questions. Both questions occur in O S V (X) word order.

- (169) a. *nzá wè nzí nyê ménó yî mákítì*  
 nzá wè nzí nyê ménó yî mákítì  
 who 2SG PROG.PST see Ø7.morning 7.DEM.PROX ma6.market  
 ‘Who did you see this morning at the market?’

- b. ***nzá wèé***      *kwálélè*  
*nzá*    *wèé*      *kwálé-lé*  
 who 2SG.PRS.NEG like-NEG  
 'Who don't you like?'

Likewise, the inanimate interrogative pronoun *gyí* 'what' can be left dislocated in object questions, as shown in (170). Again, this also holds for negated questions, as in (170b).

- (170) a. ***gyí bwáà nzí nyê tísònì***      O S V X  
*gyí*    *bwáà*    *nzí*    *nyê*    *tísònì*  
 what 2PL PROG see Ø7.town  
 'What did you (pl.) see in town?'  
 b. ***gyí wèé kwálélè tísònì dé tù***      O S V X  
*gyí*    *wèé*      *kwálé-lé*    *tísònì*    *dé*    *tù*  
 what 2SG.PRS.NEG like-NEG Ø7.town LOC inside  
 'What don't you like in town?'  
 c. ***gyí Ádà lǎá pá’á wà sâ***      O S V X  
*gyí*    *Ádà*    *lǎá*-H    *pá’á*    *wà*    *sâ*  
 what Ø1.PN read-R Ø1.side 1:ATT Ø1.father  
 'What does Ada read for father?'

The object interrogative pronoun can also occur in-situ, as shown in (171) for both *nzá* 'who' and *gyí* 'what'. In terms of its pragmatics, the in-situ position differs from left dislocation in terms of information structure. The object position in-situ is the focus position, and thus the object interrogative appears in focus in (171).

- (171) a. ***wèé kwálélè nzá***      S V O  
*wèé*      *kwálé-lé*    *nzá*  
 2SG.PRS.NEG like-NEG who  
 'WHO don't you like?'  
 b. ***Ádà lǎá gyí pá’á wà sâ***      S V O X  
*Ádà*    *lǎá*-H    *gyí*    *pá’á*    *wà*    *sâ*  
 Ø1.PN read-R what Ø1.side 1:ATT Ø1.father  
 'WHAT does Ada read for father?'

In questions with double objects, the object interrogative can occur in three positions. In (172), the question asks for the recipient object (which is often referred

to as the direct object, but, as explained in §7.2.1.2, direct and indirect objects cannot be distinguished on formal grounds in Gyeli). The object interrogative can appear either in (i) left dislocation at the beginning of the phrase, as in (172a), (ii) in the first object slot, as in (172b), and (iii) in the second object slot, as in (172c).

- (172) a. *nzá á vé békumbí* O<sub>1</sub> S V O<sub>2</sub>  
           nzá a-H vê-H H-be-fùmbí<sup>1</sup>  
           who 1-PRS give-R OBJ.LINK-be8-orange  
           ‘Whom does s/he give the oranges?’
- b. *á vé nzá békumbí* S V O<sub>1</sub> O<sub>2</sub>  
           a-H vê-H nzá be-fùmbí<sup>1</sup>  
           1-PRS give-R who be8-orange  
           ‘Whom does s/he give the oranges?’
- c. *á vé békumbí nzá* S V O<sub>1</sub> O<sub>2</sub>  
           a-H vê-H H-be-fùmbí nzá  
           1-PRS give-R be8-orange who  
           ‘WHOM does s/he give the oranges?’

The same holds for *gyí* when asking for the patient object, as illustrated for all three possible positions in (173).

- (173) a. *gyí wé gyikésé bwánò* O<sub>1</sub> S V O<sub>2</sub>  
           gyí wε-H gyikésε-H b-wánò<sup>2</sup>  
           what 2SG-PRS teach-R ba2-child  
           ‘What do you teach the children?’
- b. *wé gyikésé gyí bwánò* S V O<sub>1</sub> O<sub>2</sub>  
           wε-H gyikésε-H gyí b-wánò<sup>2</sup>  
           2SG-PRS teach-R what ba2-child  
           ‘What do you teach the children?’
- c. *wé gyikésé bwánò gyí* S V O<sub>1</sub> O<sub>2</sub>  
           wε-H gyikésε-H b-wánò gyí  
           2SG-PRS teach-R ba2-child what  
           ‘WHAT do you teach the children?’

Just like object questions, also adjunct questions can occur both phrase-initially or in-situ. I demonstrate this for various adjunct questions. In (174), for instance, the constituent that is asked for is a comitative oblique encoding accompaniment. This is expressed by a comitative marker plus an interrogative

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pronoun in the question. The oblique question can occur both phrase initially and in-situ.

- (174) a. **nà nzá wèè kè p̄ē** X S V  
 nà nzá wèè kè p̄ē  
 COM who 2SG.FUT go over.there  
 'With whom will you go there?'  
 b. **wèè kè p̄ē nà nzá** S V X  
 wèè kè p̄ē nà nzá  
 2SG.FUT go over.there COM who  
 'WITH WHOM will you go there?'

The same pattern holds for oblique questions comprised of an associative plural construction, as in (175).

- (175) a. **bà nà nzá báà kè p̄ē** X S V  
 bà nà nzá báà kè p̄ē?  
 AP COM who 2.FUT go over.there  
 'They and who will go there?'  
 b. **báà kè p̄ē bà nà nzá** S V X  
 báà kè p̄ē bà nà nzá  
 2.FUT go over.there AP COM who  
 'They and who will go there?'

Some verbs with reciprocal meaning require the comitative marker *nà*. They behave peculiarly in question formation in that they both require an interrogative pronoun in left dislocation and a comitative oblique noun phrase at the end of the question. The object is taken up again in the oblique phrase by a resumptive object pronoun. This is shown in (176).

- (176) a. **nzá yáà lā nà nyē**  
 nzá yáà lā-H nà nyē  
 who 1PL.PST2 talk-R COM 1.OBJ  
 'Who did we talk to?'  
 b. **nzá wé nzí làdtò nà nyē tísɔní**  
 nzá wé nzí-H làdtò nà nyē tísɔní  
 who 2SG PROG-PST meet COM 1.OBJ Ø7.town  
 'Who did you meet in town?'

Other examples of adjunct questions concern locative questions. Again, as shown in (177), the locative oblique phrase can occur phrase initially or in-situ, even though the left dislocated variant seems to be much more frequent, given its relatively unmarked status.

- (177) a. *é vé wéè lúmèlè bwánò sùkúlì* X1 S V O X2  
           é vé wéè lúmèlè b-wánò sùkúlì<sup>7</sup>  
     LOC where 2SG.FUT send ba2-child Ø7.school  
     ‘Where will you send the children to school?’
- b. *wéè lúmèlè bwánò sùkúlì é vé* X1 S V O X2  
     wéè lúmèlè b-wánò sùkúlì é vé<sup>7</sup>  
     2SG.FUT send ba2-child Ø7.school LOC where  
     ‘WHERE will you send the children to school?’

Temporal questions are also formed with oblique noun phrases. Depending on the expected time specificity, speakers usually use *dúbò lé vé* ‘what day’, as in (178a), or *wùlà yá vé* ‘what time’, as in (178b). Again, both examples can occur phrase initially and in-situ with the in-situ position being the more marked one.

- (178) a. *dúbò lé vé à nzí pámò* X S V  
       d-úbò lé vé a nzí-H pámò  
       le5-day 5:ATT which 1 PROG-R arrive  
       ‘When did she arrive [what day]?’
- b. *à nzí pámò wùlà yá vé* S V X  
       a nzí-H pámò wùlà yá vé<sup>7</sup>  
       1 PROG-R arrive Ø7.hour 7:ATT which  
       ‘WHEN did she arrive [what time]?’

Finally, also purpose obliques including *púù yá gyí* ‘what reason’ are expressed following the same structure, as (179) shows.

- (179) a. *púù yá gyí bá gyíbó nyê* X S V  
       púù yá gyí ba-H gyíbó-H nyê<sup>7</sup>  
       Ø7.reason 7:ATT what 2-PRS call-R 1.OBJ  
       ‘Why do they call him?’
- b. *bá gyíbó nyê púù yá gyí* S V X  
       ba-H gyíbó-H nyê púù yá gyí<sup>7</sup>  
       2-PRS call-R 1.OBJ Ø7.reason 7:ATT what  
       ‘WHY do they call him?’

### 7.4.2 Possessor raising

Possessor raising is a pervasive phenomenon in Gyeli. While I use the term possessor raising in line with the literature on this topic, I do not imply an analysis of raising in the syntactic tree, but rather a marked possession construction. Thus, the possessor can be expressed as the subject or object of a clause, avoiding adnominal possession marking and benefactive obliques. In (180), the possessor is expressed in the subject.

- (180) *mé dvúš nkû*  
      mε-H dvúš-H nkû  
      1SG-PRS hurt-R Ø3.foot  
      ‘My foot hurts.’

In most cases, however, the possessor has object status. In (181), for instance, the possessor *mê* takes the object position, while *mbò* ‘arm’ occurs as a bare locative oblique noun phrase.

- (181) *ká yí nyí mē mbò mpángi yí kùgá nâ*  
      ká yi-H nyí-H mē m-bò mpángi yi-H kùga-H nâ  
      when 7-PRS enter-R 1SG.OBJ N3-arm Ø7.bamboo 7-PRS can-R COMP  
*nyí wè mbò*  
*nyí wè m-bò*  
      enter.SBJV 2SG N3-arm  
      ‘When it goes into my arm . . . the bamboo can sting your arm.’

A possessor can also occur in copula constructions, as shown in (182). Here, the possessor appears in the copula complement.

- (182) *nzà nyí mē mò*  
      nzà nyí mē mò  
      Ø9.hunger 9.COP 1SG.OBJ Ø3.stomach  
      ‘I am hungry [lit. hunger is me in the stomach].’

While the previous examples could also have been expressed by possessive pronouns as modifiers to the noun, other possessor raising constructions are rather equivalent to benefactives. In (183), for example, the structure could be modified to ‘build houses for me’ with a purpose or benefactive oblique phrase introduced by *púù yá* (see §7.2.1.3).

- (183) *mè bùdé nâ á lwóngó mè mändáwò*  
 me bùdè-H nâ a-H lwóngó-H mè ma-ndáwò  
 1SG have-R COMP 1-PRS build[Kwasio]-R 1SG.OBJ ma6-house  
 'I say that she [Nadine] ought to build me houses.'

The same benefactive reading holds for copula constructions, as in (184).

- (184) *nlâ wá zì ndáwò nyà zì nyíi mè vé*  
 nlâ wá zì ndáwò nyà zì nyíi mè vé  
 Ø3.story 3:ATT Ø7.tin Ø9.house 9:ATT tin 9.cop 1SG.OBJ where  
 'The problem with the tin, where is the tin (roofed) house for me?'

As a counterpart to benefactive readings, possessor raising can also express adverse functions, as in (185) where the speaker experiences a bad event. The construction is further special in terms of information structure, since the possessor object pronoun is fronted before the verb so that the verb appears in focus position (see §7.3.3). This shows that possessor objects indeed behave identical to other objects.

- (185) *bùdî bà sîlêz mè wè ndáwò tù vâ*  
 b-ùdî ba sîlêz mè wè ndáwò tù vâ  
 ba2-person 2.PST1 finish.COMPL 1SG.OBJ die Ø9.house inside here  
 'The people have all died here inside the house.'

### 7.4.3 Comparison constructions

Comparison and superlative constructions in Gyeli, just as in many other Bantu and generally African languages, as observed, for instance, by Stassen (1984: 157) are expressed verbally with the verb *bále* 'surpass'. This holds for the comparison of the quality of two entities, as in (186). In this example, the compared quality is *mpà* 'good', an adjective, followed by the infinitival form of *bále* 'surpass'. The slot of the adjective can also be filled with nouns denoting quality, size, or color, for instance with *nkpámá* 'new (cl. 3/4)' or *mpùlé* 'yellow (cl. 3/4)'. Morphosyntactically, there is no difference in the use of such a noun or an adjective as a comparison parameter. Nouns are, in fact, frequent parameters in comparison constructions due to the fact that the class of adjectives (§3.3) is rather small.

- (186) *kâbâ yîi mpà bále sótî*  
 kâbâ yîi mpà bále sótî  
 Ø7.dress 7.cop good surpass Ø1.trousers  
 'The dress is better than the trousers.'

The pattern is the same for adverbial comparison. In (187), *mpà* serves as an adverb to *kè* ‘go, run’. Just as in the previous example, it is followed by the comparison verb.

- (187) Màmbì á kéké mpà bálè Àdà  
 Àmàmbì a-H kè-H mpà bálè Àdà  
 Ø1.PN 1-PRS go-R good surpass Ø1.PN  
 ‘Mambi runs better than Ada.’

*bále* is further used in comparison of quantities. Here, *bále* follows the object noun phrase that the quantity refers to and directly precedes the entity that is subject to comparison, namely the person Mambi.

- (188) Adà à tsilí békáládè bálè Mambi  
 Adà a tsilí-H H-be-káládè bálè Mambi  
 Ø1.PN 1.PST1 write-R OBJLINK-be8-letter surpass Ø1.PN  
 ‘Ada wrote more letters than Mambi.’

In (187) and (188), the comparison is between two subjects. *bále* is also used to compare two objects while the subject is identical, as in (189).

- (189) Àdà à dé mántúà bálè mànjù  
 Àdà a dè-H H-ma-ntúà bálè ma-njù  
 Ø1.PN 1.PST1 eat-R OBJLINK-ma6-mango surpass ma6-banana  
 ‘Ada ate more mangoes than bananas.’

*bále* can also function as the only verb in a clause that is tonally inflected for tense and mood, as in (190). Here, the comparison is between the second constituents of a noun + noun attributive construction, while the first constituent of the second construction is elided.

- (190) lèdyúù lé dê bále nàkùgúù  
 le-dyúù lé dê bále-H nàkùgúù  
 le5-heat 5:ATT today surpass-R yesterday  
 ‘Today it’s warmer than yesterday.’

In (191), a comparison construction is used to express semantically a superlative by comparing one person’s driving style to that of everyone else.

- (191) Adà á dvùdó màtúà bálè bógà  
 Adà a-H dvùdó-H màtúà bále bó-gà  
 Ø1.PN 1-PRS drive-R Ø1.car surpass 2-other  
 ‘Ada drives the car faster than all [the fastest].’

In contrast, in (192), a superlative is expressed without comparing two entities. Instead, *bále* follows an object noun phrase, which is subject to the superlative interpretation, while *kè mpfünd́* encodes in which way Ada's car is the best, namely in going fast.

- (192) *Adà á dvùd́ mätúà bálè kè mpfünd́*  
       Adà a-H dvùd-H mätúà bále kè mpfünd  
       Ø1.PN 1-PRS drive-R Ø1.car surpass go Ø3.speed  
       ‘Ada drives the fastest car.’

Finally, some comparison construction types take additionally to *bále* the adverb *mpù* ‘like’. This is the case in equatives, as shown in (193).

- (193) *mèé bálélè bè nà mòné é mpù nàkùgúù*  
       mèé bále-le bè nà mòné é mpù nàkùgúù  
       1SG.PRS.NEG surpass-NEG be COM Ø1.money LOC like yesterday  
       ‘I don't have as much money as yesterday.’

Further, *mpù* is used in comparisons of non-identical objects, as in (194).

- (194) *Âdà à dé mántúà bálè mpù Màmbì à*  
       Âdà a dè-H H-ma-ntúà bále mpù Mambì a  
       Ø1.PN 1.PST1 eat-R OBJ.LINK-ma6-mango surpass like Ø1.PN 1.PST1  
       dé mánjù  
       dè-H H-ma-njù  
       eat-R OBJ.LINK-ma6-banana  
       ‘Ada ate more mangoes than Mambi bananas.’

Constructions involving the comparison of identical objects is done without *mpù*, but only with *bále* ‘surpass’, as in (195).

- (195) *Âdà à dé mántúà bálè mánjù*  
       Âdà a dè-H H-ma-ntúà bále ma-njù  
       Ø1.PN 1.PST1 eat-R OBJ.LINK-ma6-mango surpass ma6-banana  
       ‘Ada ate more mangoes than bananas.’

Having described major types and phenomena of simple clauses, I now turn to complex clauses in the next chapter.



# 8 Complex clauses

Complex clauses are those which are comprised of more than one clause, following the standard notion of complex clauses, including coordination and subordination, as given, for instance, by Wegener (2012). A complex clause is coordinated when the two (or more) clauses it is comprised of are equal in their status. Usually, coordination involves the combination of two (or more) independent clauses. In contrast to coordination, in subordination, clauses are combined that are not symmetrical in their status. They are formed by combining a superordinate clause, i.e. a clause that can occur independently, with a dependent clause, i.e. a clause that cannot occur on its own. In this chapter, I present different types of coordination and subordination. I finally discuss the special case of reported discourse, which I do not view as a type of subordination, but rather as being organized at a higher discourse level.

## 8.1 Coordination

Haspelmath (2007: 1) defines coordination as: “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”. He points out that these units can either be words (e.g. verbs), phrases (e.g. noun phrases), subordinate clauses, or full sentences. In terms of terminology, Haspelmath calls the units that are combined “coordinands”, while the element that links the coordinands is called “coordinator”.

Gyeli uses a range of coordinators which broadly map onto different coordination relations as distinguished by Haspelmath:

1. combination (conjunction)
  - conjunction *nà* ‘and’
  - asyndetic (covert) coordination
2. alternative (disjunction) *nânà/kânà* ‘or’
3. contrast (adversative coordination) *ndí* ‘but’

The most frequent coordinator in the corpus is *nà* for conjunction<sup>1</sup> with 42 occurrences, followed by *ndí* with 9 instances. Both covert coordination and disjunction are rather rare in the corpus, and there are only a couple of examples of each. Nevertheless, corpus examples have been supplemented with elicitations. I discuss each of these coordination strategies in turn.

### 8.1.1 Conjunction with *nà* ‘and’

Conjoining two clauses with the conjunction *nà* is the most frequent coordination strategy in the Gyeli corpus. *nà* usually appears between two clauses in one utterance, but can also occur at the beginning of an utterance, linking the clause to the previous text, as in (1). *nà* is never found sentence finally.

- (1) *nà pándè vâ bùdì báà bɛ*  
       nà pánḍè vâ b-ùdì báà bɛ  
       CONJ arrive here ba2-person 2.DEM.PROX be.there  
       ‘[He is going into the forest on the long path.] And having arrived here,  
       these people are there.’

There are structural differences among conjoined clauses relating to the overt expression or elision of subjects and objects. In the following, I will first discuss subject expression and elision before turning to objects. Other differences that are explained as well in the following examples pertain to general symmetry and asymmetry of the two coordinands in terms of clause type, word order, and aspect marking.

#### Subject expression in both coordinands

Two clauses can be conjoined with *nà* in cases where both coordinands display overt subjects. This is true for both same and different subjects. Subjects are always overtly expressed in both coordinands if they are not identical. In (2), for example, a lexical noun phrase serves as subject, while the second clause only marks subject agreement on the STAMP copula. The two coordinands are asymmetrical in terms of their clause type. The first coordinand represents an intransitive verbal clause, while the second constitutes a non-verbal copula construction.

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<sup>1</sup>Although the conjunction *nà* and the comitative marker *nà* are form-identical, I distinguish them on the basis of their distribution. Conjunctions coordinate verb phrases, while the comitative marker coordinates noun phrases (§5.6).

- (2) *bon mpɔ̂ngò silit̩ nà bée bànáyêyê*  
 bon mpɔ̂ngò silit̩ nà bée ba-náyêyê  
 OK[French] Ø7.generation finish.COMPL CONJ 2PL.COP 2-bleached.out  
 'OK, the generation has been wiped out and you are bleached out [white].'

(3) also has different subjects in the two coordinands. At the same time, it is noteworthy that both have the same aspect marker which cannot be elided in the second constituent.

- (3) *yá ló fúalà nà mè ló làwò*  
 ya-H ló fúala nà me ló làwò  
 1PL-PRS RETRO end CONJ 1SG RETRO talk  
 'We just finished and I just spoke.'

Although the subject of the second coordinand can be elided if it is identical with the subject of the first coordinand, there are circumstances in which speakers prefer overt subject expression in the second clause over elision. This is, for instance, the case when both coordinands are relatively complex, as in (4).

- (4) *mé lámbó Nzàmbí wà nû nà mè wúmbé*  
 me-H lámbo-H Nzàmbí wà nû nà mè-H wúmbé-H  
 1SG-PRS trap-R Ø1.PN 1:ATT 1.DEM.PROX CONJ 1SG-PRS want-R  
*lèmbò é mpù à bùdé mē*  
 lèmbo é mpù a bùdē-H mē  
 know LOC like.this 1 have-R 1SG.OBJ  
 'I trap this Nzambi and I want to know like this how he takes me (what he thinks of this story).'

Overt expression of the same subject is also preferred when the two coordinands differ in their aspect marking, as shown in (5).

- (5) *dʒ bèyá ló kè nà bèyà nzíí pándé*  
 dʒ bèya-H ló kè nà bèya nzíí pándé  
 so[French] 2PL-PRS RETRO go CONJ 2PL PROG.PRS arrive  
 'So, you just came and you are arriving.'

Another instance where the subject of the first coordinand is resumed in the second is when the two clauses differ with respect to their information structure. In (6), the first coordinand has a left-dislocated object, while the second appears in basic word order.

- (6) *békúmbé báà njì nà byô nà báà njì lwô*  
 be-kúmbé báà njì nà by-ô nà báà njì lwô  
 be8-roof 2.FUT come COM 8-OBJ CONJ 2.FUT come build  
*mándáwò*  
 H-ma-ndáwò  
 OBJ.LINK-ma6-house  
 ‘They will bring roofs and they will come and build houses.’

### Subject elision in second coordinand

Subjects of second coordinands can be elided under identity with the first coordinand. The subject of the first coordinand, however, cannot be elided. Elision, where possible, is generally preferred over overt expression and occurs twice as often in the corpus as overt subject expression. An example of subject elision in the second coordinand is given in (7).

- (7) *vèè mÙdì nyè jâåsâ nà ké jií dé tù nà*  
 vèè m-Ùdì nyè jâåsâ nà kè-H jií dé tù nà  
 only N1-person 1 disappear CONJ go-R Ø7.forest LOC inside COM  
*ndzî pámò dê*  
 ndzî pámò dê  
 Ø9.path arrive today  
 ‘Suddenly the person disappears and goes in the forest on the path till today.’

A very common conjunction type is represented in (8a), which encodes a chain of events. First, the agent has gone and then stuffed the top of the roof with straw. The occurrence of the coordinator *nà* clearly distinguishes the sentence in (8a) from the one in (8b), where no coordinator is present.

- (8) a. *áà sîlé kè nà dvùwô dyúwò*  
 áà sîlé-H kè nà dvùwô-H dyúwô  
 1.PST2 finish-R go CONJ stuff-R Ø7.top  
 ‘He has gone and stuffed the top [with straw].’
- b. *áà sîlé kè dvùwô dyúwò*  
 áà sîlé-H kè dvùwô dyúwô  
 1.PST2 finish-R go stuff Ø7.top  
 ‘He has gone to stuff the top [with straw].’

(8b) represents an instance of a complex auxiliary construction. As such, the verb *dvùwɔ* occurs in its infinitival form, i.e. with a final L tone. In contrast, under coordination as in (8a), the verb is tonally inflected for tense and mood and thus occurs with an H tone.

Finally, conjunction constructions can have multiple coordinands, as (9) shows. This complex example contains both coordinands with elided subjects and overt subject expression.

- (9)    *wé       ná      báàlá     nà    nyé    fí              nà    wé       ndyándyá*  
         wε-H    ná    báàla-H   nà    nyê-H fí              nà    wε-H    ndyándya-H  
         2SG-PRS again repeat-R CONJ see-R different CONJ 2SG-PRS work-R  
         *ná      sálé      é      pè              nà    wé       kòlá    ná      mòné*  
         ná    sálé    é    pè              nà    wε-H    kòla-H ná    mòné  
         again Ø7.work LOC over.there CONJ 2SG-PRS add-R again Ø1.money  
         *nû*  
         nû  
         1.DEM.PROX

'You repeat again and try something else [find other work] and you work there again and you add this money [the same amount of 250 Francs] again.'

### Object elision

In contrast to subjects, objects can be elided under identity in both the first and the second coordinand. (10a) provides an example where the identical subject and object are expressed in both coordinands. In (10b), the object is elided in the first coordinand, while it is elided in the second coordinand in (10c). At the same time, it is possible to also elide the identical subject in the second coordinand, as indicated by the parentheses.

- (10)    a. *mé       séló      bén̄tògò                      nà    mé       vúló*  
         mε-H    sélɔ-H H-be-ntògò                      nà    mε-H    vúlɔ-H  
         1SG-PRS peel-R OBJ.LINK-be8-sweet.potato CONJ 1SG-PRS cut-R  
         *bén̄tògò*  
         H-be-ntògò  
         OBJ.LINK-be8-sweet.potato  
         'I peel sweet potatoes and I cut sweet potatoes.'

- b. *mé séló nà (mé) vúló bén̄t̄ḡò*  
 mε-H sélō-H nà mε-H vúlō-H H-be-nt̄ḡò  
 1SG-PRS peel-R CONJ 1SG-PRS cut-R OBJLINK-be8-sweet.potato  
 'I peel and (I) cut sweet potatoes.'
- c. *mé séló bén̄t̄ḡò nà (mé) vúló*  
 mε-H sélō-H H-be-nt̄ḡò nà mε-H vúlō  
 1SG-PRS peel-R OBJLINK-be8-sweet.potato CONJ 1SG-PRS cut  
 'I peel sweet potatoes and (I) cut [them].'

In addition to the overt expression of a nominal object and its elision, there is a third option, namely to express an object pronominally, as shown in (11). In (11a), the natural interpretation is that the objects of the coordinated clauses are identical. If, however, the first coordinand has a pronominal object, while the second has a nominal object, as in (11b), the two objects are likely not identical, but the pronoun would refer to an antecedent from previous discourse.

- (11) a. *mé séló bén̄t̄ḡò i nà (mé) vúló bȳj̄i*  
 mε-H sélō-H H-be-nt̄ḡò nà mε-H vúlō-H bȳj̄  
 1SG-PRS peel-R OBJLINK-be8-sweet.potato CONJ 1SG-PRS cut-R 8.OBJ  
 'I peel sweet potatoes and (I) cut them.'
- b. *mé séló bȳj̄i nà (mé) vúló bén̄t̄ḡò;*  
 mε-H sélō-H bȳj̄ nà mε-H vúlō-H H-be-nt̄ḡò  
 1SG-PRS peel-R 8.OBJ CONJ 1SG-PRS cut-R OBJLINK-be8-sweet.potato  
 'I peel them and (I) cut sweet potatoes.'

### *nà* in non-clausal coordination

The conjunction *nà* is not only used in clausal coordination, but also in coordination of, for instance, noun phrases, as shown in (12).

- (12) *nà mìmbàngá nà màsa nà bègyí nà*  
 nà mi-mbàngá nà ma-sá nà be-gyí nà  
 CONJ mi4-coconut.tree CONJ ma6-African.plum CONJ be8-what CONJ  
*bègyí byésè béè sìlè ntàmànè*  
 be-gyí by-ésè béè sìlè ntàmane  
 be8-what 8-all 8.FUT finish ruin  
 'And the coconut trees and the African plum trees and so on and so forth,  
 they will all be ruined.'

Also, this coordinator can conjoin two oblique phrases, as in (13).<sup>2</sup>

- (13) S V X<sub>1</sub> ‘and’ X<sub>2</sub>  
 àá bámálá tóbá mpfùmò nà pámò ménó  
 àá bámala-H tóbá mpfùmò nà pámo ménó  
 1.INCH scold-R since Ø3.midnight CONJ arrive Ø7.morning  
 ‘He starts to scold [now] at midnight and [it] will last until the morning.’

Coordination of verbs sharing the same object has not been observed in the corpus.

### 8.1.2 Covert coordination

A minor strategy to conjoin clauses is asyndetic coordination, i.e. coordination without any overt coordinator. This is also called “covert coordination”. In Gyeli, covert coordination seems to be quite restricted and involves two clauses with different verbal predicates, the second of which is ditransitive. The second clause then not only shares the first clause’s subject, but also its object, both of which are elided in the second clause, as shown in (14) and (15).<sup>3</sup>

- (14) S V<sub>1</sub> O<sub>1</sub> [‘and’] V<sub>2</sub> O<sub>2</sub>  
 [yóò mùdâ tóké mwánò] [kàlànè nyê]  
 yóò m-ùdâ tókε-H m-wánò kàlane nyê  
 so N1-woman collect-R N1-child hand.over 1.OBJ  
 ‘So the woman picks up the child [and] hands [it] over to him.’
- (15) S V<sub>1</sub> O<sub>1</sub> [‘and’] V<sub>2</sub> O<sub>2</sub>  
 [yóò mé tóké mòné wê] [vè nyê]  
 yóò mε-H tókε-H mòné w-ê vè nyê  
 so 1SG-PRS collect-R Ø1.money 1-POSS.3SG give 1.OBJ  
 ‘So I collect her money [and] give [it to] her,’

I analyze these constructions as instances of covert coordination rather than complex predicate constructions for two reasons. First, the verb of the first clause is not a typical auxiliary verb. As explained in §6.3, auxiliaries generally belong to one of three verb classes, namely aspectual verbs, deictic motion verbs, and

<sup>2</sup>Note that *pámò* ‘arrive’ is consistently used in a preposition-like function of ‘till’.

<sup>3</sup>Instances of such covert coordination constructions where the second clause has a transitive verb which it shares with the first clause have not been observed. Future research will have to show whether such constructions are possible.

modal verbs. *tóke* ‘collect’ clearly does not fit into any of these categories and has not been observed in any other instances to occur as auxiliary in complex predicate constructions. Second, while complex predicates often describe one event expressed by the final main verb, clauses with covert coordination clearly encode a sequence of events. Thus, in (14), the woman first picks up her child and then hands it over to another person.

### 8.1.3 Disjunction with *kânà/nânà* ‘or’

Disjunction, also called “alternative coordination”, can be expressed with one of the coordinators *kânà* and *nânà* ‘or’. Disjunction is rather rare in the corpus, where only the variant *kânà* appears, but speakers state that it can always be replaced with *nânà*. Just like the conjunction coordinator *nà*, *kânà/nânà* can appear in between clauses and sentence initially, as in (16). Here, Nzambi explains that his friend told him to kill people in order to help them get white skin. He then concludes in a new sentence ‘Or I also broke the interdiction’, as an alternative judgement of his deeds.

- (16) *kânà mè kòbé ndáà tsì mèé lémbo-lé*  
 kánâ me kòbë-H ndáà tsì mèé lémbo-lë  
 or 1SG.PST1 break-R also Ø7.interdiction 1SG.PRS.NEG know-NEG  
 ‘[You were telling me to do so.] Or I also broke the interdiction, I don’t know.’

(17) represents an example where the disjunctive coordinator appears between two clauses. Again, it shows that both coordinators *nânà* and *kânà* can be used as ‘or’. In contrast to conjunction, in disjunction, there seems to be a general preference to express the (same) subject overtly in both coordinands. Thus, *wé* ‘you’ is repeated also in the second clause.

- (17) *wé njí nà bî nânà/kânà wé lígë*  
 wé-H njí-H nà bí nânà/kânà wé-H lígë  
 2SG-PRS come-R COM 1PL.OBJ or 2SG-PRS stay  
 ‘Do you come with us or do you stay?’

*kânà* can also be used in both of the coordinands, expressing ‘either...or’. This is shown in (18). In this construction, the coordinator in the second clause can be abbreviated to *kâ*.

- (18) *kânà àà njì nà byâ kâ(nâ) àà lúmèlè*  
 kânà àà njì nà by-â kâ(nâ) àà lúmèlè  
 or 1.FUT come COM 8-OBJ or 1.FUT send  
 'Either he will bring them [books] or he will send [them].'

(18) also shows that the second coordinand elides its object which it shares with the first clause. Elision of shared objects is also a feature of covert coordination, as shown in (14).

Finally, (19) represents a case where the first and the second coordinand are asymmetrical in that the second coordinand consists only of a negated substitute *m̄m* ‘no’ of the first clause. The speaker makes a suggestion in the first coordinand, but then changes his mind and suggests the opposite.

- (19) *mùdâ ké nà nyè mánkê kánâ m̄m*  
 m-ùdâ kè-H nà nyè H-ma-nkê kánâ m̄m  
 N1-woman go-R COM 1 OBJ.LINK-ma6-field or no  
 'The woman [his wife] shall go with him to the field or not.'

#### 8.1.4 Adversative coordination with *ndí* ‘but’

Adversative coordination is expressed by *ndí* ‘but’ in Gyeli. Haspelmath (2007) distinguishes different subtypes of contrast, depending on the origin of conflict. Thus, the adversative coordinator can be (i) “oppositional”, as in (20), (ii) “corrective”, as in (21), or (iii) “counterexpectative”, as in (22).<sup>4</sup> Gyeli does not make any lexical distinction between these subtypes, but expresses all of them with the same adversative coordinator *ndí* ‘but’.

- (20) Oppositive  
*mè gyàgá békündá ndí Ádà à gyàgá*  
 me gyàga-H H-be-kündá ndí Ádà a gyàga-H  
 1SG.PST1 buy-PST1 OBJ.LINK-be8-shoe but Ø1.PN 1.PST1 buy-PST1  
*tsilè yá sóti*  
 tsilè yá sóti  
 Ø7.smallness 7:ATT Ø1.trousers  
 'I bought shoes whereas Ada bought shorts.'

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<sup>4</sup>Examples of these different adversative subtypes stem from Mauri (2008).

- (21) Corrective
- á sàlē bédò nkòlé mpfùndò **ndí** à nzi kè nà kè  
 a-H sàlē bédò nkòlé mpfùndò ndí a nzi-H kè nà kè  
 1-NEG PST.NEG ascend Ø3.hill fast but 1.PST1 PROG-R go COM Ø7.walk  
*tsídéè*  
*tsídéè*  
 slow
- ‘He didn’t run up the hill, but went slowly.’
- (22) Counterexpectative
- Àdà á dyà nté bvùbvù **ndí** àá lálé basket  
 Àdà a-H dyà nté bvùbvù ndí àá lá-lé basket  
 Ø1.PN 1-PRS Ø7.tallness Ø3.size much but 1.PRS.NEG play-NEG basketball  
 ‘Ada is very tall, but he doesn’t play basketball.’

Just like other coordinators, *ndí* ‘but’ occupies the initial position within a clause, as shown by the double occurrence of *ndí* in (23).

- (23) **ndí** mèé sálé wê bvùbvù **ndí** vèdáà mé  
 ndí mèé sâ-lé wê bvùbvù ndí vèdáà me-H  
 but 1SG.PRS.NEG do-NEG 2SG.OBJ much but but[Bulu] 1SG-PRS  
*dyúwó* nâ wéè dé mwánò nòò  
 dyúwó-H nâ wéè dé-H m-wánò, nòò  
 understand-R COMP 2.PST2 eat-R N1-child no  
 ‘But I don’t do you wrong, but I understand that you have eaten [my]  
 child, haven’t you?’

In contrast to other coordinators, *ndí* is the only one that is prone to code-switching, which systematically happens both to Bulu and French. In (24), the Bulu coordinator *vèdáà* ‘but’ is used instead of *ndí*. In other cases, *ndí* and *vèdáà* are both used, the Gyeli variant preceding the Bulu one, as shown in (23).

- (24) yi ntégèlè **vèdáà** mé sùmbélé bê  
 yi-H ntégele vèdáà me-H sùmbele-H bê  
 7-PRS disturb but[Bulu] 1SG-PRS greet[Kwasio]-R 2PL.OBJ  
 ‘That disturbs, but I greet you.’

Also, *ndí* is often substituted by the French form *mais* (*mé* in Gyeli) ‘but’, as in (25).

- (25) *ká wé sílē kè sâ sálé mé pílì wé ké nâ*  
*ká wε-H sile-H kè sâ sálé mé pílì wε-H kè-H nâ*  
 if 2SG-PRS finish-R go do work.<sup>7</sup> but[French] when 2SG-PRS go-R COMP  
*wé ké jíi mòné wô á làwó wê nyùmbò*  
*wε-H kè-R jíi mòné w-ô a-H làwɔ-H wê nyùmbò*  
 2SG-PRS go-R ask Ø1.money 1-POSS.2SG 1-PRS tell-R 2SG Ø3.mouth  
 'If you go do all the work[for a Bulu person]... but when you [later] go  
 and ask for your money, he [the Bulu person] frowns at you.'

## 8.2 Subordination

As described by Haspelmath (2007: 46-48), coordination and subordination generally differ in two main respects. First, while coordination can be used for both phrases and clauses, subordination only applies to clauses. Second, in contrast to coordination, clauses in subordination are not symmetrical. I take a traditional view on subordination, as summarized in Cristofaro (2003: 15),<sup>5</sup> which is defined by morphosyntactic criteria of syntactic embedding and structural dependency.

In syntactic embedding, the subordinate clause functions as a constituent of another clause and combines with a specific element of the main clause. In Gyeli, relative clauses (§8.2.1) are embedded in verbal or non-verbal clauses, modifying a noun. In contrast, complement clauses (§8.2.2.1) serve as arguments of a predicate, combining with verbs. Adverbial clauses (§8.2.3) are defined by their structural dependency on the main clause. Gyeli has several subtypes of adverbial clauses which all have in common that they cannot be used independently of the main clause. Some of them are also inflectionally reduced.

### 8.2.1 Relative clauses

Relative clauses are embedded clauses which combine with a noun phrase constituent of a matrix clause. Andrews (2007: 206) offers the following functional definition: "A relative clause (RC) is a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC". In Gyeli, relative clauses follow a nominal head. They generally have the same syntactic structure as simple main clauses:

$$\text{NP } [(\text{ATT}) \text{ S V O (X)}]_{\text{REL}}$$

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<sup>5</sup> Although Cristofaro (2003) proposes a different approach to subordination, her summary of the traditional view is very helpful.

There are differences, however, in terms of the expression, elision, or cross-referencing of the nominal head in the relative clause, depending on its function within the relative clause, as discussed below. Relative clauses may be introduced by an attributive marker, which in many cases is optional.

Gyeli relative clauses are usually externally headed. I only found one example of a headless relative clause, as shown in (26). In this construction, the relative clause appears as the copula complement in a non-verbal predicate construction, following the STAMP copula. The subject of the main clause serves as the object complement of the relative clause and is cross-referenced by a resumptive pronoun at the end of the relative clause. There is, however, no expression of a head.

- (26) *lèbvúú lé tè lóò [yá bùdé lê]REL*  
 le-bvúú lé tè lóò ya-H bùdε-H lê  
 le5-anger 5:ATT there 5.COP 1PL-PRS have-R 5.OBJ  
 ‘We have this anger. [lit. The anger there it is that which we have].’

Other free relative clauses, as discussed in §8.2.1.5, usually occur with a default head that takes different shapes depending on whether the head denotes a human or not.

I explore relative clauses in Gyeli in various directions. In §8.2.1.1, I investigate the range of syntactic functions of noun phrases in the matrix clause that can serve as the head of a relative clause. I treat cleft constructions as a special subtype of relative clauses in §8.2.1.2. I then describe clause linkage of relative clauses in §8.2.1.3. In §8.2.1.4, I show the different syntactic roles that the nominal head of a relative clause can take within the relative clause. I provide examples of different types of relative clauses such as restrictive, non-restrictive, and free relative clauses in §8.2.1.5 and finally give a few examples of complex relative clauses in §8.2.1.6. Data on relative clauses stem both from the Gyeli corpus and from answers to the relative clause questionnaire by Downing et al. (2010).

### 8.2.1.1 Nominal heads and the main clause

Noun phrase types that can be modified by a relative clause in Gyeli include all available noun phrases in a verbal clause, namely subject, object, and oblique noun phrases, as illustrated in (27) through (31). In (27), the relative clause modifies the subject noun phrase of a verbal main clause.

- (27) *bwánò-békumbé [bé bà njí nà byô]REL bé télé màbé*  
 b-wánò-be-kúmbé bé ba njí-H nà by-ô be-H téle-H mà-bé  
 ba2-child-be8-tin 8:ATT 2.PST1 come-R COM 8-OBJ 8-PRS stand-R here-8  
 ‘The few tin roofs that they brought stand here.’

Relative clauses can modify object noun phrases. In (28), the first object of a double object construction is followed by a relative clause.

- (28) *v̄ê mwán̄ò w̄ô [w̄à w̄è bùd̄é n̄û]\_REL*  
      v̄ê m-wán̄ò w-ô w̄à w̄e bùd̄e-H n̄û  
      give.IMP N1-child 1-POSS.2SG 1:ATT 2SG have-R 1:DEM.PROX  
*mwán̄ò-sâ yá d̄è*  
      m-wán̄ò-sâ yá d̄è  
      N1-child-Ø7.thing 7:ATT eat  
      ‘Give your child that you have here a little to eat.’

The relative clause can also modify the second object in a double object construction, as in (29).

- (29) *v̄ê m̄ê sâ mwán̄ò w̄ô [w̄à w̄è bùd̄é n̄û]\_REL*  
      v̄ê m̄ê sâ m-wán̄ò w-ô w̄à w̄e bùd̄e-H n̄û  
      give.IMP 1SG.OBJ only N1-child 1-POSS.2SG 1:ATT 2SG have-R 1:DEM.PROX  
      ‘Give me only your child that you have here.’

Further, left-dislocated object noun phrases can be modified by a relative clause, as shown in (30).

- (30) *nȳè nâ yáà m̄é láà nâ sá [w̄é sá n̄ogá m̄ud̄ì]\_REL àà ȳô w̄ê nȳê*  
      nȳe nâ yáà m̄e-H láà nâ sá w̄e-H sâ-H n̄o-gá  
      1 COMP yes 1SG-PRS say COMP Ø7.thing 2SG-PRS do-R 1-other  
      m̄ud̄ì àà ȳô w̄ê nȳê  
      m̄-ùd̄ì àà ȳô w̄ê nȳê  
      N1-person 1.FUT 7-OBJ 2SG return  
      ‘He: Yes, I say, the thing that you do to another person, he will return [it] to you.’

Finally, relative clauses may modify oblique noun phrases, as illustrated with the locative oblique in (31).

- (31) *à lâd̄ó nâ sô é ndâw̄ò dé tû [nyâ sâ w̄ê à lw̄ɔ̄]\_REL*  
      a lâdo-H nâ sô é ndâw̄ò dé tû nyâ sâ  
      1.PST1 meet-R COM Ø1.friend LOC Ø9.house LOC inside 9:ATT Ø1.father  
      w̄ê à lw̄ɔ̄  
      w-ê a lw̄ɔ̄  
      1-POSS.3SG 1.PST1 build  
      ‘He met with a friend in the house that his father built.’

## 8 Complex clauses

Relative clauses further appear in noun phrases of non-verbal clauses. They can appear both with the main clause's subject, as in (32) and with noun phrases in complement position, as in (33).

- (32) *bà [yá bwánò bá ló làwɔ]REL yíi tè*  
bà yá b-wánò ba-H ló làwɔ yíi tè  
Ø7.word 7:ATT ba2-child 2-PRS RETRO speak 7.COP there  
'The word that the children just said is there. [it is true]'

- (33) *bàngyé'élè báà bùdì [bá gyíkésé bwánò]REL*  
ba-nyé'élè báà b-ùdì ba-H gyíkésé-H bwánò  
ba2-teacher 2.COP ba2-person 2-PRS teach-R ba2-child  
'Teachers are people who teach children.'

A special type of non-verbal clause that embeds a relative clause is the so-called cleft construction, which I discuss in the following section.

### 8.2.1.2 Cleft constructions

Cleft constructions describe a type of non-verbal matrix clause in which the relative clause is embedded. Gyeli has two cleft constructions, involving either (i) a STAMP copula or (ii) the identificational marker *wé*. Both constructions have in common that they are pragmatically motivated as an information structure strategy expressing focus (§7.3).

Cleft constructions with a STAMP copula are characterized by the default STAMP copula of agreement class 7 *yíi* 'it is' (§7.1.1), followed by a (pro-)nominal predicate which serves as the head of the relative clause:

*yíi NP [...]REL*

As shown in (34), the class 7 STAMP copula is also used when the following predicate appears in a plural class. In terms of information structure, the subject is in focus, as an answer to the question 'Who eats mangoes?'.

- (34) *yíi bwánò [bá dé mántuà]REL*  
yíi b-wánò ba-H dè-H H-ma-ntuà  
7.COP ba2-child 2-PRS eat-R OBJLINK-ma6-mango  
'It's the children who eat mangoes.'

Also with cleft constructions, the use of the attributive marker is optional, as indicated by the parentheses in (35). Since the attributive marker and the following STAMP marker are identical in their shape, the omission of the attributive marker is preferred.

- (35) *yîi bwánò bùdâ [ (bá) bá sá másâ ]\_REL*  
      yîi b-wánò b-ùdâ     (bá) ba-H sâ-H H-ma-sâ     é  
 7.COP ba2-child ba2-woman (2:ATT) 2-PRS do-R OBJ.LINK-ma6-game LOC  
*jíwó]\_REL*  
 jíwó  
 Ø7.river

'It's the girls who are playing by the river.'

While cleft constructions are mostly used to express subject focus, as in (35), the nominal predicate can also serve as the object of the relative clause, as in (36).

- (36) *yîi bwánò bùdâ [ wè nzí nyê ]\_REL*  
      yîi b-wánò b-ùdâ     wè nzí     nyê  
 7.COP ba2-child ba2-woman 2SG PROG.PST see  
 'It's the girls that you saw.'

(37) provides an example of a double object construction, where the indirect object of the relative clause is encoded by the external head of the relative clause.

- (37) *yîi bwánò bùdâ [ bá àà lúmèlè békúlà ]\_REL*  
      yîi b-wánò b-ùdâ     bá àà lúmele be-kúlà  
 7.COP ba2-child ba2-woman 2:ATT 1.FUT send be8-present  
 'It's the girls that she will send presents to.'

Under negation, the STAMP copula is replaced by the verbal copula *bè* 'be', as expected and discussed in §7.1.4. Thus, in (38), the negated correction of the statement 'That woman ate the mangoes' is expressed by the negated verbal copula *bélé* for 'it is not X', while for the affirmative cleft, the STAMP copula is used again.

- (38) *tòsâ yí bélé mùdâ núnđè yîi mè [ mè nzí dè ]\_REL*  
      tòsâ yí bè-le m-ùdâ nú-ndè yîi mè mè nzí dè  
 no 7.PRS be-NEG N1-2 woman 1-ANA 7.COP 1SG.OBJ 1SG PROG.PST  
*mántuà]\_REL*  
 H-ma-ntuà  
 eat  
 '[That woman ate the mangoes—] No, it is not that woman, it is me who  
 ate the mangoes.'

The second cleft type uses the identificational marker *wé*, following a subject pronoun which serves as the head of the relative clause:

PRO ID [...]<sub>REL</sub>

This construction is used if the subject in focus consists of a complex lexical noun phrase, as in (39). One might think of it as a resumptive cleft or an afterthought focus marking. As in the previous examples, omission of the attributive marker is preferred (but its use is grammatical).

- (39) *ntémbò*                  *wà*    *mùdâ*                  *wâ*                  *nyè wé [bùdé mwánò]*  
       ntémbò                  à    m-ùdâ                  w-â                  nyè wé bùdè-H m-wánò  
       Ø1.younger.sibling 1:ATT N1-woman 1-POSS.1SG 1 ID have-R N1-child  
       *wà*    *mùdâ*                  *mvúdû]\_REL*  
       à    m-ùdâ                  m-vúdû  
       1:ATT N1-woman 1-one  
       ‘My wife’s younger sister, it is her who has one girl.’

Both cleft types, with the STAMP copula and identificational marker *wé*, can appear in combination as a double cleft construction, as shown in (40). In these double clefts, first the STAMP copula cleft type is used and then the identificational cleft with *wé*. These constructions seem to be more marked than simple clefts and thus seem to emphasize the subject focus even more.

- (40) a. *tòsâ [yìi ntèmbó wé] [nyè wé] [nzí dè mántúà]\_REL*  
       tòsâ yìi ntèmbó w-ê nyè wé nzí dè H-ma-ntúà  
       no 7.COP Ø1.sibling 1-POSS.3SG 1.OBJ ID PROG.PST eat ma6-mango  
       ‘[The woman ate the mangoes, didn’t she?—] No, it is her sister who  
       ate the mangoes.’
- b. *tòsâ [yìi sín̩gi] [yâ wé] [nzí dè]\_REL*  
       tòsâ yìi sín̩gi y-â wé nzí dè  
       no 7.COP Ø7.monkey 7-OBJ ID PROG.PST eat  
       ‘[The woman ate the mangoes, didn’t she?—] No, it is the monkey  
       who ate [them].’

### 8.2.1.3 Linkage of relative clauses

Gyeli does not have a distinct marker of relative clauses such as, for instance, relative pronouns. Instead, an attributive marker (ATT) can be used to indicate the embedding relation between subordinate clause and modified noun phrase. This attributive marker, which agrees in gender with the head noun, is also used in noun + noun constructions, as discussed in §3.8.3.2. In most cases, however, the use of the attributive marker is optional so that a relative clause is often not marked by a dedicated morpheme. The circumstances under which speakers

omit the attributive marker in contrast to using it are not clear. In the corpus, about half of the relative clauses appear with an attributive marker, as in (29), and about half without, as in (30). Few generalizations can be made at this point as to what conditions the marker's appearance or omission. Both appearance and omission occur with attributive markers of all agreement classes, singular and plural. Further, attributive markers and their omission are found with all subject, object, and oblique noun phrases that are modified. Finally, the role that the head noun plays in the relative clause does not seem to be decisive for the appearance or omission of the attributive marker, since examples of both variants are found for cases where the head of the relative clause is the subject or any type of object of the relative clause, as I will show below. The only criterion that seems to favor attributive marker deletion is when the attributive marker and the following STAMP marker are identical in shape, as for instance in (42).

All relative clauses are marked prosodically in that they are treated as distinct intonation units. As such, verb-final relative clauses do not take a realis-marking H tone in the realis moods as they would within an intonation phrase. In (41), the verb *sâ* 'do' surfaces with the underlying verb tone and does not take the realis-marking H tone that it would take if the verb was not at the boundary of an intonation phrase.

- (41) *sá [wé sâ]<sub>REL</sub> yí bélé mpà*  
*sá wε-H sâ yi-H bɛ-lɛ mpà*  
*Ø7.thing 2SG-PRS do 7-PRS be-NEG good*  
 'The thing you do is not good.'

Also, a pause indicates the end of a relative clause.

#### 8.2.1.4 Nominal heads and the relative clause

Relative clauses can further be distinguished based on the syntactic function of the head noun within the relative clause. The head noun can serve, for instance, as the subject of the relative clause, but also as an object or an oblique.

In (42), the nominal head noun *bwánṣà-bùdā* 'girls' serves as the subject of the relative clause. In these constructions, the nominal head of the matrix clause is cross-referenced by the STAMP marker indicating subject agreement. The relative clause follows the basic word order of S V. In the absence of an attributive marker, prosody is the only means to indicate the relative clause which otherwise would not be distinguishable from a basic clause followed by another basic clause.

- (42) *bwánò-bùdâ* [ba límbó dyúà]<sub>REL</sub> *bá sá*  
 b-wánò-b-ùdâ ba-H límbó-H dyúà ba-H sâ-H  
 ba2-child-ba2-woman 2-PRS know-R swim 1-PRS do-R  
*másâ* é *nsá’à* *wá jíwó*  
 H-ma-sâ é nsá’à wá jíwó  
 OBJ.LINK-ma6-game LOC Ø3.shore 3:ATT Ø7.river  
 ‘The girls who know how to swim are playing at the riverbanks.’

The head of the relative clause can also take the function of an object of the relative clause, as in (43) and (44). In both examples, the head noun serves as the object for the main clause as well as for the relative clause with a structure of  $\text{NP}_O$  [ $S V\_O (X)$ ]. The object is only expressed in the main clause, but not in the relative clause where it is neither repeated nor cross-referenced.

- (43) *bá dyúwó* *lékélè* [lé wé làwó]<sub>REL</sub>  
 ba-H dyúwó-H H-le-kélè lé wé-H làwó  
 2-PRS understand OBJ.LINK-le5-language 5:ATT 2SG-PRS speak  
 ‘They understand the language that you speak.’

In contrast to (43), (44) appears without the attributive marker, but the argument structure is identical. Both examples are grammatical either way, with or without the attributive marker.

- (44) *bí bógà yá wúmbé ndáà pââ nyê sâ* [ba gyibó]  
 bí bó-gà ya-H wúmbé-H ndáà pââ nyê sâ ba-H gyibó-H  
 1PL.SBJ 2-other 1PL-PRS want-R also start see Ø7.thing 2-PRS call-R  
*ngyùlè wá kùrâ*  
 ngyùlè wá kùrâ  
 Ø3.light 3:ATT Ø7.electricity[French]  
 ‘We others, we also want to first see the thing they call the light of electricity.’

Double object constructions within the relative clause function similarly. The nominal head outside of the relative clause can function both as the direct and the indirect object of the relative clause, as shown in (45) and (46), respectively. The underlying structures for both examples can be represented as  $\text{NP}_{DO}$  [ $S V IO\_DO$ ] for (45) and  $\text{NP}_{IO}$  [ $S V\_IO DO$ ] for (46). Since, however, the order of two objects is relatively free, as described in §7.2.2.3, it is theoretically ambiguous which of the two objects corresponds to the nominal head outside of the relative clause

and which role the object has that appears in the relative clause. It seems that (pragmatic) context and animacy effects determine the interpretation of patient and recipient roles.

- (45) *kálàdè [yá Ádà nzí vè m̄ê]\_REL yū mpâ*  
       kálàdè   yá   Ádà   nzí   vè   m̄ê   yū   mpâ  
       Ø7.book 7:ATT Ø1.PN PROG.PST give 1SG.OBJ 7.COP good  
       ‘The book that Ada gave me is nice.’
- (46) *mwán̄-mùdâ [mè nzí vè kálàdè]\_REL áà mpâ*  
       m-wán̄-m-ùdâ   mè   nzí   vè   kálàdè   áà   mpâ  
       N1-child        N1-woman 1SG PROG-PST1 give       Ø7.book 1.COP good  
       ‘The girl to whom I gave the book is nice.’

If the nominal head of a relative clause corresponds to an oblique within the relative clause, it has to be marked by a resumptive pronoun following the comitative marker *nà*, as in (47).

- (47) *ntfúm̄ [yá tsíyé pémbó nà w̄ɔ]\_REL wú vúl̄lé ná*  
       ntfúm̄   ya-H   tsíyε-H   pémbó   nà   w-ɔ   wu-H   vúl̄-le   ná  
       Ø3.knife 1PL-PRS cut-R   Ø7.bread COM 3-OBJ 3-PRS slice-NEG anymore  
       ‘The knife we cut bread with does not slice anymore.’

The same resumptive pronoun is used in constructions where the relative clause has a verb requiring a preposition, such as *ládo nà* ‘meet with’ in (48). In these cases, however, the object and its preposition appear in the object position after the verb, followed by potentially other oblique noun phrases.

- (48) *só [mè ládó nà nyē mbvû lâ]\_REL áà pándè njì*  
       só       mè   ládo-H   nà   nyē   mbvû   lâ   áà   pández njì  
       Ø1.friend 1SG.PST1 meet-R COM 1.OBJ Ø3.year pass 1.FUT arrive come  
       díḡe bî   nàmén̄  
       díḡe   bî   nàmén̄  
       watch 1PL.OBJ tomorrow  
       ‘The friend I met last year will come to see us tomorrow.’

Finally, also possessors can be relativized, as shown in (49), where there is a gap for the possessor.

- (49) *só [mè nzí kòl̄e másin̄]\_REL áà w̄é*  
       só       mè   nzí   kòl̄e   másin̄   áà   w̄é-H  
       Ø1.friend 1SG.PST PROG.PST.R borrow Ø1.bike 1.PST2 die-PST  
       ‘The friend whose bike I borrowed died.’

### 8.2.1.5 Types of relative clauses

The relative clauses discussed so far were “restrictive” relative clauses, i.e. the relative clause limits the referent(s) of the head to a subset of entities. There are, however, other types of relative clauses, such as non-restrictive, cleft, and free relative clauses. As I will show, these have the same structure as restrictive relative clauses.

Non-restrictive relative clauses do not limit the referent to a subset, but add information to a known participant or entity. This is the case in (50), where the head of the non-restrictive relative clause serves as its subject. This structure is the same as its restrictive counterpart in (42).

- (50) *Àdà [á límbó mbásâ]REL àà só wáá*  
       Àdà a-H límbó-H mbásâ àà só w-áá  
       Ø1.PN 1-PRS know-R Ø7.hunt 1.COP Ø1.friend 1-POSS.1SG  
       ‘Ada, who knows how to hunt, is my friend.’

The same is true for non-restrictive relative clauses whose head has the object role in the relative clause, as in (51).

- (51) *míyù wáá [wé nzí nyé ndáwò]REL àà ngyé’élè*  
       míyù w-áá wé nzí nyé ndtawò àà ngyé’élè  
       Ø1.sibling 1-POSS.1SG 2SG.PST1 PROG.PST1 see Ø9.house 1.COP N1-teacher  
       ‘My brother, who you saw at the house, is a teacher.’

The third type of relative clause that Downing et al. (2010) elicit in their questionnaire is free relative clauses. According to McArthur (2005), in these constructions, the “relative word in the nominal relative clause has no antecedent, since the antecedent is fused with the relative”. In English, *I hate what you like*. is an example of a free relative clause. In Gyeli, free relatives with a human referent are either expressed by the generic noun *mùdi* ‘person’ or by the interrogative pronoun *nzá* ‘who’, as shown in (52). In this example, the free relative serves as the subject of the relative clause.

- (52) *mé nyé mùdi/nzá [nzí njì pá’à wáá]REL*  
       mε-H nyé-H m-ùdi/nzá nzí-H njì pá’à w-áá  
       1SG-PRS see-R N1-person/who PROG-PST1 come Ø3.side 3-POSS.1SG  
       ‘I see the person/who passed by me.’

(53) gives an example of a free relative clause where the head is the object of the relative clause. If the generic noun *mùdi* ‘person’ is chosen to express the

free relative, the attributive marker *wà* of agreement class 1 can be used. In contrast, if the interrogative pronoun *nzá* is used, the use of the attributive marker is excluded.

- (53) *mè lâ bò mùdì [wà Àdà kwàlè]REL*  
       mε    lâ-H b-ô m-ùdì    wà    Àdà   kwàlè  
       1SG.PST1 tell 2-OBJ N1-person 1:ATT Ø1.PN like  
       'I told them who Ada likes.'

If the referent of a free relative clause is inanimate, the generic noun *sâ* 'thing' is used or the interrogative pronoun *gyí* 'what', as (54) demonstrates. In this example, a resumptive pronoun has to appear in the relative clause. Whether *sâ* 'thing' or the interrogative pronoun *gyí* 'what' is used, the resumptive pronoun will be of agreement class 7 in both cases.

- (54) *mé nyé sâ/gyí [bá njí nà yɔ̃]REL*  
       mε-H nyé-H sâ/gyí           ba-H njì-H COM y-ɔ̃  
       1SG-PRS see-R Ø7.thing/what 2-PRS come-R COM 7-OBJ  
       'I see the thing/what they bring.'

Free relatives can also be formed with an interrogative pronoun where the interrogative serves as an object of the relative clause. This is the case in (55) where *nzá* 'who' serves as the indirect object of the clause.

- (55) *mé limbó nzá [àà líbèlè békigà]REL*  
       mε-H limbó-H nzá    àà    líbèle H-be-yigà  
       1SG-PRS know-R who 1.FUT show OBJ.LINK-be8-picture  
       'I know who she will show the pictures to.'

### 8.2.1.6 Complex relative clauses

Relative clauses can be complex in various respects. They can either involve relative clause internal coordination or complementation. (56) shows an instance of asyndetic coordination within the relative clause. The head of both coordinands is the same, namely *lé* 'tree'. It serves as an object in both coordinands.

- (56) *lé [yá wé nyê]REL [bá gyibó ngàlè]REL yii*  
       lé    yá   wε-H nyê    ba-H gyibó-H ngàlè    yii  
       Ø7.tree 7:ATT 2SG-PRS see      2-PRS call-R Ø7.tree.species 7.COP  
       'The tree that you see and that they call 'ngàlè' is that.'

## 8 Complex clauses

Relative clauses can also be coordinated overtly with the conjunction *nà*, as shown in (57).

- (57) *bwánò* [ba síl̩éé̩ lâ békálàdè *nà* *bà*  
b-wánò ba síl̩éé̩ lâ H-be-kálàdè *nà* *bà*  
ba2-child 2.PST1 finish.COMPL read OBJ.LINK-be8-book CONJ 2.PST1  
síl̩éé̩ dyíkèsè]<sub>REL</sub> *bá* kùgá *nà* kè ndáwò  
síl̩éé̩ dyíkèsè ba-H kùga-H *nà* kè ndáwò  
finish.COMPL study 2-PRS can-R COM go Ø9.house  
'The children who have finished reading their books and who have  
finished studying can go home.'

Finally, there are examples of relative clauses in which the head has a role in an embedded complement clause, as in (58).

- (58) *mùdì* [mé bvúálá [*nâ* à nzí làwò]<sub>COMP</sub>]<sub>REL</sub> à nzí  
m-ùdì mε-H bvúala-H *nâ* à nzí làwò à nzí  
N1-person 1SG-PRS think-R COMP 1 PROG.PST talk 1 PROG.PST  
*láà dó*  
láà dó  
tell Ø7.lie  
'The person that I think she spoke with was lying.'

### 8.2.2 Complement clauses and purpose clauses

The complementizer *nâ* in Gyeli marks both complement clauses and purpose clauses. There is some structural overlap between both construction types pertaining to the use of the complementizer and a dependent clause that is marked as such by the use of the subjunctive. There are, however, some differences which are reflected by a different tonal behavior with respect to the occurrence or absence of the realis-marking H tone. The complementizer further introduces reported speech and inflectionally reduced dependent clauses where the verb occurs in its non-finite form. I discuss these different constructions in turn. There is another instance where the complementizer *nâ* is used, namely in combination with an adverb as a subordinator in adverbial clauses, as discussed in §8.2.3.3.

#### 8.2.2.1 Complement clauses

Complement clauses serve as arguments of a predicate, following Noonan (2007: 52), who defines complement clauses as follows: "By complementation, we mean

the syntactic situation that arises when a notional sentence or predication is an argument of a predicate". In Gyeli, clausal complementation most often occurs with verbs of perception ('hear', 'see'), consciousness ('know', 'remember', 'think'), intention ('want', 'like'), and attitude/emotion ('hate', 'be happy'). Both obligatory arguments, as in (59), and optional arguments, as in (60), are expressed by complement clauses. Complement clauses form one intonation unit with the main clause, as indicated by the realis-marking H tone on the verb *wúmbé* 'want' in (59) and *síssø* 'be happy' in (60). In this, they differ from purpose clauses with the complementizer *nâ*, as discussed in the next section.

- (59) *mé wúmbé [nâ á gyámbóò bédéwò]*<sub>COMP</sub>  
 mε-H wúmbε-H nā a-H gyaímbóò be-déwò  
 1SG-PRS want-R COMP 1-PRS cook.SBJV be8-food  
 'I want her/him to cook food.'

- (60) *mé síssø [nâ mè nzéé nyê mándáwò]*  
 mε-H sìssø-H nā mε nzéé nyê H-ma-ndáwò  
 1SG-PRS be.happy-R COMP 1SG PROG.SUB see OBJLINK-ma6-houses  
 'I'm happy that I'm seeing the houses.'

In addition to being introduced by the complementizer *nâ*, Gyeli also marks the dependent clause in these constructions by using the subjunctive form when expressing intentions or orders, as in (59) (§6.2.1.7), and the subordinate form of the progressive marker in (60) (§6.3.1.1).

Also verbs of consciousness serve as predicates that take complement clauses. This is the case, for instance, with *lèmbo* 'know', as shown in (61) and (62).

- (61) *á lèmbo [nâ bùdì báà bá múà bùélè nâ*  
 a-H lèmbo-H nā b-ùdì báà bá-H múà bùélè nā  
 1-PRS know-R COMP ba2-person 2.DEM.PROX 2-PRS PROSP fish COMP  
*bá dyúù nyê]*<sub>COMP</sub>  
 ba-H dyúù nyê  
 2-PRS kill.SBJV 1.OBJ  
 'He knows that these people are about to fish (look for him) in order to kill him.'

- (62) *ndí wé lèmbo [nâ mbvúndá nyíi bvúdà nà mbvúndá]*<sub>COMP</sub>  
 ndí wε-H lèmbo-H nā mbvúndá nyíi bvúda nà mbvúndá  
 but 2SG-PRS know-R COMP Ø9.trouble 9.FUT fight COM Ø9.trouble  
 'But you know that violence will create more violence.'

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The same is true for *bvû* ‘think’, as in (63).

- (63) *mé bvû [nâ nkwálá wúù tfundé mē vâ]*<sub>COMP</sub>  
 me-H bvû-H nâ nkwálá wúù tfundé-H mē vâ  
 1SG-PRS think-R COMP Ø3.machete 3.PST2 miss-R 1SG.OBJ here  
 ‘I think that the machete had missed [injured] me here.’

Also verbs of perception can function as predicates taking complement clauses. An example is given in (64).

- (64) *mé dyúwó [nâ mpágó wá pódè lá vâ]*<sub>COMP</sub>  
 me-H dyúwó-H nâ mpágó wá pódè lá-H vâ  
 1SG-PRS hear-R COMP Ø3.street 3:ATT Ø1.port pass-R here  
 ‘I hear that the road to the port passes [will pass] here.’

(65) shows that complement clauses are also used with stative verbs such as *kìuga* ‘be enough’.

- (65) *ká yí nyí mē mbò mpángì yí kùgá ná*  
 ká yi-H nyí-H mē m-bò mpángì yi-H kùga-H ná  
 when 7-PRS enter-R 1SG N3-arm Ø7.bamboo 7.PRS be.enough-R COMP  
*nyíi wê mbò*  
*nyíi wê m-bò*  
 enter.SBJV 2SG N3-arm  
 ‘When it goes into my arm . . . the bamboo can sting your arm.’

While complement clauses typically occur in verbal predicates, they can also be used in the complementation of non-verbal predicates, as in (66). In this example, the main clause expresses a prohibition, while the dependent clause specifies what the prohibition is about. The dependent clause complements the nominal predicate of the non-verbal clause.

- (66) *yíi mpíndá [nâ mē déè]*<sub>COMP</sub>  
 yíi mpíndá ná mē-H déè  
 7.COP Ø9.prohibition COMP 1SG-PRS eat.SBJV  
 ‘It is forbidden that I eat.’

The complement clause can even serve as the predicate itself in a non-verbal clause, as shown in (67).

- (67) *yíi nâ báà bvùbvù*  
 yíi nâ báà bvùbvù  
 7.COP COMP 2.COP many  
 'It is that they are many.'

Traditionally, quotes in reported discourse are viewed as a subtype of clausal complementation. As I will show in §8.2.2.3, however, reported discourse constructions are formally not the same.

### 8.2.2.2 Purpose clauses with *nâ*

Purpose clauses are dependent clauses that are introduced by the complementizer *nâ* and generally express purpose or intention, as illustrated in (68). Unlike complement clauses, however, the dependent clause does not function as an argument of the main clause. Another difference to complement clauses is that the main clause is treated as an intonation phrase unit, while with complement clauses, the dependent clause is also part of that unit. This can be seen in the tonal behavior with respect to the realis-marking H tone. In (68), the verb *gyámbɔ* 'cook' in the main clause surfaces with a final L tone. In contrast, a complement clause would license the realis-marking H tone to surface, as shown in (59) above.

- (68) *mé gyámbɔ [nâ wé déè]COMP*  
 mε-H gyámbɔ nâ wε-H déè  
 1SG-PRS cook COMP 2SG-PRS eat.SBJV  
 'I cook so that you eat.'

Another example of a purpose clause is given in (69). In this instance, too, the subjunctive is used.

- (69) *á lúndélé bɔ lèkàá lé ndáwɔ nyí [nâ béè*  
 a-H lúndelé-H b-ɔ le-kàá lé ndáwɔ nyí nâ béè  
 1-PRS fill-R 2-OBJ le5-kind 5:ATT Ø9.house 9.DEM.PROX COMP be.SBJV  
*vyâ]COMP*  
 vyâ  
 full  
 'He fills them in this kind of house so that it [the house] be full.'

In contrast, (70) appears with a PRESENT tense-mood marking in the *nâ* clause, although also a subjunctive marking is equally possible.

- (70)    j              múa  gyésò [nâ  wé  kë]<sub>COMP</sub>  
       ɔ              múa  gyésò nâ  wε-H  kë  
       2SG[Kwasio] RETRO search COMP 2SG-PRS go  
       ‘You are about to want to leave.’

Purpose clauses with *nâ* not only modify main clauses, but also other dependent clauses, as for instance adverbial subordinate clauses in (71). In this example, the adverbial clause precedes the main clause and so does the complementizer clause, which modifies the adverbial clause.

- (71) [píli  wé  kë [nâ  wé  ké  jíi  mòné  wɔ]<sub>COMP</sub>]<sub>ADV</sub> á  
       píli  wε-H  kë nâ  wε-H  kè-R jíi  mòné  w-ɔ            a-H  
       when 2SG-PRS go  COMP 2SG-PRS go-R ask Ø1.money 1-POSS.2SG  1-PRS  
       làwɔ́  wê  nyùmbò  
       làwɔ́-H wê  nyùmbò  
       tell-R  2SG Ø3.mouth  
       ‘Whenever you go ask [a Bulu person] for your money, he frowns at you.’

### 8.2.2.3 Reported discourse and other depictions

The complementizer *nâ* introduces *depictions*<sup>6</sup> such as reported discourse, ideophones, and gestures that contribute content to the speech event, for instance as embodied reenactments. As we shall see below, these depiction constructions differ from both complement and purpose clause uses. This is in line with Spronck & Nikitina’s (2019) claim that reported speech forms a dedicated syntactic domain.

In the following, I will mostly concentrate on reported discourse, since this is most pervasive in the text corpus, and then conclude this section with examples of ideophones and gestures that are introduced by *nâ*. In terms of the terminology related to reported discourse, I follow Güldemann (2008: 6):

Reported discourse is the representation of a spoken or mental text from which the reporter distances him-/herself by indicating that it is produced by a source of consciousness in a pragmatic and deictic setting that is different from that of the immediate discourse.

Structurally, Güldemann (2008) distinguishes the quote, i.e. the reported spoken or mental text, from the quotative index (QI), which serves to introduce the

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<sup>6</sup>A more detailed discussion on the concept of depiction in contrast to description is given in Clark & Gerrig (1990), Güldemann (2008), and Dingemanse (2015). Soulaimani (2018), for instance, investigates in particular the role of gesture and voice patterns in reported discourse.

quote. Thus, in (72), the unit marked as “QI” introduces the reported text which, in turn, is marked by “RD”.

- (72) [yɔ́ò bá kí **nâ**]<sub>QI</sub> [éékè mwánò wéé mÙdâ wà nù  
 yɔ́ò ba-H ki-H nâ éékè m-wánò w-ê m-ùdâ wà nù  
 so 2-PRS say-R COMP EXCL N1-child 1-POSS.3SG N1-woman 1:ATT 1:DEM  
 à bwaá̄]̄<sub>RD</sub>  
 a bwaá̄  
 1.PST1 give.birth.PRF

‘So they say: “Oh, his child who is the wife of that one, has already given birth”.

The structures both of the quotative index and of the quote differ from typical matrix and subordinate clauses. As for the QI, the complementizer *nâ* belongs prosodically to the QI and not to the quote, which is indicated by a pause after the complementizer.<sup>7</sup> In some cases, the complementizer also undergoes salient lengthening, in addition to the following pause, as shown in (73).<sup>8</sup> This does not happen in purpose clauses where *nâ* rather belongs to the dependent clause, also prosodically.<sup>9</sup>

- (73) [mé làwó **nâà**]<sub>QI</sub> [màndáwò má zì má kùgáà  
 mε-H làwó-H nâ ma-ndáwò má zì ma-H kùgáà  
 1SG-PRS talk-R COMP ma6-house 6:ATT Ø7.tin 6-PRS be.enough.SBJV  
 m̄é vâ]̄<sub>RD</sub>  
 m̄é vâ  
 1SG.OBJ here  
 ‘[Speak Gyeli!—] I say that there should be enough tin (roofed) houses here for me.’

Most QIs in Gyeli are bipartite, containing a verbal predicate, usually a say-verb, and the complementizer *nâ*. This is the case in (72) with the say-verb *ki*

<sup>7</sup>This phenomenon has also been noted, for instance, in Hausa, as Güldemann (2008: 236) points out.

<sup>8</sup>In this example, the speaker has switched to Bulu and is reminded by the interpreter to speak in Gyeli. He then repeats what he has said by quoting his own speech. His quote is emphasized by the lengthened complementizer.

<sup>9</sup>Concerning the relationship between complement clauses and instances of reported discourse, there might be a continuum, since also complement clauses with ‘say’ or ‘think’ verbs in the main clause may constitute examples of reported discourse as representations of spoken or mental text.

‘say’, which is the most common and frequent predicate in a QI, and in (73) with *lāwɔ* ‘talk’. Another element that can appear in the QI is the verbal copula *bùdē* ‘have’, as shown in (74).

- (74) [mé              *mè bùdē nâ*]<sub>QI</sub> [é    *pɛ*              é    *wû*  
       mé              me bùdē-H nâ    é    pɛ              é    wû  
       but[French] 1SG have-R COMP LOC over.there LOC there  
       *bèyá*              *lwɔ́ kwádó yâ*              é    *wû*]<sub>RD</sub>  
       bèya-H              lwɔ́-H kwádó    y-â              é    wû  
       2PL[Kwasio]-PRS build-R Ø7.village 7-POSS.1SG LOC there  
       ‘But I say that over there, there you (pl.) build my village over there.’

When *bùdē* is used in a QI, it generally seems to imply a wish, request, order, or some sort of intention expression, as also shown in (75).

- (75) [bvúlè    *bà bùdē nâ*]<sub>QI</sub> [ká wè *ngyèlì wè bùdē tsídí*  
       bvúlè    ba bùdē-H nâ    ká wè n-gyèlì wè bùdē-H tsídí  
       ba2.Bulu 2 have-R COMP if 2SG N1-Gyeli 2SG have-R Ø1.animal  
       *wɔ́*]<sub>RD</sub>    *bá sèngé nyê sí*  
       w-ɔ́        ba-H sèngé-H nyê    sí  
       1-POSS.2SG 2-PRS lower-R 1.OBJ down  
       ‘The Bulu say that if you, Gyeli, you have your animal, they lower it [its price].’

QIs in Gyeli can also occur without any predicate, which distinguishes them from matrix clauses of complement clauses. Minimally, they contain speaker reference in the form of a subject pronoun and the complementizer *nâ*, as demonstrated in (76).

- (76) [*nyè nâ*]<sub>QI</sub> [*ooh mùdâ bàmbé kè jìu mbómbò mwánj*  
       nyè nâ    ooh m-ùdâ    bàmbé kè jìu    mbómbò    m-wánj  
       1.SBJ COMP EXCL N1-woman sorry go ask.IMP Ø1.namesake N1-child  
       *sá yí dè*]<sub>RD</sub>  
       sá        yí        dè  
       Ø7.thing 7.DEM eat  
       ‘He: ‘Oh, wife, excuse me, go and ask the namesake [the other Nzambi]  
       for a little to eat.’

Non-clausal QIs, as in (76), provide another argument against analyzing reported discourse as typical clausal complementation. These non-clausal QIs, which

occur pervasively in the corpus, do not possess any predicate that could require a complement clause.<sup>10</sup> Instead of analyzing the QI as the matrix clause of the quote that serves as a complement, it seems more consistent to view the QI being the tag to the quote on a higher structural level than sentential units, as Güldemann (2008: 231) explains.

While the arguments that Güldemann puts forth apply to direct reported discourse, I also extend them to indirect reported discourse for there is no structural difference in marking direct and indirect speech in Gyeli. Differences only concern “quote-internal referential adjustments” (p. 234) such as pronominal marking and the use of exclamations, which are restricted to direct reported discourse. In the corpus, most instances of reported discourse are direct. There are, however, also examples of indirect speech, as in (77).

- (77) [mùdì      wà    sòndyé    à    nzí    kí    nâ]<sub>QI</sub> [ká mè      nyé  
       m-ùdi      wà    sòndyé    a    nzî-H    kì-H nâ    ká mè      nyê-H  
       N1-person 1:ATT Ø1.police 1.PST PROG-R say COMP if 1SG.PST see-R  
       àksidé]<sub>RD</sub>  
       àksidé  
       Ø1.accident[French]

‘The police officer asked whether I saw that accident.’

Also the quote displays characteristics that are not usually associated with subordinate clauses, which has been noted for other languages as well, for instance by Spronck (2017). Quotes can be significantly longer or shorter than usual subordinate clauses. They can actually comprise several sentences (see, for instance (C50) through (N53) in Appendix B.2). On the other hand, they can consist of only an exclamation, as in (78).

- (78) [yɔò bá    kí    nâ]<sub>QI</sub> [éékè]<sub>RD</sub>  
       yɔò ba-H ki-H nâ    éékè  
       so 2-PRS say-R COMP EXCL  
       ‘So they say: [EXCL of surprise]!’

(78) illustrates neatly how quotes may depict rather than describe speech events.

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<sup>10</sup>Güldemann (2008: 226–233) lists other arguments against a sentential complementation analysis for direct reported discourse. For instance, often the QI does not have to be expressed at all in direct reported discourse. Also, if the QI includes a predicate, the predicate does not necessarily have a quote-oriented valency.

## Ideophones

These complementizer constructions also extend to the depiction of non-speech events in the form of ideophones (§3.5). Just like with reported speech, the complementizer *nâ* can introduce an ideophone, as in (79) and (80).<sup>11</sup>

- (79) *nâ wòm, mÙdì núú jí nâ wòm*  
       nâ wòm m-Ùdì núú jí-H nâ wòm  
       COMP IDEO N1-person 1.DEM.DIST stay-R COMP IDEO  
       ‘[I request that] there be silence, that person should stay silent.’
- (80) *Nzàmbí màbóò nkWéè dé nâ vísì*  
       Nzàmbí ma-bóò nkWéè dé nâ vísì  
       Ø1.PN ma6-breadfruit Ø3.basket LOC COMP IDEO:pouring  
       ‘Nzambi pours the breadfruit into the basket.’

In contrast to reported discourse, however, the complementizer is not part of a QI in such constructions, but can either occur without a matrix clause at the beginning of a sentence, as in (79), or at the end of the phrase in a typical adjunct position describing manner, as in (80).

## Gestures

Parallel to the depiction of manner in non-speech events with ideophones, the complementizer is also used in non-sound depictions of gestures or bodily reenactments, as in (81).

- (81) *ká á dígé nâ [gesture] á nyé mbúmbù wéè*  
       ká a-H dígé-H nâ [gesture] a-H nyé-H mbúmbù wéè  
       when 1-PRS look-R COMP [gesture] 1-PRS see-R Ø1.namesake 1-POSS.3SG  
       á pámò  
       a-H pámo  
       1-PRS arrive  
       ‘When he looks like [imitation of manner of looking], he sees his namesake who arrives.’

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<sup>11</sup>For a dynamic and dramatic effect in the narration, the verb in (80) is not expressed, but the action is clear from the ideophone.

### 8.2.2.4 Complementizer + infinitive constructions

The complementizer *nâ* is also used in subordination of inflectionally reduced clauses which are similar to infinitival adverbial constructions without subordinator (§8.2.3.4). The difference is, however, that subordination is marked by the complementizer *nâ* (and not “linkless”) and that the subject of the subordinate clause is overtly marked. If the subject of the main clause and the subject of the subordinate clause are coreferential, as in (82), the subject is still marked by a pronoun.

- (82) *mùdâ à ló sisèlè nónégá [nâ nyê nà kósè]*  
*m-ùdâ a ló sis-elè n-ónégá nâ nyê nà kóse*  
 N1-woman 1.PST RETRO scare-APPL 1-other COMP 1.SBJ COM cough  
 ‘The woman scared the other by her coughing.’

In contrast, subjects in infinitival adverbial constructions are zero-expressed. Their subject referent is retrieved from the context and very often coreferential with the subject of the main clause. In complementizer + infinitive constructions, however, the subjects of the main and the dependent clause are clearly marked when they differ in their reference, as in (83).

- (83) *bélée bè ló kwè nâ mùdâ nà tsíndò mùdû*  
*be-léé be ló kwè nâ m-ùdâ nà tsíndo m-ùdû*  
 be8-glass 8.PST RETRO fall COMP N1-woman COM push N1-man  
 ‘The glasses fell, the woman having pushed the man.’

Generally, these constructions encode complex causal chains.

### 8.2.3 Adverbial clauses

Adverbial clauses function as modifiers of verb phrases or entire clauses (Thompson et al. 2007). I distinguish four types of adverbial clauses in Gyeli, as shown in Table 8.1. This distinction is based on the inflectional status of the verb, the type of clause linkage devices (Hetterle 2015), and other subordinate markers, such as special aspect forms.

First, full adverbial clauses have fully inflected verb forms and contain minimally a subject argument and a verb. They are linked to the main clause by an adverbial or by a nominal construction that acts like an adverb. I discuss most full adverbial clause constructions in §8.2.3.1. Conditional clauses are a type of full adverbial clause. As I discuss them at length, paying special attention to irrealis-marking, I describe these constructions separately in §8.2.3.2. The second type

Table 8.1: Adverbial clause types

Clause type	Adverbial	Gloss	Function
Full adverbial clause	<i>líní</i>	'when'	temporal
	<i>píli/píłò</i>	'when'	temporal
	<i>tò</i>	'even, although'	concessive
	<i>púù yá</i>	'because'	causal
	<i>yɔɔ̄</i>	'time'	temporal
Adverbial + complementizer clause	<i>ká</i>	'if'	conditional
	<i>lí nâ</i>	'when'	simultaneity
	<i>sóò nâ</i>	'before'	anteriority
Adverbial infinitival clause	<i>púù nâ</i>	'because'	causal
	∅		anteriority, simultaneity, sequential
<i>nzéé</i> subordination	∅		simultaneity

of adverbial clauses (§8.2.3.3) uses a combined clause linkage device including an adverbial and the complementizer *nâ*. The third type of adverbial clause (§8.2.3.4) is special in that it has no clause linkage device and the dependent clause is reduced: it lacks subject expression and the verb appears in its non-finite form. Finally, subordination can be encoded by the special progressive form *nzéé*, which is exclusively used in dependent clauses, as discussed in §8.2.3.5.

### 8.2.3.1 Full adverbial clauses

Gyeli uses a range of adverbializers to introduce full subordinate clauses, including temporal, concessive, causal, and conditional clauses. These adverbializers differ in their grammatical characteristics, ranging from adverbs to nominals, but all of them function as a subordinator in adverbial clauses. There are three variants for temporal adverbializers, namely *líní* and *píli* or *píłò*. *píli* occurs most frequently in the corpus, while *píłò* and *líní* may be loanwords from neighboring languages, since they are also used in, for instance, Mabi. When asked, speakers state, however, that they are also Gyeli words.

### Temporal *líní* ‘when’

The adverb *líní* ‘when’ is a temporal adverb that only showed up in elicitation, but not in the corpus. (84) gives an example of a preposed adverbial clause with *líní*.

- (84) [ *líní* á *sílē* dè *mántúà* ]<sub>ADV</sub>      à tí ná dyúwò  
       líní a-H sílē-H dè H-ma-ntúà,                 a tí ná dyúwò  
       when 1-PRS finish-R eat OBJ.LINK-ma6-mango 1 NEG anymore feel  
       *nzà*  
       *nza*  
       Ø9.hunger  
       ‘When he has eaten mangoes, he does not feel hungry anymore.’

(85) provides an example of a postposed adverbial clause with *líní*. Both sentences express temporal sequences, the event of the adverbial clause happening before the event of the main clause.

- (85) á *súmélé* *bùdì*      [*líní* á *pámó* *tísònì*]<sub>ADV</sub>  
       a-H súmélē-H b-ùdì      líní a-H pámo-H tísònì  
       1-PRS greet-R ba2-person when 1-PRS arrive-R Ø7.town  
       ‘He greets the people after having arrived in town.’

### Temporal *píli/pílò* ‘when’

The temporal adverb *píli* is the most frequently used temporal adverb in the corpus, introducing a dependent clause. (In elicitation, also *pílò* was sometimes used.) Adverbial phrases with *píli* can either precede or follow the main clause. In (86), it precedes the main clause.

- (86) [ *píli* *mé* *làwò* *mpù* ]<sub>ADV</sub> *mèé*      *válé*      *làwò*  
       píli me-H làwò-H mpù mèé      válé      làwò  
       when 1SG-PRS speak-R like.this 1SG.PRS.NEG tolerate-NEG speak  
       ‘When I speak like this, I’m not lying [lit. I don’t tolerate to talk].’

Also in (87), the adverbial clause is preposed to the main clause. In this example, the dependent clause includes a non-verbal predicate with the verbal copula *múa* and a nominal locative predicate.

- (87) [pílì yí múà ndáwò nyà màyò ndènáà]<sub>ADV</sub> á kí náà à  
 pílì yí múà ndáwò nyà ma-nyò ndènáà a-H kì-H ná a  
 when 7 be Ø9.house 9:ATT ma6-drink like.this 1-PRS say-R COMP 1  
 múà njì bvúdà nà wé  
 múà njì bvúda nà wé  
 PROSP come quarrel COM 2SG.OBJ

'When it is in a bar like this, he says that he is about to come quarrel with you.'

Adverbial clauses with *pílì* can also be postposed, as shown, for instance, in (88).

- (88) báà bù mpàgó [pílì pòdè àà là]<sub>ADV</sub>  
 báà bù mpàgó pílì pòdè àà là  
 3.FUT break Ø3.road when Ø1.port 1.FUT pass  
 'They will build a road when the port passes.'

(89) provides a more complex example of a postposed adverbial clause. Here, the adverbial clause follows the basic word order S V O, while the object is expressed by a complement clause.

- (89) wé yàné ná gyàgà ndísì [pílì wé lèmbó [ná  
 wé-H yàné-H ná gyàgà ndísì pílì wé-H lèmbo-H ná  
 2SG-PRS must-H again buy Ø3.rice when 2SG-PRS know-R COMP  
 bùdì bá ndáwò bvùbvù]<sub>COMP</sub>]<sub>ADV</sub>  
 b-ùdì bá ndáwò bvùbvù  
 ba2-person 2:ATT Ø9.house many  
 'You must again buy rice, when you know that there are many people at home.'

### Concessive *tò* 'even, although'

Another adverbial subordinator used to introduce dependent clauses is the concessive *tò* 'even, although', which also appears in nominal modification, expressing 'any', as described in §3.8.4. Again, adverbial clauses introduced by *tò* can both precede and follow the main clause, as shown in (90) and (91), respectively.

- (90) [tò wèé kwálélé nyê]ADV wé yàné nyê  
 tò wèé kwálé-le nyê wé-H yàné-H nyê  
 even 2SG.PRS.NEG like-NEG 1.OBJ 2SG-PRS must-R see  
*bégyémò*  
 H-be-gyémò  
 OBJ.LINK-be8-good.manner  
 'Even if you don't like him, you must still be polite [lit. see good manners].'
- (91) à bwámó jí [tò mpù á sàlé sílē  
 a bwámó-H jí tò mpù á sàlé sílē-H  
 1.PST receive-PST1 Ø7.position even like.this 1.PST.NEG NEG.PST finish-R  
*sùkúlì]ADV*  
 sùkúlì  
 Ø7.school  
 'He got the job although he didn't finish school.'

### Causal *púù yá* 'because'

*púù yá* marks the causal relation between the main clause and the dependent clause it introduces. Strictly speaking, it is not an adverb but a noun with an attributive marker, literally meaning 'reason of'. The dependent clause that follows *púù yá* is then the second constituent of the nominal attributive construction. In contrast to other adverbial clauses, *púù yá* clauses have only been observed to follow main clauses, as illustrated in (92).

- (92) yà nzí gyâ jíí [púù yá lévidó lè múà  
 ya nzí-H gyâ jíí púù yá le-vídó le múà  
 1PL.PST PROG-R sleep Ø7.forest Ø7.reason 7:ATT le5-darkness 5.PST PROSP  
*jí]*  
*jí*  
 Ø7.forest  
 'We slept in the forest because it was about to get dark in the forest.'

In the corpus, *púù yá* is not used to introduce subordinate clauses, but only in oblique phrases, as discussed in §7.2.1.3. Data for subordinate clauses stem from elicitation. In the corpus, the expression of causal relations between main and dependent clauses is subject to code-switching to Bulu, as shown in (93).

- (93) tè mèè jíbì kè lwɔ̄ tè [àmú] vâ mèé  
 tè mèè jíbì kè lwɔ̄ tè àmú vâ mèé  
 there 1SG.FUT first go build there because[Bulu] here 1SG.PRS.NEG  
 bélé nà sí é vâ]  
 bé-lé nà sí é vâ  
 be-NEG COM Ø 9.ground LOC here  
 ‘There, I will first go construct there because here I don’t have any land.’

### Temporal relative clauses

Also the bare noun *yɔ̄ɔ̄* ‘time’ is used adverbially as a subordinator of adverbial clauses, as in (94).

- (94) yîi mpà [*yɔ̄ɔ̄* wé kâ yâ dûmbâ]<sub>REL</sub>  
 yîi mpà *yɔ̄ɔ̄* we-H kâ-H y-â dûmbâ  
 7.COP good Ø7.time 2SG-PRS wrap-R 7-OBJ Ø7.package  
 ‘It is good when you wrap it in a (leaf) package.’

#### 8.2.3.2 Conditional clauses with *ká* ‘if’

The subordinator *ká* ‘if’ introduces conditional clauses, comparable to *if*-clauses in English. *ká* has been observed to also function as a temporal rather than a conditional marker, as shown in (95).

- (95) [ká á dígé nâ [gesture]] á nyé mbúmbù wéè  
 ká a-H dígé-H nâ [gesture] a-H nyé-H mbúmbù w-ê  
 when 1-PRS look-R COMP [gesture] 1-PRS see-R Ø1.namesake 1-POSS.3SG  
 á pámò  
 a-H pámo  
 1-PRS arrive  
 ‘When he looks like [gesture], he sees his namesake who arrives.’

The remainder of this section is, however, dedicated to *ká* as a conditional marker, which seems to be its primary function in terms of frequency.

In all instances in the corpus, the *ká*-clause is preposed to the main clause. Examples of preposed conditional clauses are given in (96) through (98). The sentences in (96) and (97) show that the basic word order in the dependent clause is maintained.

- (96) [ká wé wúmbé jímbèlè lóbímbú]<sub>COND</sub> déè pémbó  
 ká wé-H wúmbé-H jímbélè H-le-bímbú déè pémbó  
 if 2SG-PRS want-R lose OBJ.LINK-le5-weight eat.SBJV Ø7.bread  
 mwánò sâ  
 m-wánò sâ  
 N1-child Ø7.thing  
 'If you want to lose weight, you should eat less bread.'

The same is true for negated conditional clauses, as in (97).

- (97) [ká wéé wúmbé-lé ndáà]<sub>COND</sub> mé nòó nkŵé wá  
 ká wéé wúmbé-lé ndáà mé-H nòó-H nkŵé wá  
 if 2SG.PRS.NEG want-NEG also 1SG-PRS take-R Ø3.basket 3:ATT  
 mábó'ò  
 H-ma-bó'ò  
 OBJ.LINK-ma6-breadfruit  
 'If you don't want [this] either, I take the basket with the breadfruit.'

Conditional clauses can, however, also take a special word order in terms of focus strategies, as it is the case in (98). In this example, the object pronoun is fronted and occurs between the modal auxiliary and the main verb so that the main verb is in focus position.

- (98) [ká kééssó yí wúmbé wé dyòdè]<sub>COND</sub> wé kílwò  
 ká kééssó yi-H wúmbé-H wé dyòdè wé-H kílwò  
 if Ø7.peer 7-PRS want-R 2SG.OBJ deceive 2SG-PRS be.vigilant  
 'If somebody wants to deceive you, you are vigilant'

From elicitation, it is known that conditional *ká* clauses can also be postposed to the main clause, as shown in (99).

- (99) mèè njì náménó [ká Àdà á wúmbé nâ mé  
 mèè njì náménó ká Àdà a-H wúmbé-H nâ mé-H  
 1SG.FUT come tomorrow if Ø1.PN 1-PRS want-R COMP 1-PRS  
 pándéè]<sub>COND</sub>  
 pán-déè  
 arrive.SBJV  
 'I will come tomorrow if Ada wants me to come.'

Conditional clauses can usually express different degrees of realis or irrealis, making a statement about the likelihood whether the event in the main clause will really happen. In English, this is achieved by the use of different tenses. In Gyeli also, different tense-mood categories can be used in conditional clauses, as shown in (100) through (103). Generally, the same tense-mood category is used in the conditional clause as is also used in the main clause. Thus, in (100), the main clause appears in the PRESENT and so does the conditional clause. When the PRESENT tense-mood category is used, the conditional has a high realis degree, i.e. the event of the main clause is very likely to happen. In such instances, where the reading is generic, *ká* may also be replaced by *píli* ‘when’.

- (100) [ká mé bwé nkwanò]<sub>COND</sub> mé dè  
 ká me-H bwè-H nkwanò me-H dè  
 if 1SG-PRS obtain-R Ø3.honey 1SG-PRS eat  
 ‘If I get honey, I eat [it].’

In order to mark irrealis conditions, other tense-mood categories are used. The most salient strategy to mark a conditional clause as irrealis, however, is the use of the irrealis marker *kò*. In (101), for instance, the main and conditional clause appear in the FUTURE, which is inherently an irrealis category (§6.2.1). The speaker can then choose to use the irrealis marker *kò* in order to express that it is rather unlikely that he will find honey. If *kò* is not used, the speaker indicates that it is more likely to find honey in the future.

- (101) [ká mèè bwé nkwanò]<sub>COND</sub> (*kò*) mèè dè  
 ká mèè bwè-H nkwanò kò mèè dè  
 if 1SG.FUT obtain-R Ø3.honey IRR 1SG.FUT eat  
 ‘If I obtain honey, I will eat [it].’

The same choice is given for conditionals in the RECENT PAST, as (102) shows. Parentheses around *kò* indicate its optionality. Again, when the irrealis marker is used, it emphasizes the likelihood that the event of the main clause will not happen. In contrast to the PRESENT use in (100), the RECENT PAST seems to indicate a lower likelihood of finding honey.

- (102) [ká mè bwé nkwanò]<sub>COND</sub> (*kò*) mè dè  
 ká me bwè-H nkwanò kò me dè-H  
 if 1SG.PST1 obtain-R Ø3.honey IRR 1SG.PST1 eat-PST  
 ‘If I obtained honey, I would eat [it].’

The only circumstances where *kò* is systematically used is the clear unrealis context, which is further expressed by the REMOTE PAST. This is shown in (103). Here, the speaker talks about an event that clearly did not happen.

- (103) [ká méeè bwé nkwanò]<sub>COND</sub> kò méeè dé  
 ká méeè bwè-H nkwanò kò méeè dè-H  
 if 1SG.PST2 obtain-R Ø3.honey IRR 1SG.PST2 eat-PST  
 'If I had obtained honey, I would have eaten [it].'

In the corpus, conditional clauses only appear with PRESENT marking, while data on other tense-mood categories in conditional clauses stem from elicitation.

### 8.2.3.3 Adverbials + complementizer constructions

In contrast to true complement clauses (§8.2.2.1), dependent clauses that are introduced by an adverbial subordinator in combination with *nâ* behave more like other adverbial dependent clauses in two respects. First, they constitute an intonation phrase on their own and second, they can both precede and follow the main clause. Some of the adverbials used in combination with *nâ* are also used to introduce full adverbial clauses (§8.2.3.1), such as *líní* 'when' vs. *lí nâ* 'when'. The semantic differences seem subtle; speakers state that both forms can be used interchangeably.

There are two temporal adverbials in Gyeli which combine with the complementizer *nâ*, namely *lí* 'when' and *sɔ́ɔ* 'before'. This is most likely not an exhaustive list and other adverbializers might be possible in this construction type as well.

(104) gives an example of a postposed adverbial + complementizer clause, using the adverbial *lí* 'when'. Semantically, the sentence expresses simultaneity, the event of the main clause happening at the same time as the event of the dependent clause.

- (104) mè nzí nô fótɔ [lí nâ Ádà à nzí bɛ  
 mɛ nzí-H nô fótɔ lí nâ Ádà a nzí-H bɛ  
 1SG.PST PROG.PST1 take Ø1.photo when COMP Ø1.PN 1.PST PROG.PST1 be  
 à nzéé dè mántuà]  
 a nzéé dè H-ma-ntuà  
 1 PROG eat ma6-mango  
 'I was taking photos, while Ada was eating mangoes.'

In contrast, the dependent clause in (105) precedes the main clause it modifies. In this example, the adverbial subordinator *sóò* ‘before’ is used, expressing anteriority. Thus, the event of the main clause happens before the event of the subordinate clause.

- (105) [sóò nâ á pámó tísònì] á súmélé bùdì  
 sóò nâ a-H pámo-H tísònì a-H súmélē-H b-ùdì  
 before COMP 1-PRS arrive-R Ø7.town 1-PRS greet-R ba2-person  
 ‘Before he arrives in town, he greets the people.’

The subordinator *púù nâ* ‘reason that’ expresses purpose in the dependent clause it introduces and is a variant of the noun plus attributive construction *púù yá*, which is discussed in §8.2.3.1. An example is provided in (106).

- (106) yá pándé nà síngilitì [púù nâ wé bwádòò nyê  
 ya-H pánde-H nà síngilitì púù nâ wé-H bwádòò nyê  
 1PL-PRS arrive-R COM Ø1.shirt Ø7.reason COMP 2SG-PRS wear.SBJV 1.OBJ  
 púù màbwálé]  
 púù ma-bwálé  
 Ø7.reason ma6-birth  
 ‘We bring the shirt so that you wear it for [your] birthday.’

Semantically, there seems to be a difference in that *púù yá* has a causal reading in the sense of ‘because’, whereas *púù nâ* expresses purpose, translated as ‘so that’.

#### 8.2.3.4 Infinitival adverbial clauses without subordinator

Gyeli has one type of adverbial clause that lacks a dedicated clause linker (Hetteler 2015: 109). Instead of an overt morphosyntactic subordinator, the subordination relation is expressed by an infinitival verb and the lack of any subject agreement and tense, aspect, mood marking. The subject is identified with a salient discourse antecedent which often coincides with the subject of the main clause, but not necessarily, as seen in (109) and (110). The tense-mood interpretation is similar to that of past and present gerunds (except that there is neither dedicated gerund nor tense marking), encoding the wide range of temporal relations to the main clause of anteriority, simultaneity, and posteriority. Infinitival clauses without subordinators are also marked prosodically as a clausal unit by a pause between the dependent and the main clause.

Infinitival clauses can both be preposed and postposed to the main clause, as I show in the following. Infinitival clauses can further have the verb in their initial

position or the infinitival verb can be preceded by another element such as the negation marker *tí* or a sequential marker.

### Preposed infinitival clauses

Preposed infinitival clauses, as in (107) through (112), often express temporal sequences, the event of the infinitival clause being anterior to the event of the main clause. Thus, in (107), the event of arriving in town is completed at the time of greeting people.<sup>12</sup>

- (107) [pámɔ́ tísɔní]<sub>SUB</sub> á súmélé bùdì  
 pámɔ́ tísɔní a-H súmélɛ-H b-ùdì<sup>12</sup>  
 arrive Ø7.town 1-PRS greet-R ba2-people  
 'Having arrived in town, he greets the people.'

(107) and (108) are both instances where the implied subject of the infinitival clause is coreferential with the subject of the main clause. In (107), it is the same person who arrives in town and then greets the people. In (108), the person first eats mangoes and then, as a result, does not feel hungry anymore. The subject interpretation for the infinitival clause has to be, however, clear from the context. In the right context, it is also possible that the subject of the infinitival clause in (107) is interpreted as non-coreferential to the one in the main clause, for instance when the speaker talks about his own arrival in town, but about a different person greeting the people (a similar case is presented below in (110) where the implied agent of the subordinate clause and the subject of the main clause are not coreferential). In (108), the coreferential reading is reinforced due to the causality chain: because the person ate the mangoes, he is not hungry anymore.

- (108) [sílε dè mántuà]<sub>SUB</sub> à tí ná dyúwɔ́ nzà  
 sílε dè H-ma-ntúà a tí ná dyúwɔ́ nzà  
 finish eat OBJLINK-ma6-mango 1 NEG anymore feel Ø9.hunger  
 'Having finished eating mangoes, he does not feel hunger anymore.'

In other cases, it is not quite clear whether the subject of the main and the infinitival clause are coreferential. In (109), for instance, the narrator talks about a healer who has turned into an antelope and has vanished into the forest, while

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<sup>12</sup>In my translation into English, I choose the gerund -*ing* form, since it allows the omission of the subject in the subordinate clause. I do not imply, however, that there are any other parallels between the English translation and the Gyeli structure. Speakers translate these constructions with a past participle form in French, for example for (107) as *Arrivé en ville, il salue les gens*.

the people of his village are following him with the intention of killing him. The infinitival clause in (109) allows both interpretations of either the healer having arrived ‘here’, i.e. in the forest, or the people of his village.

- (109) [nà pándè vâ]<sub>SUB</sub> bùdì      báà      bɛ  
 nà pán̄dè vâ      b-ùdì      báà      bɛ  
 COM arrive here      ba2-person 2.DEM.PROX be.there  
 ‘And having arrived here, these people are there.’

In other instances, the subject of the main clause and the implied subject of the infinitival clause are clearly different. (110) is uttered by the same narrator in the same story. The context here is that the people of the village look for the healer in his hut and discover that he is not there. Thus, the infinitival clause has the people of the village as its implied subject, while the main clause’s subject is *mùdī* ‘person’.

- (110) [kè dígè mpù]<sub>SUB</sub> mùdī      nú      bélé  
 kè díge mpù      m-ùdī      nú      bé-lé  
 go look like.this N1-person 1.DEM.DIST be-NEG  
 ‘Going looking like this, nobody is there.’

While the main clause can have most of the tense-mood categories that are allowed in a main clause, excluding IMPERATIVES, past categories and the FUTURE as well as the PRESENT are most commonly found in the corpus. There are, however, also examples of the INCHOATIVE in the main clause, as shown in (111).

- (111) [ndènáà pámo lébû]<sub>SUB</sub>      àá      gyì  
 ndènáà pámo H-le-bû      àá      gyì  
 like.this arrive OBJ.LINK-le5-river.bank 1.INCH cry  
 ‘Having arrived like this [without the child] at the river bank, she starts to cry.’

While most preposed infinitival clauses seem to express temporal sequences, they may also express purpose, as in (112).

- (112) [d᷑ p᷑ tsíy᷑ p᷑n᷑ l᷑k᷑l᷑ bvúl᷑ b᷑ ntégl᷑  
 d᷑ p᷑ tsíy᷑ p᷑n᷑ le-k᷑l᷑ bvúl᷑ ba-H ntégl᷑-H  
 so[French] there cut Ø7.truth le5-word ba2.Bulu 2-PRS bother-R  
 b᷑ī é vâ  
 b᷑ī é vâ  
 1PL.OBJ LOC here  
 ‘So, to say the truth, the Bulu bother us here.’

### Postposed infinitival clauses

Infinitival clauses can also follow the main clause, as shown in (113) through (117). Postposed infinitival clauses seem to express purpose or manner rather than temporal sequences as with preposed clauses. In (113) and (114), the infinitival clause modifies the main clause which is comprised of a non-verbal predicate. In both instances, the implied subject of the infinitival clause is coreferential with the subject of the main clause. Also, both express purpose, comparable to English *in order to* sentences.

- (113) *wè nà ngvùlè [kè sélègà wû]SUB nà njí kù è*  
*wè nà ngvùlè kè sélèga wû nà njí-H kù è*  
 2SG COM Ø9.strength go fall there COM come-R fall[Kwasio] LOC  
*sì*  
*sì*  
 Ø9.ground

‘You are strong [to go and climb a raffia palm tree], tumbling and falling to the ground. [The speaker talks about the strenuous work of climbing a tree to collect raffia leaves for roofs.]’

(114) also shows that infinitival clauses can be subject to non-basic word order. While in the basic word order, the object follows the verb, in (114), an object pronoun is fronted, as discussed in §7.3.3 on information structure.<sup>13</sup>

- (114) *bá nà ngvùlè [bíyè sílè lwɔ mánđáwɔ]SUB*  
*bá nà ngvùlè bíyè sílè lwɔ H-ma-ndáwɔ*  
 2 COM Ø9.strength 1PL.OBJ finish build OBJ.LINK-ma6-house  
 ‘They have the strength to build us all houses.’

While preposed infinitival clauses directly precede the main clause, postposed infinitival clauses can constitute one of several subordinate clauses following the main clause. In these multiple subordinate constructions, the infinitival dependent clause usually modifies the clause it follows. In some cases, however, the zero-expressed subject referent can be ambiguous, as in (115). This example consists of a main clause, followed by an adverbial subordinate clause and an infinitival clause. The two subordinate clauses are juxtaposed. The subject of the infinitival clause could be coreferential with either the subject of the main clause or that of the infinitival clause.

<sup>13</sup>This example is also noteworthy because the fronted object pronoun usually occurs between the auxiliary verb *sílè* ‘finish’ and the main verb *lwɔ* ‘build’. In this example, however, it occurs before the auxiliary.

- (115) S V O [ADV] [INF]

báà bù mpàgó [pílì pódè àà vâ]<sub>ADV</sub> [njì tsíyè vâ]<sub>SUB</sub>  
 báà bù mpàgó pílì pódè àà vâ njì tsíyè vâ  
 2.FUT break Ø3.road when Ø1.port 1.COP here come cut here

‘They will build a road when the port is here, coming cross-cutting here.’

(116) is also comprised of a main clause, followed by two subordinate clauses, namely a complement and an infinitival clause. In this case, however, the infinitival clause picks its referent from the complement rather than the main clause.

- (116) S V [[COMP] [INF]]

bónégá bá ló sílè làwò [nâ bvúlè bá ntéégélé  
 bó-négá ba-H ló sílè làwò nâ bvúlè ba-H ntéégéle-H  
 2-other 2-PRS RETRO finish speak COMP ba2.Bulu 2-PRS bother-R  
 bágylèli]<sub>COMP</sub> [kè nà kwàlè bùdâ kè nà kwàlè  
 H-ba-gyèli kè nà kwàlè b-ùdâ kè nà kwàlè  
 OBJ.LINK-ba2-Gyeli go COM love ba2-woman go COM love  
 bùdâ bá bá-gyèli]<sub>SUB</sub>  
 b-ùdâ bá ba-gyèli  
 ba2-woman 2:ATT ba2-Gyeli

‘The others have just said that the Bulu bother the Bagyeli, coming and loving the women, coming and loving the women of the Bagyeli.’

Finally, noun phrase constituents of an infinitival clause can also serve as the head of another embedded clause, as shown in (117). In this example, the main clause is followed by an infinitival clause, a relative clause and then another infinitival clause. The subject referent of the first infinitival clause is coreferential with the subject of the main clause. The object noun phrase of the first infinitival clause serves as subject head to the following relative clause. The second infinitival clause takes the subject of the relative clause as implied subject which, ultimately, is the object of the first infinitival clause.

- (117) S V X [[INF1] [REL] [INF2]]

yá sàgà ménó wê [nyê mápà má  
 ya-H sàga ménó wê nyê H-ma-pà má  
 1PL-PRS be.surprised Ø7.morning in see OBJ.LINK-ma6-paw 6:ATT  
 njibù]<sub>SUB</sub> [má bwámó ndáwò dé tù]<sub>REL</sub> [kè déndì]<sub>INF</sub>  
 njibù ma-H bwámó-H ndáwò dé tù kè d-éndì  
 Ø1.antelope 6-PRS come.out-R Ø9.house LOC inside go le5-courtyard  
 ‘We are surprised in the morning to see paws of an antelope which come out of the house, going into the courtyard.’

The non-finite verb in infinitival subordinate clauses can be preceded by either a negation marker *tí* or sentential modifiers, as I show in the following.

### Infinitival subordinate clauses with *tí* negation

The negation marker *tí* can precede the non-finite verb of an infinitival subordinate clause, as in (118) and (119).

- (118) à múà nà bábè [tí wúmbè wè]<sub>SUB</sub>  
 a múà nà bábè tí wúmbè wè  
 1 be COM Ø7.illness NEG want-R die  
 ‘He was sick, not wanting to die.’

The main clause in (118) is comprised of a verbal copula construction and modified by the infinitival subordinate clause. Semantically, the events of the main and the subordinate clause happen simultaneously: the person is sick and, at the same time, does not want to die.

- (119) nà ké jíi dé tù nà ndzí pámò d̂e [tí nŷe  
 nà ke-H jíi dé tù nà ndzí pámò d̂e tí nŷe  
 COM kè-R Ø7.forest LOC inside COM Ø9.path arrive today NEG see  
 nŷe]<sub>SUB</sub>  
 nŷe  
 1.OBJ  
 ‘And (he) goes in the forest on the path till today, without seeing him.’

### Sequential marker *vèè*

*vèè* and *kɔɔ* are both used as sentential modifiers, as described in §7.2.3. They can also appear in an infinitival subordinate clause where they directly precede the verb, as in (120).

- (120) à nòó brìk̄e [vèè bédè ndáwɔ]<sub>SUB</sub>  
 a nòò-H brìk̄e vèè bédè ndáwɔ  
 1.PST1 take-R Ø1.lighter[French] SEQU light Ø9.house  
 ‘He took the lighter, just lighting the house.’

The sentential modifier in (120) can be omitted without making the sentence ungrammatical. It changes, however, the meaning of the sentence. Without it, the infinitival dependent clause would express purpose ‘He took the lighter in

order to light the house.' The intended meaning with the sentential modifier is sequential: the person first takes the lighter and then sets the house on fire.

A special case is presented in (121) where the infinitival clause has an overt subject. The verb *kwè* 'fall' still appears in its infinitival form, lacking the realis-marking H tone. Since infinitival dependent clauses are very rare in the corpus, it is not possible at this point to establish what conditions the overt marking of subjects in this clause type.

- (121)    má    dvúmólé    mbvú    mbì    mbvû [màlendí]  
       ma-H dvúmó-lé    mbvú    mbì    mbvû    ma-lendí  
       6-PRS produce-NEG Ø3.year like[Kwasio] Ø3.year ma6-palm.tree  
       máà              vèè    kwè mípindí]<sub>SUB</sub>  
       máà              vèè    kwè H-mi-pindí  
       6.DEM.PROX only fall OBJ.LINK-mi4-unripeness  
       'They don't produce [fruit] every year, these palm trees from which only  
       unripe [fruit] fall.'

### Sequential marker *kòò*

The sequential marker *kòò* seems to have exactly the same function as *vèè* when introducing a dependent clause. While both sentential modifiers are compared in §7.2.3, their potential distributional and semantic differences are even less clear as clause-introducing devices. It rather seems that they are freely interchangeable in this function. An example of *kòò* introducing an infinitival subordinate clause is given in (122).

- (122)    à    jí    mbê    [*kòò* gyíbò bwánò]<sub>SUB</sub>  
       a    jì-H    mbê    kòò    gyíbò bwánò  
       1.PST1 open-R Ø3.door SEQU call ba2-child  
       'She opened the door, just calling the children.'

As with *vèè*, omitting the sentential modifier in (122) gives a purpose reading of 'She opens the door in order to call the children.' In contrast, *kòò* gives a sequential interpretation.

#### 8.2.3.5 Subordination with progressive marker *nzéé*

Subordination can also be encoded by the subordinate form of the progressive marker, *nzéé*, which, in main clauses, takes different forms (§6.3.1.1). In (123), the subordinate clause expresses simultaneity. Without the subordinate form of the

aspect marker, the second clause would formally be identical to a main clause and could appear on its own.

- (123) á gyímbò [à **nzéé** sâ mákwásì]  
a-H gyímbò a nzéé sâ H-ma-kwásì  
1-PRS dance 1 PROG.SUB do OBJ.LINK-ma6-clapping  
'He dances while clapping.'



# Appendix A: Verb extensions

In this appendix, I provide the different extension forms for each verb in the verb database. In some cases, certain extension forms yield a semantic shift or a meaning different than expected. These can be found in the lexicon in Appendix C, while this appendix on verb extensions just lists existing forms.

As a notational convention, I do not indicate morpheme breaks when they are opaque. This is, for instance, the case with some passive forms of trisyllabic verbs where the passive *-a* also affects the penultimate vowel of the second syllable, as in *bùmele* ‘hit sth.’, which has a passive form *bùmala* ‘be hit’ instead of *\*bùmel-a*. Some verbs clearly have an extension morpheme, but lack a synchronic underlying form, as discussed in §4.2.4. In these cases, I list the verb with its extension morpheme as a basic verb and mark the extension morpheme in bold. Finally, syllables that do not have any tonal marking are underlyingly toneless (§2.4.1); only the verb root is lexically specified for tone.

A *Verb extensions*

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -εεε	Applicative -εlε	Autocausative -εga/-aga	Positional -owε
bâ	marry	bán-ala	-	bál-εεε	-	-	-
bà	smoke sth.	báy-ala	-	-	-	bây-agá	-
bâala (nà)	repeat	-	-	-	-	-	-
bâalε	protect, guard	bâà-la	bâál-a	-	-	-	-
bâga (nà)	stop sth.	bâ-ala	-	-	-	-	-
bâke	glue, post	-	bâg-a	-	-	-	-
bâlε	surpass	-	bâl-a	-	-	-	-
bâl̩wε	bend down	-	bâlawa	-	-	-	-
bâmɔ	scold	bám-ala	bám-a	-	bám-εlε	-	-
bâwε	carry	bâw-ala	bâw-a	bâw-εεε	-	-	-
bâwε	injure (oneself)	bâw-ala	-	bâw-εεε	-	-	-
bê	sow, plant	bèy-ala	bèy-a	-	-	bé̄d-εga	-
béde	light	béd-ala	-	-	-	bé̄d-εga	-
bédo	go up, mount	béd-ala	béd-a	béd-εεε	béd-εlε	-	-
bédo	ferment	-	béd-a	-	-	-	-
bélâne	use	-	bélâna	-	-	-	-
bénɛlɛ	raise, lift	bén-ala	bénala	-	-	bén-εga	-
bêno	refuse	bén-ala	bén-a	-	-	-	-
beyɔ	ripen	-	-	bél-εεε	-	bé̄y-agá	-
bígε	develop, emerge	-	-	bíg-εεε	-	-	-
bísí (nà)	pay attention	-	-	bíl-εεε	bíy-εlε	-	-
bíyɔ	hit	bín-ala	bíl-a	bíl-εεε	bíy-εlε	-	-

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -εε	Applicative -ειε	Autocausative -εγα/-ага	Positional -εв-
bò	rot	-	-	bòy-εε	-	-	-
bògε	enlarge	bòg-ala	bòg-a	bòg-εε	-	-	-
bómεlε	wrinkle	bóm-ala	-	-	-	-	-
bú	destroy	búy-ala	búy-a	-	-	-	-
bô	lie down (v.i.)	-	búg-a	-	-	-	-
búlε	burst	-	búl-a	-	-	-	-
búlɔ	fish	búl-ala	búl-a	-	-	-	-
búmε	bark	búm-ala	-	-	-	-	-
bùmε	announce sth.	bùm-ala	bùm-a	-	-	-	-
bùmεlε	hit (nail)	bùm-ala	bùmala	-	-	-	-
búnδɔ	pay brideprice	búnδ-ala	búnδ-a	búnδ-εε	-	-	-
búwεlε	tâter (fruit)	-	búwala	-	-	-	-
bvû	think, believe	bvû-ala	-	-	-	-	-
bvúda (nà)	quarrel	bvúd-ala	-	-	-	-	-
bvúma	thunder	-	-	-	-	-	-
bvùmba	surprise, scare	bvùmb-ala	bvùg-ala	-	-	-	-
bvúč	break (v.t.)	bvúg-ala	bvúg-a	-	-	-	-
bwâsa	think, remember	-	-	-	-	-	-
bwééłε	wait	bwá-älä	-	-	-	-	-
bwà	give birth	-	-	-	-	-	-
bwà	become big	bòg-ala	-	-	-	-	-
bwádɔ	dress, wear	bód-ala	-	bód-εε	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -ɛsɛ	Applicative -ɛlɛ	Autocausative -ɛga/-aga	Positional -ɛwɛ
bwámo	receive	bwám-ala	bwám-a	-	-	-	-
bwàndo	peel (mango)	bwànd-ala	bwànd-a	-	-	-	-
bwàndya	despise	bwàndy-ala	-	-	-	-	-
bwè	catch, arrest	bèy-ala	bùl-ɛ	-	-	-	-
bwédwáwa	be tasty	-	-	bòd-ɛsɛ	-	-	-
byáàda	answer	-	-	-	-	-	-
dà	draw water	dàng-ala	dàlàl-a	-	dà-älɛ	-	-
dè	eat	díy-ala	díb-a	díl-ɛsɛ	-	-	-
déndɛ	set trap	dénd-ala	dénd-a	-	-	-	-
dilɛ	bury	dil-ala	dil-a	-	-	-	-
dɔ	negotiate	-	-	-	-	-	-
dvùbɔ	soak, dip	dvùb-ala	-	dvùb-ɛsɛ	(dvùb-ɛlɛ)	-	-
dvùdɔ	drive	dvùd-ala	dvùd-a	-	-	-	-
dvumɛlɛ	praise sb.	dvum-ala	-	-	-	-	-
dvùmo	fall down	dvùm-ala	dvùm-a	dvùm-ɛsɛ	-	-	-
dvùɔ	hurt (v.i.)	dvùg-ala	dvùg-a	dvùg-ɛsɛ	-	-	-
dwàmbo	ask for sth.	dwàmb-ala	-	-	-	-	dwàmb-agá
dyáâ	chase	dyáng-ala	dyáng-a	-	-	-	-
dyù	be hot	dyúŋg-ala	-	-	dyúŋg-ɛlɛ	-	-
dyà	sing	dyà-ala	dyà-y-a	-	-	-	-
dyâ	lie down	dyá-ala	-	-	-	-	-
dyége	lean sth.	dyélk-ala	-	-	-	-	dyége

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		- <i>ala</i>	- <i>a</i>	- <i>εε</i>	- <i>εlε</i>	- <i>εga/-aga</i>	- <i>εcε</i>	
dyɔ̄	laugh	dyɔ̄-ala	dyɔ̄-ala	dyɔ̄l-εεε	-	-	-	-
dyɔ̄dε	deceive	dyɔ̄d-ala	dyɔ̄d-ala	-	-	-	-	-
dyū	kill	dyuw-ala	dyuw-ala	-	-	-	-	-
dyúà	swim	-	-	-	-	-	-	-
dyúada	perceive	-	-	-	-	-	-	-
dyùle	be bitter	dyùl-ala	dyùl-a	dyìl-εεε	-	-	-	-
dyùmɔ̄	heal, get well	-	-	dyùm-a	-	-	-	-
dyúna	quarrel	-	-	-	-	-	-	-
dyúwɔ̄	hear	dyuw-ala	-	dyúg-εεε	dyúw-εlε	-	-	-
dzáme	excuse	-	-	-	-	-	-	-
fíeṣe	shake	-	-	-	-	-	-	-
fúge	end	fú-ala	-	-	-	-	-	-
fúlε	miss	fú-ala	-	fúl-εεε	-	-	-	-
fúlɔ̄	descend	-	fúl-a	fúl-εεε	-	-	-	-
giyo (gyi)	cry	giy-ala	-	gil-εεε	-	-	-	-
gyà	paint	-	gyàng-a	-	-	-	-	-
gyâlε	roast	-	-	-	-	-	-	-
gyàga	buy	gyàg-ala	-	-	-	-	-	-
gyámbo	cook	gyámb-ala	gyámb-a(a)	-	gyámbo-εlε	gyámb-agá	-	-
gyángya	work	gyánga-ala	-	gyáng-εεε	-	-	-	-
gyé'ɛ	block	gyég-ala	gyég-a	-	-	-	-	-
gyé'ele	pray, beg	-	-	-	-	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-esɛ	-elɛ	-egɑ/-aga	-wɔ
gyéłɛ	jump, fly	gyél-ala	gyél-a	gyél-esɛ	-	-	-
gyèndɔ	slip	-	gyènd-a	-	-	-	-
gyésɔ	search	gyés-ala	gyés-a	-	-	-	-
gyibɔ	call	gyib-ala	gyib-a	-	-	-	-
gyibɔ	sharpen	gyib-ala	gyib-a	-	-	-	-
gyide	forgive	-	gyid-a(a)	-	-	-	-
gyika (nà)	resemble	-	-	-	-	-	-
gyike	learn	-	-	gyik-esɛ	-	-	-
gyimbɔ	dance	gyimb-ala	gyimb-a(a)	gyimb-esɛ	-	-	-
gyime	wake sb	-	gyim-a(a)	gyim-esɛ	-	gyim-agɑ	-
jimbe	get lost	jimb-ala	-	jimb-esɛ	-	-	-
jâasa	disappear	já-åla	-	-	-	-	-
jångala	have sex	-	-	-	-	-	-
jì	open	jiy-ala	jiy-a	-	-	-	-
jì(yɔ)	sit, habiter	jil-ala	jil-a	-	-	-	-
jibɔ	close	jib-ala	jib-a	-	-	-	-
jílo	be satisfied	-	-	jil-esɛ	-	-	-
jilo	be heavy	-	jil-a	jil-esɛ	-	-	-
jimeɛ	extinguish	-	jim-a	-	-	-	-
jímo	be deep	-	-	-	-	-	-
jina	dive	-	-	jin-esɛ	-	jin-ega	-
jíwo	steal	jib-ala	jib-a	-	-	-	-

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-ɛɛɛ	-ɛɛɛ	-ɛɛɛ	-ɛga/ag-a	-ɛwɔ
jíyɛ	burn (v.i.)	jíg-ala	-	jíg-ɛɛɛ	-	-	-	-
kâ	wrap	kâ-âla	-	-	-	-	-	-
kâ	catch	-	-	-	kâs-ɛɛɛ	-	-	-
kâ'â	role up	kág-ala	-	-	-	-	-	-
kâdɛ	detach	kâd-ala	-	kâd-ɛɛɛ	-	-	-	-
kâdɔ	be too much	kâd-ala	-	-	-	-	-	-
kâgɔ	promise	kâg-ala	-	-	-	-	-	-
kâka	shiver	-	-	-	-	-	-	-
kâlane	transmit	-	-	-	-	-	-	-
kâlega	stop over	-	-	-	-	-	-	-
kâmbo	chew	kâmb-ala	-	kâmb-aa	-	-	-	-
kâmbo (nâ)	defend	kâmb-ala	kâmb-a	-	-	-	-	-
kânda	crack	-	-	kând-ɛɛɛ	-	-	-	-
kâselɛ	light	kâs-ala	-	-	-	-	-	-
kâso	become thin	kâs-ala	-	-	kâs-ɛɛɛ	-	-	-
kâbɔ	share	kâb-ala	kâb-a(a)	-	-	-	-	-
kê	go	-	-	-	-	-	-	-
kê	shave	kêng-ala	-	-	-	-	-	-
kê'ɛ	hatch	-	kég-a(a)	-	-	-	-	-
kêdɛlɛ	gnaw	kêd-ala	-	-	-	-	-	-
kêle	hang	kêl-ala	kêl-a	-	-	-	-	-
kfûdɛ	cover	kfûd-ala	kfûd-a(a)	-	kfûd-ɛga	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-ɛsɛ	-ɛlɛ	-ɛga/-aga	-ɛwɛ
kfülo	scrape	kfül-ala	kfül-a	-	-	kfül-ega	-
kfümala	find	-	kfüm-a(a)	-	-	-	-
kfübɛ	provoke	kfüb-ala	-	-	kfüb-ɛɛ	-	-
kiləwɔ	be vigilant	-	-	kil-ɛsɛ	-	-	-
kɪŋgɛkɛ	become stiff	-	-	-	-	-	-
kiya	give	kiy-ala	-	kiy-ɛsɛ	-	-	-
kiyɛ	try, tempt	kiy-ala	-	-	kiy-ɛlɛ	-	-
kô	gather, pluck	kôy-ala	kôy-a	-	-	kôy-aga	-
kôbe	violate	kôb-ala	-	-	-	-	-
kôdɛ	turn (v.t.)	kôd-ala	kôd-a	kôd-ɛsɛ	-	kôd-ɛga	-
kôge	straighten	kôg-ala	kôg-a	kôg-ɛsɛ	-	-	-
kôla	add	kôl-ala	-	-	-	-	-
kôlɛ	help	kôl-ala	-	-	-	-	-
kôlɛ	snore	-	-	-	-	-	-
kôsɛ	cough	kôs-ala	-	-	-	-	-
kûelɛ	mock	kû-ala	-	-	-	-	-
küga	spread, fit	-	-	-	-	-	-
kûlɛ	borrow	kûl-ala	-	kûl-ɛsɛ	-	-	-
kùmasa	prepare	-	-	-	-	-	-
kùmbɔ	repair	kùmb-ala	-	-	-	-	-
kwâ	cut raffia	kwâng-ala	kwâng-a	-	-	-	-
kwâ	betray	kwâng-ala	kwâng-a	kwâng-ɛsɛ	-	-	-

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-ɛsɛ	-ɛlɛ	-ɛga/-aga	-ɛga/-aga	-ɛmɛc-
kwáâlɛ	spy	kwál-ala	-	-	-	-	-	-
kwà	grind	kwág-ala	kwág-a	-	-	-	-	-
kwádɔ	twist (v.t.)	-	kwád-a	-	-	-	-	-
kwàlɛ	love	kwál-ala	kwál-a	-	-	-	-	-
kwànɛ	sell	-	-	-	-	-	-	-
kwé	fall, fail	kwéy-ala	-	kù-ɛsɛ	-	-	-	-
kwéi	bite	kwá-ala	kwáal-a(a)	-	-	-	-	-
kwéłɔ	cut down	kwéł-ala	kwéł-a(a)	-	-	-	-	-
kyàlɛ	start engine	-	-	-	-	-	-	-
kyéłɛga	fall from tree	kyél-ala	-	-	-	-	-	-
lä	read, count	láŋg-ala	láŋg-a	-	-	-	-	-
lä	pass	láŋg-ala	-	-	-	-	-	-
lè	pour in	lèŋg-ala	lèŋg-a(a)	-	-	-	-	-
lû	insult	lúŋg-ala	-	-	-	-	-	-
lúa	whistle	lóng-ala	lóng-a	-	-	-	-	-
lúɔ	build	lúŋg-ala	-	-	-	-	-	-
lä	harvest honey	léy-ala	léy-a	-	-	-	-	-
lää	tell	lá-ala	-	-	-	-	-	-
lào (nà)	meet	läd-ala	-	-	-	-	-	-
lága	contaminate (v.i.)	lég-ala	-	-	-	-	-	-
lámbɔ	trap	lámb-ala	lámb-a(a)	-	-	-	-	-
läna	distribute	lán-ala	-	-	-	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -εεε	Applicative -εlε	Autocausative -εga/-aga	Positional -cwε-
lé	offer	léy-ala	léy-a	-	-	-	-
lèbəle	follow	lèb-ala	-	-	-	-	-
lè̄	uproot	lèy-ala	lèy-a	-	-	-	-
lége	sing	lég-ala	-	lég-εεε	-	lég-ega	-
lèmbo	know, flee	lèmb-ala	-	lèmb-εεε	-	lènd-εga	-
lèndɔ	flow	-	-	lènd-εεε	-	lènd-εga	-
libela	appear	-	-	-	-	-	-
libet̪e	show	lib-ala	-	-	-	-	-
límbe	pull	lím̪b-ala	-	-	-	lím̪b-ega	-
lié	leave	líg-ala	-	-	-	-	-
liyele	accompany	liy-ala	-	-	-	-	-
líyo	clear land	líy-ala	líy-a	-	-	líy-aga	-
lò	sew, weave	lòy-ala	lòy-a	lòy-εεε	-	-	-
lùa	curse	lòg-ala	lòg-a	lòg-εεε	-	-	-
lúme	send	lúm-ala	lúm-a	-	-	lúm-ele	-
lúndɔ	fill oneself	lúnd-ala	lúnd-a	lúnd-εεε	-	lúnd-ele	-
lùn̪ga	grow	-	-	lùn̪g-εεε	-	-	-
lùngel̪e	aim at	lùn̪g-ala	-	-	-	-	-
lúwɔ	bite	lúw-ala	lúw-a	lúw-εεε	-	-	-
lvúmo	sting	lvúm-ala	lvúm-a	lvúm-εεε	-	-	-
má'à	accuse	mág-ala	mág-a	-	-	-	-
máñdɔ	stuff mouth	máñd-ala	máñd-a	-	-	máñd-ele	-

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -ɛsɛ	Applicative -ɛlɛ	Autocausative -ɛga/-aga	Positional cwc-
méɛlɛ	accept	mé-ala	méél-a	-	-	-	-
mèmɔ	admit	mèm-ala	mèm-ala	-	-	-	-
mèso	wave	mès-ala	-	-	-	-	-
mgbámala	be sour	-	-	-	-	-	-
mímba	brag	mímb-ala	-	-	-	-	-
míno	swallow	mín-ala	-	mín-ɛsɛ	-	-	-
múelɛ	nibble	mú-ala	-	mú-ɛsɛ	-	-	-
mwàsɔ	throw	mwàs-ala	mwàs-a	-	-	-	-
myàkɛ	sprinkle	myàk-ala	-	myàk-ɛsɛ	-	-	-
myámata	be narrow	-	-	-	-	-	-
myámɔ	knead, press	myám-ala	-	-	-	-	-
náàta (nà)	stick	-	-	-	-	-	-
ndà	cross	ndàŋg-ala	ndàŋg-a	-	-	-	-
ndtámancɛ	ruin, destroy	-	-	-	-	-	-
ɔngwáwɔ	bend, bow	-	-	ɔngwáŋg-ɛsɛ	-	-	-
níndya	urinate	níndy-ala	-	níndy-ɛsɛ	-	-	-
níyɛ	be beautiful	níndy-ala	-	níndy-ɛsɛ	-	-	-
njì	come	-	-	-	-	-	-
nòò	take	nòŋg-ala	nòŋg-a	-	-	-	-
ntââ	climb over	ntàng-ala	-	ntàng-ɛsɛ	-	-	-
ntégeɛ	disturb	ntéŋ-ala	-	-	-	-	-
nyâ	lick	nyáng-ala	-	nyáng-ɛsɛ	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal -ala	Passive -a	Causative -εsε	Applicative -εlε	Autocausative -εga/-aga	Positional -εwε-
nyàà	defecate	nyàg-ala	-	nyàg-εsε	-	-	-
nyàlε	scratch	nyàl-ala	-	-	-	-	-
nyàmɔ	deteriorate	nyàm-ala	-	nyàm-εsε	-	-	-
nyàno	hurt	-	-	-	-	-	-
nȳɛ	see	nyén-ala	-	-	-	-	-
nyɛsεlε	deepen, press on	-	-	-	-	-	-
nyí	return	nyig-ala	-	-	-	-	-
nyí	enter	nyíng-ala	-	-	-	nyíng-εlε	-
nyíme	refuse	nyím-ala	-	-	-	nyím-εsε	-
nyímɛlε	tighten	nyím-ala	-	-	-	-	-
nyòmb-εlε	tickle	nyòmb-ala	-	-	-	-	-
nyùlε	drink	nyùl-ala	-	-	-	nyùl-εsε	-
nyùmbɔ	smell (v.i.)	nyùmb-ala	-	-	-	nyùmb-εsε	nyùmb-εlε
pâ	reign	pâng-ala	-	-	-	-	-
pâ' à	dig	pág-ala	-	-	-	-	-
pâ' à	grow (v.i.)	pág-ala	-	-	-	-	-
pádɔ	pluck	pád-ala	-	-	-	-	-
pálaba	blink (eye)	-	-	-	-	-	-
pálɔ	sort	pál-ala	-	-	-	-	-
pámɔ	appear	pám-ala	-	-	-	-	-
pánde	arrive	pánd-ala	-	-	-	-	-
páne	hang up	pán-ala	-	-	-	pán-εsε	-

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		<i>-ala</i>	<i>-a</i>	<i>-ɛsɛ</i>	<i>-ɛlɛ</i>	<i>-ɛga/-aga</i>	<i>-ɛga/-aga</i>	<i>cw-c</i>
pàno	shine	-	-	-	-	-	-	-
pê	choose	péy-ala	-	-	-	-	-	-
pèndɛlɛ	lick out	pènd-ala	-	-	-	-	-	-
péndo	braid	pénd-ala	pénd-a	-	-	-	-	-
péya	booze	péy-ala	-	péy-ɛsɛ	-	-	-	-
pfielɛ	crunch	pfi-ala	-	-	-	-	-	-
pfiumbɛ	pull out	pfiumb-ala	-	-	-	-	-	-
pfiündɔ	be frightened	pfiünd-ala	-	pfiünd-ɛsɛ	-	-	-	-
pfiβɛlɛ	blow	pfiβ-ala	-	-	-	-	-	-
pfiwɔ	dust	pfiw-ala	-	-	-	-	-	-
pimbɛ	wipe	pimb-ala	-	-	-	-	-	-
pínasa	be squeezed	pín-ala	-	pín-ɛsɛ	-	-	-	-
póndeɛ	punish	-	-	-	-	-	-	-
púñ	pay	púñg-ala	-	-	-	-	-	-
pundi	polish	pundi-ala	-	-	-	-	-	-
pùse	push	pùs-ala	-	-	-	-	-	-
pwàsɔ	stretch	pwàs-ala	-	-	-	-	-	pwàs-s
sá	vomit	sáng-ala	-	sáng-ɛsɛ	-	-	-	-
sáása	mix	-	-	-	-	-	-	-
síi (bà)	approach sth.	síng-ala	-	-	-	-	-	sís-ɛlɛ
sá	do	sá-ala	-	-	-	-	-	-
sá'awa	move repeatedly	-	-	-	-	-	-	-

A *Verb extensions*

Verb	Gloss	Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-ɛsɛ	-ɛlɛ	-ɛga/-aga	-ɛwɛ
sàga	shock, scare	sàg-ala	-	-	-	-	-
sàlɔ	cut lengthwise	sàl-ala	sàl-ɛ	-	-	-	-
sálɔ	become plenty	-	-	-	-	-	-
sáne	decide	sán-ala	-	-	-	-	-
sègesɛ	sieve	-	-	-	-	-	-
sélɔ	peel	sél-ala	sél-a	-	-	-	-
sèndɛ	slip	sènd-ala	-	sènd-ɛsɛ	-	-	-
sèŋge	lower	sèŋg-ala	-	-	-	-	-
síawa	have hiccup	-	-	-	-	-	-
síle	finish	sil-ala	sil-ɛsɛ	-	-	-	-
silega	fade	sil-ala	sil-ɛsɛ	-	-	-	-
sílo	rub, smear	sil-ala	-	-	-	-	-
simasa	regret	-	-	-	-	-	-
simbɔ	drag	simb-ala	-	-	-	-	-
síme	respect	sím-ala	-	-	-	-	-
síndya	exchange	síndy-ala	-	-	-	-	-
sísele	scare sb	sís-ala	sís-ala	-	-	-	-
síso (bà)	approach	sís-ala	sís-ala	-	-	-	sís-ɛga
síso	be happy	sís-ala	-	-	-	-	-
síya	wash, bathe	síy-ala	-	-	-	-	-
síye	saw	síy-ala	-	-	-	-	-
síyɛsɛ	swing, shake	-	-	-	-	-	-

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-esɛ	-ɛlɛ	-ɛga/-aga	-ɛga/-aga	-ɛcɛ
só̚j	continue	-	-	-	só̚s-ɛlɛ	-	-	-
sòbala	accumulate	-	-	-	-	-	-	-
só̚lɛ	undress	só̚l-ala	-	só̚l-ɛsɛ	-	-	-	-
sò̚lè	hide sth.	sò̚l-ala	-	-	-	-	-	-
só̚lega	fall	-	-	-	-	-	-	-
sóndya	sharpen (point)	sóndy-ala	-	-	-	-	-	-
sósele	smoke meat	-	-	-	-	-	-	-
sùmbɔ̚	die mysteriously	sùmb-ala	-	-	-	-	-	-
súmele	greet	súm-ala	-	-	-	-	-	-
sùbe	pour out	sùb-ala	-	sùb-ɛsɛ	sùb-ɛlɛ	-	-	-
swásɔ̚	dry	swás-ala	-	-	swás-ɛlɛ	-	-	-
swàwɔ̚	hide (v.i.)	-	-	-	-	-	-	-
tá̚ala	judge	-	-	-	-	-	-	-
té̚	limp	-	-	té̚ŋg-ala	-	-	-	-
té̚ɛ	abandon	-	-	té̚ŋg-ala	-	-	-	-
té̚lè	guide	-	-	-	-	-	-	-
tá̚'álɛ	start	-	-	-	-	-	-	-
tátɔ̚	squeak	tát-ala	-	tát-ɛsɛ	-	-	-	-
tátɔ̚	take care of	tát-ala	-	-	-	-	-	-
té̚	invent, create	té̚y-ala	-	-	-	-	-	-
té̚s	be soft	-	-	-	-	-	-	-
té̚bɔ̚	rise	tél-ala	-	-	-	-	-	-

A *Verb extensions*

Verb	Gloss		Reciprocal	Passive	Causative	Applicative	Autocausative	Positional
		-ala	-a	-εεε	-εεε	-εεε	-εga/-aga	-εc-
tégε	tire, fatigue	tég-ala	-	tég-εεε	-	-	-	-
təmbəwɔ	set (sun)	-	-	təmb-εεε	-	-	-	-
təndɔ	tear	tənd-ala	-	tənd-εεε	-	-	-	-
tfúada	be late	-	-	-	-	-	-	-
tfùbɔ	pierce, rape	tfùb-ala	-	-	-	-	-	-
tfùdɔ	pinch	tfùd-ala	-	-	-	-	-	-
tfúga	suffer	tfúg-ala	-	tfúg-εεε	-	-	-	-
tfúmbɔ	fold, wrinkle	tfúmb-ala	-	tfúmb-εεε	-	-	-	-
tíi	get going	tíy-ala	-	-	-	-	-	-
tìnɔ	harvest tubers	tìn-ala	til-ε	-	-	-	-	-
tɔá	boil (v.i.)	tɔg-ala	-	-	-	-	-	-
tɔkɛ	pick up	tɔk-ala	tɔk-a	tɔk-εεε	-	-	-	-
tɔwa	drip, leak	-	-	-	-	-	-	-
tsí	untie	tsíng-ala	-	-	-	-	-	-
tsiéle	bind, tie	tsí-ala	-	-	-	-	-	-
tsàmɛ	spit	tsàm-ala	-	-	-	-	-	-
tsíbo	grind, trample	tsíb-ala	-	-	-	-	-	-
tsíɛ	live, be well	-	-	-	-	-	-	-
tsíɛ	cut	tsíy-ala	-	-	-	-	-	-
tsílɔ	write	tsíl-ala	tsíl-a	tsíl-εεε	-	-	-	-
tsímɛɛ	sneeze	tsím-ala	-	tsím-εεε	-	-	-	-
tsíndɔ	shove, push	tsínd-ala	-	-	-	-	-	-

Verb	Gloss		Reciprocal <i>-ala</i>	Passive <i>-a</i>	Causative <i>-ɛsɛ</i>	Applicative <i>-ɛlɛ</i>	Autocausative <i>-ɛga/-aga</i>	Positional <i>-cwa</i> <i>-ɛga</i>
túà	move places	tóg-ala	-	tóg-ɛsɛ	-	-	-	-
tündé	miss	tünd-ala	-	-	-	-	-	-
túnwáñ	float	-	-	-	-	-	-	-
túwane (nà)	meet	túw-ala	-	-	-	-	-	-
twálɔ̄	peck	twál-ala	-	-	-	-	-	-
vàà	praise	vág-ala	-	-	-	-	-	-
vàmòkvwè	knock over	-	-	-	-	-	-	-
vásse	rise (dough)	-	-	-	-	vás-ɛls	-	-
vé	give	véy-ala	-	-	-	-	-	-
vé'è	try on clothes	vèg-ala	-	-	vè'-ɛls	-	-	-
vémbó	blow nose	vémb-ala	-	-	-	-	-	-
véṣá	have desire	vés-ala	-	-	-	-	-	-
véṣáñ	breathe	-	-	-	-	-	-	-
véye	measure	vèy-ala	-	-	-	-	-	-
vidɛ	(re-)turn	vid-ala	vid-a	-	vid-ɛls	vid-ɛga	-	-
vimala	groan	-	-	-	-	-	-	-
víndo	hate	vínd-ala	-	-	-	-	-	-
vísɔ̄	cover	vís-ala	-	-	-	vís-ɛls	-	-
víwɔ̄	suck	víw-ala	-	-	-	-	-	-
víyāsa	be light	-	-	-	-	-	-	-
víyala	touch	-	-	-	-	-	-	-

A *Verb extensions*

Verb	Gloss		-ala	Reciprocal	Passive	-εsε	Causative	-εlε	Applicative	-εga/-aga	Autocausative	-εg-a/-aga	Positional -mc-
v̄j	be calm/cold	v̄j-l-ala	-	v̄j-l-εsε	-	-	-	-	-	-	-	-	-
v̄ða	rest	v̄ð-d-ala	-	-	-	-	-	-	-	-	-	-	-
v̄lε	help	v̄l-l-ala	-	-	-	-	-	-	-	-	-	-	-
v̄wa	wake up	v̄w-w-ala	-	v̄w-l-εsε	-	-	-	-	-	-	-	-	-
v̄u	leave	v̄u-y-ala	v̄u-m-a	-	-	-	-	-	-	-	-	-	-
v̄uelε	blow	-	-	-	-	-	-	-	-	-	-	-	-
v̄ulɔ	be sharp	-	-	-	-	-	-	-	-	-	-	-	-
v̄uba (nà)	hug	-	-	-	-	-	-	-	-	-	-	-	-
vyambɛlɛ	surround	-	-	-	-	-	-	-	-	-	-	-	-
vyɛ	draw	vyɛg-ala	-	-	-	-	-	-	-	-	-	-	-
wɛɛ	skin animals	wɛŋg-ala	-	-	-	-	-	-	-	-	-	-	-
wāmɛ	hurry	-	-	-	-	-	-	-	-	-	-	-	-
wāwɛ	spread out	wàw-ala	wàw-a(a)	-	-	-	-	-	-	-	-	-	-
wáwɔ	crawl	-	-	-	-	-	-	-	-	-	-	-	-
wɛ	die	-	-	-	-	-	-	-	-	-	-	-	-
wómbɛlɛ	sweep	wómb-ala	-	-	-	-	-	-	-	-	-	-	-
wúmbe	want	wúmb-ala	-	-	-	-	-	-	-	-	-	-	-
wùmɛ	pluck	wùm-ala	-	-	-	-	-	-	-	-	-	-	-
wúŋgala	wander, dangle	-	-	-	-	-	-	-	-	-	-	-	-
wùsa	forget	wùs-ala	wùs-a(a)	-	-	-	-	-	-	-	-	-	-
yàlane	respond	-	-	-	-	-	-	-	-	-	-	-	-
yémɛdɛ	tighten	yém-ala	-	-	-	-	-	-	-	-	-	-	-
yíɛ	avoid, dodge	yé-ala	-	-	-	-	-	-	-	-	-	-	-
yimbɔ	visit	yimb-ala	-	-	-	-	-	-	-	-	-	-	-

# Appendix B: Texts

This appendix contains the annotated Gyeli text corpus which is comprised of three texts of different genres. The first one, *The healer and the antelope*, is an autobiographical narration; the second one, the *Nzambi Story*, a folktale; and the third a conversation with multiple speakers in the village Ngolo.

Each text is split up into intonation phrases. Since intonation phrases are not always clear-cut, especially in fast natural speech, I relied on two principles in determining intonation phrases: pauses and speaker intuition. As a first parsing principle, I took pauses as indications for intonation phrases. Later on, text annotation was done with the help of a language consultant who would naturally break the text up into phrases as he repeated the recordings during transcription. Intonation phrases do not always match grammatical sentences.

Each intonation phrase has four annotation lines. The first represents the surface form on the word level. The second line shows the underlying form on the morpheme level, including tonal changes. All vowels are marked for tone. Tone bearing units without tonal marking in the second line are underlyingly toneless. Transcription lines do not contain punctuation marks as those are conventions for written, but not natural, spoken language. The third line is the gloss and the fourth the translation. Code-switching to, for instance, Kwasio or French, is indicated in the gloss line with the language name in square brackets for non-Gyeli elements. If a whole phrase is in a language other than Gyeli, for instance in Bulu, only the surface form is indicated, but not the underlying form. Square brackets in the translation line serve as explanations.

## B.1 The healer and the antelope

The story about the healer who turned into an antelope is an autobiographical narrative by Ada Joseph, who was about 30 years old at the time of recording. The narrative was recorded in May 2011 in Nziou, a village close to Kribi. This anecdote came up during lunchtime small talk with the Mabi speakers Djiedjhie François and Bimbvoung Emmanuel Calvin, and me. Ada agreed to tell it again for the recording.

## B Texts

The narrative is about an old man that Ada knew from his village when he was a teenager. This man was a healer and became sick himself. Since he did not want to die, he turned himself into an antelope and fled into the forest. The villagers were worried about this and tried to kill the antelope, but they never found it.

- (A1) *yóò yá tálè*  
      yóò ya-H tálè  
      so 1PL-PRS begin  
      ‘So, we begin.’
- (A2) *yóò ngâ nû à bé ngâ*  
      yóò ngâ nû a bë-H ngâ  
      so Ø1.healer 1.DEM.PROX 1.PST1 be-R Ø1.healer  
      ‘So, this healer was a healer.’
- (A3) *ngâ*  
      ngâ  
      Ø1.healer  
      ‘A healer.’
- (A4) *à jilé mâ*  
      a jile-H mâ  
      1.PST1 stay-R COMPL  
      ‘He was there.’
- (A5) *à njâ dyùmò bùdàà dyùmò bùdàà dyùmò bùdàà*  
      a nji-H a dyùmò-H b-ùdì a dyùmò-H b-ùdì  
      1.PST1 come-R 1.PST1 heal-R ba2-person 1.PST1 heal-R ba2-person  
      *dyùmò bùdì*  
      a dyùmò-h b-ùdì  
      1.PST1 heal-R ba2-person  
      ‘He came, he was healing people (4x).’
- (A6) *à múà médé nyá mùdì*  
      a múà médé nyá m-ùdì  
      1 be.almost self real N1-person  
      ‘He was himself a real [old] man.’
- (A7) *à dyùmò bùdì à dyùmò bùdì à múà*  
      a dyùmò-H b-ùdì a dyùmò-H b-ùdì a múà  
      1.PST1 heal-R ba2-person 1.PST1 heal-R ba2-person 1.PST1 be.almost

- médé nyá mùdì      póné      ntúlé  
 médé nyá m-ùdì      póné      ntúlé  
 self real N1-person Ø7.truth Ø3.old  
 'He was healing people, he was healing people. He himself was an old man.'
- (A8) nyè    táàlē    bábè  
 nyε    táàlε-H bábè  
 1.PST1 begin-R Ø7.illness  
 'He started to be sick.'
- (A9) gbí-gbí-gbí-gbí à    múà      nà    bábè      tí    wúmbè wè  
 gbí-gbí-gbí-gbí a    múà      nà    bábè      tí    wúmbε wè  
 IDEO:roaming    1.PST be.almost COM Ø7.illness NEG want die  
 '[imitation of the disease roaming in his body] He was about to be sick, not wanting to die.'
- (A10) bá    sàgà      é    kfùmàlà mè      múà      ndáà mùdì  
 ba-H sàgà      é    kfùmala me      múà      ndáà m-ùdì  
 2-PRS be.surprised LOC find    1SG.SBJ be.almost also N1-person  
 'They are surprised to find that I was a grown up person [says the story-teller about his own age at the point when the story took place].'
- (A11) mè    múà      póné      wá      yìmbá nté      wû  
 me múà      póné      wá      yìmbá nté      wû  
 1SG be.almost Ø7.truth 3:ATT Ø7.age Ø3.size there  
 'I was really about the age of this size there [makes a gesture with hand showing his height].'
- (A12) álè  
 go.IMP.PL  
 '[French] so. . . '
- (A13) yá    sàgà      àà    ndáwò    dé    tù      nyè    médé támé  
 ya-H sàgà      àà    ndáwò    dé    tù      nyε    médé támé  
 1PL-PRS be.surprised 1.COP Ø9.house LOC inside 1.SBJ self alone  
 'We are surprised. He is in his house all by himself.'
- (A14) mh-ìmh-ìm-ìmh  
 mh-ìmh-ìm-ìmh  
 IDEO:self.talk  
 '[imitation of healer's self talk and noises he makes in the house].'

- (A15) *yá sàgà ménó wê nyéé mápà má*  
 ya-H sàgà ménó wê nyéé H-ma-pà má  
 1PL-PRS be.surprised Ø7.morning in see.SBJV OBJ.LINK-ma6-paw 6:ATT  
*njibù má bwámó ndáwò dé tù*  
 njibù ma-H bwámó-H ndáwò dé tù  
 Ø1.antelope 6-PRS come.out-R Ø9.house LOC inside  
 'We are surprised in the morning to see [hoof] traces of an antelope  
 which come out of the house,'
- (A16) *kè déndì*  
 kè d-éndì  
 go le5-courtyard  
 'going into the courtyard.'
- (A17) *kè dígè mpù*  
 kè díge mpù  
 go look like.this  
 'Going looking like this.'
- (A18) *mùdì nú bélé*  
 m-ùdì nú bélé  
 N1-person 1.DEM.DIST be-NEG  
 'nobody is there.'
- (A19) *ndùù à vidégáà njibù*  
 ndùù a vidég-áà njibù  
 so[French] 1.PST1 turn-PRF Ø1.antelope  
 'So, he has already turned into an antelope.'
- (A20) *à múà á kéké jií dé tù*  
 a múà a-H kè-H jií dé tù  
 1.PST be.almost 1-PRS go-R Ø7.forest LOC inside  
 'He was about to go into the forest,'
- (A21) *nà ndzí gyâ*  
 nà ndzí gyâ  
 COM Ø9.path Ø7.length  
 'on the long path.'
- (A22) *kéké jií dé tù*  
 kè-H jií dé tù  
 go-R Ø7.forest LOC inside  
 '[He] goes into the forest,'

- (A23) *nà ndzǐ gyâ*  
 nà ndzǐ gyâ  
 COM Ø9.path Ø7.length  
 'on the long path.'
- (A24) *ké jíi dé tù*  
 kè-H jíi dé tù  
 go-R Ø7.forest LOC inside  
 '[He] goes into the forest,'
- (A25) *nà ndzǐ gyâ*  
 nà ndzǐ gyâ  
 COM Ø9.path Ø7.length  
 'on the long path.'
- (A26) *nà pándè vâ bùdì báà bë*  
 nà pándè vâ b-ùdì báà bë  
 CONJ arrive here ba2-person 2.COP there[Kwasio]  
 'And having arrived here, these people are there.'
- (A27) *á lèmbó nâ bùdì báà bá múà búèlè*  
 a-H lèmbo-H nâ b-ùdì báà bá-H múà búelè  
 1-PRS know-R COMP ba2-person 2.DEM.PROX 2-PRS be.almost fish  
*nâ bá dyúù nyê*  
 nâ ba-H dyùù nyé  
 COMP 2-PRS kill.SBJV 1.OBJ  
 'He knows that these people are about to look [lit. fish] for him in order to kill him.'
- (A28) *nâ bá dyúù nyê vèè mùdì nyê jáàsà*  
 nâ ba-H dyùù nyé vèè m-ùdì nyé jáàsà  
 COMP 2-PRS kill.SBJV 1.OBJ only N1-person 1.SBJ disappear  
 'So that they kill him. Suddenly the person [the healer] disappears,'
- (A29) *nà ké jíi dé tù nà ndzǐ pámò dë*  
 nà kè-H jíi dé tù nà ndzǐ pámò dë  
 CONJ go-R Ø7.forest LOC inside COM Ø9.path arrive today  
 'and [he] goes in the forest on the path till today,'
- (A30) *tí nyê nyê*  
 tí nyê nyê  
 NEG see 1.OBJ  
 'without being seen.'

## B.2 Nzambi story

The *Nzambi Story* is a well-known folktale among the Bagyeli. It was recorded on video in August 2012 in the Gyeli village Ngolo. Tata is the main narrator. He stood in the middle of the village under the big tree, while the rest of the village is gathered around him and commented on both the story and the recording.

The folktale is about two friends, both called *Nzambi*, which means ‘God’. One of them grows breadfruit, the other palm nuts. The Nzambi growing breadfruit marries the daughter of his friend and they have a child. When the palm trees are not producing enough fruit, the family suffers hunger. Therefore, Nzambi of the palm nuts sends his wife to the his friend, Nzambi of the breadfruit, to ask for food. Nzambi of the breadfruit agrees to give food to the wife, but keeps their child in return and eats it. When Nzambi of the palm nuts learns about this, he goes to see his friend and ask him why he did this. The breadfruit grower admits that he ate the child and pretends that he also ate his own children by showing him monkey skulls. He then suggests that the palm nut grower should also eat his children as this would turn them into white people. Instead of heeding this advice, the palm nut grower takes revenge on his friend by locking the breadfruit grower’s family in a house, which he then burns down. He then has mice eat the remains of the burned bodies. When the breadfruit grower Nzambi returns home and finds his whole family dead, he is devastated.

Tata:

- (N1) *jíyɔ*  
*jíyɔ*  
sit.down  
‘Sit down [introductory words to a story].’
- (N2) *yóò Nzàmbí núù*            *jì*  
*yóò Nzàmbí núù*            *jì.*  
so Ø1.PN 1.DEM.PROX sit  
‘So, there is this [person called] Nzambi.’
- (N3) *Nzàmbí jilé*    *mà*  
*Nzàmbí jilé-H* *mà*  
Ø1.PN sit-R COMPL[Kwasio]  
‘Nzambi is already there.’

Aminu to cameraman:

- (N4) *wè nzíí bàlè bébáâ*  
 wε nzíí bàlè H-be-báâ  
 2SG PROG.PRS keep OBJ.LINK-be8-word  
 'You are recording [lit. keeping the words].'

Tata:

- (N5) *wè nzíí bàlè mpà*  
 wε nzíí bàlè mpà  
 2SG PROG.PRS keep good  
 'You [addressing cameraman] are recording well.'
- (N6) *yóò Nzàmbí núù jì*  
 yóò Nzàmbí núù jì  
 so Ø1.PN 1.DEM.PROX sit  
 'So there is this [person called] Nzambi.'

Aminu:

- (N7) *bwáá lă b̩*  
 bwáá-H lă-H b-̩  
 2PL-PRS tell-R 2-OBJ  
 'You tell them!'

Tata:

- (N8) *Nzàmbí jíi à lwó mò kwádó*  
 Nzàmbí jíi a lwó-H mò kwádó  
 Ø1.PN sit.COMPL 1.PST1 build-R COMPL Ø7.village  
 'Nzambi is there, he has already built a village.'
- (N9) *bá nà mùdâ w̩*  
 bá nà m-ùdâ w-̩  
 2.SBJ COM 1-woman 1-POSS.3SG  
 'they [him] and his wife.'
- (N10) *bàNzàmbí bábáà*  
 ba-Nzàmbí bá-báà,  
 ba2-PN 2-two  
 'Two Nzambis,'

- (N11) *nógá gyáà nkè nógá gyáà mbyé*  
 nó-gá gyáà nkè nó-gá gyáà mbyé  
 1-other Ø1.side Ø3.low 1-other Ø1.side Ø3.high  
 'one downstream, the other upstream.'
- (N12) *é mpù bá kí ná jíwó mbyé ná jíwó nkè*  
 é mpù ba-H ki-H ná jíwó mbyé ná jíwó nkè  
 LOC like.this 2-PRS say-R COMP Ø7.river Ø3.high CONJ Ø7.river Ø3.low  
 'Like this, they say that up the river and down the river...'
- (N13) *yóò báNzàmbí bá tè bá jì*  
 yóò ba-Nzàmbí bá tè ba-H jì  
 so ba2-PN 2:ATT there 2-PRS sit  
 'So the Nzambis there are settled.'
- (N14) *yóò Nzàmbí nógá núù bé Nzàmbí wà gyí*  
 yóò Nzàmbí nó-gá núù bë-H Nzàmbí wà gyí  
 so Ø1.PN 1-other 1.PST2 be-R PN 1:ATT what  
 'So this other Nzambi was which Nzambi?'
- (N15) *mé libélè Nzàmbí wà lélendí*  
 me-H líbelé Nzàmbí wà le-léndí  
 1SG-PRS show Ø1.PN 1:ATT le5-palm.tree  
 'I show [gesture], the Nzambi of the palm tree.'
- (N16) *nónégá nyègà*  
 nó-négá nyè-gà  
 1-other 1.SBJ-CONTR  
 'The other one,'
- (N17) *wà lè-bóò*  
 wà le-bóò.  
 1:ATT le5-breadfruit.tree  
 'the one of the breadfruit tree.'
- (N18) *yóò báNzàmbí bá tè bá bwàá só*  
 yóò ba-Nzàmbí bá tè ba bwàà-H só,  
 so ba2-PN 2:ATT there 2.PST1 have-R Ø1.friend  
 'So, the Nzambis there became friends,'
- (N19) *ná bá jíi*  
 ná ba-H jíi  
 COMP 2-PRS sit.SBJV  
 'so that they stay,'

- (N20) é nû pè é nû pè  
      é nû pè é nû pè  
      LOC 1.DEM.PROX there LOC 1.DEM.PROX there  
      ‘one there and one there.’
- (N21) bàNzàmbí bá tè bá jìlē mà  
      ba-Nzàmbí bá tè ba-H jìlē-H mà  
      ba2-PN 2:ATT there 2-PRS sit-R COMPL[Kwasio]  
      ‘The Nzambis there live there already.’
- (N22) yóò bá kí nâ éékè  
      yóò ba-H ki-H nâ éékè  
      so 2-PRS say-R COMP EXCL  
      ‘So they say that, “éékè [exclamation of surprise]!”’
- (N23) mwánò wê mùdâ wà nû  
      m-wánò w-ê m-ùdâ wà nû  
      N1-child 1-POSS.3SG N1-woman 1:ATT 1.DEM.PROX  
      ‘His child [is] the wife of this one [pointing to imaginary breadfruit Nzambi].’
- (N24) à bwââ  
      a bwââ  
      1.PST1 give.birth  
      ‘She has given birth.’
- (N25) nyègà váà nyègá tsíyé sâ nà máléndí, máléndí  
      nye-gà váà nye-gá tsíyé sâ nà ma-léndí, ma-léndí  
      1.SBJ-CONTR here 1.SBJ-CONTR live-R only com 6-palm.tree 6-palm.tree  
      máà mógà  
      máà m-3-gà  
      6:DEM 6-OBJ-CONTR  
      ‘Him here, he lives only from palm trees, these palm trees.’
- (N26) má dvúmólé mbvú mbì mbvû  
      ma-H dvúmólé mbvú mbì mbvû  
      6-PRS produce-NEG Ø3.year like[Kwasio] Ø3.year  
      ‘They don’t produce [fruit] every year,’
- (N27) máléndí máà vèè kwè mímpindí  
      ma-léndí máà vèè kwè H-mi-mpindí  
      ma6-palm.tree 6.DEM.PROX only fall OBJLINK-mi4-unripeness  
      ‘these palm trees only produce unripe [fruit].’

- (N28) Nzàmbí à bwàá̄ mwánò  
 Nzàmbí a bwàá̄-H m-wánò  
 Ø1.PN 1.PST1 give.birth-R N1-child  
 ‘Nzambi has given birth to a child.’
- (N29) yóò Nzàmbí nyègà à kéé̄ dígè mísi  
 yóò Nzàmbí nyè-gà a kéé̄ dígè m-ísi  
 so Ø1.PN 1.SBJ-CONTR 1.PST1 go.COMPL watch ma6-eye  
 ‘So this Nzambi went and thought very hard [lit. he watched with his eyes].’
- (N30) nyè nâ óóó mùdâ  
 nyε nâ óóó m-ùdâ  
 1.SBJ COMP EXCL N1-woman  
 ‘He: “Oh, wife,’
- (N31) bàmbé kê jíi mbúmbù mwánò sá yí dè  
 bàmbé kê jíi mbúmbù m-wánò sá yí dè  
 sorry go.IMP ask Ø1.namesake N1-child Ø7.thing 7:ATT eat  
 ‘excuse me, go and ask my namesake [the other Nzambi] for a little to eat,’
- (N32) é pè nâ á njíyè mè nà yô  
 é pè nâ a-H njíyε mè nà y-ô  
 LOC there COMP 1-PRS come.SBJV 1SG.OBJ COM 7-OBJ  
 ‘over there, so that she [his wife] bring me that [food].’
- (N33) mè múa wè nà nzà  
 mε múa wè nà nzà  
 1SG be.almost die COM Ø9.hunger  
 ‘I’m about to die from hunger’.
- (N34) yóò mùdâ nùù tè  
 yóò m-ùdâ nùù tè,  
 so N1-woman 1.COP there  
 ‘So the woman is there [she leaves],’
- (N35) kíyà mwánò ndzèngò  
 kíya m-wánò ndzèngò  
 carry N1-child inclined  
 ‘carrying the child on her side [instead of on her back],’

- (N36) *nkwé nkô*  
*nkwé nkô*  
 Ø3.basket Ø3.back  
 'the basket on the back.'
- (N37) *wóóóóóó gbìm*  
*wóóóóóó gbìm*  
 IDEO:moving IDEO:surface.impact  
 '[depiction of moving by foot or motorbike and imitating sound of putting basket down]'
- (N38) *áá gyí wé ló njì gyésò*  
*áá gyí we-H ló njì gyésò*  
 EXCL what 2SG-PRS RETRO come look.for  
 '[Breadfruit Nzambi talking] Ah, what have you just come to look for?'
- (N39) *nyè náà mùdì wáà mè wéé* *nà nzà*  
*nye náà m-ùdì w-áà me wéé* *nà nzà*  
 1.SBJ COMP N1-person 1-POSS.1SG 1SG die.COMPL COM Ø9.hunger  
 'She [says]: "My person, I'm dead hungry."
- (N40) *nkè nyì nzí síléé bédéwò*  
*nkè nyi nzí síléé H-be-déwò*  
 Ø9.field 9 PROG.PST finish.COMPL OBJ.LINK-be8-food  
 'The field has already run out of food.'
- (N41) *bédéwò bíndè byò mé ló njì lébélè bédéwò bà wé*  
 be-déwò bí-ndè by-ò me-H ló njì lébelé H-be-déwò bà wé  
 be8-food 8-ANA 8-OBJ 1-PRS RETRO come follow be8-food AP 2SG.OBJ  
 'This food, I have come to look for the food at your place.'
- (N42) *náà ká wé múà wáà vélè mē*  
*náà ká we múà wáà vélé mē*  
 COMP if 2SG be.almost 2SG.FUT[Kwasio] help 1SG.OBJ  
 'If you can help me...'
- (N43) *nzà nyíi mē mâ*  
*nzà nyíi mē mâ*  
 Ø9.hunger 9.cop 1SG.OBJ Ø3.stomach  
 'I'm hungry [lit. I have hunger in my stomach].'

B Texts

- (N44) *nágylálé*      *wà*      *mùdâ*  
                       nágylálé      wà      m-ùdâ  
                       Ø1.breastfeeding 1:ATT N1-woman  
                       '[I am a] breastfeeding woman.'
- (N45) *yóò mé ló njì gyésò sá yí dè*  
                       yóò mε-H ló njì gyésɔ sá yí dè  
                       so 1SG-PRS RETRO come search Ø7.thing 7:ATT eat  
                       'So I just came to look for something to eat'.
- (N46) *yóò Nzàmbí á kí náà éè*  
                       yóò Nzàmbí a-H kì-H náà éè  
                       so Ø1.PN 1-PRS say-R COMP yes  
                       'So Nzambi says, "yes,"'
- (N47) *bá yóò yü tè*  
                       bá y-óò yü tè  
                       Ø7.word 7-POSS.2SG 7.COP there  
                       'I understand you [lit. your speech is there].'
- (N48) *ndí vèdáà*  
                       ndí vèdáà  
                       but but[Bulu]  
                       'But still,'
- (N49) *yü mùdà nlâ*  
                       yü mùdà nlâ  
                       7.COP big Ø3.story  
                       'this is a big deal'.
- (N50) *yóò Nzàmbí kí nâ bò*  
                       yóò Nzàmbí kì-H nâ bò  
                       so Ø1.PN say-R COMP good[French]  
                       'So Nzambi says "Good."
- (N51) *mùdâ kê nà nyè mánkë*  
                       m-ùdâ kè-H nà nyè é-ma-nkë  
                       N1-woman go-R COM 1.OBJ LOC-ma6-field  
                       'Woman [his wife], go to the fields with her,'
- (N52) *kánâ m̄m*  
                       kánâ m̄m  
                       or no  
                       'or no.'

- (N53) *wè médé pâ lígè yá nà nyè yá ké mánkê*  
       we médé pâ lígè ya-H nà nyè ya-H kè-H H-ma-nkê  
       2SG.SBJ self do.first stay 1PL-PRS COM 1.OBJ 1PL-PRS go-R OBJ.LINK-6-field  
       ‘You [his wife] stay first, we and her, we go to the fields’;
- (N54) *yòò bá téé kèndè*  
       yòò ba-H téè-H kèndè  
       so 2-PRS start.walking-R Ø7.walk  
       ‘So they go on a walk,’
- (N55) *bà mùdâ wà nû*  
       bà m-ùdâ wà nû  
       AP N1-woman 1:ATT 1.DEM.PROX  
       ‘they with this woman.’
- (N56) *wòòòò pámò mánkê*  
       wòòòò pámo H-ma-nkê  
       IDEO:moving arrive OBJ.LINK-ma6-field  
       ‘[depiction of moving] Having arrived in the fields,’
- (N57) *Nzàmbí màbòò nkwegé dé nâ vòsi*  
       Nzàmbí ma-bòò nkwegé dé nâ vòsi  
       Ø1.PN ma6-breadfruit Ø3.basket LOC COMP IDEO:pouring  
       ‘Nzambi pours the breadfruit into the basket.’
- (N58) *yòò Nzàmbí á nòò mábòò mändè*  
       yòò Nzàmbí a-H nòò-H H-ma-bòò mändè  
       so Ø1.PN 1-PRS take-R OBJ.LINK-ma6-breadfruit 6-ANA  
       ‘So Nzambi takes those breadfruit.’
- (N59) *nyè nâ bò*  
       nyè nâ bò  
       1.SBJ COMP good[French]  
       ‘He says “Good,”
- (N60) *ò múa gyésò nâ wé kë*  
       ò múa gyésò nâ wé-H kë  
       2SG[Kwasio] be.almost search COMP 2SG-PRS go  
       ‘you are about to want to leave.’
- (N61) *silê nà mè këndè vúdû*  
       silê nà mè këndè vúdû  
       finish.IMP COM 1SG Ø7.time one  
       ‘Finish [this] with me in one go.’

B Texts

- (N62) *mèé jílé wé bvùbvù*  
*mèé jí-lé wé bvùbvù*  
 1SG.PRS.NEG ask-NEG 2SG.OBJ much  
 'I don't ask you for much.'
- (N63) *vé mè sâ mwánò wóò wà wé bùdé nû*  
*vé mè sâ m-wánò w-óò wà wé bùdè-H nû*  
 give.IMP 1SG.OBJ only N1-child 1-POSS.2SG 1:ATT 2SG have-R 1.DEM.PROX  
 'Give me only your child that you have here.'
- (N64) *mé lígé nyé dè*  
*mε-H lígε-H nyε dè*  
 1SG-PRS stay-R 1.OBJ eat  
 'I stay to eat it,'
- (N65) *nà màbó'ò máà*  
*nà ma-bó'ò máà*  
 COM ma6-breadfruit 6:DEM.PROX  
 'with these breadfruit.'
- (N66) *wé nòj móbó'ò máà*  
*wε-H nòj-H H-ma-bó'ò máà*  
 2SG-PRS take-R OBJ.LINK-ma6-breadfruit 6:DEM.PROX  
 'You take these breadfruit.'
- (N67) *wègà wé ké nà m̄*  
*wε-gà wε-H kε-H nà m̄*  
 2SG.SBJ-CONTR 2SG-PRS go-R COM 6-OBJ  
 'As for you, you take them [the breadfruit] away.'
- (N68) *mègà mé lígé dè mwánò wóò*  
*mε-gà mε-H lígε-H dè m-wánò w-óò*  
 1.SBJ-CONTR 1SG-PRS stay-R eat ma1-child 1-POSS.2SG  
 'As for me, I stay and eat your child,'
- (N69) *nà màbó'ò*  
*nà ma-bó'ò*  
 COM ma6-breadfruit  
 'with breadfruit.'
- (N70) *sílè*  
*sílε*  
 finish  
 'That's it!"'

- (N71) éékè mùdâ à gyééé à gyééé áh mùdî wáá  
 éékè m-ùdâ a gyééé a gyééé áh m-ùdî w-áá  
 EXCL N1-woman 1.PST1 cry.COMPL 1.PST1 cry.COMPL EXCL N1-person 1-POSS.1SG  
 wé sá mē ná  
 wε-H sâ-H mē ná  
 2SG-PRS do-R 1SG.OBJ how  
 ‘Oh, the woman cried and cried, “Ah, my person, what do you do to me?”’
- (N72) yóò Nzàmbí kí náà mè bwàá wê tsiyè lèkélè dé  
 yóò Nzàmbí kì-H náà mε bwàá-H wê tsiyε le-kélè dē  
 so Ø1.PN say-R COMP 1SG.PST1 have-R 2SG.OBJ cut le5-speech today  
 ná mē lígé dè mwánò wóò  
 ná mε-H lígε-H dè m-wánò w-óò  
 COMP 1SG-PRS stay-R eat N1-child 1-POSS.2SG  
 ‘So Nzambi says, “I’m not listening to you today [lit. I have cut your word]. I stay and eat your child,’
- (N73) nà màbóò  
 ná ma-bó’ò  
 COM ma6-breadfruit  
 ‘with breadfruit.’
- (N74) lèkáà lé tè’ètè yá mwánò yíi  
 le-káà lé tè’ètè yá m-wánò yíi  
 le5-kind 5:ATT Ø7.tenderness 7:ATT N1-child 7.DEM.PROX  
 ‘The kind of tenderness of this child,’
- (N75) yíi mpà yóò wé ká yóò dúmbó  
 yíi mpà yóò wε-H kâ-H y-ò dúmbó  
 7.COP good Ø7.time 2SG-PRS wrap-R 7-OBJ Ø7.package  
 ‘is good when you wrap it in a [leaf] wrap.’
- (N76) mèéé yóò dè  
 mèéé y-ô dè  
 1SG.FUT 7-OBJ eat  
 ‘I will eat it’.
- (N77) yóò Nzàmbí kí náà bò  
 yóò Nzàmbí kì-H náà bò  
 so Ø1.PN say COMP good[French]  
 ‘So Nzambi says “Good,’

## B Texts

- (N78) *ká wèé wúmbélé ndáà*  
           ká wèé wúmbé-lé ndáà  
           if 2SG.PRS.NEG want-NEG also  
           ‘if you don’t want [this] either,’
- (N79) *mé nòò nkwegá wá mábó’ò*  
       mè-H nòò-H nkwegé wá H-ma-bó’ò  
       1SG-PRS take-R Ø3.basket 3:ATT OBJ.LINK-ma6-breadfruit  
       ‘I take the basket with the breadfruit.’
- (N80) *wé ké wè nà nzà nyóò é pè wé ké*  
       wè-H kè-H wè nà nzà ny-óò é pè wè-H kè-H  
       2SG-PRS go-R die COM Ø9.hunger 9-POSS.2SG LOC there 2SG-PRS go-R  
       wè nà nyóò  
       wè nà ny-óò  
       die COM 9-OBJ  
       ‘Your are going to die of your hunger there, you are going to die of it’.
- (N81) *yóò mùdâ dígé mísi ndéééé*  
       yóò m-ùdâ dígé-H mísi ndéééé  
       so N1-woman watch-R ma6-eye IDEO:staring  
       ‘So the woman thinks [lit. looks with her eyes].’
- (N82) *nyè nâ tòsâ*  
       nye nâ tòsâ  
       1.SBJ COMP nothing  
       ‘She [says]: “No!”.
- (N83) *yóò mùdâ tóké mwánò kàlànè nyê*  
       yóò m-ùdâ tóké-H mwánò kàlànè nyê  
       so N1-woman collect-R N1-child hand.over 1.OBJ  
       ‘So the woman picks up the child, handing it over to him.’
- (N84) *Nzàmbí nyè nâ nkè*  
       Nzàmbí nye nâ nkè  
       Ø1.PN 1.SBJ COMP go.HORT  
       ‘Nzambi [says]: “Let’s go”.
- (N85) *wóóóó bó pámó*  
       wóóóó bó-H pámo  
       IDEO:moving 2-PRS[Kwasio] arrive  
       ‘[depiction of motor sound] They arrive.’

- (N86) *Nzàmbí nyè nâ é mùdâ wâ*  
*Nzàmbí nyè nâ é m-ùdâ w-â*  
 Ø1.PN 1.SBJ COMP LOC N1-woman 1-POSS.1SG  
 'Nzambi [says]: "My wife,'
- (N87) *mwánò wéè nyè nû*  
*m-wánò w-éè nyè nû*  
 N1-child 1-POSS.3SG 1.SBJ 1.DEM.PROX  
 'this is her child.'
- (N88) *mé ló nòò mwánò púù yá mábó’ò mâ*  
*mε-H ló nòò m-wánò púù yá ma-bó’ò mâ*  
 1SG-PRS RETRO take N1-child Ø7.reason 7:ATT ma6-breadfruit 6.DEM.PROX  
 'I have just taken the child for these breadfruit.'
- (N89) *kálè mè báà kì nâ bá dúù bè bédéwò*  
*kálè mè báà kì nâ ba-H dúù bè H-be-déwò*  
 NEG.FUT 1SG.SBJ 2.FUT say COMP 2-PRS must.not.SBJV grow OBJ.LINK-be8-food  
 'It's not me who will say that they must not grow food [it's not my fault  
 that they don't have food]'.
- (N90) *yòò mùdâ nû kè*  
*yòò m-ùdâ nû-H kè*  
 so N1-woman 1-PRS go  
 'So the woman goes.'
- (N91) *ndènáà pámo lébû àá gyì*  
*ndènáà pámo H-le-bû àá gyì*  
 like.this arrive OBJ.LINK-le5-river.bank 1.INCH cry  
 'Having arrived like this [without the child] at the river bank she starts  
 to cry.'
- (N92) *àá gyì àá gyì dyúmò njì nyè nòò*  
*àá gyì àá gyì dyúmò njì nyè nòò*  
 1.INCH cry 1.INCH cry Ø1.spouse come 1.OBJ take  
 'She starts to cry, she starts to cry, the husband comes to fetch her.'
- (N93) *é ná mwánò nùù vé*  
*é ná m-wánò nùù vé*  
 LOC how N1-child 1.COP where  
 'What! Where is the child?'

## B Texts

- (N94) *nyè nâ sô wòò nòò mò mwánò*  
 nyè nâ sô w-òò nòò-H mò m-wánò  
 1.SBJ COMP Ø1.friend 1-POSS.2SG take-R COMPL 1-child  
 ‘She [says]: “Your friend has taken the child.”
- (N95) *à kéé̂ nyè dè*  
 a kéé̂ nyè dè  
 1.PST1 go.COMPL 1.OBJ eat  
 ‘He has left to eat it’.
- (N96) *yòò á ló kì náà*  
 yòò a-H ló kì náà  
 so 1-PRS RETRO say COMP  
 ‘So he just said that:’
- (N97) *é mpù wèé gyángyálé bédéwò*  
 é mpù wèé gyángya-lé H-be-déwò  
 LOC like.this 2SG.PRS.NEG work-NEG OBJ.LINK-be8-food  
 “This is not how you work for your food”.
- (N98) *yòò nyègá nòò mwánò*  
 yòò nyè-gá nòò m-wánò  
 so 1.SBJ-CONTR take N1-child  
 ‘So the other Nzambi, after having taken the child,’
- (N99) *á lígé nyè dè*  
 a-H lígε-H nyè dè  
 1-PRS stay-R 1.OBJ eat  
 ‘stays to eat it,’
- (N100) *nà màbó'ò méé*  
 nà ma-bó'ò m-é  
 COM ma6-breadfruit 6-POSS.3SG  
 ‘with his breadfruit.’
- (N101) *yòò Nzàmbí wà nû ké dígè mpù nâ ké*  
 yòò Nzàmbí wà nû kè-H dígε mpù nâ ké  
 so Ø1.PN 1:ATT 1:DEM.PROX go-R look like.this COMP EXCL  
 ‘So this Nzambi goes and looks like this: “Ey!”
- (N102) *mbúmbù wâ wé kúmbó mê sá mpù*  
 mbúmbù w-â wε-H kúmbó-H mê sá mpù  
 Ø1.namesake 1-POSS.1SG 2SG-PRS arrange-R 1SG.OBJ Ø7.thing like.this  
 ‘My namesake, you really do this to me.’

- (N103) é mwánò wâ dyúwò  
      é m-wánò w-â dyúwò  
 EXCL N1-child 1-POSS.1SG on  
 'Hey, about my child!".'
- (N104) [clicking] yóò wà núnđè dígé mísi  
 [clicking] yóò wà nú-nđè dígε-H m-ísì  
 [clicking] so 1:ATT 1-ANA look-R ma6-eye  
 '[sound of disappreciation] So this one thinks [lit. looks with his eyes],'
- (N105) ndéééé nyè nâ tòsâ  
 ndéééé nyε nâ tòsâ  
 IDEO:staring 1.SBJ COMP nothing  
 '[depiction of staring] He [says]: "No'
- (N106) yîi pè'è nyà mwánò mùdû mé pâá ná nyô  
 yîi pè'è nyà m-wánò m-ùdû mε-H pâá-H ná ny-ô  
 7.COP Ø9.wisdom 9:ATT N1-child N1-male 1SG-PRS do.first-H again 9-OBJ  
 vè  
 vè  
 give  
 'Every child knows this [lit. This is the wisdom of a boy], I will take  
 revenge on him".'
- (N107) yóò Nzàmbí wà núú nyî  
 yóò Nzàmbí wà núú nyî  
 so Ø1.PN 1:ATT 1.DEM.DIST enter  
 'So that Nzambi comes in.'
- (N108) bóŋ  
 bóŋ  
 good[French]  
 "Good."
- (N109) mé lámbó Nzàmbí wà nû  
 mε-H lámbo-H Nzàmbí wà nû  
 1SG-PRS trap-R Ø1.PN 1:ATT 1.DEM.PROX  
 'I trap this Nzambi,'
- (N110) nà mé wúmbé lèmbò é mpù à bùdé mê  
 nà mε-H wúmbé-H lèmbo é mpù a bùdε-H mê  
 CONJ 1SG-PRS want-R know LOC like.this 1 have-R 1SG.OBJ  
 'and I want to know what he thinks of this story".'

B Texts

- (N111) *yòò Nzàmbí wà nû kéé̂ bwà̄sà nyè nâ*  
          yòò Nzàmbí wà nû kéé̂ bwà̄sà nyè nâ  
       so Ø1.PN 1:ATT 1.DEM.PROX go.COMPL think 1.SBJ COMP  
       ‘So this Nzambi has gone to think, he [says]:’
- (N112) *sá mèdé mè nzí sâ yî*  
          sá mèdé me nzí sâ yî  
       Ø7.thing self 1SG PROG.PST do 7.DEM.PROX  
       ‘This is all my fault [for sending the wife].’
- (N113) *mé pâ ná kè dígè mùdì wà nû é pée*  
       mε-H pâ-H ná kè dígè m-ùdì wà nû é pé-é  
       1SG-PRS do.first-H again go see N1-person 1:ATT 1.DEM.PROX LOC over.there.DIST  
       ‘I go first again to see this person over there’.
- (N114) *yòò Nzàmbí njí mpù bâââââ njì dígè mpù*  
       yòò Nzàmbí njí-H mpù bâââââ njì dígè mpù  
       so Ø1.PN come-R like.this IDEO:walking.far come look like.this  
       ‘So Nzambi comes like this [depiction of walking a long distance], comes  
       looking like this.’
- (N115) *nyè nâ kéééé*  
       nyè nâ kéééé  
       1.SBJ COMP EXCL  
       ‘He [says]: “What!”
- (N116) *mbúmbù*  
       mbúmbù  
       Ø1.namesake  
       ‘Namesake!’
- (N117) *mé ló njí bâgyê bà wê*  
       mε-H ló njí ba-gyê bà wê  
       1SG-PRS RETRO come ba2-stranger AP 2SG  
       ‘I just came as a guest to you.’
- (N118) *ndíííí*  
       ndí-LENGTH  
       but  
       ‘But . . .’

- (N119) *njìmò wá sá njìnì*  
 njimò wá sá njìnì  
 Ø3.entire 3:ATT Ø7.thing different  
 'the whole thing is different.'
- (N120) *mé ló njì gyésò bà wé*  
 me-H ló njì gyésò bà wé  
 1SG-PRS RETRO come search AP 2SG  
 'I just came to search at your place'.
- (N121) *ééé Nzàmbí kí nâ éé*  
 ééé Nzàmbí kí-H nâ éé  
 EXCL Ø1.PN say-R COMP yes  
 'Hey, Nzambi says: "Yes,"
- (N122) *bèsá bíndè byésè béè ndáà*  
 be-sá bí-ndè by-ésè béè ndáà  
 be8-thing 8-ANA 8-all 8.COP also  
 'all those things are also there [way of introducing a problem].'
- (N123) *bèsá bíndè byésè béè ndáà*  
 be-sá bí-ndè by-ésè béè ndáà  
 be8-thing 8-ANA 8-all 8.COP also  
 'All these things are also there [way of introducing a problem].'
- (N124) *ndí mèé sálé wé bvùbvù ndí vèdáà mé dyúwó*  
 ndí mèé sâ-lé wé bvùbvù ndí vèdáà mé-H dyúwó-H  
 but 1SG.PRS.NEG do-NEG 2SG.OBJ much but but[Bulu] 1SG-PRS understand-R  
*nâ*  
*nâ*  
 COMP  
 'But I don't do you wrong, but I understand that,'
- (N125) *wéè dé mwánò nòò*  
 wéè dè-H m-wánò nòò  
 2.PST2 eat-R N1-child no[French]  
 'you have eaten the child, haven't you?':
- (N126) *nyè nâ mèè dé póné nà màbó’ò*  
 nyè nâ mèè dè-H póné nà ma-bó’ò  
 1.SBJ COMP 1SG.PST2 eat-R Ø7.truth COM ma6-breadfruit  
 'He [says]: "I really ate [it] with breadfruit.'

B Texts

- (N127) *mègà mée dyúwó nzáà dúwò lé tè*  
           mε-gà      mée      dyúwɔ-H nzáà      d-úwò  lé    tè  
           1SG.SBJ-CONTR 1SG.PST2 feel-R   ∅7.appetite le5-day 5:ATT there  
           ‘As for me, I had a craving [for meat] that day.’
- (N128) *mè kí bè nà tsídí*  
           mε      kí      bè nà  tsídí  
           1SG.PST1 NEG[Kwasio] be COM ∅1.meat  
           ‘I didn’t have any meat’.
- (N129) *á kfùmálá mpù Nzàmbí lúndé́lḗé é mpù*  
           a-H kfùmala-H mpù  Nzàmbí lúndé́lḗé  é  mpù  
           1-PRS find-R     like.this ∅1.PN  fill.COMPL LOC like.this  
           ‘He discovers [inside the house] like this, Nzambi has filled [the house]  
           like this [with skulls].’
- (N130) *ké mbúmbù bwánò bà sílḗé kè vé*  
           ké  mbúmbù  b-wánò  ba  sílḗé  kè vé  
           EXCL ∅1.namesake ba2-child 2.PST1 finish.COMPL go where  
           ‘Ey namesake, where have all the children gone?’
- (N131) *nyè nâ kééé bwánò bå mè sílḗé bå dyùù*  
           nyε nâ  kéé b-wánò b-å      mε sílḗé  b-å  dyùù  
           1.SBJ COMP EXCL ba2-child 2-POSS.1SG 1SG finish.COMPL 2-OBJ kill  
           ‘He [says]: “Ha, my children, I have already killed them all.”
- (N132) *ngáà wé nyé mpù*  
           ngáà wε-H nyê-H mpù  
           Q(tag) 2SG-PRS see-R like.this  
           ‘Right, you see that?’
- (N133) *békókó bé nlô bé tè*  
           be-kókó      bé     nlô      bé     tè  
           be8-hollowness 8:ATT ∅3.head 8:ATT there  
           ‘The skulls there,’
- (N134) *béè tè*  
           béè  tè  
           8.COP there  
           ‘are there,’

- (N135) *mìnlô mí bákímì*  
 mi-nlô mí ba-kímì  
 mi4-head 4:ATT ba2-monkey  
 ‘monkey heads’;
- (N136) *kó mbúmbù nyè nzí lèmbò dyùù bâ fàmû bá*  
 kó mbúmbù nyè nzí lèmbo dyùù b-ô fàmû bá  
 EXCL Ø1.namesake 1.SBJ PROG.PST know kill 2-OBJ Ø1.family 2:ATT  
*bùdì ná*  
 b-ùdì ná  
 ba2-person how  
 “Oh namesake, how could he kill them, the family of people?”;
- (N137) *nyè nâ ó*  
 nyè nâ ó  
 1.SBJ COMP EXCL  
 ‘He [says]: “Oh,’
- (N138) *mbúmbù*  
 mbúmbù  
 Ø1.namesake  
 ‘Namesake!’
- (N139) *é yóò wà mwánò mùdû sá màmbò má mwánò*  
 é yóò wà m-wánò m-ùdû sâ-H m-àmbò má m-wánò  
 LOC so 2SG[Bulu] N1-child N1-man do-R ma6-thing 6:ATT N1-child  
*mùdû*  
 m-ùdû  
 N1-man  
 ‘So you behave like a boy.’
- (N140) *mè nzí wúmbè nâ bwánò bâ bá bwámóò*  
 mè nzí wúmbè nâ b-wánò b-â bá bwámóò  
 1SG.PST1 PROG.PST want COMP ba2-child 2-POSS.1SG 2-PRS become.SBJV  
*é mpù mintángáné békudé bé mpâ*  
 é mpù mi-ntángáné H-be-kudé bé mpâ  
 LOC like.this mi4-white.person OBJ.LINK-be8-skin 8:ATT good  
 ‘I had wanted my children to get fair skin like white people’;
- (N141) *Nzàmbí kí nâ bò*  
 Nzàmbí kí-H nâ bò  
 Ø1.PN say-R COMP good[French]  
 ‘Nzambi says: “Good,’

- (N142) *mè dyúwó mò*  
 mε dyúwɔ-H mò  
 1SG.PST1 understand-R COMPL  
 ‘I have understood’.
- (N143) *yóò Nzàmbí kí nâ bò mè niyé mò*  
 yóò Nzàmbí kì-H nâ bò mε niyε-H mò  
 so Ø1.PN say-R COMP good[French] 1SG.PST1 return-H COMPL  
 ‘So Nzambi says: “Good, I am returning home”.
- (N144) *nyè nâ mbúmbù nlâ wùú gyálé*  
 nyε nâ mbúmbù nlâ wùú gyà-lé  
 1.SBJ COMP N1-namesake Ø3.story 3.PRS.NEG be.long-NEG  
 ‘He [says]: “Namesake, it is easy [lit. the story isn’t long].’
- (N145) *silê dyùù fámí wóò wà bùdì wèè nyê*  
 sîlê dyùù fámí w-óò wà b-ùdì wèè nyê  
 finish.IMP kill Ø1.family 1-POSS.2SG 1:ATT ba2-person 2SG.FUT see  
 ‘Kill your whole family of people, you will see.’
- (N146) *bwánò bóò báà bwámò míntángáné*  
 b-wánò b-óò báà bwámo H-mi-ntángáné  
 ba2-child 2-POSS.2SG 2.FUT become OBJLINK-mi4-white.person  
 ‘Your children will become white people.’
- (N147) *gyí médé wé ké nà vuùù wé*  
 gyí médé wε-H kè-H nà vuùù wé  
 what self 2SG-PRS go-R CONJ worry there  
 ‘What do you go and worry about there?’.
- (N148) *yóò Nzàmbí wà núú niyé*  
 yóò Nzàmbí wà núú niyε  
 so Ø1.PN 1:ATT 1.DEM.DIST return  
 ‘So that Nzambi returns [and goes to the family of the Nzambi who has eaten his child].’
- (N149) *ékè Nzàmbí wà nû áà sàlé bè nà bâ línáá*  
 ékè Nzàmbí wà nû áà sàlé bè nà bâ líní  
 EXCL Ø1.PN 1:ATT 1.DEM.DIST 1.PST2 NEG.PST be COM Ø7.word when  
*pámò*  
 a-H pámo  
 1-PRS arrive  
 ‘Oh! That Nzambi had no words as soon as he arrived [he went mad].’

- (N150) *nyè nâ álè*  
*nye nà álé*  
 1.SBJ COMP go[French]  
 'He [says]: "Ok [French: *Allez!*]'.
- (N151) *nyáà ngà sîlé nyî ndáwò dé tù*  
*nyáà ngà sîlé-H nyî ndáwò dé tù*  
 shit.IMP PL finish-R enter Ø9.house LOC inside  
 'Piss off [talking to the other Nzambi's family], everybody go into the house!'
- (N152) *sîlê ngà nyî vâ*  
*sîlê ngà nyî vâ*  
 finish.IMP PL enter here  
 'Enter all here':
- (N153) *á lúndélé bô lèkâá lé ndáwò nyî nâ béè*  
*a-H lúndelé-H b-å le-kåá lé ndáwò nyî nâ béè*  
 1-PRS fill-R 2-OBJ le5-kind 5:ATT Ø9.house 9.DEM.PROX COMP be.SBJV  
*vyâ*  
*vyâ*  
 full  
 'He fills them in this kind of house so that it [house] be full.'
- (N154) *áà sîlé kë nà dvùwò dyúwò*  
*áà sîlé-H kë nà dvùwò-H dyúwò*  
 1.PST2 finish-R go CONJ stuff-R Ø7.top  
 'He has gone and stuffed the top [with straw]',
- (N155) *nâ tâ*  
*nâ tâ*  
 COMP tight  
 'tight.'
- (N156) *yóò Nzàmbí dígé mísi é mpù*  
*yóò Nzàmbí dígé-H m-ísì é mpù*  
 so Ø1.PN look-R ma6-eye LOC like.this  
 'So Nzambi looks with the eyes like this [speaker imitated Nzambi how he is visually checking the house].'

## B Texts

- (N157) *nzá nzíí m̄e nȳé*  
*nzá nzíí m̄e nȳé*  
 who PROG.PRS 1SG.OBJ see  
 ‘Who is seeing me?’
- (N158) *ah mbúmbù w̄e w̄é télé núnđè*  
*ah mbúmbù w̄e w̄e-H téle-H núnđè*  
 EXCL Ø1.namesake 2SG.SBJ 2SG-PRS stand-R 1-ANA  
 ‘Ah namesake, is it you who is standing there?’
- (N159) *nyàá jìwò jìwò jìwò w̄e*  
*nyàá-H jìwò jìwò jìwò w̄e*  
 shit-R close close close 2SG  
 ‘Shit, close, close, close you!’
- (N160) *nà mùdâ w̄òj w̄éè bésè báà tû wû*  
*nà m-ùdâ w̄òj w̄éè b-ésè báà tû wû*  
 COM N1-woman 1-POSS.2SG EXCL 2-all 2.COP inside there  
 ‘With your wife, so all are inside there’.
- (N161) *lígè sâ Nzàmbí nyè médé*  
*lige sâ Nzàmbí nyè médé*  
 stay only Ø1.PN 1.SBJ self  
 ‘Only Nzambi [the victim of the revenge] himself stays [outside].’
- (N162) *yóò Nzàmbí sá mpù*  
*yóò Nzàmbí sâ-H mpù*  
 so Ø1.PN do-R like.this  
 ‘So Nzambi does like this.’
- (N163) *à k̄éé nyî pè dyúwò à dígéé à díg-â*  
*a k̄éé nyî pè dyúwò a dígéé a díg-éé*  
 1.PST1 go.COMPL enter there on.top 1.PST1 watch.COMPL 1.PST1 watch.COMPL  
*dígéé*  
*a dígéé*  
 1.PST1 watch.COMPL  
 ‘He went inside there on top and watched and watched and watched.’
- (N164) *kì nâ nzá nyé m̄e*  
*kì nâ nzá nyé-H m̄e*  
 say COMP who see-R 1SG.OBJ  
 ‘[He] says: “Who sees me?”’

- (N165) *yá nyé-lé yá nyé-lé wóò*  
 ya-H nyé-lé ya-H nyé-lé wóò  
 1PL-PRS see-NEG 1PL-PRS see-NEG 2SG.OBJ[Kwasio]  
 ‘We don’t see, we don’t see you’?
- (N166) *nyè nâ àwâ*  
 nyε nâ àwâ  
 1.SBJ COMP thanks  
 ‘He [says]: “Thanks”’
- (N167) *nyàá sùbò èsâs é dyúwò*  
 nyàá sùbò èsâs é dyúwò  
 1.INCH pour Ø1.fuel LOC Ø7.top  
 ‘He starts pouring fuel on top.’
- (N168) *wùùùù wùùùù*  
 wùùùù wùùùù  
 IDEO:pouring IDEO:pouring  
 ‘[depiction of pouring].’
- (N169) *álè*  
 álè  
 ok[French]  
 ‘Ok [French: *Allez*],’
- (N170) *kóò nòò brikê wê*  
 kóò nòò brikê w-ê  
 SEQU take Ø1.lighter[French] 1-POSS.3SG  
 ‘then takes his lighter,’
- (N171) *vèè bédè*  
 vèè béde  
 only light  
 ‘just lighting [the house].’
- (N172) *tèèè uf*  
 tèèè uf  
 IDEO:waiting IDEO:ignition  
 ‘[depiction of waiting and then the flame].’
- (N173) *mùdì kí tátò wúó*  
 m-ùdì kí tátò wú-o-H  
 N1-person NEG.IMP scream there-VOC-DIST  
 ‘Nobody scream over there!’

B Texts

- (N174) áá nyáò                    áá tágò  
       áá nyá-ò                    áá tá-ò  
     EXCL N1-mother-VOC EXCL N1-father-VOC  
     “Oh mother, oh father!”:
- (N175) nâ wòm                    mùdì                    nûú                    jí                    nâ wòm  
       nâ wòm                    m-ùdì                    nûú                    jì-H                    nâ wòm  
     COMP IDEO:silence N1-person 1.DEM.DIST stay-R COMP IDEO:silence  
     “Be there silence, that person stay silent!”
- (N176) màà                    mâ  
       m-àà                    mâ  
     ma6-thing 6.DEM.PROX  
     ‘These things. . .’
- (N177) é mùdì                    nôgá                    nûú                    lígé                    vâ  
       é m-ùdì                    nô-gá                    nûú                    lígé-H                    vâ  
     LOC N1-person 1-other 1.DEM.PROX stay-R here  
     ‘Is there any person left here?’:
- (N178) lèkfúdè  
       le-kfúdè  
     le5-idiot  
     ‘Idiot!’
- (N179) à bwàá yéé ké jí mpù  
       a bwàà-H yéé kè-H jì mpù  
     1 have-R then? go-R stay like.this  
     ‘He [the other Nzambi] has gone and stood like this.’
- (N180) nyè nâ mèé                    bélé                    wû  
       nye nâ mèé                    bë-lë                    wû  
     1.SBJ COMP 1SG.PRS.NEG be-NEG there  
     ‘He: “I’m not there”:

Nze:

- (N181) yà!  
       yà  
     yes[German]  
     ‘Yes!’

Tata:

- (N182) *mìntángáné mí múà vìdègà dé*  
 mi-ntángáné mi-H múà vìdèga dé  
 mi4-white.person 4-PRS be.almost turn LOC  
 'They are about to turn into white people.'
- (N183) *bò mpòngò sílēé*  
 bò mpòngò sílēé  
 Ok[French] Ø7.generation finish.COMPL  
 'Ok, the generation has been wiped out,'
- (N184) *nà béè bànáyêyê*  
 nà béè ba-náyêyê  
 CONJ 2PL.COP ba2-bleached.out  
 'and you are bleached out [white].'
- (N185) *é mpù mbúmbù núú láá mê nâ*  
 é mpù mbúmbù núú láà-H mê nâ  
 LOC like.this Ø1.namesake 1.DEM.DIST tell-R 1SG.OBJ COMP  
 'Like this, that namesake tells me that,'
- (N186) *báà sâ nâ lèfû lèvúdû*  
 báà sâ nâ le-fû lè-vúdû  
 2.FUT do COMP le5-day 5-one  
 'they will make that one day,'
- (N187) *báà dyâ wû*  
 báà dyâ wû  
 2.FUT sleep there  
 'they will sleep there.'
- (N188) *wé dyúwó mpù bàmìntùlè bógá bá tsígè tsùk-tsùk-tsùk*  
 wε-H dyúwɔ-H mpù ba-mìntùlè bó-gá ba-H tsíge tsùk-tsùk-tsùk  
 2SG-PRS hear-R like.this ba2-mouse 2-other 2-PRS take.off IDEO:rustling  
 'You hear how the mice take off [depiction of noise of mice].'
- (N189) *àà nàménó bwáà dè nàménó*  
 àà nàménó bwáà dè nàménó  
 EXCL tomorrow 2PL.FUT eat tomorrow  
 "Ah, tomorrow you will eat [speaking to the mice], tomorrow."
- (N190) *bwáà pää ngâ dyà nà pówàlà wû*  
 bwáà pää ngâ dyà nà pówàlà wû  
 2PL.FUT do.first PL sleep COM Ø7.calm there  
 'You [the mice] will first sleep quietly there.'

B *Texts*

- (N191) *bé dúú vùù*  
 be-H dúu-H vùù  
 2PL-PRS must.not-R worry  
 ‘Don’t worry.’

(N192) *bèdewò bíné mè nzíí byô gyámbò*  
 be-déwò b-íné mè nzíí by-ô gyámbò  
 be8-food 8-POSS.2PL 1SG PROG.PRS 8-OBJ prepare  
 ‘Your food, I am preparing it’.

Nze:

- (N193) *yééééé*  
*yéééééé*  
EXCL  
['sound of disappreciation']!

Tata:

- (N194) *wùf-wùf*  
*wùf-wùf*  
IDEO:pitter-patter  
['depiction of sound when mice are walking.]'

(N195) *bàmintùlè bá lèmbó nâ màmbò má bvùlé*  
ba-mìntùlè ba-H lèmbo-H nâ m-àmbò má bvùlé  
ba2-mouse 2-PRS know-R COMP ma6-thing 6:ATT Ø8.night  
'The mice know that these are things of the night.'

(N196) *bá múà gyésò bédéwò byáwó*  
ba-H múà gyésò H-be-déwò by-áwó  
2-PRS be.almost search OBJ.LINK-be8-food 8-POSS.3PL  
'They are about to look for their food.'

(N197) *ùwù-ùwù bàmintùlè báà wû*  
ùwù-ùwù ba-mìntùlè báà wû  
IDEO:rustling ba2-mouse 2.COP there  
['depiction of sound of mice] The mice are there.'

(N198) *Nzàmbí nzí kàmbò*  
Nzàmbí nzí kàmbò  
Ø1.PN PROG.PST defend  
'Nzambi was defending [the house, in vain].'

- (N199) àá bámálá tóbá mpfùmò nà pámò ménó  
 àá bámala-H tóbá mpfùmò nà pámo ménó  
 1.INCH scold-R since Ø3.midnight CONJ arrive Ø7.morning  
 'He is starting to scold from midnight until the morning.'
- (N200) à téle sâ déndì témó  
 a téle-H sâ d-éndì témó  
 1.PST1 stand-R only le5-courtyard middle  
 'He just stood in the middle of the courtyard.'
- (N201) ménó wèè nyê nâ mbúmbù nzíi kì nâ  
 ménó wèè nyê nâ mbúmbù nzíi kì nâ  
 Ø7.morning 2SG.FUT see COMP Ø1.namesake PROG.PRS say COMP  
 'In the morning you will see that namesake is saying that,'
- (N202) bímbú lékáá lé wùlà yá Nadine ló sémbò vâ  
 bímbú le-káá lé wùlà yá Nadine ló sémbò vâ  
 Ø7.amount le5-kind 5:ATT Ø7.time 7:ATT Ø1.PN RETRO arrive here  
 'the amount of time that Nadine just arrived here, [when Nadine just arrived here]'
- (N203) Nzàmbí vèèké yóò mbè  
 Nzàmbí vèèké yóò mbè  
 Ø1.PN go[Bulu] open[Bulu] Ø3.door  
 'Nzambi just goes open the door'

Mambi:

- (N204) vèè vèè vèè kíngèlè kíngèlè kíngèlè  
 vèè vèè vèè vèè kíngelè kíngelè kíngelè  
 only only only only become.stiff become.stiff become.stiff  
 'Only, only, only, only stiff, stiff, stiff.'

Tata:

- (N205) bènké'é  
 be-nké'é  
 be8-scream  
 'Screams.'
- (N206) Nzàmbí nké'é yá Nzàmbí nûú vè vâ  
 Nzàmbí nké'é yá Nzàmbí nûú vè vâ  
 Ø1.PN Ø7.scream 7:ATT Ø1.PN 1.DEM.PROX give here  
 'Nzambi, the scream that Nzambi gave here.'

## B Texts

- (N207) à nzíí      kìyà nké'é  
       a nzíí      kiya nké'é  
       1 PROG.PRS give Ø7.scream  
       'He is screaming.'
- (N208) ká      á      dígé      nâ      [gesture] á      nyé      mbúmbù      wéé  
       ká      a-H      dígé-H nâ      [gesture] a-H      nyé-H mbúmbù      w-é  
       when 1-PRS look-R COMP [gesture] 1-PRS see-R Ø1.namesake 1-POSS.3SG  
       á      pámò  
       a-H      pámo  
       1-PRS arrive  
       'When he looks like [gesture], he sees his namesake who arrives.'

Aminu:

- (N209) mbúmbù      wà      lèbó'ò  
       mbúmbù      wà      le-bó'ò  
       Ø1.namesake 1:ATT le5-breadfruit  
       'The namesake of the breadfruit.'

Tata:

- (N210) àá      à      pámoo'ò  
       àá      a      pámoo'ò  
       EXCL 1.PST1 arrive.COMPL  
       'Yes, he has arrived,'
- (N211) wà      máléndí  
       wà      ma-léndí  
       1:ATT ma6-palm.tree  
       'of the palm trees.'
- (N212) yóò á      sémbò  
       yóò a-H      sémbò  
       so 1-PRS arrive  
       'So he arrives.'
- (N213) mbúmbù      é      ná  
       mbúmbù      é      ná  
       Ø1.namesake LOC how  
       'Namesake, how is it?'

- (N214) *mbúmbù lèbvúú léè nlémò dé*  
 mbúmbù le-bvúú léè nlémò dé  
 N1.namesake le5-anger 5.COP Ø3.heart LOC  
 ‘The namesake is angry [lit. has anger in his heart].’
- (N215) *mèé lémbo-lè báss̩ bɔ́ò é mpù báà*  
 mèé lémbo-lè báss̩ b-ɔ́ò é mpù báà  
 1SG.PRS.NEG know-NEG ba2-father 2-POSS.2SG LOC like.this 2.COP  
 ‘I don’t know how your fathers are.’
- (N216) *mèé lémbo-lè é mpù báà ndáwɔ́ dé tù déné*  
 mèé lémbo-lè é mpù báà ndáwɔ́ dé tù déné  
 1SG.PRS.NEG know-NEG LOC like.this 2.COP Ø9.house LOC inside today[Bulu]  
 ‘I don’t know how they are in the house today’.

Ada:

- (N217) *nâ wè sîlēé nyàà dyùù mpɔngɔ́ yá bùdì*  
 nâ wè sîlēé nyàà dyùù mpɔngɔ́ yá b-ùdì  
 COMP 2SG.PST1 finish.COMPL shit kill Ø7.generation 7:ATT ba2-person  
 ‘That you have completely killed a generation of people!’

Tata:

- (N218) *bá ló sâ ná*  
 ba-H ló sâ ná  
 2-PRS RETRO do how  
 ‘How did they do [that]?’
- (N219) *bùdì bá sîlēé mê wè ndáwɔ́ tù vâ*  
 b-ùdì ba sîlēé mê wè ndáwɔ́ tù vâ  
 ba2-person 2.PST1 finish.COMPL 1SG.OBJ die Ø9.house inside here  
 ‘The people have all died here inside the house.’
- (N220) *é mpù wè nzí mê láà*  
 é mpù wè nzí mê láà  
 LOC like.this 2SG PROG.PST 1SG.OBJ tell  
 ‘You were telling me like this.’
- (N221) *kánâ mè kòbé ndáà tsì*  
 kánâ mè kòbé-H ndáà tsì  
 or 1SG.PST1 break-R also Ø7.interdiction  
 ‘Or I also broke the prohibition,’

## B Texts

- (N222) *mèé*            *lémbolé*  
             mèé            lémbo-lε  
             1SG.PRS.NEG know-NEG  
             ‘I don’t know’:
- (N223) *yóò Nzàmbí kí nâ mbúmbù*  
             yóò Nzàmbí kì-H nâ mbúmbù  
             so Ø1.PN say-R COMP Ø1.namesake  
             ‘So Nzambi says: “Namesake,’
- (N224) *jíi sí vâ*  
             jíi        sí        vâ  
             sit.IMP down here  
             ‘sit down here’:
- (N225) *nóò*  
             nóò  
             EXCL  
             ‘No!’
- (N226) *béè bùdì bá vúdû ndí bwáá gyésò mápè’è*  
             béè    b-ùdì    bá    vúdû ndí bwáa-H gyésò-H H-ma-pè’è  
             2PL.COP ba2-person 2:ATT one    but 2PL-PRS search-R OBJ.LINK-ma6-wisdom  
             ‘You are the same people, but you are looking for wisdom.’

Aminu:

- (N227) *èhê*  
             èhê  
             EXCL  
             ‘Exactly!’

Tata:

- (N228) *wé lèmbôò sâ bányá mambò nâ ká*  
             wε    lèmbôò    sâ H-ba-nyá    m-àmbò    nâ    ká  
             2SG.PST1 know.COMPL do OBJ.LINK-ba2-important ma6-thing COMP if  
             *mé lúmɔ́ wê nláà nâ*  
             mε-H lúmɔ́-H wε nláà nâ  
             1SG-PRS send-R 2SG.OBJ Ø3.message COMP  
             ‘You know to do the important things that if I send you the message  
             that,’

- (N229) *mbúmbù kòlē m̩*  
 mbúmbù kòlē m̩  
 Ø1.namesake, help.IMP 1SG.OBJ  
 'namesake, help me,'
- (N230) *é tè wègà wé njí sâ*  
 é tè wè-gà wé-H njí-H sâ  
 LOC there 2SG.SBJ-CONTR 2SG-PRS come-R do  
 'and there you, you come to make,'
- (N231) *mbvúndá é ndzí vâ*  
 mbvúndá é ndzí vâ  
 Ø9.trouble LOC Ø9.path here  
 'trouble on the way here.'
- (N232) *ndí wé lèmbó nâ mbvúndá nyîi bvúdà nà mbvúndá*  
 ndí wé-H lèmbo-H nâ mbvúndá nyîi bvúda nà mbvúndá  
 but 2SG-PRS know-R COMP Ø9.trouble 9.FUT fight COM Ø9.trouble  
 'But you know that violence will create more violence'.
- (N233) *Nzàmbí wà nû kô kiyà léwê*  
 Nzàmbí wà nû kô kiyà H-le-wê  
 Ø1.PN 1:ATT 1.DEM.PROX only give OBJ.LINK-le5-cry  
 'This Nzambi only gives a cry.'
- (N234) *bààm*  
 bààm  
 IDEO:finishing  
 '[finish].'
- (N235) *Nzàmbí gyîi*  
 Nzàmbí gyîi  
 Ø1.PN cry.COMPL  
 'Nzambi has cried.'
- (N236) *à gyîi*  
 a gyîi  
 1.PST1 cry.COMPL  
 'He has cried.'
- (N237) *lèkfûdè à nzí bîyò nlô péé*  
 le-kfûdè a nzí bîyò nlô pé-é  
 le5-idiot 1 PROG.PST hit Ø3.head there-DIST  
 'The idiot was hitting his head there.'

## B Texts

- (N238) áà      bé      à      bó      nà      màbádò      nyúlè  
 áà      bè-H a      bô-H nà      ma-bádò      nyúlè  
 1.PST2 be-R 1.PST1 lie-R COM ma6-open.wound Ø9.body  
 ‘He was being lying with open wounds on the body.’
- (N239) nyè      nâ      yáà      mé      láà  
 nyε nâ      yáà      mε-H      láà  
 1.SBJ COMP yes[German] 1SG-PRS say  
 ‘He [says]: “Yes, I say”’
- (N240) nâ      sá      wé      sá      nógá      mùdì  
 nâ      sá      we-H      sâ-H nó-gá      m-ùdì  
 COMP Ø7.thing 2SG-PRS do-R 1-other N1-person  
 ‘the thing that you do to another person,’
- (N241) àà      yŷ      wê      nyè  
 àà      y-ŷ      wê      nyè  
 1.FUT 7-OBJ 2SG return  
 ‘he will return to you’.
- (N242) yóò Nzàmbí wà      nû  
 yóò Nzàmbí wà      nû  
 so Ø1.PN 1:ATT 1.DEM.PROX  
 ‘So this Nzambi,’
- (N243) sá      á      sá      nónégá  
 sá      a-H      sâ-H n-ónégá  
 Ø7.thing 1-PRS do-R 1-other  
 ‘the thing that he does to the other,’
- (N244) yóò nyègà      á      nyé      nyê  
 yóò nyè-gà      a-H      nyè-H      nyê  
 so 1.SBJ-CONTR 1-PRS return-R 1.OBJ  
 ‘so the other returns [it] to him,’
- (N245) ngvündò      nyà      tè  
 ngvündò      nyà      tè  
 Ø9.vengeance 9:ATT there  
 ‘that vengeance.’
- (N246) é      vâ      màliyò      má      fúgè  
 é      vâ      ma-líyò      ma-H fúgε  
 LOC here ma6-clearing 6-PRS end  
 ‘Here, the killing [lit. clearing] ends.’

- (N247) é vâ mákwlò má fúgè  
é vâ ma-kwélò ma-H fúgε  
LOC here ma6-felling 6-PRS end  
‘Here, the massacre [lit. felling] ends,’
- (N248) vèè vâ  
vèè vâ  
only here  
‘only here.’
- (N249) kàndá wé ndè  
kàndá wé ndè  
Ø7.proverb ID ANA  
‘This is the story.’
- (N250) bàmpámbó bá líyè líyè  
ba-mpámbó ba-H líyε líyε  
ba2-ancestor 2-PRS leave leave  
‘The ancestors leave [the story to us],’
- (N251) nâ yá tâåtâ békàndá bér tè  
nâ ya-H tâå-tâ H-be-kàndá bér tè  
COMP 1PL-PRS tell-tell.SBJV OBJ.LINK-be8-proverbs 8:ATT there  
‘so that we tell the stories there.’
- (N252) byô wé bíndè  
by-ó wé bí-ndè  
8-OBJ ID 8-ANA  
‘That’s them.’
- (N253) byô bér vé bii màpè’è  
by-ô be-H vè-H bii ma-pè’è  
8-OBJ 8-PRS give-R 1PL.OBJ ma6-wisdom  
‘They give us wisdom.’

Aminu:

- (N254) ká kééssó yí wúmbé wê dyòdè  
ká kééssó yi-H wúmbε-H wê dyòdε  
if Ø7.égal 7-PRS want-R 2SG.OBJ deceive  
‘If somebody wants to deceive you,’

*B Texts*

- (N255) *wé kílɔwò*  
wε-H kílɔwɔ  
2SG-PRS be.vigilant  
'you are vigilant.'
- (N256) *wé kí nâ éy*  
wε-H kì-H nâ éy  
2SG-PRS say-R COMP EXCL  
'You say: "Hey!"'.

Djiedjhie:

- (N257) *yí bálé gyà*  
yi-H bále-H gyà  
7-PRS surpass-R Ø7.length  
'This is too long.'

### B.3 Conversation in the village Ngolo

This text is a guided conversation between several speakers in the village Ngolo. It was recorded on video in May 2011 and is the first official conversation the DoBeS team had with the Bagyeli in Ngolo. First, the chief Nze introduces himself and the village and states that they wish to have tin roofs instead of raffia roofs. He further complains that people from NGOs come and go, but that they are not really helpful. Occasionally, Nze is interrupted by Severin in Ngumba (northern Kwasio dialect) who serves as an interpreter and loosely guides the conversation. The topic then shifts to the construction of the port and its impact on the people of Ngolo, who fear that roads will be built and, as a consequence, their houses and plants will be destroyed. After Nze talks about his plans to move to his former settlement further in the forest, Severin encourages Mambi (a young man in his early twenties) to talk about himself. Mambi explains the problems they encounter with their Bulu neighbors. According to him, the Bulu contest their land rights, quarrel about money with them and threaten them with physical violence. Nze shortly talks about his marital status, i.e. that he is married and has two children before Mambi continues about their wish to obtain electricity in the village. The third speaker in the conversation is Mama, about 17 years old, who introduces himself as an orphan, having lost his father while his mother lives in another village. Then, Mambi and Nze talk again about the future of their village, their desire to obtain tin-roofed houses, and the problems with the Bulu.

Nze:

- (C1) *mé wúmbé léè nà bɔ*  
       me-H wúmbé-H léè              nà bɔ  
       1SG-PRS want-R talk[Kwasio] COM 2.OBJ  
       'I want to talk with them.'
- (C2) *yí ntégèlè ò dyúwó mɔ*  
       yi-H ntégele ɔ              dyúwɔ-H mɔ  
       7-PRS disturb 2SG[Kwasio] hear-R COMPL  
       'It disturbs, have you understood?'
- (C3) *yí ntégèlè vèdáà mé sùmbélè bê*  
       yi-H ntégele vèdáà me-H sùmbelé-H bê  
       7-PRS disturb but[Bulu] 1SG-PRS greet[Kwasio]-R 2PL.OBJ  
       'That disturbs, but I greet you.'

## B Texts

- (C4) *mé sùmélé bê ndènáà*  
       me-H sùmélε-H bê      ndènáà  
       1SG-PRS greet-R 2PL.OBJ like.that  
       'I greet you like this.'
- (C5) *jínò lé kwàdò yâ yî Ngòló*  
       j-ínò    lé    kwàdò    y-â    yî    Ngòló  
       le5-name 5:ATT Ø7.village 7-POSS.1SG 7.COP Ø3.PN  
       'The name of my village is Ngolo.'
- (C6) *pándè té nà té mè jínò ná Nzè*  
       pándε té        nà    té        mε j-ínò    ná    Nzè  
       arrive Ø7.position CONJ Ø7.position 1SG le5-name SIM Ø1.PN  
       'Having arrived immediately, my name is Nze.'
- (C7) *kfúmà wà Nkóólóng*  
       kfúmà wà Nkóólóng  
       Ø1.chief 1:ATT Ø3.PN [Bulu]  
       'The chief of Ngolo [uses exonym].'
- (C8) *kfúmà wà Nkóólóng Nzè*  
       kfúmà wà Nkóólóng Nzè  
       Ø1.chief 1:ATT Ø3.PN [Bulu] Ø1.PN  
       'The chief of Ngolo, Nze.'

Mambi:

- (C9) *nyè wé nû*  
       nyε wé nû  
       1.SBJ ID 1.DEM.PROX  
       'This is him [Nze].'
- (C10) *á páàngó tálè sílè mè nzíí ná kè*  
       a-H páàngo-H        tálε sílε mε nzíí    ná    kè  
       1-PRS do.first[Kwasio]-R begin finish 1SG PROG.PRS again go  
       'He starts first to finish [speaking], I'm continuing again [will then speak].'

Nze:

- (C11) *áà mè nzíí ná làwò ná*  
       áà mε nzíí        ná làwɔ ná  
       yes 1SG PROG.PRS still talk still  
       'Yes, I am still talking.'

- (C12) *gyí bí yá tfúgà yá tfúgá nà gyí*  
 gyí bí ya-H tfúga ya-H tfúga-H nà gyí  
 what 1PL.SBJ 1PL-PRS suffer 1PL-PRS suffer-R COM what  
 'What do we suffer, we suffer from what?'
- (C13) *yá tfúgá nà ngùndyá mpángì*  
 ya-H tfúga-H nà ngùndyá mpángì  
 1PL-PRS suffer-R COM Ø9.raffia Ø7.bamboo  
 'We suffer from the straw, the bamboo.'
- (C14) *ká yí nyí mē mbò mpángì yí kùgá nà*  
 ká yi-H nyí-H mē m-bò mpángì yi-H kùga-H nà  
 when 7-PRS enter-R 1SG.OBJ N3-arm Ø7.bamboo 7-PRS can-R COMP  
*nyii wè mbò*  
 nyii wé m-bò  
 enter.SBJV 2SG N3-arm  
 'When it goes into my arm . . . the bamboo can sting your arm.'
- (C15) *yáà fúala bígè yŷ yá v̄é*  
 yáà fúala bígè yŷ yá v̄é  
 1PL.FUT end develop Ø7.time[Bulu] 7:ATT which  
 'When will we end up developing?'
- (C16) *yá vyáâ kë nà kwâ mángùndyá wè nà ngvùlè*  
 ya-H vyáâ-H kë nà kwâ H-ma-ngùndyá wé nà ngvùlè  
 1PL-PRS do.but-H go CONJ cut OBJ.LINK-ma6-raffia 2SG COM Ø9.strength  
*kë sólègà wû nà njí kù é sì*  
 kë sólègà wû nà njí-H kù é sì  
 go fall there COM come-R fall[Kwasio] LOC Ø9.ground  
 'We do nothing but go and cut raffia, you are strong to go [and climb a raffia palm tree], tumbling and falling to the ground there.'
- (C17) *mé bvú nà nkwalá wúù tfündé mē vâ*  
 mē-H bvú-H nà nkwalá wúù tfündé-H mē vâ  
 1SG-PRS think-R COMP Ø3.machete 3.PST2 miss-R 1SG.OBJ here  
 'I think that the machete had injured [missed to seriously harm] me here.'
- (C18) *ngùndyá mē ké sólègà ngùndyá dyúwò*  
 ngùndyá mē-H kē-H sólègà ngùndyá dyúwò  
 Ø9.raffia 1SG-PRS go-R chop Ø9.raffia on.top  
 'The raffia, I go to chop the raffia on top.'

## B Texts

- (C19) áá bîi màndáwò má zì yáà mɔ fúàlà bwê  
 áá bîi ma-ndáwò má zì yáà m-ó fúala bwê  
 EXCL 1PL.OBJ ma6-house 6:ATT Ø7.tin[Bulu] 1PL.FUT 6-OBJ end receive  
 lèwùlà lé vé  
 le-wùlà lé vé  
 le5-hour 5:ATT which  
 ‘Ah, us, tin houses, when will we receive them?’
- (C20) mà bé vé  
 ma bë-H vé  
 6.PST1 be-R where  
 ‘Where were they?’
- (C21) mé bvú nâ bàmó tè yɔɔ wé yî  
 me-H bvû-H nâ bàmó tè y-ɔɔ wé yî  
 1SG-PRS think-R COMP Ø7.scar there 7-OBJ ID 7.DEM.PROX  
 ‘I think, the scar there is this.’
- (C22) bwà nzíí kàlànè  
 bwa nzíí kàlane  
 2PL PROG.PRS transmit  
 ‘Are you translating?’
- (C23) yá ló fúàlà nà mè ló làwɔ  
 ya-H ló fúala nà me ló làwɔ  
 1PL-PRS RETRO end CONJ 1SG RETRO talk  
 ‘We just finished and I just spoke.’
- (C24) nlâ wá zì ndáwò nyà zì nyii mè vé  
 nlâ wá zì ndáwò nyà zì nyii mè vé  
 Ø3.story 3:ATT Ø7.tin Ø9.house 9:ATT tin 9.COP 1SG.OBJ where  
 ‘The problem with the tin, where is the tin (roofed) house for me?’
- (C25) fámí wâ nyèngwésè nâ á bígéè  
 fámí w-â nyè-ngwésè nâ a-H bígéè  
 Ø1.family 1-POSS.1SG 9-entire COMP 1-PRS develop.SBJV  
 ‘My whole family, may it develop.’
- (C26) wúù vé  
 wúù vé  
 3.COP where  
 ‘Where is it [the story of the tin]?’

- (C27) *Nkóòlòng nâ wú bígéè*  
 Nkóòlòng nâ wu-H bígéè  
 Ø3.PN [Bulu] COMP 3-PRS develop.SBJV  
 'Nko'olong [name of the village], may it develop.'
- (C28) *ðbâj ðbâj ðbâj*  
 [straw straw straw]Bulu  
 'Straw, straw, straw.'
- (C29) *mé ngà ké sótàn èlè yóβètè*  
 [1SG build go jump tree top]Bulu  
 'I build and jump up on the tree.'
- (C30) *fá à ngà bálè màvá*  
 [machete 3SG 1SG hurt here]Bulu  
 'The machete injured me here.'
- (C31) *yóò mé wúmbé mándáwò má zì má*  
 yóò mε-H wúmbε-H H-ma-ndáwò má zì ma-H  
 so 1SG-PRS want-R OBJ.LINK-ma6-house 6:ATT Ø7.tin 6-PRS  
*téwóò mē vâ ndá zì*  
 téwòò mε vâ ndá zì  
 put.SBJV 1SG.OBJ here ATT[Bulu] Ø7.tin[Bulu]  
 'So I want tin (roofed) houses that they be put here for me, of tin.'
- (C32) *má kì má yáné bî ndà zì jálé tèvá*  
 [1SG too 1SG have houses ATT tin village ATT here]Bulu  
 'Me too, I have tin (roofed) houses in the village here.'

Severin:

- (C33) *làwô bágylì*  
 làwô H-ba-gy়লি  
 speak.IMP OBJ.LINK-2-Gyeli  
 'Speak Gyeli!'

Nze:

- (C34) *mé làwó náà màndáwò má zì má kùgáà*  
 mε-H làwɔ-H nâ ma-ndáwò má zì ma-H kùgáà  
 1SG-PRS say-R COMP ma6-house 6:ATT Ø7.tin 6-PRS be.enough.SBJV

- m̄ê      vâ*  
*mε      vâ*  
 1SG.OBJ here  
 'I say that there should be enough tin (roofed) houses here for me.'
- (C35) *bàgyèli    bá    s̄ó    bá    s̄ilé̄é̄    bígè*  
 ba-gyèli bá s̄ó ba s̄ilé̄é̄ bígè  
 2-Gyeli 2:ATT Ø1.friend 2.PST1 finish.COMPL develop  
 'The fellow Bagyeli have already all developed.'
- (C36) *bí    b̄ò    yá    bígé    mpá'à    wá    v̄é*  
 bí b̄ò ya-H bígé-H mpá'à wá v̄é  
 1PL.SBJ 2-other 1PL-PRS develop-R Ø3.side 3:ATT which  
 'How will we others develop?'
- (C37) *mé    ké    dvùm̄ò nkùndyá dyúwò*  
 mε-H kè-H dvùm̄ò nkùndyá dyúwò  
 1SG-PRS go-R fall Ø9.raffia on.top  
 'I go fall from the raffia palm up there,'
- (C38) *kè kwâ ngùndyá mbvúò nzíí    n̄ò*  
 kè kwâ ngùndyá mbvúò nzíí n̄ò  
 go cut Ø9.raffia Ø1.rain PROG.PRS rain  
 'going cutting the raffia when it's raining.'
- (C39) *ngà    wé    nyé    nȳé*  
 ngà wε-H nȳé-H nȳé  
 Q(tag) 2SG-PRS see-R see  
 'Right, you see [that] often.'
- (C40) *ngùndyá tè    nyó    bé    nyî*  
 ngùndyá tè nyó bē-H nyî  
 Ø9.raffia there 9-OBJ be-R 9.DEM.PROX  
 'The raffia there, that is it.'
- (C41) *ndí m̄e    m̄e    yá    bá    fámí    wâ    yáà    bígè    ȳɔ̄ɔ̄*  
 ndí mε mε ya bà fámí w-â yáà bígè ȳɔ̄ɔ̄  
 but 1SG 1SG 1PL AP Ø1.family 1-POSS.1SG 1PL.FUT develop Ø7.time[Bulu]  
*yá    v̄é    é    yâ    kwád̄s    nâ    yî    vâáḡò*  
 yá v̄é é y-â kwád̄s nâ yî vâáḡò  
 7:ATT which LOC 7-POSS.1SG Ø7.village COMP 7.COP animated  
 'But I, I, we, my family, when will we develop, so my part of the village  
 be lively?'

- (C42) *mè bé ngyé̂ Ngvùmbò*  
 mε bè-H n-gyé̂ Ngvùmbò  
 1SG.PST1 be-R N1-guest Ø1.PN  
 'I was a guest of the Ngumba.'
- (C43) *mè nyé kwádó yí Kúndúkùndù*  
 mε nyé̂-H kwádó yí Kúndúkùndù  
 1SG.PST1 see-R Ø7.village 7.DEM.PROX Ø7.PN  
 'I saw this village, Kundukundu.'
- (C44) *vèè mändáwò má zì mò nà mò*  
 vèè ma-ndáwò má zì m-ó nà m-ó  
 only ma6-house 6:ATT Ø7.tin 6-OBJ COM 6-OBJ  
 'Only tin (roofed) houses, each of them.'
- (C45) *mègà éè yâ kwádó yógà*  
 mè-gà éè y-â kwádó y-ó-gà  
 1SG.SBJ-CONTR EXCL 7-POSS.1SG Ø7.village 7-OBJ-CONTR  
 'As for me, right, my [part of the] village too!'
- (C46) *wègà wè njí dyòdè bùdì*  
 wè-gà wε njí-H dyòdε b-ùdì  
 2SG.SBJ-CONTR 2SG.PST1 come-R deceive ba2-person  
 'As for you, you came to deceive people.'
- (C47) *mínò má bùdì mà kéé̂ máà vé*  
 m-ínò má b-ùdì mà kéé̂ máà vé  
 ma6-name 6:ATT ba2-person 6.PST1 go.COMPL 6.COP where  
 'The people's names have gone, where are they? [strangers come once, but do not return again].'
- (C48) *lèbvúú lé tè lóò yá bùdé lê*  
 le-bvúú lé tè lóò ya-H bùdε-H lê  
 le5-anger 5:ATT there 5.COP 1PL-PRS have-R 5.DEM.PROX  
 'The anger there it is that which we have.'
- (C49) *vèè náménó náménó nà pámò dè*  
 vèè náménó náménó nà pámō dè  
 only tomorrow tomorrow COM arrive today  
 'Only tomorrow, tomorrow, until today. [only heard promises, but never any actions]'

Severin in Ngumba:

## B Texts

- (C50) *bùrè bvùbvù bósí nzì wâ*  
 people many 2 PROG come here  
 ‘Are many people coming here?’

Nze:

- (C51) *éè bvùbvù pílì mè láwò mpù mèé válé*  
 éè bvùbvù pilì mε-H làwɔ-H mpù mèé vá-lé  
 yes many when 1SG-PRS speak-R like.this 1SG.PRS.NEG tolerate-NEG  
*láwò*  
*láwò*  
 speak  
 ‘Yes, many. When I speak like this, I’m not lying [lit. I don’t tolerate to talk].’
- (C52) *yii nà báà bvùbvù*  
 yii nà báà bvùbvù  
 7.COP COMP 2.COP many  
 ‘It is true that they are many.’
- (C53) *bwánò békúmbé bé bà njí nà byò bé télé*  
 b-wánò be-kúmbé bé ba njì-H nà by-ô be-H télé-H  
 ba2-child be8-tin 8:ATT 2.PST1 come-R COM 8-OBJ 8-PRS stand-R  
*màbé*  
*mà-bé*  
*here-8*  
 ‘The few tin roofs that they brought stand here.’
- (C54) *màndáwò má télé màmá*  
 ma-ndáwò ma-H télé-H mà-má  
 ma6-house 6-PRS stand-R here-6  
 ‘Houses stand here.’
- (C55) *bèsàndyá lèwúmò nà bétánè*  
 be-sàndyá lè-wúmò nà bé-tánè  
 be8-raffia.mat le5-ten CONJ 8-five  
 ‘Fifteen raffia mats,’
- (C56) *byò bé télé bé*  
 by-ò be-H télé-H (mà-)bé.  
 8-OBJ 8-PRS stand-R 8  
 ‘They stand here.’

- (C57) *békúmbé báà njì nà byô nà báà njì lwô mândáwò*  
 be-kúmbé báà njì nà byô nà báà njì lwô H-ma-ndáwò  
 be8-roof 2.FUT come COM 8 CONJ 2.FUT come build OBJ.LINK-ma6-house  
 'They will bring roofs and they will come and build houses.'
- (C58) *bímbú lé fámí wâ wà mè bùdé mà*  
 bímbú lé fámí w-â wà me bùdè-H mà  
 Ø5.amount 5:ATT Ø1.family 1-POSS.1SG 1:ATT 1SG.PST1 have COMPL[Kwasio]  
 'The size of my family that I have gotten...'
- (C59) *ndáwò tè ká mè lá tè*  
 ndáwò tè ká mè-H lá-H tè  
 Ø9.house there when 1SG-PRS pass-R there  
 'The house there, when I pass there...'
- (C60) *é péré mèè lwô nyá ndáwò*  
 é pér-é mèè lwô nyá ndáwò  
 LOC there-DIST 1SG.FUT build real Ø9.house  
 'I will build a real house over there.'
- (C61) *é péré mèè jìyò*  
 é pér-é mèè jìyò  
 LOC there-DIST 1SG.FUT stay  
 'I will live over there, here I heard that here it [they] will come and destroy all.'
- (C62) *é vâ mè dyùwó nâ é vâ yî sîlè njì búlè*  
 é vâ mè dyùwó-H nâ é vâ yî sîlè njì búlè  
 LOC here 1SG.PST1 hear-R COMP LOC here 7.FUT finish come destroy  
 'I heard that everything here will become destroyed.'
- (C63) *bímbú lé mámbòngò máà mè vâ*  
 bímbú lé ma-mbòngò máà mè vâ  
 Ø5.amount 5:ATT ma6-plant 6.COP 1SG.OBJ here  
 'I have many plants here.'
- (C64) *mè ké jìyò vé yá bà fámí wâ*  
 mè-H kè-H jìyò vé ya-H bà fámí w-â  
 1SG-PRS go-R stay where 1PL-PRS AP Ø1.family 1-POSS.1SG  
 'Where will I live, we with my family?'

Severin in Ngumba:

## B Texts

- (C65) *bâ njè bû wáá*  
 2.FUT arrive break here  
 ‘Will they come to destroy the place here?’

Nze:

- (C66) *mé dyúwó nâ mpágó wá pódè lâ vâ*  
 mε-H dyúwɔ-H nâ mpágó wá pódè lâ-H vâ  
 1SG-PRS hear-R COMP Ø3.street 3:ATT Ø1.port pass-R here  
 ‘I hear that the road to the port passes [will pass] here.’
- (C67) *mèè kálè ná bë nà jí é vâ*  
 mèè kálè ná bë nà jí é vâ  
 1SG.FUT NEG.FUT still be COM Ø7.place LOC here  
 ‘I won’t have a place here anymore.’
- (C68) *mèè jíbì nyè mé ké é pè bùùlè*  
 mèè jíbì nyè mε-H kè-H é pè bùùlè  
 1SG.FUT first return 1SG-PRS go-R LOC there Ø7.old.settlement  
 ‘I will first return, I go over there to the old settlement.’
- (C69) *é pè mèè té*  
 é pè mèè tê-H  
 LOC there 1SG.PST2 found-PST  
 ‘Over there I had originally settled.’
- (C70) *áà kéndé gyà*  
 áà kéndé (yá) gyà  
 EXCL Ø7.walk 7:ATT Ø7.distance  
 ‘Oh, it’s a long walk.’
- (C71) *báà tfùbò ndáà*  
 báà tfùbɔ ndáà  
 2.FUT pierce also  
 ‘They will cut [a road there] too.’
- (C72) *báà tfùbò báà tfùbò*  
 báà tfùbɔ báà tfùbɔ  
 2.FUT pierce 2.FUT pierce  
 ‘they will cut, they will cut.’

- (C73) *mpàgó wá nùmbà wúù*  
*mpàgó wá nùmbà wúù*  
 Ø3.road 3:ATT Ø1.logger there  
 'The road of the loggers there.'
- (C74) *tè mèè jíbì kè lwɔ̂ tè*  
*tè mèè jíbì kè lwɔ̂ tè*  
 there 1SG.FUT first go build there  
 'There, I will first go to build [his house] there.'
- (C75) *àmú vâ mèé bélé nà sí é vâ*  
*àmú vâ mèé bélé nà sí é vâ*  
 because[Bulu] here 1SG.PRS.NEG be-NEG COM Ø9.ground LOC here  
 'Because here I don't have any land.'
- (C76) *é vâ mèé bélé nà sí vâ*  
*é vâ mèé bélé nà sí vâ*  
 LOC here 1SG.PRS.NEG be-NEG COM Ø9.ground here  
 'Here I don't have any property.'
- (C77) *wé dyúwó nâ mè nzíí kè nà kwèlò máléndí*  
*wé-H dyúwó-H nâ me nzíí kè nà kwèlò H-ma-léndí*  
 2SG-PRS hear-R COMP 1SG PROG.PRS go CONJ fell OBJ.LINK-6-palm.tree  
*tè é vâ*  
*tè é vâ*  
 there LOC here  
 'Do you hear that I'm going to fell these palm trees here?'
- (C78) *mè nzíí kè nà vúlé lévúdû nà lèvúdû mé*  
*me nzíí kè nà vúlé-H H-le-vúdû nà le-vúdû me-H*  
 1SG PROG.PRS go CONJ take.away-R OBJ.LINK-le5-one COM le5-one 1SG-PRS  
*táálé sîlè nyùlè*  
*táálé-H sîlè nyùlè*  
 begin-R finish drink  
 'I'm taking down [palm trees] one by one, I start to drink [them] up  
 [make palm wine out of them].'
- (C79) *ìn ndènáà lèkélè lénđè lèè nâ*  
*ìn ndènáà le-kélè lénđè lèè nâ*  
 EXCL like.this le5-word 5-ANA 5.COP COMP  
 'Yes, like this. The word is that...'

## B Texts

other speaker:

- (C80) *nà mìmbàngá nà màsá nà bègyí nà bègyí*  
           nà mi-mbàngá      nà ma-sá      nà be-gyí    nà be-gyí  
         CONJ mi4-coconut.tree CONJ ma6-prune CONJ be8-what CONJ be8-what  
         ‘both the coconut trees and the African plum trees and so on and so  
         forth,’
- (C81) *byésè béké sîlè ntàmànè*  
       by-ésè béké    sîlè    ntàmane  
       8-all    8.FUT finish ruin  
       ‘they will all be ruined.’

Nze:

- (C82) *màsá mâ vâ ké nà ntàmànè nà màbó’ò*  
       ma-sá           mâ       vâ   ké-H nà   ntàmane nà   ma-bó’ò  
       ma6-African.plum 6.DEM.PROX here go-R CONJ ruin     CONJ ma6-breadfruit  
*tu tu tu ngùó*  
       tu       tu       tu       ngùó  
       all[French] all[French] all[French] Ø7.sugar.cane  
       ‘These African plum trees will be ruined and the breadfruit trees, every-  
       thing, the sugar cane.’
- (C83) *mè bìyé làwò nâ àà bwánò bâ*  
       mè bìyé-H làwò nâ   àà   b-wánò b-â  
       1SG in.vain? speak COMP EXCL ba2-child 2-POSS.1SG  
       ‘I say in vain: “ah, my children. . .”
- (C84) *yóò mè jílé kwádó yî*  
       yóò mè       jílè-H kwádó   yî  
       so 1SG.PST1 stay-R Ø7.village 7.DEM.PROX  
       ‘So I stayed in this village.’

Severin in French asking about Mambi:

- (C85) *C'est qui là*  
       it.is who there  
       ‘Who is this there?’

Nze:

- (C86) *ntémbó*                  *wâ*                  *wé nû*  
 ntémbó                  w-â                  wé nû  
 Ø1.younger.sibling 1-POSS.1SG ID 1.DEM.PROX  
 'This is my little brother.'

Mama:

- (C87) *ntùmbà*                  *wâ*                  *wé nû*  
 ntùmbà                  w-â                  wé nû  
 Ø1.older.brother 1-POSS.1SG ID 1.DEM.PROX  
 'This is my big brother.'

Nze:

- (C88) *mwánò wâ*                  *ndáà wé nù*  
 m-wánò w-â                  ndáà wé nù  
 N1-child 1-POSS.1SG also ID 1.DEM.PROX  
 'This is also my child.'

Djiedjhie:

- (C89) *pâ*                  *bígè*  
 pâ                  bígè.  
 do.first.IMP develop  
 'Speak first.'

Mambi:

- (C90) *bò*                  *mwa*                  *méé*                  *béè*                  *alónzì*                  *vâ*  
 bò                  mwa                  méé                  béè                  alónzì                  vâ  
 good[French] 1SG.EMPH[French] 1SG.COP 2PL.COP come.on[French] here  
*tè nà bëyá njí nyê bágylé*  
 tè nà bëya-H njì-H nyê H-ba-gyélí  
 there CONJ 2PL-PRS come-R see OBJLINK-ba2-Gyeli  
 'Good, me, I'm, you are, *allons-y*, here that you come to see the Bagyeli.'

Severin in French:

- (C91) *C'est toi qui*  
 it.is 2SG who  
 'Who are you?'

## B Texts

Mambi:

- (C92) *mè jínjò ná Màmbì mèé bélé nà mùdâ*  
me j-ínjò ná Mambì mèé bélé nà m-ùdâ  
1SG le5-name SIM Ø1.PN 1SG.PRS.NEG be.NEG COM N1-woman  
'My name is Mambi, I don't have a wife.'

- (C93) *mè pálé líí bâ*  
me pálé líí bâ  
1SG.PST1 NEG.PST yet marry  
'I am not yet married.'

Nze:

- (C94) *à pálé líí bâ*  
a pálé líí bâ  
1.PST1 NEG.PST yet married  
'He is not yet married.'

Mambi:

- (C95) *mè jínjò ná Màmbì Màmbì*  
me j-ínjò ná Mambì Mambì  
1SG le5-name SIM Ø1.PN Ø1.PN  
'My name is Mambi, Mambi.'

Nze:

- (C96) *mè bùdé bwánjò bábáà*  
me bùdè-H b-wánjò bá-báà  
1SG have-R ba2-child 2-two  
'I have two children.'

Mambi:

- (C97) *pílì bëyá ló njì é vâ téè dé*  
pílì bëya-H ló njì é vâ téè dé  
when 2PL-PRS RETRO come LOC here now today  
'When you just arrived here now today,'

- (C98) *nâ bèyá njí nyê bá-gyèli vwálà*  
 nâ bèya-H njí-H nyê H-ba-gyèli vwálà  
 COMP 2PL-PRS come-R see OBJ.LINK-ba2-Gyeli there.it.is[French]  
 'so that you come to see the Bagyeli, there they are.'
- (C99) *bí bógà yá wúmbé ndáà mínsáyá mí màmbò*  
 bí b-ógà ya-H wúmbé-H ndáà H-mi-nsáyá mí m-àmbò  
 1PL.SBJ 2-other 1PL-PRS want-R also OBJ.LINK-mi4-deed 4:ATT ma6-thing  
*bèyá sá bî myâ kí bë mí mpà*  
 bèya-H sâ-H bî my-â kí bë mí mpà  
 2PL-PRS do-R 1PL.OBJ 4-OBJ NEG[Kwasio] be 4:ATT good  
 'Us, the others, we want also the deeds of things that you do us, they  
 are not good.'
- (C100) *ká bèyá bùdë másà wùnë*  
 ká bèya-H bùdë-H másà w-ùné  
 if 2PL-PRS have-R Ø1.boss 1-POSS.2PL  
 'If you have your boss,'
- (C101) *ká másà wùnë njí yá láá másà wùnë nâ*  
 ká másà w-ùné njí ya-H láá-H másà w-ùné nâ  
 if Ø1.boss 1-POSS.2PL come 1PL-PRS tell-R Ø1.boss 1-POSS.2PL COMP  
*mínsáyá mí bèyá sâ mí bélé mpà vúdû wé yí-ndè*  
 mi-nsáyá mí bèya-H sâ mi-H bé-lé mpà vúdû wé yí-ndè  
 mi4-deed 4:ATT 2PL-PRS do 4-PRS be-NEG good one ID 7-ANA  
 'If your boss comes we will tell him that the things that you do are not  
 good, that is the first thing.'
- (C102) *yá mbàà yá mbàà yîí nâ kôò mpù é Nzìwù ló*  
 yá mbàà yá mbàà yîí nâ kôò mpù é Nzìwù ló  
 7:ATT second 7:ATT second 7.COP COMP still like.this LOC Ø1.PN RETRO  
*táálè làwò nâ bò*  
 táálè làwò nâ bò  
 begin talk COMP good[French]  
 'The second, the second is that still as Nze just began to say that, good,'
- (C103) *kwádá yá Ngòló yá jilé màyi*  
 kwádá yá Ngòló ya-H jilé-H mà-yì  
 Ø7.village 7:ATT Ø3.PN 1PL-PRS seat-R here-7  
 'The village Ngolo, we have found it here.'

B Texts

- (C104) *yáà ndáà vâ dísù bvúlè bá vélásá bû nà*  
 yáà ndáà vâ dísù bvúlè ba-H vélasa-H bû nà  
 1PL.COP also here first.off[Bulu] ba2.Bulu 2-PRS contest-R 1PL.OBJ COM  
*kwádá yî*  
 kwádá yî  
 Ø7.village 7.DEM.PROX  
 ‘We are also here, first off, the Bulu contest our [ownership of] this vil-  
 lage.’
- (C105) *bvúlè bá ntégélé ndáà býyè*  
 bvúlè ba-H ntégele-H ndáà býyè  
 ba2.Bulu 2-PRS bother-R also 1PL.OBJ  
 ‘The Bulu bother us, too.’
- (C106) *bvúlè bá bùdé nâ ká w  ngy l  w  b d  ts d  w *  
 bvúlè ba bùde-H nâ ká w  n-gy l  w  b de-H ts d  w -   
 ba2.Bulu 2 have-R COMP if 2SG N1-Gyeli 2SG have-R Ø1.animal 1-POSS.2SG  
*b  s ng  ny  s *  
 ba-H s ng -H ny  s   
 2-PRS lower-R 1.OBJ down  
 ‘The Bulu say that if you, Gyeli, you have your animal [for sale], they  
 lower it [its price].’
- (C107) *b   w  nz  dy w  m  vw l  b *  
 b   w  nz  dy w  m  vw l  b   
 right 2SG PROG.PRS hear 1SG.OBJ ok[French] good[French]  
 ‘Right, you hear me? Ok, good. . .’
- (C108) *y  n  y  b  l  n  b  d w  n  bv l  b   n *  
 y  n  yi-H b  la-H n  b  d w  n  bv l  b   n   
 7:ATT fourth 7-PRS repeat-R COMP hang.on? COM ba2.Bulu 2.COP COMP  
*w , s l  k  s  s l *  
 w  s l  k  s  s l   
 2SG finish.IMP go do Ø7.work  
 ‘The fourth thing about the Bulu is that they say, “you, go and finish  
 [all] the work”.
- (C109) *k  w  s l  k  s  s l  m  p l  w  k  n *  
 k  w -H s l -H k  s  s l  m  p l  w -H k -H n   
 if 2SG-PRS finish-R go do work.7 but[French] when 2SG-PRS go-R COMP

- wé      ké      jî      mòné      wâ      á      làwó      wê      nyùmbò  
 wε-H      kè-R      jî      mòné      w-â      a-H      làwɔ-H      wê      nyùmbò  
 2SG-PRS go-R ask Ø1.money 1-POSS.2SG 1-PRS tell-R      2SG Ø3.mouth  
 'If you go do all the work [for a Bulu person], but when you go and ask  
 for your money, he [the Bulu person] frowns at you.'
- (C110) nyè      náà      à      múa      wê      býò  
 nyε      nâ      a      múa      wè      býɔ  
 1.SBJ COMP 1 be.almost 2SG.OBJ hit  
 'He [says] that he is about to beat you.'
- (C111) nyè      náà      à      múa      wê      býò d̄é  
 nyε      nâ      a      múa      wè      býɔ d̄é  
 1.SBJ COMP 1 be.almost 2SG.OBJ hit today  
 'He [says] that he is about to beat you today'
- (C112) nkàmò      nà      mòné      wâ      dyúwò  
 nkàmò      nà      mòné      w-â      dyúwò  
 Ø9.reason COM Ø1.money 1-POSS.2SG on.top  
 'because of your money'
- (C113) pilì      wé      ké      nâ      wé      ké      tókè      mwánò      sáyà      bvúlè  
 pilì      wε-H      kè-H nâ      wε-H      kè-H tókε      m-wánò      sáyà      bvúlè  
 when 2SG-PRS go-R COMP 2SG-PRS go-R collect N1-child Ø7.thing ba2.Bulu  
 à bùdè      lébvúú      nà      m̄e  
 a bùdε-H H-le-bvúú      nà      m̄e  
 1 have-H OBJ.LINK-le5-anger COM 1SG.OBJ  
 'When you go to gather a small thing, the Bulu is angry with me.'
- (C114) mè      nzí      dyâ      vâ      kùgúù      d̄é      màfû      mábáà  
 mε      nzí      dyâ      vâ      kùgúù      d̄é      ma-fû      má-báà  
 1SG PROG.PST lie.down here Ø7.evening today ma6-day 6-two  
 'I was sleeping here in the evening two days ago.'
- (C115) mè      bé      nà      mùdâ      wà      mí      d̄ø      mil  
 mε      bè-H nà      m-ùdâ      wà      m-í      d̄ø      mil  
 1SG.PST1 be-R COM N1-woman 1:ATT N1-non-Pygmy two[French] thousand[French]  
 'I owed a Bantu farmer woman two thousand [Cameroon Francs].'
- (C116) é      vâ      ndáwò      vâ      mùdâ      wà      mí      àà      njí  
 é      vâ      ndáwò      vâ      m-ùdâ      wà      m-í      àà      njí  
 LOC here Ø9.house here N1-woman 1:ATT N1-non-Pygmy 1.FUT come

dúwò lévúdû  
d-úwò lé-vúdû  
le5-day 5-one

'This house over here, the Bantu farmer woman will come the same day,'

- (C117) é pè njì jíi mòné wé̂é é pè njì jíi  
é pè njì jíi mòné w-é̂é é pè njì jíi  
LOC over.there come ask Ø1.money 1-POSS.3SG LOC over.there come ask  
'there in order to come ask for her money, there to come ask.'
- (C118) yóò mé tóké mòné wé vè nyé  
yóò me-H tóké-H mòné w-é̂ vè nyé  
so 1SG-PRS collect-R Ø1.money 1-POSS.3SG give 1.OBJ  
'So I collect her money [and] give [it to] her,'
- (C119) nâ ndènáà yíi mpà  
nâ ndènáà yíi mpà  
COMP like.this 7.COP good  
'that like this it be good.'
- (C120) bò pilí yí báàlá nà bè ndènáà ndáà ná  
bò pilí yi-H báàla-H nà bè ndènáà ndènáà ndáà ná  
good[French] when 7-PRS repeat-R CONJ be like.that like.that also still  
'So, when it continues and is still like this and like that.'
- (C121) bvúlè bà bùdé mà sá yíi ná vúdû  
bvúlè ba bùdé-H mà sá yíi ná vúdû  
ba2.Bulu 2 have COMPL[Kwasio] Ø7.thing 7.COP again one  
'There is one more thing about the Bulu.'
- (C122) wé ké nà nyé nkòwáká nyègà à nzíí wé̂  
wé-H kè-H nà nyé nkòwáká nyè-gà a nzíí wé̂  
2SG-PRS go COM 1.OBJ equal.sharing 1.SBJ-CONTR 1 PROG.PRS 2SG.OBJ  
váàké sâ mpù  
váàké sâ mpù  
go[Bulu] do like.this  
'You go with him equally sharing, he tries to trick you [lit. he is going to do you like this].'
- (C123) pilí yí múà ndáwò nyà mànyò ndènáà  
pilí yí múà ndáwò nyà ma-nyò ndènáà  
when 7 be.almost Ø9.house 9:ATT ma6-drink like.this  
'When it is at a bar like this,'

- (C124) á kí náà à múà njì bvúdà nà wê  
 a-H ki-H ná a múà njì bvúda nà wê  
 1-PRS say-R COMP 1 be.almost come quarrel COM 2SG.OBJ  
 'he says that he is about to come quarrel with you.'
- (C125) pílì mwánò bágyèli àà nyé kè býò  
 pílì m-wánò ba-gyèli àà nyé kè býò  
 when N1-child ba2-Gyeli 1.FUT 1.OBJ go hit  
 'At times the Gyeli child, he will go hit it,'
- (C126) kè nyé býò mpù  
 kè nyé býò mpù  
 go 1.OBJ hit like.this  
 'hit it like this.'
- (C127) báà ná bisómònè bisómònè bé nyì  
 báà ná bi-sómònè bi-sómònè be-H nyì  
 2.COP COMP be8-complaint be8-complaint 8-PRS enter  
 'it is their fault that again and again complaints start.'
- (C128) dò pè tsíyè póné lékélè bvúlè bá ntégélé bii  
 dò pè tsíyè póné le-kélè bvúlè ba-H ntégélé-H bii  
 so[French] there cut Ø7.truth le5-word ba2.Bulu 2-PRS bother-R 1PL.OBJ  
 é vâ  
 é vâ  
 LOC here  
 'So, to say the truth, the Bulu bother us here.'
- (C129) kwádó yá wé nyé yá jilé mà wá  
 kwádó yá wé-H nyé ya-H jilé-H mà wá  
 Ø7.village 7:ATT 2SG-PRS see 1PL-PRS place-R COMPL[Kwasio] here[Kwasio]  
 yî  
 yî  
 7  
 'The village that you see, we have found it here.'
- (C130) bvúlè bá ntégélé bii kwádó yá wé nyé yá  
 bvúlè ba-H ntégélé-H bii kwádó yá wé-H nyé ya-H  
 ba2.Bulu 2-PRS bother-R 1PL.OBJ Ø7.village 7:ATT 2SG-PRS see 1SG-PRS  
 jilé mà wá yî  
 jilé-H mà wá yî  
 seat-R COMPL[Kwasio] here[Kwasio] 7  
 'The Bulu bother us. The village that you see, we have found it here.'

## B Texts

Severin in Ngumba:

- (C131) *bùdì bónègà bó pē mbié bó lèè náà mí*  
 ba2-person 2-other 2 there Ø3.high 2.PRS say COMP 2.non.Pygmy  
*bó kwálé b-ùdâ b-ɔj*  
 2.PRS love ba2-woman 2-POSS.2SG  
 ‘The other people there upstream say that the Bulu love your women.’

Mambi:

- (C132) *vwálà wèè njí nà njí wèè njí nà njí*  
 vwálà wèè njí nà njí wèè njí nà njí  
 ok[French] 2SG.COP Ø9.path CONJ Ø9.path 2SG.COP Ø9.path CONJ Ø9.path  
 ‘Exactly, you are on the right track.’
- (C133) *dɔ bèyá ló kè nà bèyà nzíí pánđè*  
 dɔ bèya-H ló kè nà bèya nzíí pánđe  
 so[French] 2PL-PRS RETRO go CONJ 2PL PROG.PRS arrive  
 ‘So, you just came and you are arriving,’
- (C134) *bèyá nzíyè bíyè kfùmàlà*  
 bèya-H nzíyè bíyè kfùmala  
 2PL-PRS come.SBJV 1PL.OBJ find  
 ‘you may come to meet us.’
- (C135) *bùdì bésè bá nzíí kè nà ké dě bějií dé tù*  
 b-ùdì b-ésè ba nzíí kè nà kè-H dě be-jií dé tù  
 ba2-person 2-all 2 PROG.PRS go CONJ go-R today be8-forest LOC inside  
 ‘All the people are going into the forest today.’
- (C136) *dɔ bèyá nzíyè bíyè kfùmàlà*  
 dɔ bèya-H nzíyè bíyè kfùmala  
 so[French] 2PL-PRS come.SBJV 1PL.OBJ find  
 ‘So, you may come to meet us.’
- (C137) *bónégá báà ná jií dé tù*  
 b-ónégá báà ná jií dé tù  
 2-other 2.COP still Ø7.forest LOC inside  
 ‘The others are still in the forest.’
- (C138) *bèyá nzíyè bíyè kfùmàlà vâ*  
 bèya-H nzíyè bíyè kfùmala vâ  
 2PL-PRS come.SBJV 1PL.OBJ find here  
 ‘You may come to meet us here.’

- (C139) *dɔ̄ bí yá táálé bē yàlànè àà*  
          dɔ̄            bí            yá-H      táálé-H bē            yàlànè àà  
       so[French] 1PL.SBJ 1PL-PRS begin-R 2PL.OBJ respond[Bulu] EXCL  
       ‘So we start to respond to you, mhm.’

Severin in Ngumba:

- (C140) *wè sí lèè náà ð bírì bùrà bò nià*  
       2SG PROG.PST say COMP 2SG have ba2-woman 2:ATT how.many  
       ‘You said you have how many wives?’

Nze:

- (C141) *nà mē*  
       nà mē  
       Q 1SG  
       ‘Me?’

Mambi:

- (C142) *à bùdé mà mùdâ*  
       a bùdè-H mà            m-ùdâ  
       1 have-R COMPL[Kwasio] N1-woman  
       ‘He already has a wife.’

Nze:

- (C143) *mè bùdé mà mùdâ mvúdû*  
       mè bùdè-H mà            m-ùdâ            m-vúdû  
       1SG have-R COMPL[Kwasio] N1-woman 1-one  
       ‘I have already one wife.’

- (C144) *bwánjì mpù [gesture showing 2]*  
       b-wánjì mpù  
       ba2-child like.this  
       ‘that many children [gesture showing 2].’

- (C145) *bwánjì bá bùdâ bábáà èè nà mwánjì wà mùdâ*  
       b-wánjì bá b-ùdâ            bá-báà èè nà m-wánjì wà m-ùdâ  
       ba2-child 2:ATT ba2-woman 2-two EXCL CONJ N1-child 1:ATT N1-woman  
       nláálè ndáà ná  
       nláálè ndáà ná  
       three also again  
       ‘Two girls, yes, and also again a third girl.’

B Texts

- (C146) *mm ndí nyègà à ndáà lèbá é pè*  
 mm ndí nyè-gà a ndáà le-bá é pè  
 EXCL but 1.SBJ-CONTR 1 also le5-marriage LOC there  
 'Mhm, but the other one has gotten also married over there.'
- (C147) *à ké bwálè nà eeehhh*  
 a ké bwále nà eeehhh  
 1.PST1 go be.born CONJ EXCL  
 'She was born elsewhere and eehmmm...'
- (C148) *ntém'bò wà mùdâ wâ nyè wé bùdè mwánjà*  
 ntém'bò wà m-ùdâ w-â nyè wé bùdè-H m-wánjà  
 Ø1.younger.sibling 1:ATT N1-woman 1-POSS.1SG 1.SBJ ID have-R N1-child  
*wà mùdâ mvúdû*  
 wà m-ùdâ m-vúdû  
 1:ATT N1-woman 1-one  
 'It's my wife's younger sister who has one girl.'
- (C149) *kwádó yáwò yô wé yî*  
 kwádó y-áwò yô wé yî  
 Ø7.village 7-POSS.3PL 7 ID 7.DEM.PROX  
 'Their village is this one.'
- (C150) *ká wé nyé mê jíi sâ vâ nâ bá nzíyè bá*  
 ká wé-H nyé-H mê jíi sâ vâ nâ ba-H nzíyè ba-H  
 if 2SG-PRS see-R 1SG.OBJ stay only here COMP 2-PRS come.SBJV 2-PRS  
*nzíyè jìyò*  
 nzíyè jìyò  
 come.SBJV stay  
 'When you see me just staying here, so that they come, they come to stay.'

Mambi:

- (C151) *yá wúmbé ndáà náà bí bógà yá pángó*  
 ya-H wúmbe-H ndáà náà bí b-ógà ya-H pángó-H  
 1PL-PRS want-R also COMP 1PL.SBJ 2-other 1PL-PRS do.first[Kwasio]-R  
*bè*  
*bè*  
*be*  
 'We also want that we others first have...'

- (C152) *nà kùrâ ndáà*  
 nà kùrâ ndáà  
 COM Ø7.electricity also  
 'also electricity.'
- (C153) *ónóò bí bógà yá pâ jî bényámè ná*  
 ónóò bí b-ógà ya-H pâ-H jî H-be-nyámè ná  
 EXCL 1PL.SBJ 2-other 1PL-PRS do.first-R stay OBJ.LINK-be8-poor still  
 'Ohhh, we others will first stay still poor.'
- (C154) *yá bélé nà kùrâ*  
 ya-H bè-lé nà kùrâ  
 1PL-PRS be-NEG COM Ø7.electricity  
 'We have no electricity.'
- (C155) *mé dyúwó nâ mìntángáné mí nzíí njì mí nzíí*  
 mè-H dyúwɔ-H nâ mi-ntángáné mí nzíí njì mí nzíí  
 1SG-PRS hear-R COMP mi4-white.person 4 PROG.PRS come 4 PROG.PRS  
*njì*  
*njì*  
 come  
 'I hear that white people are coming and coming.'
- (C156) *mìntángáné métì mí sá náà*  
 mi-ntángáné mé-tì mi-H sâ-H nâà  
 mi4-white.person 4-DEM[Bulu] 4-PRS do-R COMP  
 'The white people make that,'
- (C157) *bàmòné bá vé bô é pè só'ò wû*  
 ba-mòné ba-H vè-H b-ô é pè só'ò wû  
 ba2-money 2-PRS give-R 2-OBJ LOC before there  
 'the money they give them there [in Europe] before. . .'
- (C158) *bí bógà yá wúmbé ndáà pâ nyê sâ bá gyibó*  
 bí bó-gà ya-H wúmbé-H ndáà pâ nyê sâ ba-H gyibó-H  
 1PL.SBJ 2-other 1PL-PRS want-R also do.first see Ø7.thing 2-PRS call-R  
*ngyùlè wá kùrâ*  
*ngyùlè wá kùrâ*  
 Ø3.light 3:ATT Ø7.electricity[French]  
 'We others, we also want to first see the thing they call the light of electricity.'

B Texts

- (C159) *wú bé mà bî ndáwò dé tù*  
 wú bè-H mà bî ndáwò dé tù  
 3 be-R COMPL[Kwasio] 1PL.OBJ Ø9.house LOC inside  
 'That it was already in our houses!'
- (C160) *màndáwò má báà lwô*  
 ma-ndáwò má báà lwô  
 ma6-houses 6:ATT 2.FUT build  
 'The houses that they will build,'
- (C161) *má bá lwô bî*  
 má ba-H lwô-H bî  
 6:ATT 2-PRS build-R 1PL  
 'that they build for us.'
- (C162) *mèé bélé mùdì wà lèkélè*  
 mèé bélé m-ùdì wà le-kélè  
 1SG.PRS.NEG be-NEG N1-person 1:ATT le5-word  
 'I'm not a person of many words.'

Severin in Ngumba:

- (C163) *wè wé yù nzé gyí ywè límbó màmbì mó-míyà bó síí*  
 2SG.SBJ 2SG 7.COP who what 2SG know ma6.thing 6-all 2.PRS PROG  
 sâ  
 do  
 'Who are you? What do you know about all the things they do?'

Nze to Mama:

- (C164) *wé làwó téè*  
 wé-H làwó-H téè  
 2SG-PRS talk-R now  
 'You speak now.'

Mama:

- (C165) *èè mè jínò ná Mámà*  
 èè mè j-ínò ná Mámà  
 yes 1SG le5-name SIM Ø1.PN  
 'Yes, my name is Mama.'

- (C166) *yî póné kôò lèváá lèvúdû nâ bí bá ntégélé*  
*yî póné kôò le-váá lè-vúdû nâ b-i ba-H ntégelé-H*  
 7.COP Ø7.truth still le5-thing 5-one COMP ba2-non.Bagyeli 2-PRS bother-R  
*bágylí*

H-ba-gyèlì  
 OBJ.LINK-ba2-Gyeli

'It is true, still the same thing that the non-Bagyeli bother the Bagyeli.'

- (C167) *mèè vâ sâ wâ à wé mèè mwánò nyùlè*  
*mèè vâ sâ w-â a wè-H mèè m-wánò nyùlè*  
 1SG.COP here Ø1.father 1-POSS.1SG 1.PST1 die-R 1SG.COP N1-child orphan  
 'I'm here, my father has died, I'm an orphan.'

Nze:

- (C168) *èé lûngà yá sâ wéè yóò yî*  
*èé lûngà yá sâ w-ê y-ôò yî*  
 EXCL Ø7.grave 7:ATT Ø1.father 1-POSS.3SG 7-OBJ 7.COP  
 'Right, his father's grave is over there.'

Mama:

- (C169) *lûngà yá sâ wâ yó bé yíí*  
*lûngà yá sâ w-â y-ó bè-H yíí*  
 Ø7.grave 7:ATT Ø1.father 1-POSS.1SG 7-OBJ be-R 7.DEM.DIST  
 'My father's grave is over there.'

- (C170) *bwánò bá kálé bâ bó bá ké*  
*b-wánò bá kálé b-â b-ó ba-H kè-H*  
 ba2-child 2:ATT Ø1.older.sister 2-POSS.1SG 2-OBJ[Kwasio] 2-PRS go-R  
*silè pándé*  
*síle pándé*  
 finish arrive  
 'The children of my older sister, they all arrive.'

Nze:

- (C171) *yáà nyé wé nû*  
*yáà nyé wé nû*  
 EXCL 1.SBJ ID 1.DEM.PROX  
 'Yes, this is him.'

## B Texts

Mama:

- (C172) *nyáà wâ nûú Ntâbèténdá pè*  
 nyáà w-â nûú Ntâbèténdá pè  
 Ø1.mother 1-POSS.1SG 1.DEM.DIST Ø3.PN there  
 'My mother is over there in Ntabetenda [name of village].'
- (C173) *à nzí kè létsíndé lé ntùmbà*  
 a nzí kè H-le-tsíndó lé n-tùmbà  
 1 PROG.PST go OBJ.LINK-le5-funeral.ceremony 5:ATT n1-older.brother  
 wâ  
 w-â  
 1-POSS.1SG  
 'She was going to my older brother's funeral ceremony.'

Nze:

- (C174) *nógá à nzí wè wû*  
 n-ógá a nzí wè wû  
 1-other 1 PROG.PST die there  
 'That one died over there.'

Mama:

- (C175) *nónégá à nzí wè wû*  
 nó-négá a nzí wè wû  
 1-other 1 PROG.PST die there  
 'That one died over there.'
- (C176) *yòò pònè vèè mpù*  
 yòò pònè vèè mpù  
 so Ø7.thruth still like.this  
 'It is still true like this.'
- (C177) *bónégá bá lís sîlè làwò nâ bvûlè bá ntégélé bágyléli*  
 bó-négá ba-H lís sîlè làwò nâ bvûlè ba-H ntégélé-HH-ba-gyélí  
 2-other 2-PRS RETRO finish speak COMP ba2.Bulu 2-PRS bother-R OBJ.LINK-ba2-Gyeli  
 'The others have just said that the Bulu bother the Bagyeli.'
- (C178) *kè nà kwâlè bùdâ kè nà kwâlè bùdâ bá bágyléli*  
 kè nà kwâlè b-ùdâ kè nà kwâlè b-ùdâ bá ba-gyélí  
 go CONJ love ba2-woman go CONJ love ba2-woman 2:ATT ba2-Gyeli  
 'coming and loving the women, coming and loving the women of the  
 Bagyeli.'

Severin in Ngumba:

- (C179) *jínásá náà wà pélí lí bè nà m-ùrâ*  
 mean COMP 2SG NEG.PST yet be COM 1-woman  
 ‘That means that you haven’t been yet with a woman?’

Nze:

- (C180) *àà mwâ ntùà àà mwâ ntùà*  
 àà m-wâ ntùà àà m-wâ ntùà.  
 1.COP N1-child small 1.COP N1-child small  
 ‘He is a small child, he is a small child.’

Mama:

- (C181) *mèè nyá mùdì nà nyê*  
 mèè nyá m-ùdì nà nyê  
 1SG.COP real N1-person CONJ 1.OBJ  
 ‘I’m an adult and him [Mambi].’

- (C182) *yà pálé bè nà bùdâ*  
 ya pálé bè nà b-ùdâ  
 1PL NEG.PST be COM ba2-woman  
 ‘We did not have any women.’

Severin in Ngumba:

- (C183) *́ kéké nà lywélé b-ùdâ bì-jìnáà*  
 2SG.PRS go CONJ show ba2-woman be8-finger  
 ‘You go and hit on women [lit. show women with fingers]?’

Mama:

- (C184) *mè fúgéé*  
 mè fúgéé  
 1SG.PST1 finish.COMPL  
 ‘I have finished.’

Nze:

B Texts

- (C185) á kí náà à sílé mà  
 a-H kì-H ná a sílε-H mà  
 1-PRS say-R COMP 1.PST1 finish COMPL[Kwasio]  
 'He says that he has finished.'

Mambi:

- (C186) dɔ̄ bå yî̄ nâ bí yá wúmbé nâ nyá  
 dɔ̄ bå yî̄ nâ bí ya-H wúmbε-H nâ nyá  
 so[French] Ø7.word 7.COP COMP 1PL.PN 1PL-PRS want-R COMP real  
 màmbò máà mpà  
 m-àmbò máà mpà  
 ma6-thing 6.COP good  
 'So, the truth is that we want the important things to be good,'
- (C187) mändáwò má zì  
 ma-ndáwò má zì  
 ma6-house 6:ATT Ø7.tin[Bulu]  
 'tin-roofed houses,'
- (C188) nà nà kùrâ mändáwò  
 nà nà kùrâ ma-ndáwò  
 CONJ CONJ Ø7.electricity ma6-house  
 'and, and electricity in the houses.'
- (C189) kí dyúwò nâ bå lwó ndáwò vúdû ndí mändáwò  
 kí dyúwò nâ ba lwô-H ndáwò vúdû ndí ma-ndáwò  
 NEG understand COMP 2.PST1 build-R Ø9.house one but ma6-houses  
 'Not understanding that they [white people] built one house, but houses,'
- (C190) mùdì nyè ngwê mändáwò  
 m-ùdì nyè ngwê ma-ndáwò  
 N1-person 1 all[Kwasio] ma6-house  
 'every person [their] houses.'
- (C191) nà bí bésè kóò kùrâ bè dé tù  
 nà bí b-ésè kóò kùrâ bè dé tù  
 COM 1PL.SBJ 2-all still Ø7.electricity be LOC inside  
 'with all of us just electricity be inside.'

- (C192) *bâ yâ màfwálá wé yíndè*  
 bâ y-â ma-fwálá wé yí-ndè  
 Ø7.word 7-POSS.1SG ma6-end ID 7-ANA  
 'My last word is this.'

Severin in Ngumba:

- (C193) *bíyò bí léè náà sí nyà bé-lé, dí bíyà lwò yé*  
 2PL.SBJ 2PL.PRS say COMP Ø9.land 9 be-NEG but 2PL build where  
 'You say that you don't have any land, but where do you build?'

Mambi:

- (C194) *báà bù mpàgó pílì pòdè àà lâ*  
 báà bù mpàgó pílì pòdè àà lâ  
 3.FUT break Ø3.road when Ø1.port 1.FUT pass  
 'They will build a road when the port is built.'
- (C195) *à múà njì lâ, báà bù mpàgó*  
 a múà njì lâ báà bù mpàgó  
 1 be.almost come pass 2.FUT break Ø3.road  
 'It [the port] is about to come [and the road to it will] pass [by here], they will build the road.'
- (C196) *báà bù mpàgó pílì pòdè àà vâ njì tsíyè vâ*  
 báà bù mpàgó pílì pòdè àà vâ njì tsíyè vâ  
 2.FUT break Ø3.road when Ø1.port 1.COP here come cut here  
 'They will build a road when the port is here, coming and cutting [the forest] here.'
- (C197) *bá báà bù mpàgó*  
 bá báà bù mpàgó  
 2.SBJ 2.FUT break Ø3.road  
 'They will build a road.'

Nze:

- (C198) *mèè kè búùlè yâ*  
 mèè kè búùlè y-â  
 1SG.FUT go Ø7.old.camp 7-POSS.1SG  
 'I will go to my old settlement.'

## B Texts

Mambi:

- (C199) *èhè báà bù mpàgó nà pámò pè Kyiéngè*  
 èhè báà bù mpàgó nà pámo pè Kyiéngè  
 EXCL 2.FUT break Ø3.road COM arrive over.there Ø7.PN  
 ‘Yes, they will build a road up to Kienge [river and name for Kribi].’
- (C200) *bá nà ngvùlè bíyè sílè lwɔ́ mánḍáwɔ́*  
 bá nà ngvùlè bíyè sílè lwɔ́ H-ma-ndáwɔ́  
 2 COM Ø9.strength 1PL.OBJ finish build OBJ.LINK-ma6-house  
 ‘They have the strength to build us all houses.’
- (C201) *wɛ dyúwɔ́ mɔ́*  
 wɛ dyúwɔ-H mɔ́  
 2SG.PST1 hear-R COMPL  
 ‘Have you understood?’
- (C202) *báà sílè bî kúmbà lwɔ́ mánḍáwɔ́*  
 báà sílè bî kúmba lwɔ́ H-ma-ndáwɔ́  
 2.FUT finish 1PL.OBJ arrange build OBJ.LINK-ma6-house  
 ‘They will arrange for us to build houses.’

Mambi:

- (C203) *bá ké ndáà nà télé mákündù má kùrâ*  
 ba-H kè-H ndáà nà téle-H H-ma-kündù má kùrâ  
 2-PRS go-R also CONJ put-R OBJ.LINK-ma6-clay.house 6:ATT Ø7.electricity  
 ké-ké-ké-ké  
 ké-ké-ké-ké  
 IDEO:repeated.placement  
 ‘They also go and put up clay houses with electricity, [depiction of putting the electricity poles along the road].’
- (C204) *wɛ dyúwɔ́ mɔ́*  
 wɛ dyúwɔ-H mɔ́  
 2SG.PST1 hear-R COMPL  
 ‘Have you understood?’

Nze:

- (C205) *é pè bá sílè bî lwɔ́ mánḍáwɔ́ é pè*  
 é pè ba sílè-H bî lwɔ́ H-ma-ndáwɔ́ é pè  
 LOC there 2.PST1 finish-R 1PL.OBJ build OBJ.LINK-ma6-house LOC there  
 ‘There, they have finished building us houses there.’

- (C206) *ɔ dyúwó mò*  
           <sup>ɔ</sup> dyúwɔ-H mò  
 2SG.PST1[Kwasio] understand-R COMPL  
 'Have you understood?'
- (C207) *mm nâ yi kádó nâ mùdi bè tí njì nà yimbò*  
 mm nâ yi-H kádɔ-H nâ m-ùdì bè tí njì nà yimbò  
 EXCL COMP 7-PRS be.plenty-R COMP N1-person be go[?] come CONJ visit  
*mhm*  
*mhm*  
 EXCL  
 'Mhm, so that there will be plenty [of electricity] so that people come for a visit [which they don't at the moment because there is no electricity]. Mhm.'
- (C208) *pâ mê láà tè*  
 pâ mê láà tè  
 do.first.IMP 1SG.OBJ tell there  
 'Tell me how they would come.'
- (C209) *bímbú lé mámbòngò mâ wè médé dígê médé*  
 bímbú lé ma-mbòngò mâ wè médé dígê médé  
 Ø5.amount 5:ATT ma6-plant 6.DEM.PROX 2SG.SBJ self look.IMP self  
 'The number of these plants, take a look yourself [these plants will all be destroyed],'
- (C210) *nâ á dyúwó bág�élî*  
 nâ a-H dyúwɔ-H H-ba-gyélî  
 COMP 1-PRS understand-R OBJLINK-ba2-Gyeli  
 'so that she [Nadine] understands the Bagyeli.'

Mambi:

- (C211) *bâ wé làwò bá dyúwó sâ yésè*  
 bâ wé-H làwɔ ba-H dyúwɔ-H sâ y-ésè  
 Ø7.word 2SG-PRS speak 2-PRS understand-R Ø7.thing 7-every  
 'The words that you speak, they understand everything. [not the language, but what is promised]'
- (C212) *bîi bá dyúwó lékélè lé wé làwò*  
 bîi ba-H dyúwɔ-H H-le-kélè lé wé-H làwɔ  
 1PL.SBJ 2-PRS understand OBJLINK-le5-language 5:ATT 2SG-PRS speak  
 'We, they understand the language that you speak.'

## B Texts

Mama:

- (C213) *wé nyé mbé yá bá njí libèlè yíndè*  
 wε-H nȳ-H mbé yá ba-H njì-H libelε yí-ndè  
 2SG-PRS see-R Ø7.thing 2-PRS come-R show 7-ANA  
 ‘You see the thing [camera] that they came to show there.’

- (C214) *wé tébó númbá vúdû*  
 wε-H tébɔ-H númbá vúdû  
 2SG-PRS put-R Ø7.place one  
 ‘Stay in the same place! [don’t move because of the camera]’

Nze:

- (C215) *mé mè bùdé nâ é pɛ*  
 m̄é m̄e bùde-H nâ é p̄ɛ  
 but[French] 1SG have-R COMP LOC over.there  
 ‘But I say that over there,’

- (C216) *é wû bëyá lwô kwádó yâ é wû*  
 é wû bëya-H lwô-H kwádó y-â é wû  
 LOC there 2PL[Kwasio]-PRS build-R Ø7.village 7-POSS.1SG LOC there  
 ‘there you build my village over there.’

- (C217) *kwádó yâ màndáwò má zì*  
 kwádó y-â mà-ndáwò má zì  
 Ø7.village 7-POSS.1SG ma6-house 6:ATT Ø7.tin[Bulu]  
 ‘My village, tin houses.’

Délégué:

- (C218) *vwálà bùgù yésè*  
 vwálà bùgù y-éssè  
 there.it.is[French] Ø7.place 7-all  
 ‘There it is, the entire place.’

Nze:

- (C219) *mè bùdé nâ á lwóngó mè màndáwò*  
 m̄e bùde-H nâ a-H lwóngɔ-H m̄e mà-ndáwò  
 1SG have-R COMP 1-PRS build[Kwasio]-R 1SG.OBJ ma6-house  
 ‘I say that she [Nadine] builds me houses,’

- (C220) *búùlè*      *yá*      *Ngòló* *Ngòló* *Ngòló*  
 búùlè      yá      Ngòló Ngòló Ngòló  
 Ø7.old.camp 7:ATT Ø3.PN Ø3.PN Ø3.PN  
 'at the old settlement of Ngolo, Ngolo, Ngolo.'
- (C221) *mèè*      *lwóngò*      *mándáwò*      *Ngòló* *zì*      *nà*  
 mèè      lwóngò      H-ma-ndáwò      Ngòló zì      nà  
 1SG.FUT build[Kwasio] OBJ.LINK-ma6-house Ø3.PN Ø7.tin[Bulu] COM  
*zì*  
*zì*  
 Ø7.tin[Bulu]  
 'I will build houses in Ngolo, each with tin (roofs).'
- (C222) *yóò* *mé*      *wúmbé*      *wû*  
 y-óò me-H wúmbé-H wû  
 7-OBJ 1SG-PRS want-R there  
 'That is what I want there.'
- (C223) *àmú*      *mèé*      *bélé*      *nà* *sí*      *vâ*  
 àmú      mèé      bé-lé      nà      sí      vâ  
 because[Bulu] 1SG.PRS.NEG be-NEG COM Ø9.ground here  
 'Because I don't have any land here.'
- (C224) *bå*      *yá*      *bwánò*      *bá*      *ló*      *làwò* *yî*      *tè*  
 bå      yá      b-wánò ba-H ló      làwò yî      tè  
 Ø7.word 7:ATT ba2-child 2-PRS RETRO speak 7.COP there  
 'What the children just said is true [lit. their word is there].'
- (C225) *mèé*      *bélé*      *nà* *sí*      *vâ*  
 mèé      bé-lé      nà      sí      vâ  
 1SG.PRS.NEG be-NEG COM Ø9.ground here  
 'I don't have any land here.'
- (C226) *mèè*      *vâ*      *mpínásâ*  
 mèè      vâ mpínásâ  
 1SG.COP here squeezed  
 'I'm squeezed here.'
- (C227) *då*      *sí*      *nyå*      *nyî*      *búùlè*      *yá*      *Ngòló*  
 då      sí      ny-å      nyî      búùlè      yá      Ngòló  
 so[French] Ø9.ground 9-POSS.1SG 9:COP Ø7.old.camp 7:ATT Ø3.PN  
 'So, my land is the old settlement of Ngolo.'

## B Texts

Mambi:

- (C228) *lé      yá      wé      nyê bá      gyibó      ngàlé      yî*  
           lé      yá      we-H      nyê ba-H      gyibó-H      ngàlé      yî  
           Ø7.tree 7:ATT 2SG-PRS see 2-PRS call-R      Ø7.tree.species 7.COP  
           ‘The tree that you see that they call ‘ngàlé’ is that.’
- (C229) *bá      lă      pámò vâ      téè      bà      kwèlɔ̃ɔ̃      yò      kílè*  
           ba-H      là-H      pámo vâ      téè      ba      kwèlɔ̃ɔ̃      y-ò      kílè  
           2SG-PRS pass-R arrive here now 2SG.PST1 cut.COMPL 7-OBJ NEG[Kwasio]  
           *dyúwò tsíyà*  
           dyúwò tsíyà  
           hear Ø1.question  
           ‘They pass and arrive here now, they cut it already, without asking [lit.  
           not hearing a question].’
- (C230) *yɔ̃ò      yɔ̃ò      mè      jilé      mà*  
           y-ɔ̃ò      y-ɔ̃ò      mè      jile-H      mà  
           7-OBJ 7-OBJ 1SG.PST1 place-R COMPL[Kwasio]  
           ‘This, this I have placed [there].’

Djiedjhie in Mabi:

- (C231) *píumá m-i      léé mē      náà bìi      tí wúmbè sá*  
           chief N1-non.Pygmy say 1SG.SBJ COMP 2PL.SBJ NEG want do  
           *bì-sálè      bò pwâ bì-dólò      bí bíná dólò      ywê      bí*  
           be8-work 2 pay be8-money 2PL refuse Ø7.money 7.POSS.3SG 2PL  
           *wúmbé sá      náà líní bí sá bì-sálè      bó kíyá bí      mà-nyùà*  
           want Ø7.thing COMP when 2PL do bi8-work 2 give 2PL ma6-drink  
           ‘The chief of the farmers [Bulu] told me that you don’t want to be paid  
           money when you work, you refuse their money, you want that when  
           you work you be given alcohol.’

Mambi:

- (C232) *àà      kfíumá ndè wà      Nlúnzò*  
           àà      kfíumá ndè wà      Nlúnzò  
           ECXL Ø1.chief ANA 1:ATT Ø1.PN  
           ‘Ah, that chief from Nlunzo!’

Nze:

- (C233) àà á sós  
 àà a-H sós  
 EXCL 1-PRS quit  
 'Ah, may he quit!'

Mambi:

- (C234) yèngè-yèngè nâ bùdì bá ndyándyá wû kàlègà býè  
 yèngè-yèngè nâ b-ùdì ba-H ndyándya-H wû kàlèga býè  
 especially COMP ba2-person 2-PRS work-R there stop.over 1PL.OBJ  
 pándè dígè býè vâ ya bùdé vâ nâ pílì wé ké  
 pánde díge býè vâ ya bùde-H vâ nâ pílì we-H kë-H  
 arrive watch 1PL.OBJ here 1PL have-R here COMP when 2SG-PRS go-R  
 bésálé békjówò bé kùgúù nà bé lévidósí  
 H-be-sálé be-jówò bé kùgúù nà bé le-vídósí  
 OBJ.LINK-be8-work be8-day.labor 8:ATT Ø7.evening CONJ 8:ATT le5-morning  
 'Especially people who work there stop over, come to see us here, we  
 say that when you go to do day labor in the evening and in the morning,'
- (C235) dɔ́ wé bùdé ná bafû wé yàné gyàgà bâ  
 dɔ́ wé bùde-H ná ba-fû wé-H yànè-H gyàga b-â  
 so[French] 2SG be-R again ba2-fish 2SG-PRS must-R buy 2-OBJ  
 'so, you have fish again, you have to buy them.'
- (C236) wé símásá ndáà sìgá  
 wé-H símasa-H ndáà sìgá  
 2SG-PRS regret-R also Ø1.cigarette  
 'You also regret [that you don't have] a cigarette [because you cannot  
 afford it].'
- (C237) wé símásá ndáà ɻwándó  
 wé-H símasa-H ndáà ɻwándó  
 2SG-PRS regret-R also Ø3.manioc.stick  
 'You also regret [not to have] manioc sticks [local starchy food].'
- (C238) wé yàné ná gyàgà ndísì  
 wé-H yànè-H ná gyàga ndísì  
 2SG-PRS must-H again buy Ø3.rice  
 'You must again buy rice,'

## B Texts

- (C239) *pílì wé lèmbó nâ bùdì bá ndáwò bvùbvù*  
 pílì wε-H lèmbo-H nâ b-ùdì bá ndáwò bvùbvù  
 when 2SG-PRS know-R COMP ba2-person 2:ATT Ø9.house many  
 'when you know that there are many people at home.'

Nze:

- (C240) *èsé bée ndáà béká làwó fálà*  
 èsé bée ndáà béká-H làwó-H fálà  
 is.it[French] 2PL.SBJ also 2PL[Kwasio]-PRS speak-R Ø1.French  
 'Isn't it, you also, you speak French.'

- (C241) *mèé láwɔlè fálà*  
 mèé láwɔ-lè fálà  
 1SG.PRS.NEG speak-NEG Ø1.French  
 'I don't speak French.'

- (C242) *nzá nút dè nzá nút nyímè*  
 nzá nút dè nzá nút nyímè  
 who 1.FUT eat who 1.FUT refuse  
 'Who will eat, who will stay hungry [lit. refuse].'

Mambi:

- (C243) *pílì wé ké gyàgà báfù bábáà*  
 pílì wε-H kè-H gyàga H-ba-fù bá-báà  
 when 2SG-PRS go-R buy OBJ.LINK-ba2-fish 2-two  
 'When you go to buy two fish...:'

- (C244) *ká bá ké wê vè békáwúyà békáwúyà nà màwú*  
 ká ba-H kè-H wê vè H-be-békáwúyà békáwúyà nà màwú  
 if 2-PRS go-R 2SG.OBJ give OBJ.LINK-be8-hundred 8-two CONJ ma6-ten  
 mâtánè  
 má-tánè  
 6-five  
 'If they go give you 250 [Francs],'

Nze:

- (C245) *wé sá tè ná*  
 wε-H sâ-H tè ná  
 2SG-PRS do-R there how  
 'how do you manage there? [because it's very little money]'

- (C246) *mhm mè Nzìwù wé*  
 mhm me Nzìwù wé  
 EXCL 1SG Ø1.PN ID  
 'Mhm, I'm Nziwu.'

Mambi:

- (C247) *wé ná báàlá nà nyé fí nà wé ndyándyá*  
 wε-H ná báàla-H nà nyê-H fí nà wε-H ndyándya-H  
 2SG-PRS again repeat-R CONJ see-R different CONJ 2SG-PRS work-R  
*ná sálé é pè nà wé kòlá ná mòné*  
 ná sálé é pè nà wε-H kòla-H ná mòné  
 again Ø7.work LOC over.there CONJ 2SG-PRS add-R again Ø1.money  
*nû*  
 nû  
 1.DEM.PROX

'You repeat [it] again and try something else [find other work] and you work there again and you add this money again [same amount of 250 Francs].'

Nze:

- (C248) *yóò nû áá láwɔ́lè*  
 yóò nû áá láwɔ́-lè  
 so 1.DEM.PROX 1.PRS.NEG speak-NEG  
 'So this one doesn't speak [teasing Délégué who is deaf-mute, but the joke is that he doesn't speak because he is guilty of having himself been exploited].'

- (C249) *kóò nyégà á làwó ndáà*  
 kóò nyé-gà a-H làwɔ́-H ndáà  
 only 1.SBJ-CONTR 1-PRS speak-R also  
 'As for him, he would also say something. [teasing: if he wasn't guilty, he would also speak and protest].'

- (C250) *mhm dzámé ngá nyê*  
 mhm dzámé ngá nyê  
 EXCL excuse PL 1.OBJ  
 'Mhm, excuse him [teasing: excuse him for accepting the poorly paid work].'

B Texts

- (C251) *bí b̄é yá ló làwɔ*  
bí b-ê ya-H ló làwɔ  
1PL.SBJ 2-all[Kwasio] 1PL-PRS RETRO speak  
'We all just spoke.'
- (C252) *yà bé bùdì báláálè*  
ya bè-H b-ùdì bá-láálè  
1PL.PST1 be-R ba2-person 2-three  
'We were three people.'

Mambi:

- (C253) *kóò sǐlè*  
kóò sǐlè  
just finish  
'Just finish.'

## Appendix C: Lexicon

The Gyeli – English lexicon represented here contains almost 1,500 entries. It mostly includes verbs and nouns, but also other parts of speech. Lexical entries minimally yield information on the part of speech and the translation. For nouns, also the noun prefix class and gender affiliation is indicated as well as the plural form. Verbal lexemes contain information on possible derivation forms.

In terms of notation conventions, abbreviations are listed at the beginning of the grammar. Generally, entries with a hyphen indicate the lexical stem that take a prefix. Entries without hyphens constitute prefixless, independent words. As elsewhere in the grammar, lexemes are marked for tone. If a syllable is not marked for tone, that means that it is underlyingly toneless.

A

- á d- *n.* 5/6 crab *pl.* m-á  
 -á lé tíndí *d- n.* 5/6 poisonous crab in forest *pl.* m-á má tíndí  
 -áá *m- n.* 6 chance, luck  
**àfríkà** *n.* 1 Africa  
 -ákè *d- n.* 5/6 nest *pl.* m-ákè  
 -ákó *n- n.* 3/6 earwax *pl.* m-ákó  
 -álè bw- *n.* 8/6 canoe *pl.* m-álè  
 -àmbò *m- n.* 6 thing  
 -ámó *d- n.* 5/6 hornbill *pl.* m-ámó  
 ányònè *n.* 1/2 onion *pl.* ba-nányònè  
 -áwè j- *n.* 5/6 goliath frog (*Conraua goliath*) *pl.* m-áwè

B

- bâ le- *n.* 5/6 spotted-necked otter  
(*Lutra maculicollis*) *pl.* ma-bâ  
bâ *n.* 3/4 pit, stone *pl.* mi-bâ  
bă *n.* 7/8 word *pl.* be-bă  
bäääää *ideo.* depiction of walking a long distance fast  
-bëëë *be-* *n.* 8 beauty  
-bô le- *n.* 5/6 knee *pl.* ma-bô  
bà *v.t.* smoke (e.g. cigarette)  
*npp.* mbàyá *recip.* bàyala *autoc.* bàyaga  
bâ *v.* marry *npp.* mbánâ *caus.* bálesé  
*recip.* bánala  
-báá *num.* two  
-báá le- *n.* 5/6 stumbling *pl.* ma-báá  
-bàà le- *n.* 5/6 view *pl.* ma-bàà  
báàla nà *v.* repeat *npp.* mbáálâ  
báàlé *v.* protect, guard, keep  
*npp.* mbaálâ *recip.* báàla  
bààm *ideo.* depiction of closing or

finishing something

- bàdà le- *n.* 5/6 ground *pl.* ma-bàdà

-bàdò le- *n.* 5/6 skin disease with blisters under skin, caused by lack of hygiene *pl.* ma-bàdò

-bágá le- *n.* 5/6 patch (for mending clothes) *pl.* ma-bágá

bága nà *v.* do sth. for last time, stop, separate *ppp.* mbágâ *recip.* bágala

bàgò *n.* 7/8 hoe *pl.* be-bàgò

bàkè *v.* stick, attach sth. *ppp.* mbàgá

bàlándè *n.* 1/2 larva, caterpillar *pl.* ba-bàlándè

bále *v.* surpass, overtake, conquer *ppp.* mbálâ

bálwó *v.* bend down *ppp.* mbálwô

bàmbèyè *n.* 7/8 prostitution *pl.* be-bàmbèyè

bámíwálé *n.* 7/8 scorpion *pl.* be-bámíwálé

bámɔ *v.* scold *ppp.* mbámâ  
*appl.* bámelè *recip.* bámala

bàmò *n.* 7/8 scar *pl.* be-bàmò

bándá *n.* 7/8 kingfisher (*Halcyon*) *pl.* be-bándá

-bándí lè- *n.* 5/6 protecting fetish (in house, not on body) *pl.* ma-bándí

-bándówó lé mpòmbó lè- *n.* 5/6 forehead *pl.* ma-bándówó má ma-mpòmbó

bándyè (wà le-kóð) *n.* 1/2 cave (of stone) *pl.* ba-bándyè

-bándyì lè- *n.* 5/6 slap in the face *pl.* ma-bándyì

básí *n.* 7/8 shoulder blade *pl.* be-básí

bábè *n.* 7/6 disease *pl.* ma-bábè

báwè *v.* injure (oneself) *ppp.* mbáwâ  
*caus.* báwesè *recip.* báwala

bàwè *v.* carry *ppp.* mbàwá  
*caus.* bàwesè *recip.* bàwala

bé <i>n.</i> 7/8 well, pit, hole <i>pl.</i> be-bé	do sth. bad, activate sth. <i>caus.</i> bílesé
bè <i>v.</i> be	<i>recip.</i> bínalá
bè <i>v.</i> sow, plant, cultivate <i>npp.</i> mbèyá	-bó <i>le-</i> <i>n.</i> 5/6 sole, footprint, hoof
<i>recip.</i> bèyala	<i>pl.</i> ma-bó
bè'è <i>n.</i> 7/6 shoulder <i>pl.</i> ma-bè'è	bò <i>v.</i> rot <i>npp.</i> mbòyá <i>caus.</i> bòyesé
bédé <i>v.</i> light <i>npp.</i> mbédâ <i>recip.</i> bédala	-bô <i>m-</i> <i>n.</i> 3/6 arm <i>pl.</i> ma-bô
<i>autoc.</i> bédega	bô <i>v.</i> lie down (intr) <i>npp.</i> mbúgâ
bédo <i>v.</i> go up, mount <i>npp.</i> mbédâ	<i>v.t.</i> búge
<i>appl.</i> bédèle <i>caus.</i> bédese <i>recip.</i> bédala	-bó'ò <i>le-</i> <i>n.</i> 5/6 bread fruit, bread fruit
<i>autoc.</i> bédega ascend	tree ( <i>Treculia africana</i> ) <i>pl.</i> ma-bó'ò
bédo <i>v.</i> ferment <i>npp.</i> mbédálâ	bódé <i>n.</i> 1/2 boot <i>pl.</i> ba-bódé
bèlane <i>v.</i> use <i>npp.</i> mbèlánê	bògë <i>v.</i> enlarge <i>npp.</i> mbògá
bélé <i>n.</i> 7/8 handicap <i>pl.</i> be-bélé	<i>caus.</i> bògesé <i>recip.</i> bògala
-bélè <i>le-</i> <i>n.</i> 5/6 breast <i>pl.</i> ma-bélè	bòlé <i>n.</i> 7/8 mold on food <i>pl.</i> be-bòlé
-bélè <i>le-</i> <i>n.</i> 5/6 kola nut <i>pl.</i> ma-bélè	bóméle <i>v.</i> wrinkle <i>npp.</i> mbómálâ
bénèle <i>v.</i> lift, raise <i>recip.</i> bénala	<i>recip.</i> bómala
<i>autoc.</i> bénega	bòndì <i>n.</i> 7/8 colobus monkey <i>pl.</i> be-
bèngvùdè - <i>n.</i> 1/2 golden angwantibo	bòndì
( <i>Arctocebus aureus</i> ) <i>pl.</i> ba-bèngvùdè	-bóndó <i>le-</i> <i>n.</i> 5/6 toad <i>pl.</i> ma-bóndó
bénó <i>n.</i> 7/8 buttock <i>pl.</i> be-bénó	-bòtù <i>ma-</i> <i>n.</i> 6 scalp ringworm infec-
bènɔ <i>v.</i> refuse <i>npp.</i> mbèná <i>recip.</i> bénala	tion ( <i>Tinea capititis</i> )
béyø <i>v.</i> ripen <i>npp.</i> mbéyâ <i>caus.</i> bílesé	bû <i>v.</i> destroy <i>npp.</i> mbúyâ <i>recip.</i> búyalá
<i>autoc.</i> býaga	bùábùá <i>n.</i> 7/8 state of animal or fish
-bí <i>le-</i> <i>n.</i> 5/6 excrements <i>pl.</i> ma-bí	when flesh is not yet dry during
-bí'i <i>le-</i> <i>n.</i> 5/6 leech <i>pl.</i> ma-bí'i	smoking process <i>pl.</i> be-bùábùá
bíá <i>n.</i> 1/2 beer <i>pl.</i> ba-bíá	bùdé <i>n.</i> 7/8 shell (sea, turtle, nut), skin
bíge <i>v.</i> become rich, develop, emerge	of fruit <i>pl.</i> be-bùdé
<i>npp.</i> mbígâ <i>caus.</i> bígesé	bùgù <i>n.</i> 7/8 place <i>pl.</i> be-bùgù
bímbú <i>n.</i> 7/6 quantity <i>pl.</i> ma-bímbú	búké <i>n.</i> 7/8 1) crazy person 2) tsetse fly
-bìndì <i>le-</i> <i>n.</i> 5/6 testicle <i>pl.</i> ma-bìndì	<i>pl.</i> be-búké
bìnó <i>n.</i> 7/8 louse <i>pl.</i> be-bìnó	búle <i>v.</i> burst <i>npp.</i> mbúlâ
bísì nà <i>v.</i> pay attention, consider	búlo <i>v.</i> fish <i>npp.</i> mbúlâ <i>recip.</i> búlala
bíbò <i>n.</i> 7/8 thickness <i>pl.</i> be-bíbò	-búlò mâ <i>m-</i> <i>n.</i> 1/2 fisherman <i>pl.</i> ba-
bíwò <i>n.</i> 3 bad luck	búlò mâ
bíwò <i>adj.</i> bad	búme <i>v.</i> bark <i>recip.</i> búmala
bíyálá <i>n.</i> 7/8 awful, hysterical, terrible	bùmè <i>v.</i> announce sth. <i>npp.</i> mbùmá
(positive or negative) <i>pl.</i> be-bíyálá	<i>recip.</i> búmala
bíyo <i>v.</i> hit, beat <i>npp.</i> mbilâ <i>appl.</i> bíyelé	-bùmè mâpô <i>m-</i> <i>n.</i> 1/2 announcer,
	messenger <i>pl.</i> ba-bùmè bá ma-pô

bùmèle <i>v.</i> hit (nail) <i>npp.</i> mbùmálâ	-bwásà ma- <i>n.</i> 6 thoughts
<i>recip.</i> bùmala	bwâsa <i>v.</i> think, remember
búndò <i>n.</i> 7/8 brideprice <i>pl.</i> be-búndò	bwéélè <i>v.</i> wait <i>recip.</i> bwâàla
búndɔ <i>v.</i> pay brideprice <i>npp.</i> mbúndâ	-bwă le- <i>n.</i> 5/6 beehive <i>pl.</i> ma-bwă
<i>caus.</i> búndesè <i>recip.</i> búndala	bwà <i>v.</i> give birth <i>npp.</i> mbwàlâ
búò <i>n.</i> 1/2 mute person <i>pl.</i> ba-búò	appl. bwàle be born <i>caus.</i> bwàlesè
búò <i>n.</i> 7/8 mortar <i>pl.</i> be-búò	bwà <i>v.</i> become big <i>npp.</i> mbògá
-búò le- <i>n.</i> 5/6 cripple <i>pl.</i> ma-búò	<i>recip.</i> bògala <i>v.t.</i> bòge fatten, make fat
búùlè <i>n.</i> 7/8 old settlement <i>pl.</i> be-búùlè	bwá má-kí <i>v.</i> lay eggs
-búwà le- <i>n.</i> 5/6 lung <i>pl.</i> ma-búwà	bwàà <i>v.</i> become, have, be
búwèlè <i>v.</i> squeeze, feel (e.g. fruit) <i>npp.</i> mbúwálâ	bwádɔ <i>v.</i> dress, wear <i>npp.</i> mbwádâ
bwû <i>v.</i> think, believe	<i>caus.</i> bódèsè <i>recip.</i> bódala
bvúala <i>v.</i> believe <i>npp.</i> mbvúálâ	-bàwlè m- <i>n.</i> 1/2 parent <i>pl.</i> ba-bwàlè
bvúbvù <i>n.</i> 9 multitude	-bwàlè ma- <i>n.</i> 6 birth
bvùbvù <i>inv.</i> (too) many, (too) much	-bwálèsè bùdâ m- <i>n.</i> 1/2 midwife <i>pl.</i> ba-bwálèsè bá bùdâ
bvúdà nà <i>v.</i> quarrel <i>npp.</i> mbvúdâ	bwámɔ <i>v.</i> 1) leave, go out 2) receive, obtain 3) become <i>npp.</i> mbwámâ
<i>recip.</i> bvúdala	<i>recip.</i> bwámala
bvùdè <i>n.</i> 7/6 clearing (in forest) <i>pl.</i> ma-bvùdè	bwàndɔ <i>v.</i> peel (e.g. maize, mango) <i>npp.</i> mbwàndâ <i>recip.</i> bwàndala
-bvúlè m- <i>n.</i> 1/2 Bulu person	bwàndyá <i>n.</i> 7/8 disdain, adultery <i>pl.</i> be-bwàndyá
bvùlé <i>n.</i> 8/8 night <i>pl.</i> be-bvùlé	bwàndya <i>v.</i> despise <i>npp.</i> mbwàndyá <i>recip.</i> bwàndyala
bvùmá <i>n.</i> 7/8 1) fruit 2) ball <i>pl.</i> be-bvùmá	bwè <i>v.</i> catch, arrest <i>npp.</i> mbùlâ <i>recip.</i> bëylà
bvùma <i>v.</i> thunder <i>autoc.</i> bvùmaga flock of birds flies away suddenly	bwèdòwò <i>n.</i> 7/6 taste <i>pl.</i> ma-bwèdòwò
bvùmá yá lé-bélè <i>n.</i> 7/8 female breast <i>pl.</i> be-bvùmá bé má-bélè	bwèdɔwɔ <i>v.</i> be sweet, be tasty <i>caus.</i> bòdèsè make sweet
bvùmá yá ngòndè <i>n.</i> 7/8 full moon (ball of moon) <i>pl.</i> be-bvùmá bé ngòndè	-bwí le- <i>n.</i> 5/6 hyena <i>pl.</i> ma-bwí
bvùmba <i>v.</i> surprise sb, chase sb. <i>npp.</i> mbvùmbá <i>recip.</i> bvùmbala	bwímò <i>n.</i> 7/8 net hunting <i>pl.</i> be-bwímò
bvúó <i>n.</i> 8/8 elephant trunk <i>pl.</i> be-bvúó	bwâ(bwò) <i>n.</i> 7/8 brain <i>pl.</i> be-bwâ
bvúò <i>v.t.</i> break, harvest maize <i>npp.</i> mbvúgâ <i>recip.</i> bvúgala <i>v.i.</i> bvúké break	bwúyà <i>n.</i> 7/8 hundred <i>pl.</i> be-bwúyà
-bvúú lè- <i>n.</i> 5/6 anger, being annoyed, unhappiness	byáàdà <i>v.</i> answer, respond <i>npp.</i> mbyáàdá
bwâ <i>n.</i> 8/6 medicine <i>pl.</i> ma-bwâ	

## D

dâ *v.* draw water *npp.* ndâálá  
*appl.* dâálé *recip.* dângala  
-dâ lé bá-fû le- *n.* 5/6 fish pond, source  
*pl.* ma-dâ má bá-fû  
dê *adv.* today  
dè *v.* eat *npp.* ndiyâ *caus.* dîlesé  
*recip.* díyala  
-délémôj le- *n.* 5/6 mud wasp *pl.* ma-  
délémôj  
dénde *v.* set (trap) *npp.* ndéndâ  
*recip.* déndala  
-déwò be- *n.* 8 food  
-dígà ma- *n.* 6 vision, apparition  
-dilá ma- *n.* 6 funeral  
dile *v.* bury *npp.* ndilá *recip.* dilala  
dísì *n.* 7/8 bowl *pl.* be-dísì  
dívè *adj.* expensive  
dó *n.* 7/8 lie *pl.* be-dó  
-dò ma- *n.* 6 negotiation for price  
dò *v.* negotiate (for price), discuss  
dómè *n.* 7/8 laziness *pl.* be-dómè  
dòò *n.* 7/8 puddle *pl.* be-dòò  
-dówó be- *n.* 8 sweat  
dù *n.* 7/6 thigh *pl.* ma-dù  
dùlè *n.* 7/6 bitterness *pl.* ma-dùlè  
dùlè mákimbó *n.* 7/6 saltiness (bitter-  
ness of salt) *pl.* ma-dùlè má mákimbó  
dúmbó *n.* 7/8 package, packet *pl.* be-  
dúmbó  
dúngilà *n.* 7/8 hedgehog *pl.* be-dúngilà  
dúòdù - *n.* 7/8 termite queen, caterpil-  
lar *pl.* be-dúòdù  
dúù *v.* must not  
dvň *n.* 7/8 noise *pl.* be-dvň  
dvúš *n.* 7/8 great hornbill *pl.* be-dvúš  
dvùbó *v.* soak, dip *npp.* ndvùbá

*appl.* dvùbélé bé-kâ weed grass with  
rake *caus.* dvùbëse *recip.* dvùbala  
dvùdô *v.* drive *npp.* ndvùdá *recip.* dvù-  
dala  
dvúmá *n.* 7/8 honor *pl.* be-dvúmá  
dvúmèle *v.* praise sb. *npp.* ndvùmálá  
*recip.* dvùmala  
dvúmò *n.* 7/8 baobab tree *pl.* be-dvúmò  
dvùmø *v.* fall down (tree) *npp.* nd-  
vùmá *caus.* dvùmëse *recip.* dvùmala  
dvùò *v.* hurt (oneself) *npp.* ndvùgá  
*caus.* dvùgesé *recip.* dvùgala *v.t.* dvùgë  
dvùwø *v.* stuff sth.  
dwàmbo *v.* ask for sth *npp.* ndwàmbá  
*recip.* dwàmbala  
dyââl *v.* chase, drive away  
*npp.* ndyángâ *recip.* dyángala  
dyà *v.* sing *npp.* ndyàyâ *recip.* dyàala  
dyà *n.* 7/8 distance, length *pl.* be-dyà  
dyâ (sí) *v.* lie (down), live *npp.* ndyáyâ  
*recip.* dyáàlâ have sex  
dyáala *v.* have sex  
dyágó *n.* 7/8 sleeping place *pl.* be-  
dyágó  
dyàmbo *v.* copulate  
-dyê le- *n.* 5/6 pincers (insect) *pl.* ma-  
dyê  
dyéké *v.* lean sth, incline sth  
*npp.* ndyékâ *recip.* dyékala lean  
against one another  
dyò *n.* 7/8 smile, laughter *pl.* be-dyò  
dyò *v.* laugh, smile *npp.* ndyòlasa  
*caus.* dyòlesé *recip.* dyòala  
dyô *n.* 7/8 sleep *pl.* be-dyô  
dyôš *n.* 7/8 bed *pl.* be-dyôš  
-dyòdálâ ma- *n.* 6 deception, cheating  
dyòde *v.* deceive, cheat *npp.* ndyòdá  
*recip.* dyòdala  
dyû *v.* be hot *npp.* ndyúngâ, ndúngálâ

*appl.* dyúngéle heat, boil sth. *re-*  
*cip.* dyúngala (warm body around fire)  
**-dyû** le- *n.* 5/6 heat (from sun), fever  
*pl.* ma-dyû  
**dyúà** *v.* swim  
**dyúàdà** *v.* feel, hear, perceive sensually  
**dyùlé** *v.* be bitter or salty *npp.* ndyùlá  
*caus.* dyùlësse *recip.* dyùlala  
**dyúmò** *n.* 1/2 spouse *pl.* ba-dyúmò  
**dyùmɔ** *v.* heal, get well *npp.* ndyùmá  
**-dyúmù** ma- *n.* 6 sperm  
**dyúná** *n.* 7/8 quarrel, dispute *pl.* be-dyúná  
**dyúna** *v.* quarrel *npp.* ndúnâ  
**dyúngúlè** *n.* 7/8 chameleon *pl.* be-dyúngúlè  
**dyùù** *v.* kill *npp.* ndyúwâ *re-*  
*cip.* dyúwala  
**dyùwâ** *n.* 7/6, 8 thorn *pl.* be-dyùwâ, ma-dyùwâ  
**dyúwò** *n.* 5 sky  
**dyúwò** *post.* on top, above  
**dyúwɔ** *v.* hear, understand *npp.* ndyùgá *appl.* dyúwële listen  
*caus.* dyúgesse make feel *recip.* dyúwale  
**dzámë** *v.* excuse, forgive

## E

**é** *prep.* at, on, by  
**é ná** *interr.* how  
**é vé** *interr.* where  
**-éndì d-** *n.* 5/6 courtyard *pl.* m-éndì  
**èsâs** *n.* 7/8 gas, fuel *pl.* b-esâs  
**-ésè** *quant.* all, every

**F**

fàlà *n.* 7 France  
**ffamí** *n.* 1/2 family *pl.* ba-fàmí  
**fàrínì** - *n.* 1/2 flour *pl.* ba-fàrínì  
**fû** *n.* 1/2 fish *pl.* ba-fû  
**-fû le-** *n.* 5/6 day *pl.* ma-fû  
**fù'ú** *n.* 1/2 rainy season (Aug-Nov)  
*pl.* ba-fù'ú  
**fùësse** *v.* shake *npp.* mfùásâ  
**fúge** *v.* end *npp.* mfúgâ *recip.* fúala  
**fukè** *n.* 1/2 driver ants (Hymenoptera)  
*pl.* ba-fukè  
**fùlápà** *n.* 7/8 flower, hedge, bush  
*pl.* be-fùlápà  
**fùlé** *v.* miss, escape *npp.* mfùlâ  
*caus.* fùlësse *recip.* fùlala  
**fùlò** *v.* descend, go down *npp.* mfùlâ  
*caus.* fùlësse  
**fúmbélè** *n.* 3/4 shin *pl.* mi-fùmbélè  
**fùmbí** *n.* 7/8 orange *pl.* be-fùmbí  
**-fùò le-** *n.* 5/6 stem, plant *pl.* ma-fùò  
**-fúsì** *adj.* different  
**-fwálá le-** *n.* 5/6 end *pl.* ma-fwálá  
**-fwálá lé túmbó le-** *n.* 5/6 border (between countries) *pl.* ma-fwálá má  
 bé-túmbó  
**-fwálá má nkùlé** ma- *n.* 6 summit

## G

**gâ** *n.* 1/2 gown *pl.* ba-gâ  
**gbí** *gbí* *gbí* *gbí* *gbí* *ideo.* depiction of small objects moving in space, e.g. bacteria roaming in body  
**gbím** *ideo.* depiction of putting or falling down of person or object

- gíndó’ó** *n.* 7/8 Calabar angwantibo (*Arctocebus calabarensis*) *pl.* be-gíndó’ó  
**giyo** *v.* cry *caus.* gílesé *recip.* gílala  
**góglè** *n.* 7/8 gold *pl.* be-góglè  
**gwámbó** *v.* ask for sth., beg  
**gwàwó** *n.* 7/8 civet *pl.* be-gwàwó  
**gwémbè** *n.* 7/8 cloth *pl.* be-gbémbe  
**gyà** *v.* paint, draw *ppp.* ngyàngâ  
**gyáâ** *n.* 1/2 side *pl.* ba-gyáâ  
**gyâlé** *v.* roast *ppp.* ngyââlâ  
**gyà** *n.* 7/8 music, song *pl.* be-gyà  
**gyà** *v.* be long  
**-gyâ** *le-* *n.* 5/6 charcoal *pl.* ma-gyâ  
**gyá yá nyúmbù** *n.* 7/8 lip *pl.* be-gyá  
**bé nyúmbù**  
**gyàga** *v.* buy *ppp.* ngyàgá *recip.* gyàgalâ  
**-gyàgèsì békâ** *n-* *n.* 1/2 merchant, vendor *pl.* ba-gyàgèsì békâ  
**gyàlé** *n.* 7/8 puerperium (period after giving birth (about a month)) *pl.* be-gyàlé  
**gyámbó** *v.* prepare, cook *ppp.* ngyámbâ *appl.* gyámbelé  
 prepare for *recip.* gyámbala  
**gyángya** *v.* work *ppp.* ngyángyâ *caus.* gyángyese *recip.* gyángyalâ  
**-gyé** *le-* *n.* 5/6 tooth *pl.* ma-gyé  
**gyê** *n.* 7/8 Cameroon clawless otter (*Aonyx capensis congicus*) *pl.* be-gyê  
**-gyê** *n-* *n.* 1/2 stranger, guest *pl.* ba-gyê  
**gyé’è** *v.* block *ppp.* ngyégâ *recip.* gyégalâ  
**-gyé’élè** *ma-* *n.* 6 prayer  
**gyé’ele** *v.* pray, beg, demand *ppp.* ngyàálâ  
**gyéle** *v.* jump, fly *ppp.* ngyélâ *caus.* gyélesé *recip.* gyélala  
**-gyèlì** *n-* *n.* 1/2 Gyeli person *pl.* ba-
- gyèlì  
**gyémò** *n.* 7/8 habit, manner *pl.* be-gyémò  
**gyèndò** *v.* slip *ppp.* ngyèndâ  
**gyésô** *v.* look for, search, lack *ppp.* ngyésâ *recip.* gyésala  
**gyí pro.** what  
**gyíbo** *v.* call *ppp.* ngyíbâ *recip.* gyíbala  
**gyìbò** *v.* sharpen *ppp.* ngyìbá *recip.* gyìbala  
**gyìde** *v.* forgive *ppp.* ngyìdâ  
**gyíka (nà)** *v.* resemble  
**gyíke** *v.* learn *ppp.* ngyíkâ be intelligent *caus.* gyíkesé teach  
**gyímbò** *v.* dance *ppp.* ngyímbâà *caus.* gyímbesé *recip.* gyímbala  
**-gyìmbò** *n-* *n.* 1/2 sorcerer *pl.* ba-gyìmbò  
**-gyìmbò** *le-* *n.* 5/6 magic (innate to a person) *pl.* ma-gyìmbò  
**gyíme** *v.* wake sb. up *ppp.* ngyímâ *caus.* gyímesé *autoc.* gyímagá wake up  
**gyímù** *n.* 7/8 tongue *pl.* be-gyímù  
**-gyólé** *le-* *n.* 5/6 bushbaby (*Galago senegalensis*) *pl.* ma-gyólé
- H**
- hámà** *n.* 1/2 hammer *pl.* ba-hámà
- I**
- í m-** *n.* 1/2 non-Pygmy people *pl.* b-í  
**-imbó j-** *n.* 5/6 raffia palm *pl.* m-imbó  
**-ínò j-** *n.* 5/6 name *pl.* m-ínò  
**-íslì d-** *n.* 5/6 1) eye 2) kernel, seed

<i>pl.</i> m-ísì	sink (v.i.), melt
-ísì lé bénó d- <i>n.</i> 5/6 anus (lit. eye of the buttock) <i>pl.</i> m-ísì mí bénó	jísòwò <i>n.</i> 7/8 patience <i>pl.</i> be-jísòwò
ítálíyèn <i>n.</i> 7 Italy	jíwó <i>n.</i> 7/8 river <i>pl.</i> be-jíwó
	-jíwó ma- <i>n.</i> 6 water
	jíwò <i>v.</i> steal, plunder <i>npp.</i> njíwâ
	<i>recip.</i> jíwala
	jíye <i>v.i.</i> burn <i>npp.</i> njígâ <i>caus.</i> jígesé
	make angry <i>recip.</i> jígala burn <i>v.t.</i> jíge
	burn sth.
jáà(-sa) <i>v.</i> disappear suddenly (slowly)	jíyó <i>n.</i> 7/8 chair <i>pl.</i> be-jíyó
<i>npp.</i> njáásá <i>recip.</i> jáàla	jówò <i>n.</i> 7/8 day work <i>pl.</i> be-jówò
jàngala <i>v.</i> have sex	
jí <i>n.</i> 7/8 place (where someone stays)	
<i>pl.</i> be-jí	
jí yá má-sô - <i>n.</i> 7/8 cemetery (place of graves) <i>pl.</i> be-jí bé má-sô	K
jì <i>v.</i> open <i>npp.</i> njiyá <i>recip.</i> jiyala	kâ <i>n.</i> 7/8 bunch of palm nuts <i>pl.</i> be-kâ
jí <i>n.</i> 7/8 bench <i>pl.</i> be-jí	kâ <i>v.</i> wrap <i>npp.</i> nkâlá <i>recip.</i> kâàla
jì(yø) (sí) <i>v.</i> sit (down), reside, stay	-ká le- <i>n.</i> 5/6 leaf <i>pl.</i> ma-ká
<i>npp.</i> njilá <i>appl.</i> jíle seat sb., stay	ká <i>n.</i> 7/8 grass <i>pl.</i> be-ká
<i>recip.</i> jílala	kâ <i>v.</i> catch (object in air) <i>npp.</i> nkàsá
-jíbí n- <i>n.</i> 1/2 thief <i>pl.</i> ba-jíbí	<i>appl.</i> kâsélé light sth.
jíbô <i>v.</i> close <i>npp.</i> njibá <i>recip.</i> jíbala	ká’â <i>v.</i> role up (e.g. mattress, paper), envelope, bandage <i>npp.</i> nkágâ <i>recip.</i> kágala
jíga <i>v.</i> be angry	-kâ’â le- <i>n.</i> 5/6 clan, tribe, kind <i>pl.</i> ma-kâ’â
-jíî be- <i>n.</i> 8 anger	kâbà <i>n.</i> 7/8 long dress <i>pl.</i> be-kâbà
jíi <i>v.</i> ask (a question)	kábálá <i>n.</i> 7/8 horse <i>pl.</i> be-kábálá
jíi <i>n.</i> 7/8 forest <i>pl.</i> be-jíi	kâbô <i>v.</i> share, divide, serve <i>npp.</i> nkâbá
jíkese <i>v.</i> make sb. angry	<i>recip.</i> kâbala
jílo <i>v.</i> be satisfied (not hungry)	kâde <i>v.</i> detach, unwrap (e.g. manioc stick) <i>npp.</i> nkâdá <i>caus.</i> kâdese <i>recip.</i> kâdala <i>autoc.</i> kâdëga detach by itself
<i>npp.</i> njilâ <i>caus.</i> jílesé	kâdö <i>v.</i> exceed, be too much
-jílô le- <i>n.</i> 5/6 1) weight 2) dignity	<i>npp.</i> nkâdâ <i>recip.</i> kâdala
<i>pl.</i> ma-jílô	kâdó <i>n.</i> 1/2 gift, present <i>pl.</i> ba-kâdó
jílô <i>v.</i> be heavy <i>npp.</i> njilá <i>caus.</i> jílesé	kâdô <i>n.</i> 1/2 ladder <i>pl.</i> ba-kâdô
jímbé <i>v.</i> get lost <i>npp.</i> njimbâ <i>appl.</i> jímbele lose sth. <i>caus.</i> jímbese make forget	
<i>recip.</i> jímbala forget each other	
jímesé <i>v.</i> extinguish <i>npp.</i> njimâ	
jímo <i>v.</i> be deep	
jína <i>v.</i> dive, disappear in water	
<i>npp.</i> njinâ <i>caus.</i> jínesé <i>autoc.</i> jínega	

kàgá <i>n.</i> 7/8 defect giving birth <i>pl.</i> be-kàgá	-kénó le- <i>n.</i> 5/6 blue duiker ( <i>Cephalophus monticola</i> ) <i>pl.</i> ma-kénó
-kàgà le- <i>n.</i> 5/6 bewitched woman <i>pl.</i> ma-kàgà	ké <i>n.</i> 7/8 fish scale <i>pl.</i> be-ké
-kágé le- <i>n.</i> 5/6 promise <i>pl.</i> ma-kágé	kè <i>v.</i> go, walk
kàgɔ <i>v.</i> promise <i>recip.</i> kàgala	kè mpfúndá <i>v.</i> run, go fast
kákà <i>v.</i> shiver	ké ké ké ké <i>ideo.</i> depiction of placing objects in a row
kàká <i>n.</i> 7/8 cocoa ( <i>Theobroma cacao</i> ) <i>pl.</i> be-káká	-kè'è le- <i>n.</i> 5/6 molar tooth <i>pl.</i> ma-kè'è
kálá <i>n.</i> 7/8 chili paste seasoning <i>pl.</i> be-kálá	ké'è (má-ki) <i>v.</i> hatch <i>npp.</i> nkégâ
-kàlà le- <i>n.</i> 5/6 doughnuts <i>pl.</i> ma-kàlà	kèdèlè <i>v.</i> gnaw, nibble <i>npp.</i> nkèdálâ
kàlà <i>n.</i> 7/8 strawmat <i>pl.</i> be-kàlà	<i>recip.</i> kédala
kálàdè <i>n.</i> 7/8 book <i>pl.</i> be-kálàdè	-kélè le- <i>n.</i> 5/6 language <i>pl.</i> ma-kélè
kàlanè <i>v.</i> transmit, translate <i>npp.</i> nkálánê	kèlè <i>v.</i> hang <i>npp.</i> nkèlâ <i>recip.</i> kèlala
kálé <i>n.</i> 1/2 sister (older and younger) <i>pl.</i> ba-kálé	kèmbè <i>n.</i> 7/8 phlegm <i>pl.</i> be-kèmbè
kàlèga <i>v.</i> stop over, go over with stops	kèndè <i>n.</i> 7/8 1) journey, traveling 2) time <i>pl.</i> be-kèndè
kámbè <i>n.</i> 1/2 weaver ants ( <i>Oecophylla</i> ) <i>pl.</i> ba-kámbè	kèndè vúdû <i>n.</i> 7/8 1) once, one time 2) in one go, immediately <i>pl.</i> be-kèndè
kámbo <i>v.</i> chew <i>npp.</i> nkámbâ <i>recip.</i> kámbara	bé-báà
kàmbo nà <i>v.</i> defend <i>npp.</i> nkàmbá	kééssó <i>n.</i> 7/8 person of equal rank, peer, neighbor <i>pl.</i> be-kééssó
recip. kámbara	-kfù le- <i>n.</i> 5/6 owl <i>pl.</i> ma-kfù
kàmèrún <i>n.</i> 1 Cameroon	kfùbala <i>v.</i> move
kánda <i>v.</i> crack (e.g. bottle, cup, glass) <i>npp.</i> nkándâ <i>caus.</i> kándese	kfùbè <i>v.</i> provoke <i>npp.</i> nkfùbálâ
kàndá <i>n.</i> 7/8 proverb <i>pl.</i> be-kàndá	<i>appl.</i> kfùbelè <i>provoke recip.</i> kfùbala
kàsà <i>n.</i> 7/8 bridge <i>pl.</i> be-kàsà	move
kàsèlè <i>v.</i> light <i>npp.</i> nkàsálâ <i>recip.</i> kásala	kfúbó <i>n.</i> 7/8 epilepsy <i>pl.</i> be-kfúbó
kásø <i>v.</i> become thin <i>npp.</i> nkásâ	kfúbò <i>n.</i> 1/2 chicken <i>pl.</i> ba-kfúbò
appl. kásèlè <i>recip.</i> kásala <i>autoc.</i> kásèga	-kfúdè le- <i>n.</i> 5/6 mad person, idiot <i>pl.</i> ma-kfúdè
get suddenly angry	kfúde <i>v.</i> cover, put a lid <i>npp.</i> nkfúdâ
kè <i>v.</i> shave <i>npp.</i> nkèngá <i>recip.</i> kèngala	<i>recip.</i> kfúdala <i>autoc.</i> kfúdega close oneself
-kè nlô n- <i>n.</i> 1/2 Tropical house gecko ( <i>Hemidactylus mabouia mabouia</i> ) <i>pl.</i> ba-kè mí-nlô	kfúdø má-bô <i>v.</i> kneel
	kfùdó yá ntélé <i>n.</i> 7/8 old tissue, rag
	kfùdòwò <i>n.</i> 7/8 chest <i>pl.</i> be-kúdòwò
	kfúléé <i>n.</i> 7/8 raffia <i>pl.</i> be-kfúléé
	kfúlà <i>n.</i> 7/8 two sticks in monkey trap that hold the trigger <i>pl.</i> be-kfúlà

-kfúlé le- <i>n.</i> 5/6 paw, sole <i>pl.</i> ma-kfúlé	taste sth. <i>recip.</i> kiyala taste each other
kfúlé wà jíi <i>n.</i> 1/2 (forest) tortoise	<i>pl.</i> ba-kfúlé (bá jíi)
ba-kfúlé bá bìpèbè - <i>n.</i> 1/2 sea turtle	<i>pl.</i> ba-kfúlé bá bìpèbè
-kfúlé le- <i>n.</i> 5/6 hump	<i>pl.</i> ma-kfúlé
kfúlɔ v. scrape skin of porcupine	(soak in hot water, then remove spikes)
npp. nkfúlá <i>recip.</i> kfúlala	<i>autoc.</i> kfúlega
kfúmá <i>n.</i> 1/2 chief, rich person	<i>pl.</i> ba-kfúmá
kfúmala v. find <i>npp.</i> nkfúmá	
kfúmbó <i>n.</i> 7/8 bragging, showing-off	<i>pl.</i> be-kfúmbó
-kfúmó le- <i>n.</i> 5/6 heap	<i>pl.</i> ma-kfúmó
kfúmó <i>n.</i> 7/8 stump	<i>pl.</i> be-kfúmó
-kfündé le- <i>n.</i> 5/6 garbage	<i>pl.</i> ma-kfündé
kfúnó <i>n.</i> 7/8 hornbill	<i>pl.</i> be-kfúnó
kfùò - <i>n.</i> 7/8 alstonia tree ( <i>Alstonia congensis</i> )	<i>pl.</i> be-kfùò
kfúzá <i>n.</i> 7/8 fist	<i>pl.</i> be-kfúzá
-kí le- <i>n.</i> 5/6 egg	<i>pl.</i> ma-kí
kí v. say	
-kikùù ma- <i>n.</i> 6 exam	
-kílì be- <i>n.</i> 8 slyness, cunning	
kílwɔ v. be vigilant	<i>npp.</i> nkílásâ be warned
kílásâ caus. kílesé make vigilant	
-kimbó ma- <i>n.</i> 6 salt	
kímì <i>n.</i> 1/2 monkey (generic)	<i>pl.</i> ba-kímì
kíndá <i>n.</i> 7/8 sugar ant	<i>pl.</i> be-kíndá
kíngelé v. become stiff	<i>npp.</i> nkíngálâ
kísínì <i>n.</i> 1/2 kitchen	<i>pl.</i> ba-kísínì
kíya v. give	<i>npp.</i> nkíyá <i>caus.</i> kíyesé
chase sb. <i>recip.</i> kiyala	
kíyé <i>n.</i> 7/8 iron	<i>pl.</i> be-kíyé
kíye v. 1) try	2) tempt <i>appl.</i> kíyele
kó <i>n.</i> 1/2 uncle (mother's brother)	
<i>pl.</i> ba-kó	
-kókò m- <i>n.</i> 1/2 Bakoko	<i>pl.</i> ba-kókò
kòkù <i>n.</i> 7/8 albino	<i>pl.</i> be-kòkù
kòla v. add, lengthen	<i>npp.</i> nkòlá
<i>recip.</i> kòlala	
kòlè v. help	<i>npp.</i> nkòlá <i>recip.</i> kòlala
kòyà <i>n.</i> 7/8 rope, cord	<i>pl.</i> be-kòyà
-kó le- <i>n.</i> 5/6 stone	<i>pl.</i> ma-kó
kóò adv. always	
kô v. gather, pluck, pick	<i>npp.</i> nkóyâ
<i>recip.</i> kóyala <i>autoc.</i> kóyaga	
-kó lé tsí le- <i>n.</i> 5/6 nape of neck	<i>pl.</i> ma-kó má tsí
kò'ò <i>n.</i> 7/8 African Jointfir ( <i>Gnetum africanum</i> )	<i>pl.</i> be-kò'ò
kóbè <i>n.</i> 1/2 cup	<i>pl.</i> ba-kóbè
kóbè v. violate, break (rule)	<i>npp.</i> nkóbâ
<i>recip.</i> kóbala	
-kódé le- <i>n.</i> 5/6 bend, curve	<i>pl.</i> ma-kódé
kódé v. turn sth. (with vehicle)	
<i>npp.</i> nkódâ <i>caus.</i> kódese <i>recip.</i> kódala	
<i>autoc.</i> kódega turn oneself	
kódò <i>n.</i> 7/8 yam	<i>pl.</i> be-kódò
kòfí <i>n.</i> 7/8 coffee	<i>pl.</i> be-kòfí
kóge v. straighten	<i>npp.</i> nkogâ
<i>caus.</i> kógesé <i>recip.</i> kógala	
kókó <i>n.</i> 7/8 1) shell	2) emptiness
<i>pl.</i> be-kókó	
kókó yá nlô - <i>n.</i> 7/8 skull	<i>pl.</i> be-kókó
bé mí-nlô	
kókó yá ngwálâ <i>n.</i> 7/8 snail house	
<i>pl.</i> be-kókó bé bá-ngwálâ	
kôlè v. snore	
kòlè (mábòò) v. stumble	<i>recip.</i> kòlala
-kóndà le- <i>n.</i> 5/6 sap	<i>pl.</i> ma-kóndà
-kóndyì le- <i>n.</i> 5/6 palm (of hand)	

<i>pl.</i> ma-kóndyì	<b>kùbê</b> <i>n.</i> 7/6 heritage <i>pl.</i> ma-kùbê
<b>kósé</b> <i>v.</i> cough <i>appl.</i> kóséle make cough	-kúwó le- <i>n.</i> 5/6 flea <i>pl.</i> ma-kúwó
<i>recip.</i> kósala	-kwă le- <i>n.</i> 5/6 spear, arrow <i>pl.</i> ma-
<b>kpàdà kpàdà</b> <i>ideo.</i> depiction of drum-	kwă
ming on bamboo	<b>kwâ</b> <i>v.</i> cut raffia leaves in tree
<b>kpèmè</b> <i>n.</i> 7/8 manioc leaves <i>pl.</i> be-	<i>npp.</i> nkágâ <i>recip.</i> kwágala
kpèmè	<b>kwâ</b> <i>v.</i> betray <i>npp.</i> kwágâ
<b>kpúdùm kpúdùm</b> <i>ideo.</i> depiction of	<i>caus.</i> kwágese <i>recip.</i> kwágala
drumming	<b>kwáâle</b> <i>v.</i> spy <i>npp.</i> nkââlâ <i>re-</i>
<b>kù</b> <i>n.</i> 1/2 rat <i>pl.</i> ba-kù	<i>cip.</i> kwálala
<b>kû</b> <i>n.</i> 1/2 leopard <i>pl.</i> ba-kû	<b>kwî</b> <i>n.</i> 7/8 Peter's duiker ( <i>Cephalophus</i>
<b>kúdé</b> <i>n.</i> 7/8 skin <i>pl.</i> be-kúdé	<i>callipygus</i> ) <i>pl.</i> be-kwî
<b>kúéle</b> <i>v.</i> mock, make fun of <i>re-</i>	<b>kwà</b> <i>v.</i> grind (with stone), hollow out
<i>cip.</i> kúala	canoe <i>npp.</i> nkágâ <i>recip.</i> kwágala
<b>kùga</b> <i>v.</i> spread, fit, be enough	<b>kwádó</b> <i>n.</i> 7/6 village <i>pl.</i> ma-kwádó
<i>npp.</i> nkágâ	<b>kwádó písè</b> <i>n.</i> 7/6 countryside, rural
<b>kùgúù</b> <i>n.</i> 7/8 evening <i>pl.</i> be-kùgúù	area <i>pl.</i> ma-kwádó písè
<b>kùgúù bvúù</b> <i>n.</i> 7 day before yesterday	<b>kwádø</b> <i>v.</i> twist, bend <i>npp.</i> nkádâ
<b>kùgúù mgbágâ</b> - <i>n.</i> 7 day before	<i>autoc.</i> kwádega
yesterday	<b>kwálè</b> <i>n.</i> 7/8 1) love, desire 2) partridge
<b>kúkú</b> <i>n.</i> 7/8 mushroom <i>pl.</i> be-kúkú	<i>pl.</i> be-kwálè
<b>kúlé</b> <i>v.</i> borrow <i>npp.</i> nkùlá <i>caus.</i> kùlesé	<b>kwálè</b> <i>v.</i> love, like <i>npp.</i> nkádâ
lend <i>recip.</i> kùlala	<i>recip.</i> kwálala
<b>kúlí</b> <i>n.</i> 9/6 funeral ceremony from	<b>-kwálówó</b> le- <i>n.</i> 5/6 knuckle (hand,
death to burying (French <i>deuil</i> ) <i>pl.</i> ma-	foot) <i>pl.</i> ma-kwálówó
kúlí	<b>kwámó</b> <i>n.</i> 9/6 bag <i>pl.</i> ma-kwámó
<b>kùlì</b> <i>n.</i> 7/8 pimple <i>pl.</i> be-kùlì	<b>kwàndò</b> <i>n.</i> 7/8 plantain <i>pl.</i> be-kwàndò
<b>kùmasa</b> <i>v.</i> prepare <i>npp.</i> nkùmásâ	<b>kwáné</b> <i>n.</i> 7/8 meeting, party <i>pl.</i> be-
<b>kúmbé</b> - <i>n.</i> 7/8 tin <i>pl.</i> be-kúmbé	kwáné
<b>kùmbó</b> <i>n.</i> 7/8 womb <i>pl.</i> be-kùmbó	<b>kwàne</b> <i>v.</i> sell <i>npp.</i> nkágâ
<b>kùmbø</b> <i>v.</i> repair, reconcile, arrange,	<b>-kwásì</b> ma- <i>n.</i> 6 clapping (with hands)
fix <i>npp.</i> nkùmbá <i>recip.</i> kùmbala	<b>kwàsyó</b> <i>n.</i> 2 Kwasio people
<b>kúnàà</b> <i>inv.</i> good	<b>kwê</b> <i>n.</i> 7/8 cough <i>pl.</i> be-kwê
<b>kündá</b> <i>n.</i> 7/8 shoe <i>pl.</i> be-kündá	<b>kwê</b> <i>v.</i> fall, fail (trans.) <i>npp.</i> nkágâ
<b>-kündí</b> le- <i>n.</i> 5/6 mat <i>pl.</i> ma-kündí	<i>caus.</i> kùesé make fall <i>recip.</i> kwéyala
<b>-kú</b> le- <i>n.</i> 5/6 Azobé tree, Ironwood	<b>kwéle</b> <i>v.</i> bite <i>npp.</i> nkââlâ <i>re-</i>
tree ( <i>lophira alata</i> ) <i>pl.</i> ma-kú	<i>cip.</i> kwálala
<b>kùrà</b> <i>n.</i> 7 electricity	<b>kwélø</b> <i>v.</i> 1) cut down 2) injure some-
<b>kùsì</b> <i>n.</i> 1/2 parrot <i>pl.</i> ba-kùsì	one <i>npp.</i> nkágâ <i>recip.</i> kwélala

*autoc.* kwèlega

*kyàle* v. start an engine *npp.* nkyàlá

*kyége* n. 7/8 Basaa *pl.* be-kyége

*kyèlega* v. fall from tree when branch

breaks *npp.* nkyèlegâ *recip.* kyèlala

*kyèlí* n. 7/8 bird trap *pl.* be-kyèlí

## L

*lâ* v. pass, overtake, pass by  
*npp.* nlàngá *appl.* làngelé let pass, time  
*recip.* làngala

*lâ* v. read, count *npp.* nlángâ *recip.* lán-gala

*lâ* (yá nyúà) n. 7/8 green mamba  
*pl.* be-lâ (bé nyúà)

*lâ mímbvû* n. 1/2 larvae on a tree  
*pl.* ba-lâ mímbvû

-lâ le- n. 5/6 fish trap *pl.* ma-lâ

-lâ ma- n. 6 1) meaning 2) support  
(material, financial) 3) importance

-lâ le- n. 5/6 antenna *pl.* ma-lâ

*lâ* v. harvest, collect honey *npp.* nláyâ  
*recip.* léyala *autoc.* léyega

*lâà* v. tell *npp.* nláwâ *recip.* láàla

*lâálè* num. three

*lâdo nà* v. meet *npp.* nlâdá *caus.* làdese  
*recip.* làdala

*lâga* v. contaminate sth. (e.g. disease)  
*npp.* nlágâ *caus.* légesé *recip.* légala

-lâmbò le- n. 5/6 trap *pl.* ma-lâmbò

*lâmbò* n. 7/6 lamp *pl.* ma-lâmbò

*lâmbo* v. trap *npp.* nlâmbâ *recip.* lám-bala

*lâna* v. distribute, unlimited offer  
*npp.* nlánâ *recip.* lánala

*lândè* n. 7/6 Sea almond tree (*Terminalia catappa*) *pl.* ma-lândè

*lâbè* n. 1/2 big rainy season *pl.* ba-lâbè

*lé* n. 7/8 tree, bush *pl.* be-lé

*lé* n. 7/8 glass *pl.* be-lé

*lê* v. offer *npp.* nléyâ *recip.* léyala

*lè* v. pour into *npp.* nlèngâ *recip.* lèn-gala

*lèbelé* v. follow, chase *npp.* nlèbâlâ  
*recip.* lèbala

*lèbvùá* inv. nine

*lèè* v. uproot, disroot *npp.* nlèyá  
*recip.* lèyala

*légé* v. singe *npp.* nlégâ *caus.* légesé  
*recip.* légala *autoc.* légega

*lèmbo* v. 1) know 2) flee, escape  
*npp.* nlèmbâ *caus.* lèmbesé *recip.* lèm-bala

-lendé le- n. 5/6 palm tree *pl.* ma-lendé

*lèndo* v. flow *npp.* nlèndá *caus.* lèndesé  
*autoc.* lèndega

*lénè* n. 7/8 offer *pl.* be-lénè

*lèngò* n. 7/8 fun, amusement, joke  
*pl.* be-lèngò

*lîbela* v. show up, appear (e.g. moon)  
*npp.* nlíbálâ

*lîbelé* v. show *npp.* nlíbâlâ *recip.* líbala

*lîè* v. leave (to sb), cede, let *npp.* nlígâ  
*recip.* lígala

*límâ* n. 7/8 stupidity *pl.* be-límâ

*lîmbe* v. pull *npp.* nlímbâ *recip.* lím-bala *autoc.* límbege

*línâ* inv. since

*lîndè* inv. when

-lîbelá (má ngóndé) ma- n. 6 rising,  
apparition (of moon)

*livré* n. 1/2 book *pl.* ba-lîvré

*lîyelé* v. accompany *npp.* nlíyálâ  
*recip.* líyala

*lîyô* v. clear land *npp.* nléyâ *recip.* líyala  
*autoc.* líyaga

lò v. sew, weave, weave nest <i>npp.</i>	nlòyá	<i>recip.</i> lúwala
<i>caus.</i> lòyese <i>recip.</i> lòyala		
-lô le- <i>n.</i> 5/6 ear <i>pl.</i>	ma-lô	
lòá <i>n.</i> 7/8 slave, servant <i>pl.</i>	be-lòá	
lògò <i>n.</i> 7/8 curse <i>pl.</i>	be-lògò	
-lólè mí-nkòlè <i>n-</i> <i>n.</i> 1/2 weaver, tailor		
<i>pl.</i> ba-lólè bá mí-nkòlè		
lòlò <i>n.</i> 7/8 duck <i>pl.</i>	be-lòlò	
lòmbì <i>inv.</i> eight		
lòndó <i>n.</i> 7/8 ring <i>pl.</i>	be-lòndó	
lóngá <i>n.</i> 7/8 group, swarm, flock		
<i>pl.</i> be-lóngá		
-lòs le- <i>n.</i> 5/6 dew <i>pl.</i>	ma-lòs	
-lù ma- <i>n.</i> 6 sexual intercourse		
-lû le- <i>n.</i> 5/6 insult <i>pl.</i>	ma-lû	
lû v. insult <i>npp.</i> nlúngâ <i>recip.</i> lúngala		
and lúwala		
lùà v. curse <i>npp.</i> nlògá <i>caus.</i> lògese		
<i>recip.</i> lògala		
lúá v. whistle <i>npp.</i> nlóngá <i>recip.</i> lón-		
gala scream <i>v.t.</i> lóngé yélè whistle		
with whistle		
lúme v. send <i>npp.</i> nlúmâ, nlúmálâ		
<i>appl.</i> lúmèle <i>recip.</i> lúmala		
lùmô <i>n.</i> 7/8 yellow fever mosquito		
( <i>Aedes aegypti</i> ) <i>pl.</i> be-lùmô		
lùndá <i>n.</i> 7/8 small forest, grove		
between villages and houses (French		
<i>bosquet</i> ) <i>pl.</i> be-lùndá		
lúndé <i>n.</i> 7/8 apa tree ( <i>Afzelia bipiden-</i>		
<i>sis</i> ) <i>pl.</i> be-lúndé		
lúndo <i>v.</i> fill oneself (with food)		
<i>npp.</i> nlúndá <i>appl.</i> lúndele fill sth.		
<i>caus.</i> lúndese <i>recip.</i> lúndala		
lúnga <i>v.</i> grow <i>npp.</i> nlùngá		
<i>caus.</i> lúngese		
lùngèle <i>v.</i> aim (at) <i>npp.</i> nlùngálâ		
<i>recip.</i> lúngala		
lúwø <i>v.</i> bite <i>npp.</i> nlùwá <i>caus.</i> lúwese		

méèlé <i>v.</i> accept, respond, reply	mpà'à <i>n.</i> 9 vapor, fog
<i>npp.</i> méélâ <i>recip.</i> méala	mpá'à wá nyúlè <i>n.</i> 3/4 side of the body <i>pl.</i> mi-mpá'à mí nyúlè
mémédé wà be-sâ <i>n.</i> 1/2 owner	mpà(mpà) <i>adj.</i> good
<i>pl.</i> békédé bá békâ	mpàlé <i>n.</i> 9/6 news <i>pl.</i> ma-mpàlé
mèmô <i>v.</i> admit <i>npp.</i> mémá <i>recip.</i> mè-	mpàgô <i>n.</i> 3/4 road <i>pl.</i> mi-mpàgô
mala	mpàmbili <i>n.</i> 3/4 plunge, fall <i>pl.</i> mi-
ménó <i>n.</i> 7/8 morning <i>pl.</i> be-ménó	mpàmbili
mèsò <i>v.</i> wave (greeting) <i>npp.</i> mèsá	mpàndà <i>n.</i> 1/2 bug (all larger, rounder insects) <i>pl.</i> ba-mpàndà
<i>recip.</i> mèsala	mpàndyè <i>n.</i> 7/8 bamboo <i>pl.</i> be-
mèvâ - <i>n.</i> 7 pride	mpàndyè
mfû <i>n.</i> 3/4 poison <i>pl.</i> mi-mfû	mpàndyì <i>n.</i> 7/6 rib <i>pl.</i> ma-mpàndyí
mfùlè <i>n.</i> 3/4 fart <i>pl.</i> mi-mfùlè	mpèlè <i>n.</i> 1/2 eagle <i>pl.</i> ba-mpèlè
mgbâ <i>n.</i> 7/8 crow <i>pl.</i> be-mgbâ	mpèndè <i>n.</i> 3/4 root <i>pl.</i> mi-mpèndè
-mgbámàlâ ma- <i>n.</i> 6 acidity	mpèwó <i>n.</i> 3/4 wind <i>pl.</i> mi-mpèwó
mgbámala <i>v.</i> be sour	mpfùmbò <i>n.</i> 3/4 dead tree (without leaves) <i>pl.</i> mi-mpfùmbò
mgbásá <i>n.</i> 7/8 hunting with spear and dogs <i>pl.</i> be-mgbásá	mpfùmò <i>n.</i> 3/4 midnight <i>pl.</i> mi-
mgbèmgbèmè - <i>n.</i> 7/8 lion <i>pl.</i> be-	mpfùmò
mgbèmgbèmè	mpfündô <i>n.</i> 3/4 running, race <i>pl.</i> mi-
mgbísì <i>n.</i> 3/4 freshness, rawness, living <i>pl.</i> mi-mgbísì	mpfündô
mimbâ <i>v.</i> brag <i>recip.</i> mímbala	mpfungyá'à <i>n.</i> 3/4 dust <i>pl.</i> mi-
minkí <i>n.</i> 1/2 pot, casserole <i>pl.</i> ba-minkí	mpfungyá'à
mìnò <i>v.</i> swallow <i>npp.</i> mìná	mpfùò <i>n.</i> 3/4 last meal with medicine in a healing session <i>pl.</i> mi-mpfùò
<i>caus.</i> mìnese <i>recip.</i> mìnala	mpí'ídì <i>n.</i> 9/6 heat (from fire, pot, people) <i>pl.</i> ma-mpí'ídì
míntùlí <i>n.</i> 1/2 mouse <i>pl.</i> ba-míntùlí	mpíi <i>n.</i> 3/4 kidney <i>pl.</i> mi-mpíi
-mínú le- <i>n.</i> 5/6 gill <i>pl.</i> ma-mínú	mpìmbá <i>n.</i> 7/8 pancreas <i>pl.</i> be-
míyù <i>n.</i> 1/2 brother, cousin, close friend (younger or same age) <i>pl.</i> ba-	mpìmbá
míyù	mpinàgà <i>n.</i> 3/4 obligation, duty
mkpámá <i>n.</i> 3/4 novelty <i>pl.</i> mi-	<i>pl.</i> mi-mpinàgà
mkpámá	mpíndá <i>n.</i> 9/6 law, prohibition <i>pl.</i> ma-
mò <i>n.</i> 3/4 stomach <i>pl.</i> mi-mò	mpíndá
mòné <i>n.</i> 1/2 money <i>pl.</i> ba-mòné	mpindí <i>n.</i> 3/4 unripeness <i>pl.</i> mi-
-móngò le- <i>n.</i> 5/6 male driver ant ( <i>Dorylinae</i> ) <i>pl.</i> ma-móngò	mpindí
mpá <i>n.</i> 3/4 island <i>pl.</i> mi-mpá	mpindi <i>n.</i> 9/6 dirt <i>pl.</i> ma-mpindi
mpà <i>n.</i> 1/2 1) Thomas' bushbaby ( <i>Galago thomasi</i> ) 2) virgin <i>pl.</i> ba-mpà	mpindyó <i>n.</i> 3/4 trigger in trap <i>pl.</i> mi-

mpìndyá	mwàssò
mpìngá <i>n.</i> 3/4 sweet cassava <i>pl.</i> mi-mpìngá	3/4 long bendable stick in trap that holds animal <i>pl.</i> mi-mwàssò
mpö <i>n.</i> 1/2 sun squirrel ( <i>Heliosciurus gambianus</i> ) <i>pl.</i> ba-mpö	mwàssò <i>v.</i> throw <i>npp.</i> mwàssá <i>recip.</i> mwàssala
mpö'ò - <i>n.</i> 3/4 tooth gap <i>pl.</i> mi-mpö'ò	mwé <i>n.</i> 3/4 dam <i>pl.</i> mi-mwé
mpóndá <i>n.</i> 3/4 shirt <i>pl.</i> mi-mpóndá	myàkè <i>v.</i> sprinkle <i>npp.</i> myàká <i>caus.</i> myàkessé <i>recip.</i> myàkala
mpòngó <i>n.</i> 9/6 seedling <i>pl.</i> ma-mpòngó	myámata <i>v.</i> be narrow, narrow sth. <i>npp.</i> myámátâ
mpòngóló <i>n.</i> 7/8 ginger plant ( <i>Aframomum</i> ) <i>pl.</i> be-mpòngóló	myámáo <i>v.</i> knead, press (dough or fruit), press between fingers <i>recip.</i> myámala
mpù ? like (this)	myángálè <i>n.</i> 3/4 rust <i>pl.</i> mi-myángálè
mpû <i>n.</i> 3/4 payment <i>pl.</i> mi-mpû	myé <i>n.</i> 4 fur
mpúbélè <i>n.</i> 1/2 current, rip tide <i>pl.</i> ba-mpúbélè	
mpúdé <i>n.</i> 3/4 maize <i>pl.</i> mi-mpúdé	<b>MB</b>
mpúèrè <i>inv.</i> seven	
mpùlé <i>n.</i> 3/4 1) African whitewood ( <i>Enantia chlorantha</i> ) 2) yellow color <i>pl.</i> mimpùlé	mbááló <i>n.</i> 3/4 jaw <i>pl.</i> mi-mbááló
mpúmbú <i>n.</i> 3/4 calf <i>pl.</i> mi-mpúmbú	mbàdó <i>n.</i> 3/4 lake <i>pl.</i> mi-mbàdó
mpwá <i>n.</i> 3/4 bouillon, stock (made from water, salt, and chili) <i>pl.</i> mi-mpwá	mbàfùmbò <i>n.</i> 3/4 shrew <i>pl.</i> mi-mbàfùmbò
mtsà mtsà mtsà <i>ideo.</i> depiction of picky eating (only taking certain items off the plate)	mbágò <i>n.</i> 3/4 package, envelop <i>pl.</i> mi-mbágò
múele <i>v.</i> nibble <i>npp.</i> múálâ <i>caus.</i> múesé <i>recip.</i> múala	mbàmbà <i>n.</i> 3/4 co-wife <i>pl.</i> mi-mbàmbà
-mungè le- <i>n.</i> 5/6 beetle ( <i>Buprestidae</i> ) <i>pl.</i> ma-mungè	mbámbé <i>n.</i> 1/2 grandparent, ancestor <i>pl.</i> ba-mbámbé
músá <i>n.</i> 7/8 midday, noon <i>pl.</i> be-músó	mbàmbili <i>n.</i> 1/2 father-in-law <i>pl.</i> ba-mbàmbili
mvébé <i>n.</i> 7/8 hedgehog <i>pl.</i> be-mvébé	mbàngá <i>n.</i> 3/4 nut, pit, stone <i>pl.</i> mi-mbàngá
mvíndó <i>n.</i> 3/4 sweet water turtle <i>pl.</i> mi-mvíndó	mbàngá lé-léndé - <i>n.</i> 3/4 coconut <i>pl.</i> mi-mbàngá mí má-léndé
mwádékâ <i>n.</i> 7/8 other side <i>pl.</i> be-mwádékâ	mbè <i>n.</i> 1/2 flood <i>pl.</i> ba-mbè
mwálé <i>n.</i> 3/4 female <i>pl.</i> mi-mwálé	mbènè <i>n.</i> 9/6 bad sign, omen <i>pl.</i> ma-mbènè
-mwàngólí le- <i>n.</i> 5/6 joint <i>pl.</i> ma-mwàngólí	mbewò <i>n.</i> 3/4 selfishness, sin <i>pl.</i> mi-mbewò
	mbè <i>n.</i> 3/4 drum <i>pl.</i> mi-mbè
	mbê <i>n.</i> 3/4 door <i>pl.</i> mi-mbê

<b>mbéé</b> <i>n.</i> 3/4 metal oven <i>pl.</i> mi-mbéé	<i>pl.</i> ma-mbvúndá
<b>mbèlè</b> <i>n.</i> 3/4 African Padauk, African Coralwood ( <i>Pterocarpus soyauxii</i> )	-mbvúndyè <i>le-</i> <i>n.</i> 5/6 leafy debris to hide traps) <i>pl.</i> ma-mbvúndyè
<i>pl.</i> mi-mbèlè	<b>mbvúò</b> <i>n.</i> 1/2 rain <i>pl.</i> ba-mbvúò
-mbì <i>le-</i> <i>n.</i> 5/6 pillar <i>pl.</i> ma-mbì	<b>mbvúò wà mbvú</b> <i>n.</i> 1/2 drizzle (lit. rain of white hair) <i>pl.</i> ba-mbvúò bá mbvú
<b>mbimbó</b> <i>n.</i> 3/4 corpse <i>pl.</i> mi-mbimbó	<b>mbvúò wà nénè</b> <i>n.</i> 1/2 strong rain <i>pl.</i> ba-mbvúò bá nénè
<b>mbómò</b> <i>n.</i> 3/4 eldest (in village)	<b>mbwâ</b> <i>n.</i> 3/4 tuber, bulb <i>pl.</i> mi-mbwâ
<i>pl.</i> mi-mbómò	<b>mbwàmbò</b> <i>n.</i> 3/4 bundle, package <i>pl.</i> mi-mbwàmbò
<b>mbondí</b> <i>n.</i> 3/4 oil (for cooking) <i>pl.</i> mi-mbondí	<b>mbwàmò</b> <i>n.</i> 3/4 staying with woman in other compound, adultery <i>pl.</i> mi-mbwàmò
<b>mbòlè</b> <i>n.</i> 3/4 okra <i>pl.</i> mi-mbòlè	<b>mbwàmò</b> <i>n.</i> 1/2 python <i>pl.</i> ba-mbwàmò
<b>mbòlé kfúnó</b> <i>n.</i> 7/8 slime <i>pl.</i> be-mbòlé kfúnó	<b>mbwě</b> <i>n.</i> 1/2 dog <i>pl.</i> ba-mbwě
<b>mbòmbó</b> <i>n.</i> 9/6 face <i>pl.</i> ma-mbòmbó	<b>mbyê</b> <i>n.</i> 3/4 high, upstream <i>pl.</i> mi-mbyê
<b>mbòmbó</b> <i>n.</i> 3/4 daughter-in-law <i>pl.</i> mi-mbòmbó	
<b>mbòngò</b> <i>n.</i> 7/6 plant <i>pl.</i> be-mbòngò	
<b>mbòò</b> <i>n.</i> 3/4 fatness <i>pl.</i> mi-mbòò	
<b>mbòsàwà</b> <i>n.</i> 3/4 wetness <i>pl.</i> mi-mbòsàwà	
<b>mbù</b> <i>n.</i> 7/8 bullfrog <i>pl.</i> be-mbù	<b>N</b>
<b>mbúlá</b> <i>n.</i> 7/6 debt <i>pl.</i> ma-mbúlá	
<b>mbúlè wá sí</b> <i>n.</i> 3/4 blister <i>pl.</i> mi-mbúlè mí sí	<b>nâ num.</b> four
<b>mbúlò</b> <i>n.</i> 3/4 migratory locust ( <i>Locusta migratoria</i> ) <i>pl.</i> mi-mbúlò	<b>ná adv.</b> still, again
<b>mbúmbá</b> <i>n.</i> 3/4 wrinkledness (e.g. of clothes) <i>pl.</i> mi-mbúmbá	<b>nà com.</b> and, with
<b>mbúmbù</b> <i>n.</i> 1/2 namesake <i>pl.</i> ba-mbúmbù	<b>nâ comp.</b> that
<b>mbùngá</b> <i>n.</i> 7/8 earring <i>pl.</i> be-mbùngá	<b>nákùgúù</b> <i>adv.</i> yesterday
<b>mbùngù</b> <i>n.</i> 2 Yassa	<b>náménó</b> <i>adv.</i> tomorrow
<b>mbvú</b> <i>n.</i> 3 white/grey hair	<b>náàtà nà v.</b> stick (sth.), be sticky
<b>mbvû</b> <i>n.</i> 3/4 year <i>pl.</i> mi-mbvû	<i>npp.</i> nátâ
<b>mbvùlè</b> <i>n.</i> 7/8 bushbuck ( <i>Tragelaphus scriptus</i> ) <i>pl.</i> be-mbvùlè	<b>nábànkúdí</b> <i>n.</i> 1/2 female Agama lizard ( <i>Agama agama</i> ) <i>pl.</i> ba-nábànkúdí
<b>mbvúlè sýè</b> <i>n.</i> 7/8 soot <i>pl.</i> be-mbvúlè	<b>nábè(bè) adj.</b> red
bé sýè	<b>nábúnjâ</b> <i>n.</i> 1/2 bed bug <i>pl.</i> ba-nábúnjâ
<b>mbvúndá</b> <i>n.</i> 9/6 trouble, error, mistake	<b>nágylálé</b> <i>n.</i> 1/2 breastfeeding woman <i>pl.</i> ba-nágylálé
	<b>nákúlúú</b> <i>n.</i> 1/2 forest tortoise ( <i>Kinixys homeana</i> ) <i>pl.</i> ba-nákúlúú

námángò(mángò) <i>n.</i>	1/2 male	( <i>Procolobus badius</i> ) <i>pl.</i>	mi-nkâ
Agama lizard ( <i>Agama agama</i> ) <i>pl.</i>	ba-	nkáálè <i>n.</i>	3/4 vertebrate <i>pl.</i>
námángò(mángò)		mi-nkáálè	
námínsògè <i>n.</i>	1/2 palm rat <i>pl.</i>	nkááló <i>n.</i>	3/4 fence <i>pl.</i>
ba-	námínsògè	mi-nkááló	
nkááló <i>n.</i>	3/4 African/Guinea pepper	nkábé <i>n.</i>	9/6 paddle <i>pl.</i>
tree ( <i>Xylopia aethiopica</i> ) <i>pl.</i>	mi-nkááló	nkàdè <i>n.</i>	3/4 provocation <i>pl.</i>
nkábé <i>n.</i>	ma-nkábé	nkágá <i>n.</i>	3/4 side of an animal <i>pl.</i>
nkàdè <i>n.</i>	mi-nkàdè	mi-	nkágá
nkágá <i>n.</i>	nkágá	nkámbilí <i>n.</i>	3/4 chewed up (fish)
mi-nkágá		bones that are spat out when eating	
nkámbilí <i>n.</i>	<i>pl.</i>	<i>pl.</i>	<i>pl.</i>
mi-nkámbilí		nkàmè <i>n.</i>	3/4 chewed up (fish)
nkàmè <i>n.</i>	3/4 sticky sap (from vein,	used for birdlime) <i>pl.</i>	mi-nkàmè
used for birdlime) <i>pl.</i>		nkàmò <i>n.</i>	9 reason
nkàmò <i>n.</i>		nkándâ <i>n.</i>	3/4 crack <i>pl.</i>
nkándâ <i>n.</i>	mi-nkándâ	nkàndé <i>n.</i>	1/2 African dwarf crocodile
nkàndé <i>n.</i>	( <i>Osteolaemus tetraspis</i> ) <i>pl.</i>	ba-nkàndé	
nkàndò <i>n.</i>	mi-nkàndò	nkàndò <i>n.</i>	3/4 beer <i>pl.</i>
nkângà <i>n.</i>	ba-nkângà	nkângà <i>n.</i>	1/2 weaver bird <i>pl.</i>
ba-nkângà		nkângà <i>n.</i>	ba-
nkázá <i>n.</i>	nkázá	nkângà	nkângà
3/4 whip <i>pl.</i>	mi-nkázá	nké'é <i>n.</i>	7/8 scream <i>pl.</i>
mi-nkázá		be-nké'é	
nké'é <i>n.</i>	be-nké'é	nkè <i>n.</i>	3/4 low, downstream <i>pl.</i>
be-nké'é		mi-nkè	mi-nkè
nkè <i>n.</i>	mi-nkè	nké'é <i>n.</i>	3/4 jaw <i>pl.</i>
mi-nkè		mi-nké'é	
nké'è <i>n.</i>	mi-nké'è	-nkédé le- <i>n.</i>	5/6 hip, waist <i>pl.</i>
mi-nké'è		ma-	nkédé
-nkédé le- <i>n.</i>	nkédé	nkédé <i>n.</i>	9/6 courage <i>pl.</i>
5/6 hip, waist <i>pl.</i>	ma-nkédé	nkèlè yá d-ísì <i>n.</i>	7/8 eyebrow <i>pl.</i>
ma-nkédé		be-nkèlè	bé m-ísì
nkèlè yá d-ísì <i>n.</i>		nkèlè	be-nkèlè
7/8 eyebrow <i>pl.</i>		mí ma-lâ	mí ma-lâ
be-nkèlè		nkfù lé lâ <i>n.</i>	3/4 ear canal <i>pl.</i>
bé m-ísì		mi-nkù	mi-nkù
nkfù lé lâ <i>n.</i>	mi-nkù	nkfùdé <i>n.</i>	7/8 cloud, fog <i>pl.</i>
3/4 ear canal <i>pl.</i>		be-nkfùdé	
mi-nkù		nkfùndé <i>n.</i>	3/4 barren woman <i>pl.</i>
nkfùdé <i>n.</i>		mi-	nkfùndé
7/8 cloud, fog <i>pl.</i>		nkfùndé	
be-nkfùdé		nkfùbó <i>n.</i>	3/4 trunk (body) <i>pl.</i>
nkfùndé		mi-	nkfùbó
3/4 barren woman <i>pl.</i>		nkfùbó	
mi-nkfùndé		nkfúù <i>n.</i>	3/4 ghost <i>pl.</i>
		mi-nkfúù	

nkìuwó <i>n.</i> 3/4 torso <i>pl.</i> mi-nkvùwó	-nkùzó <i>-n.</i> 3/4 widow(er) <i>pl.</i> mìnkùzó
nkingù <i>n.</i> 3/4 1) edge 2) corner <i>pl.</i> mi-nkingù	nkwáàlè b-ùdì <i>n.</i> 1/2 spy <i>pl.</i> ba-kwáàlè bá b-ùdì
nkìyó <i>n.</i> 3/4 wave <i>pl.</i> mi-nkìyó	nkwalá <i>n.</i> 3/4 machete <i>pl.</i> mi-nkwálá
nkjolé <i>n.</i> 3/4 vein, rope, line <i>pl.</i> mi-nkjolé	nkwànò <i>n.</i> 3/4 honey <i>pl.</i> mi-nkwànò
nkjlò <i>n.</i> 3/4 watch, clock <i>pl.</i> mi-nkjlò	nkwásá <i>n.</i> 3/4 fishing pole <i>pl.</i> mi-nkwásá
nkóngó <i>n.</i> 3/4 frog (general term) <i>pl.</i> mi-nkóngó	nkwe <i>n.</i> 3/4 basket <i>pl.</i> mi-nkwé
nkósá <i>n.</i> 3/4 manner of coughing <i>pl.</i> mi-nkósá	nkyá <i>n.</i> 3/4 shrimp <i>pl.</i> mi-nkyá
nkjzì <i>n.</i> 7/8 part of throat of animal that gets removed after killing <i>pl.</i> be-nkjzì	nkyâ <i>n.</i> 3/4 scabies <i>pl.</i> mi-nkyâ
nkù <i>n.</i> 3/4 hole, animal den <i>pl.</i> mi-nkù	nlá <i>n.</i> 3/4 anus <i>pl.</i> mi-nlá
nkû <i>n.</i> 1/2 Gambian pouched rat ( <i>Cricetomys gambianus</i> ) <i>pl.</i> ba-nkû	nlâ <i>n.</i> 3/4 story, tale, problem <i>pl.</i> mi-nlâ
nkû <i>n.</i> 3/4 leg, foot <i>pl.</i> mi-nkû	nlàà <i>n.</i> 3/4 antenna, horn <i>pl.</i> mi-nlàà
nkùá <i>n.</i> 3/4 tree trunk <i>pl.</i> mi-nkùá	nlawó <i>n.</i> 3/8 branch <i>pl.</i> mi-nlawó
nkùlé <i>n.</i> 3/4 hill, mountain <i>pl.</i> mi-nkùlé	nlémò <i>n.</i> 3/4 heart <i>pl.</i> mi-nlémò
nkúló <i>n.</i> 3/4 “dead” (rainy) season (May-Aug) <i>pl.</i> mi-nkúló	nlô <i>n.</i> 3/4 head <i>pl.</i> mi-nlô
nkùmàsà <i>n.</i> 3/4 preparation <i>pl.</i> mi-nkùmàsà	nlùdè <i>n.</i> 3/4 scale (for weighing) <i>pl.</i> mi-nlùdè
nkùmbó <i>n.</i> 1/2 African brush-tailed porcupine ( <i>Atherurus africanus</i> ) <i>pl.</i> ba-nkùmbó	nlùngá <i>n.</i> 3/4 bucket <i>pl.</i> mi-nlùngá
nkùmbò <i>n.</i> 3/4 Nile crocodile ( <i>Crocodylus niloticus</i> ) <i>pl.</i> mi-nkùmbò	nlvúmá <i>n.</i> 3/4 fork <i>pl.</i> mi-nlvúmá
nkùmbó wá d-úú <i>n.</i> 3/4 nasal wing <i>pl.</i> mi-nkùmbó mí m-úú	nòòné <i>n.</i> 7/8 bird (generic term) <i>pl.</i> be-nòòné
nkùmbòló <i>n.</i> 3/4 diarrhea <i>pl.</i> mi-nkùmbòló	nóó <i>n.</i> 1/2 deaf person <i>pl.</i> ba-nóó
nkùmù <i>n.</i> 3/4 prison <i>pl.</i> mi-nkùmù	nòò <i>v.</i> take <i>npp.</i> nòngá <i>recip.</i> nòngala
nkùndé <i>n.</i> 3/4 tail <i>pl.</i> mi-nkùndé	nsî <i>n.</i> 3/4 African linsang ( <i>Poiana richardsonii</i> ) <i>pl.</i> mi-nsî
nkúnkúmbé <i>n.</i> 3/4 bow <i>pl.</i> mi-nkúnkúmbé	nsô <i>n.</i> 3/4 (intestinal) worm <i>pl.</i> mi-nsô
nkùù <i>n.</i> 3/4 evil spirit <i>pl.</i> mi-nkùù	nsô <i>n.</i> 3/4 beak <i>pl.</i> mi-nsô
	nsá <i>n.</i> 3/4 shore <i>pl.</i> mi-nsá
	nsá wá mâ <i>n.</i> 3/4 beach, shore (bord de la mer) <i>pl.</i> mi-nsá mí mâ
	nsá’â <i>n.</i> 3/4 shrub, bush (e.g. banana tree) <i>pl.</i> mi-nsá’â
	nsá’á <i>n.</i> 3/4 mantled guereza ( <i>Colobus guereza</i> ) <i>pl.</i> mi-nsá’á
	nsá’awâ <i>n.</i> 3/4 flouncing, repeated movement (e.g. leaves) <i>pl.</i> mi-nsá’awâ
	nsàlá <i>n.</i> 3/4 crevice, fissure <i>pl.</i> mi-

nsàlá	ntélé <i>n.</i> 7/8 clothing, fabric <i>pl.</i> be-ntélé
-sálè mánkè <i>n-</i> <i>n.</i> 1/2 farmer <i>pl.</i> ba-sálè bá má-nkè	ntèmbó <i>n.</i> 1/2 younger siblings and cousins <i>pl.</i> ba-ntèmbó
nsámbò <i>n.</i> 3/4 penis <i>pl.</i> mi-nsámbò	-ntèmbwà le- <i>n.</i> 5/6 wrinkle (in skin) <i>pl.</i> ma-ntèmbwá
nsé <i>n.</i> 3/4 sand <i>pl.</i> mi-nsé	ntèndá <i>n.</i> 3/4 tear, rip <i>pl.</i> mi-ntèndá
nsélá <i>n.</i> 3/4 plant with thorns <i>pl.</i> mi- nsélá	-ntèndì le- <i>n.</i> 5/6 saliva, drool <i>pl.</i> ma- ntèndì
nsíngó <i>n.</i> 3/4 fastness, speed <i>pl.</i> mi- nsíngó	ntfùgà <i>n.</i> 7/8 lid (of bottle) <i>pl.</i> be- ntfùgà
nsínó <i>n.</i> 3/4 color, paint <i>pl.</i> mi-nsínó	ntfúmò <i>n.</i> 3/4 knife <i>pl.</i> mi-ntfúmò
nsísó <i>n.</i> 3/4 vein <i>pl.</i> mi-nsísó	ntògò <i>n.</i> 7/8 sweet potato <i>pl.</i> be-ntògò
nsiyè <i>n.</i> 3/4 string <i>pl.</i> mi-nsiyè	ntòndògè <i>n.</i> 7/8 needle <i>pl.</i> be-ntòndògè
nsô wá d-ísì <i>n.</i> 3/4 pupil <i>pl.</i> mi-nsô mí m-ísì	ntòndòm <i>ideo.</i> depiction of monkeys jumping in trees
nsónsó <i>n.</i> 3/4 bone marrow <i>pl.</i> mi- nsónsó	ntòngè <i>n.</i> 1/2 hornet, wasp, mantispid <i>pl.</i> ba-ntòngè
nsùlè <i>n.</i> 3/4 ripeness <i>pl.</i> mi-nsùlè	ntsántsùgè <i>n.</i> 3/4 dragonfly ( <i>Odonata</i> ) <i>pl.</i> mi-ntsántsùgè
nsùmbó <i>n.</i> 3/4 hunt (with dogs and spears) <i>pl.</i> mi-nsùmbó	ntúà <i>n.</i> 7/6 mango (fruit), mango tree, wild mango ( <i>Irvingia gabonensis</i> ) <i>pl.</i> ma-ntúà
ntáå <i>v.</i> climb over, overcome, succeed <i>npp.</i> ntàngá <i>caus.</i> ntàngesé <i>recip.</i> ntàn- gala	-ntúdégá le- <i>n.</i> 5/6 bruise <i>pl.</i> ma- ntúdégá
ntá <i>n.</i> 3/4 niece, nephew (children of the sister, i.e. children who do not belong to the house, but have their father elsewhere) <i>pl.</i> mi-ntá	ntúlé <i>n.</i> 3/4 old person <i>pl.</i> mi-ntúlé
ntà <i>n.</i> 1/2 grandchild <i>pl.</i> ba-ntà	ntúmé <i>n.</i> 3/4 walking stick <i>pl.</i> mi- ntúmé
ntámanè <i>v.</i> ruin, destroy, be ruined	ntúmò <i>n.</i> 2 Mvai people (Campo, Guinea, Mbam)
ntàmbè <i>n.</i> 1/2 rubber <i>pl.</i> ba-ntàmbè	ntùngù <i>n.</i> 3/4 manner, behavior <i>pl.</i> mi-ntùngù
ntàmbè <i>n.</i> 1/2 stick <i>pl.</i> ba-ntàmbè	ntùó <i>inv.</i> six
ntàngànè <i>n.</i> 3/4 white person <i>pl.</i> mi- ntàngànè	ntúbí <i>n.</i> 3/4 savannah <i>pl.</i> mi-ntúbí
ntányá <i>n.</i> 3/4 cleanliness <i>pl.</i> mi- ntányá	númbá <i>n.</i> 7/8 place <i>pl.</i> be-númbá
nté <i>n.</i> 3/4 tallness, size <i>pl.</i> mi-nté	nùmbà <i>n.</i> 1/2 logger <i>pl.</i> ba-nùmbà
ntègá <i>n.</i> 3/4 weakness, softness <i>pl.</i> mi- ntègá	nvèwò <i>n.</i> 3/4 breath <i>pl.</i> mi-nvèwò
ntégelè <i>v.</i> threaten, annoy, disturb <i>npp.</i> ntégálâ <i>recip.</i> ntégala	ŋwándó <i>n.</i> 3/4 bitter manioc <i>pl.</i> mi- ŋwándó
	ŋwándó <i>n.</i> 9/6 manioc stick <i>pl.</i> ma-

ŋwándó	nyíméle	v. tighten <i>npp.</i> nyímálâ
nyâ n. 1/2 mother <i>pl.</i> ba-nyâ	recip. nyímala	
nyá inv. really	nyòmbélé	v. tickle <i>recip.</i> nyòmbala
nyâ n. 7/8 nail (finger, toe), claw	nyónyâ	n. 7/8 yawn <i>pl.</i> be-nyónyâ
<i>pl.</i> be-nyâ	-nyôdó	ma- n. 6 wine, general term for alcohol
-nyâ ma- n. 6 milk	-nyôjô	má léndé ma- n. 6 palm wine
nyâ v. lick, suckle (babies) <i>npp.</i> nyángâ	nyú (wá nkwanò)	n. 1/2 bee <i>pl.</i> ba-nyú (bá nkwanò)
<i>caus.</i> nyángese <i>recip.</i> nyángala	nyúlé	n. 7/8 insect <i>pl.</i> be-nyúlé
nyàà v. defecate <i>npp.</i> nyàgâ	nyúñâ	n. 1/2 snake <i>pl.</i> ba-nyúñâ
<i>caus.</i> nyàgese <i>recip.</i> nyàgala	nyúlé	n. 3/4 orphan <i>pl.</i> mi-nyúlé
nyáàlè n. 1/2 beggar <i>pl.</i> ba-nyáàlè	nyúlé	n. 9/6 body <i>pl.</i> ma-nyúlé
nyádè n. 1/2 buffalo <i>pl.</i> ba-nyádè	nyùlè	n. 3/4 flame <i>pl.</i> mi-nyùlè
nyàgâ n. 7/8 cow <i>pl.</i> be-nyágâ	nyùlé	v. drink <i>npp.</i> nyùlá
nyàlè n. 1/2 son-/brother-in-law	<i>caus.</i> nyùlesé <i>recip.</i> nyùlala	
<i>pl.</i> ba-nyàlè	nyùmbò	n. 3/4 mouth <i>pl.</i> mi-nyùmbò
nyàlè v. scratch <i>npp.</i> nyàlá	nyùmbô	v.i. smell (good or bad)
<i>recip.</i> nyàlala	<i>npp.</i> nyùmbá	<i>appl.</i> nyùmbelé smell sth. <i>caus.</i> nyùmbesé <i>recip.</i> nyùmbala
nyàmá n. 3/4 broken thing <i>pl.</i> mi-	nyùngù	n. 1/2 rainbow <i>pl.</i> ba-nyùngù
nyàmá	nyùlè	n. 1/2 mosquito <i>pl.</i> ba-nyùlè
nyámbá n. 9/6 armpit <i>pl.</i> ma-nyámbá	nywâì	adv. early (in the day, before sunset)
nyàmè n. 7/8 poverty <i>pl.</i> be-nyàmè	nzââ	n. 7 appetite for meat or fish
nyàmô v. get ruined, spoil (e.g. house, fruit) <i>npp.</i> nyàmá <i>caus.</i> nyàmesé	nzá	pro. who
<i>recip.</i> nyàmala	-nzá le-	n. 5/6 dead leaves in water
nyánè n. 7/8 war <i>pl.</i> be-nyánè	<i>pl.</i> ma-nzá	
-nyánò ma- n. 6 pain	-nzálè	ma- n. 6 urine
nyàno v. hurt	nzàmbí	n. 1/2 god, good spirit <i>pl.</i> ba-nzàmbí
nyè v. return <i>npp.</i> nyigá <i>recip.</i> nyigala	nzàmbò	n. 7/8 marsh <i>pl.</i> be-nzàmbò
nyè v. see, look <i>recip.</i> nyénala	nzámù	n. 1/2 appetite <i>pl.</i> ba-nzámù
nyèmbé n. 7/8 gun <i>pl.</i> be-nyèmbé	nzèlè	n. 7/8 beard <i>pl.</i> be-nzèlè
nyèsélè v. press down on sth., deepen	nzí nzálè	n. 7/8 bladder (place of urine)
<i>npp.</i> nyèsá lowered	<i>pl.</i> be-nzí nzálè	
nyí v. enter <i>npp.</i> nyíngâ <i>appl.</i> nyíngelé	nzìlû	n. 7/8 swallow <i>pl.</i> be-nzìlû
<i>recip.</i> nyíngala	-nzímò	le- n. 5/6 termite ( <i>Isoptera</i> )
nyígé v. beg	<i>pl.</i> ma-nzímò	
nyìkâ (yá m-bô) - n. 7/8 crook of the arm <i>pl.</i> be-nyìkâ bé má-bô		
nyímé v. refuse <i>npp.</i> nyímâ		
<i>caus.</i> nyímese <i>recip.</i> nyímala		

**nzòmē** *n.* 7/8 splinter *pl.* be-nzòmē

## ND

**ndééééé** *ideo.* depiction of staring  
**ndà** *v.* cross *ppp.* ndàngá *recip.* ndàngala  
**ndáà** *adv.* also, too  
**ndàlò** *n.* 1/2 tobacco *pl.* ba-ndàlò  
**ndáwò** *n.* 9/6 house *pl.* ma-ndáwò  
**ndè -** *n.* 3/4 bait *pl.* mi-ndè  
**ndémó** *n.* 9/6 dream *pl.* ma-ntémó  
**ndéndibù** *n.* 1/2 spider, spider web  
*pl.* ba-ndéndibù  
**ndísì** *n.* 3/4 rice *pl.* mi-ndísì  
**ndúá** *n.* 7/8 clitoris *pl.* be-ndúá  
**ndùwó** *n.* 3/4 roof *pl.* mi-ndùwó  
**ndvùó** *n.* 7/8 suffering, difficulty  
*pl.* be-ndvùó  
**ndvùù** *n.* 3/4 bad luck, bad event  
*pl.* mi-ndvùù  
**ndwàmbèlè** *n.* 3/4 exaggerated request  
*pl.* mi-ndwàmbèlè  
**ndyándyà (wá m-údí) -** *n.* 3/4 giant,  
tall person *pl.* mi-ndyándyà (mí b-údí)  
**ndyàwò** *n.* 7/6 chisel *pl.* ma-ndyàwò  
**ndyúà** *n.* 3/4 swimming *pl.* mi-ndyúà  
**ndzà** *n.* 9/6 dance *pl.* ma-ndzà  
**ndzí** *n.* 9/6 jealousy, envy *pl.* ma-ndzí  
**ndzì** *n.* 1/2 fly *pl.* ba-ndzì  
**ndzà** *n.* 9/6 hunger *pl.* ma-ndzà  
**ndzààlè** *n.* 1/2 tree pangolin (*Manis tricuspidis*) *pl.* ba-ndzààlè  
**ndzámbò** *n.* 7/6 upper arm *pl.* ma-ndzámbò  
**ndzàmbò** *n.* 7/8 mud *pl.* be-ndzàmbò  
**ndzé** *n.* 1/2 panther, leopard *pl.* ba-ndzé

**ndzélì (yá m-ísì)** *n.* 7/8 hair in face  
(beard, around eyes) *pl.* be-ndzélì (bé  
m-ísì)

**ndzí** *n.* 9/6 path *pl.* ma-ndzí  
**ndziè** *n.* 1/2 gorilla *pl.* ba-ndziè  
**ndzilì** *n.* 1/2 guard *pl.* ba-ndzilì  
**ndzilí yá m-bô** *n.* 7/8 elbow *pl.* be-  
ndzilí ma-bô  
**ndzimózó** *n.* 1/2 guard *pl.* ba-ndimózó  
**ndziwò** *n.* 1/2 yellow-backed duiker  
(*Cephalophus silvicultor*) *pl.* ba-ndziwò  
**-ndzólè le-** *n.* 5/6 tear *pl.* ma-ndzólè

## NG

**ngå(ngå)** *n.* 1/2 healer *pl.* ba-ngå(ngå)  
**ngê** *n.* 9/6 field, garden *pl.* ma-ngê  
**ngølíngølí** *n.* 7/8 throat, larynx *pl.* be-  
ngølíngølí  
**ngùù** *n.* 7/8 tomato *pl.* be-ngùù  
**ngálè** *n.* 1/2 thunder, lightning, heat  
lightning *pl.* ba-ngálè  
**ngàmbàlà** *n.* 7/6 rarity, difficulty  
*pl.* ma-ngàmbàlè  
**ngámbé** *n.* 7/6 vision, oracle *pl.* ma-  
ngámbé  
**ngàtà** *n.* 9/6 bandage, wrapping  
*pl.* ma-ngàtà  
**ngè'è** *n.* 7/8 eyebrow *pl.* ba-nkè'è  
**ngèlénè** *n.* 1/2 English person *pl.* ba-  
ngèlénè  
**ngò** *n.* 9/6 grinding stone plate *pl.* ma-  
ngò  
**ngö** *n.* 1/2 pig *pl.* ba-ngö  
**ngö wà jíí** *n.* 1/2 bush pig (*Potamo-choerus porcus*) *pl.* ba-ngö bá jíí  
**ngókòbé** *n.* 7/8 bracelet *pl.* be-ngókòbé  
**ngòmbáà** *n.* 1/2 lemon *pl.* ba-ngòmbáà

- ngòmbò *n.* 1/2 monitor lizard *pl.* ba-  
ngòmbò
- ngòmò *n.* 9/6 tam tam (small drum) *pl.* ma-ngòmò
- ngòndè *n.* 1/2 moon, month *pl.* ba-  
ngòndè
- ngòngòlè *n.* 7 sadness (about lack),  
compassion
- ngóvinà *n.* 1/2 government *pl.* ba-  
ngóvinà
- ngùlá *n.* 3/4 headscarf *pl.* mi-ngùlá
- ngündyá *n.* 9/6 raffia leaf when used  
for weaving *pl.* ma-ngündyá
- ngùú *n.* 7/8 sugar (cane) *pl.* be-  
ngùú
- ngvúú *n.* 1/2 storm, tornado *pl.* ba-  
ngvúú
- ngvù *n.* 1/2 flying squirrel (*Idiurus*  
*zenkeri*) *pl.* ba-  
ngvù
- ngvùbó *n.* 1/2 hippopotamus *pl.* ba-  
ngvùbó
- ngvúlè *n.* 9/6 strength, force *pl.* ma-  
ngvúlè
- ngvúmà *n.* 1/2 some, someone (un-  
specified, unknown) *pl.* ba-  
ngvúmà
- ngvúmbò *ma-* *n.* 6 flirt, attention  
seeking
- ngvùmbò *n.* 2 Ngumba people
- ngvündè *n.* 7/8 mask *pl.* be-  
ngvündè
- ngvündò *n.* 9/6 vengeance *pl.* ma-  
ngvündò
- ngvúngvúl *n.* 3/4 bush cricket (*Tet-  
tigoniidae*), grasshopper (*Zonocerus*)  
*pl.* mi-  
ngvúngvúl
- ngvúú *n.* 7/8 shyness *pl.* be-  
ngvúú
- ngwé *n.* 1/2 millipede *pl.* ba-  
ngwé
- ngwálà *n.* 1/2 snail *pl.* ba-  
ngwálà
- ngwálò *n.* 7/6 side, next, corner  
*pl.* ma-  
ngwálò
- ngwámé *n.* 7 danger
- ngwàndó *n.* 3/4 melon seed (*pistache*)  
*pl.* mi-  
ngwàndó
- ngwáwà *n.* 7/8 guava *pl.* be-  
ngwáwà
- ngwáwɔ *v.* bend (only animate), bow  
*npp.* ngwáwâ *caus.* ngwàngesé
- ngwélè *n.* 9/6 witchcraft *pl.* ma-  
ngwélè
- ngyé *n.* 3/4 visit *pl.* mi-  
ngyé
- ngyà *n.* 3/4 intestines *pl.* mi-  
ngyà
- ngyà wá lètólè *n.* 3/4 hernia *pl.* mi-  
ngyà mí mâtólè
- ngyámànè *n.* 7 Germany
- ngyàngó *n.* 7/8 hunt (with gun) *pl.* be-  
ngyàngó
- ngyé *mi-* *n.* 4 hunting rats (in holes)
- ngyémò *n.* 3/4 fruit bat *pl.* mi-  
ngyémò
- ngyésá *n.* 7/8 cake *pl.* be-  
ngyésá
- ngyówò *n.* 3/4 hock *pl.* mi-  
ngyówò
- ngyùlè *n.* 3/4 light *pl.* mi-  
ngyùlè
- ngyùlè wá vísó *n.* 3/4 sunlight *pl.* mi-  
ngùlè mí vísó
- O
- ó(né)gá *mod.* (an)other
- P
- pâ *v.* do first (only as auxiliary)
- pâ *v.* reign, govern, command
- npp.* mpángâ *recip.* pángala
- pé *n.* 9/6 injury *pl.* ma-pé
- pô *n.* 2 Fang
- pà le- *n.* 5/6 paw *pl.* ma-pà
- pá'á *n.* 7/8 1) bark (tree) 2) coin  
*pl.* ba-pá'á
- pá'à *v.* dig, hollow out (e.g. drum)

<i>npp.</i> mpágâ <i>recip.</i> págalá	péwó <i>n.</i> 7/8 scar <i>pl.</i> be-péwó
pà'à <i>v.</i> grow (plants) <i>npp.</i> mpágâ <i>recip.</i> págalá	péyà <i>v.</i> booze, get drunk <i>caus.</i> péyesé <i>recip.</i> páyala
páálâ <i>n.</i> 9/6 valley <i>pl.</i> ma-páálâ	-pf’ò ba- <i>n.</i> 2 Bapoko (Kwasio loan word)
pádô <i>v.</i> 1) pluck (e.g. African plums, chili), 2) wring out <i>npp.</i> mpádâ <i>recip.</i> pádala	pfû <i>n.</i> 7/8 colobus monkey <i>pl.</i> be-pfû
pálaba <i>v.</i> blink (eye)	pfáááá <i>ideo.</i> depiction of flinging a long object or slinging
pálô <i>v.</i> sort <i>npp.</i> mpálâ <i>recip.</i> pálala	pfûdé <i>n.</i> 9/6 mold <i>pl.</i> ma-pfûdé
-pámô ma- <i>n.</i> 6 rise, arrival	pfûdó <i>n.</i> 7/8 abandonment <i>pl.</i> be-kfûdó
pámo <i>v.</i> appear <i>npp.</i> mpámâ <i>recip.</i> pámalá	pfûele <i>v.</i> crunch <i>npp.</i> mpfûálâ <i>recip.</i> pfûala
pàmpéle <i>n.</i> 7/8 grapefruit <i>pl.</i> be-pàmpéle	pfûmbé <i>v.</i> pull out (groundnuts)
pánde <i>v.</i> arrive <i>npp.</i> mpándâ <i>recip.</i> pándala	<i>npp.</i> mpfûmbá <i>recip.</i> pfûmbala
pándyì <i>n.</i> 1/2 plate <i>pl.</i> ba-pándyì	pfûndô <i>v.</i> be frightened <i>caus.</i> pfûndesé <i>recip.</i> pfûndala
pándyì wà dô - <i>n.</i> 1/2 deep plate	pfûngâ <i>n.</i> 7/8 lid (pot, eye) <i>pl.</i> be-pfûngâ
páne <i>v.</i> hang up <i>npp.</i> mpánâ <i>caus.</i> pánesé <i>recip.</i> pánala	pfûbáné <i>n.</i> 3/4 cleanliness <i>pl.</i> mi-pfûbáné
pàno <i>v.</i> shine (e.g. sun, fireflies, stars, moon, light, lamp) <i>npp.</i> mpàná	pfûbèle <i>v.</i> blow (tr), blow down
pê <i>v.</i> choose <i>npp.</i> mpéyâ <i>recip.</i> páyala	<i>npp.</i> mpfûbálâ <i>recip.</i> pfûbala
pè'è <i>n.</i> 9/6 wisdom <i>pl.</i> ma-pè'è	pfûtùm <i>ideo.</i> depiction of sound when jumping into water
-pébâ le- <i>n.</i> 5/6 fin (fish) <i>pl.</i> ma-pébâ	pfûwô <i>v.</i> dust <i>npp.</i> mpfûwâ <i>recip.</i> pfûwala
péè <i>n.</i> 7/8 avocado (tree and fruit) <i>pl.</i> be-péè	-pfûyá be- <i>n.</i> 8 ashes, powder
pèè <i>n.</i> 9/6 conscience <i>pl.</i> ma-pèè	pîpîù <i>n.</i> 1/2 butterfly, moth <i>pl.</i> ba-pîpîù
péépéè <i>n.</i> 1/2 cockroach <i>pl.</i> ba-péépéè	-pílá ngàndé be- <i>n.</i> 8 overbite (teeth) (ngàndé as in crocodile)
pélè <i>n.</i> 7/8 side <i>pl.</i> be-pélè	pílì <i>n.</i> 7/6 moment, season <i>pl.</i> ma-pílì
-pélè bé bénó be- <i>n.</i> 8 buttocks	pílò <i>adv.</i> when
pémbó <i>n.</i> 7/8 clay, bread <i>pl.</i> be-pémbó	pímáá <i>n.</i> 7/8 wall <i>pl.</i> be-pímáá
pèndelé <i>v.</i> lick out with finger <i>npp.</i> mpèndálâ <i>recip.</i> pèndala	pímbé <i>v.</i> wipe <i>npp.</i> mpímbâ <i>recip.</i> pímbala
péndo <i>v.</i> braid <i>npp.</i> mpéndâ <i>recip.</i> pén-dala	pímù <i>n.</i> 9/6 force, power <i>pl.</i> ma-pímù
pépé <i>n.</i> 1/2 leaf-hopper bug ( <i>Cicadellidae</i> ) <i>pl.</i> ba-pépé	píndyó <i>n.</i> 7/8 piece, part that is broken
-pébâ le- <i>n.</i> 5/6 wing <i>pl.</i> ma-pébâ	

off *pl.* be-píndyó  
**pínese** *v.* squeeze *npp.* mpínâ *recip.* pí-nala  
**písè** *adv, post.* last, late  
**písè** *n.* 7/8 back (spatial) *pl.* be-písè  
**píyò** *adj.* small, thin  
**píyù-píyù** *n.* 1/2 small rain, small rainy season (Mar - May) *pl.* ba-píyù-píyù  
**pó** *n.* 9/6 news, prophecy *pl.* ma-pó  
**pódè** *n.* 1/2 port, harbour *pl.* ba-pódè  
**póm** *n.* 1/2 potato *pl.* ba-póm  
**póndesè** *v.* punish *npp.* mpóndásâ  
**póné** *n.* 7 truth  
**pòpó** *n.* 7/8 papaya *pl.* be-pòpó  
**pòtò** *n.* 7/8 clay (for building houses)  
*pl.* be-pòtò  
**pówàlà** *adj.* tranquil, calm  
**púò** *v.* pay *npp.* mpúngâ *recip.* pún-gala  
**pùdùm** *ideo.* depiction of falling into mud or throwing stone into water  
**púndí** *n.* 1/2 guenon (*Cercopithecus preussi*) *pl.* ba-púndí  
**púndi** *v.* polish *npp.* mpúndâ *recip.* púndala  
**pùse** *v.* push *npp.* mpùsá *recip.* pùsala  
**púsí** *n.* 7/8 bottle *pl.* be-púsí  
**púù** *n.* 7 1) reason 2) púù + ATT/GEN for, because  
**pùúlí** *n.* 7/8 hat *pl.* be-pùúlí  
**pwápwâ** *n.* 1/2 truth, honesty *pl.* ba-pwápwâ  
**pwàswô** *v.* stretch (animal with sticks for smoke), stretch oneself *npp.* mpwàsá *recip.* pwàsala  
**pwèdà** *n.* 1/2 grass *pl.* ba-pwèdà  
**pyàgá** *n.* 7/6 paper *pl.* ma-pyàgá

**S**

-sâ *ma-* *n.* 6 game (playing)  
**sâ** *v.* vomit *npp.* nsángâ *caus.* ságessè *recip.* sângala  
**sâ** *n.* 1/2 father, male *pl.* ba-sâ  
**sâ wâ kfúbò** *n.* 1/2 rooster (male of chicken) *pl.* ba-sâ bá kfúbò  
**sââsa** *v.* mix *npp.* nsââsâ  
**sîi** *v.t.* approach *npp.* nsíngâ *appl.* sîsélé *recip.* síngala  
**sá** *n.* 1/2 earth worm *pl.* ba-sá  
**-sâ le-** *n.* 5/6 African plum tree (*Dacryodes edulis*) and its fruit *pl.* ma-sá  
**sà** *n.* 7/8 hut *pl.* be-sà  
**sâ** *n.* 7/8 thing *pl.* be-sâ  
**-sâ le-** *n.* 5/6 feather *pl.* ma-sâ  
**sâ** *v.* do *npp.* nsáyâ *recip.* sâala  
**sâ'âwâ** *v.* move repeatedly  
**sâálé** *n.* 7/8 work *pl.* be-sâálé  
**sâga** *v.* shock, scare, be surprised *npp.* nsâgâ *recip.* sâgala  
**ságóságó** *n.* 1/2 comb *pl.* ba-ságóságó  
**-sálá (má kúlî)** *ma-* *n.* 6 ceremony months after a funeral ending the *deuil*  
**sàlâgâ** *n.* 7/8 ditch *pl.* be-sàlâgâ  
**sâle** *v.i.* crack (e.g. wood, wall)  
**-sálè bàmbèyè** *n- n.* 1/2 prostitute *pl.* ba-sálè bá be-bàmbèyè  
**-sálè màngámbé** *n- n.* 1/2 diviner, fortune-teller *pl.* ba-sálè bá mángámbé  
**-sálè ngyàngó** *n- n.* 1/2 hunter *pl.* ba-sálè bá bé-nygàngó  
**sâlô** *v.* become lots *npp.* nsâlâ  
**sâlô** *v.* cut lengthways *npp.* nsâlâ *recip.* sâlala  
**sàmbèsè** *n.* 7 rape  
**sândyá** *n.* 7/8 raffia mat for house

building <i>pl.</i>	be-sàndyá	símasa <i>v.</i> regret <i>npp.</i> nsímásâ
sàndyà <i>n.</i>	1/2 fabric ( <i>pagne</i> ) <i>pl.</i> ba-sàndyà	simbô <i>v.</i> drag <i>npp.</i> nsìmbá <i>recip.</i> sìmbala
sánè <i>v.</i>	decide <i>npp.</i> nsánâ <i>recip.</i> sánala	símè <i>v.</i> respect <i>npp.</i> nsímâ <i>recip.</i> símala
sàsàmbé ( <i>yá mwánò</i> ) <i>n.</i>	7/8 miscarriage <i>pl.</i> be-sàsàmbé	símú <i>n.</i> 7/8 liquid sauce <i>pl.</i> be-símú
-sè <i>le- n.</i>	5/6 small canoe, dugout <i>pl.</i> ma-sè	síndya <i>v.</i> change, exchange <i>npp.</i> nsíndyâ <i>recip.</i> síndyala
-sê <i>le- n.</i>	5/6 umbrella tree ( <i>Musanga cecropioides</i> ) <i>pl.</i> ma-sê	síngí <i>n.</i> 7/8 squirrel (generic term) <i>pl.</i> be-síngí
sé'è <i>n.</i>	7/8 liver <i>pl.</i> be-sé'è	síngì <i>n.</i> 7/8 cat <i>pl.</i> be-síngì
sé'è <i>n.</i>	7/8 mandrill ( <i>Mandrillus sphinx</i> ) <i>pl.</i> be-sé'è	síngì <i>n.</i> 7/8 soul, spirit <i>pl.</i> be-síngì
sègèsè <i>n.</i>	7/8 sieve <i>pl.</i> be-sègèsè	sísà <i>n.</i> 3/4 Aidan fruit and tree ( <i>Tetrapleura tetrapтера</i> ) <i>pl.</i> mi-nsísà
sègèsè <i>v.</i>	sieve <i>npp.</i> nsègásâ	sísele <i>v.</i> scare sb. <i>npp.</i> nsísâ <i>recip.</i> sísala <i>autoc.</i> sísegá
sékè <i>n.</i>	1/2 termite <i>pl.</i> ba-sékè	sísímù <i>n.</i> 7/8 shadow (of person) <i>pl.</i> be-sísímù
sélo <i>v.</i>	shell, skin, husk <i>npp.</i> nsélâ <i>recip.</i> sélala	sísò <i>v.i.</i> approach <i>npp.</i> nsísâ <i>recip.</i> sísala
sémbo <i>v.</i>	arrive, land	síso <i>v.</i> be happy <i>recip.</i> sísala
sènde <i>v.</i>	slip <i>npp.</i> msèndâ <i>caus.</i> sèndese <i>recip.</i> sèndala	sísùù <i>n.</i> 7/8 apparition <i>pl.</i> be-sísùù
sènge <i>v.</i>	lower <i>npp.</i> nsèngâ <i>recip.</i> sèn-gala	-síyá <i>be- n.</i> 8 imitation
sí <i>n.</i>	9/6 ground, soil, world <i>pl.</i> ma-sí	siya <i>v.</i> wash, bathe <i>npp.</i> nsiyá <i>recip.</i> siyala
sí <i>post.</i>	under	síyè <i>n.</i> 7/8 fire (Kwasio loan word) <i>pl.</i> be-síyè
síawa <i>v.</i>	have a hiccup	síye <i>v.</i> saw <i>npp.</i> nsiyâ <i>recip.</i> síyala
sígá <i>n.</i>	1/2 cigarette <i>pl.</i> ba-sígá	síyesè <i>v.</i> swing, shake <i>npp.</i> nsíyâsâ
-sílá <i>le- n.</i>	5/6 mole-cricket ( <i>Gryllotalpa africana</i> ), tiger beetle ( <i>Megacephala</i> ) <i>pl.</i> ma-sílá	síyò <i>n.</i> 7/8 dry season (Nov-Mar) <i>pl.</i> be-síyò
síle <i>v.</i>	finish, end, use up, kill <i>npp.</i> nsílâ <i>caus.</i> sílesè <i>recip.</i> sílala	-síyò <i>le- n.</i> 5/6 elephant tusk <i>pl.</i> ma-síyò
sílega <i>v.</i>	descend, fade <i>npp.</i> nsílá <i>caus.</i> sílesè <i>recip.</i> sílala	só <i>n.</i> 1/2 friend <i>pl.</i> ba-só
sílí <i>n.</i>	7/8 1) hair 2) spark (bé býé) <i>pl.</i> be-sílí	sò <i>n.</i> 7/8 saw <i>pl.</i> be-sò
sílífàzì <i>n.</i>	1/2 sandal <i>pl.</i> ba-sílífàzì	sô <i>n.</i> 9/6 grave, tomb <i>pl.</i> ma-sô
sílo <i>v.</i>	rub, smear, paint <i>npp.</i> nsílâ <i>recip.</i> sílala	sô'ò <i>v.</i> continue <i>npp.</i> nsósala <i>appl.</i> sósélé
		sô'ó <i>n.</i> 7/8 cynocephalus monkey

<i>pl. be-sò́ó</i>	<i>-sùné n- n.</i> 3/4 flesh <i>pl. mi-sùné</i>
<b>sòbala</b> <i>v.</i> accumulate, coagulate	<b>súngú</b> <i>n.</i> 7/8 drinking cup made of leaves (for water or medicine) <i>pl. be-súngú</i>
<i>npp. nsòbálá</i>	
<b>sògá</b> <i>n.</i> 7/8 secret <i>pl. be-sògá</i>	<b>sùngù</b> <i>n.</i> 7/8 war <i>pl. be-sùngù</i>
<b>sòlé</b> <i>v.</i> undress, take off (clothes)	<b>-súnó le-</b> <i>n.</i> 5/6 doubt <i>pl. ma-súnó</i>
<i>npp. nsòlá caus. sólèse recip. sòlala</i>	<b>súwálá</b> <i>n.</i> 7/8 meeting, conference <i>pl. be-súwálá</i>
<b>sòlé</b> <i>v.</i> hide sth. <i>npp. nsòlá recip. sòlala</i>	<b>sùwɔ</b> <i>v.</i> spill <i>appl. sùwèlè</i> pour sth.
<b>sòlé yá gólè</b> <i>n.</i> 7/8 Northern double-collared sunbird ( <i>Cinnyris reichenowi</i> )	<b>swáálè</b> <i>n.</i> 1/2 bone marrow <i>pl. ba-swáálè</i>
<i>pl. be-sòlé bé gólè</i>	<b>-swàmbò le-</b> <i>n.</i> 5/6 going out (for hunting) <i>pl. ma-swàmbò</i>
<b>sòléga</b> <i>v.</i> fall, take a tumble	<b>swásɔ</b> <i>v.i.</i> dry <i>npp. nswásâ</i>
<i>npp. nsòlégâ</i>	<i>appl. swásèlè recip. swásala</i>
<b>sòmònè</b> <i>n.</i> 7 complaint	<b>swàwɔ</b> <i>v.i.</i> hide <i>npp. nswàwâ</i>
<b>sóndò</b> <i>n.</i> 1/2 week <i>pl. ba-sóndò</i>	<b>-swî le-</b> <i>n.</i> 5/6 death <i>pl. ma-swî</i>
<b>sóndya</b> <i>v.</i> bring to point, sharpen	<b>syê syê</b> <i>ideo.</i> depiction of sneaking
<i>npp. nsóndyà recip. sóndyalà</i>	
<b>sónì</b> <i>n.</i> 7 shame	
<b>sòò</b> <i>post.</i> before, in front	
<b>sòò</b> <i>n.</i> 7 front (spatial)	
<b>sósèlè</b> <i>v.</i> smoke (fish or animal)	<b>T</b>
<i>npp. nsósálâ</i>	
<b>-sòsí ma-</b> <i>n.</i> 6 joy	
<b>sóbá</b> <i>n.</i> 7/8 mud <i>pl. be-sóbá</i>	<b>tâ</b> <i>n.</i> 9/6 number, price <i>pl. ma-tâ</i>
<b>sóbì</b> <i>n.</i> 7/8 soap <i>pl. be-sóbì</i>	<b>tâ -</b> <i>n.</i> 7/8 rack for smoking meat
<b>sòkìndá</b> <i>n.</i> 1/2 biting ants <i>pl. ba-sòkìndá</i>	<i>pl. be-tâ</i>
<b>sótì</b> <i>n.</i> 1/2 trousers <i>pl. be-sótì</i>	<b>tââ</b> <i>v.</i> tell (only used for stories, anecdotes, fairy tales)
<b>-sù le-</b> <i>n.</i> 5/6 jigger <i>pl. ma-sù</i>	<b>tâlâ nà</b> <i>v.</i> judge
<b>sù'ù</b> <i>n.</i> 7/8 putty-nosed monkey ( <i>Cercopithecus nictitans</i> ) <i>pl. be-sù'ù</i>	<b>-tâ le-</b> <i>n.</i> 5/6 stain <i>pl. ma-tâ</i>
<b>-sù'ù le-</b> <i>n.</i> 5/6 waterfall <i>pl. ma-sù'ù</i>	<b>tâ</b> <i>n.</i> 1/2 father <i>pl. ba-tâ</i>
<b>sùbè</b> <i>v.</i> pour out, turn over <i>npp. nsùbá</i>	<b>tâ'âle</b> <i>v.</i> start, begin <i>npp. ntâálâ</i>
<i>appl. sùbèlè ejaculate caus. sùbesè</i>	<b>tâbâ</b> <i>n.</i> 7/8 necklace <i>pl. be-tâbâ</i>
turn sth over <i>recip. sùbala</i>	<b>-tálâ ma-</b> <i>n.</i> 6 beginning, start
<b>súbì</b> <i>n.</i> 7/8 sauce, soup <i>pl. be-súbì</i>	<b>-tâmbí le-</b> <i>n.</i> 5/6 oyster <i>pl. ma-tâmbí</i>
<b>sùmbô</b> <i>v.</i> die in a mystical way	<b>-tâmbó le-</b> <i>n.</i> 5/6 beeswax <i>pl. ma-tâmbó</i>
<i>npp. nsùmbá recip. sùmbala</i>	<b>-tánâ le-</b> <i>n.</i> 5/6 hail <i>pl. ma-tánâ</i>
<b>súmèlè</b> <i>v.</i> greet <i>npp. nsúmálâ recip. súmala</i>	<b>tândó yá m-wánò</b> <i>n.</i> 7/8 womb (cage, net of child) <i>pl. be-tândó bé b-wánò</i>

tánè <i>mod.</i> five	tfùbó <i>n.</i> 7/8 black mamba <i>pl.</i> be-tfùbó
-tángà ba- <i>n.</i> 2 Batanga (Banua and Bapoko)	tfùbo <i>v.</i> 1) pierce 2) rape <i>npp.</i> ntfúbâ <i>recip.</i> tfúbala
-tàngò ma- <i>n.</i> 6 palm wine (areal term)	tfùdáà <i>n.</i> 7/8 pinch <i>pl.</i> be-tfùdáà
tàtànós <i>n.</i> 1/2 mantis <i>pl.</i> ba-tàtànós	tfúdé <i>n.</i> 7/8 bump <i>pl.</i> be-kfúdé
tátô <i>v.</i> take care of, guard <i>npp.</i> ntátâ <i>recip.</i> tátala	tfùdô <i>v.</i> pinch <i>npp.</i> ntfùdá <i>recip.</i> tfùdala
tàtô <i>v.</i> squeak, scream <i>npp.</i> ntàdá <i>caus.</i> tàdese <i>recip.</i> tátala	tfúgà <i>n.</i> 7/8 suffering <i>pl.</i> be-tfúgà
tàwò <i>n.</i> 7/8 goat, sheep <i>pl.</i> be-tàwò	tfúga <i>v.</i> suffer <i>npp.</i> ntfúgâ <i>caus.</i> tfúgese <i>recip.</i> tfúgala
té <i>n.</i> 7/8 posture, position <i>pl.</i> be-té	-tfùlè ma- <i>n.</i> 6 smell
tèèè <i>ideo.</i> depiction of waiting	tfúmbô <i>v.</i> fold, wrinkle <i>npp.</i> ntfúmbâ <i>caus.</i> tfúmbese <i>recip.</i> tfúmbala <i>auto.</i> tfúmbaga
tè'ètè <i>n.</i> 7/8 tenderness <i>pl.</i> be-tè'ètè	tfùnè <i>n.</i> 7/8 strap (made of bark or veins), scarf for carrying babies <i>pl.</i> be-tfùnè
tê <i>adv.</i> now	-tié le- <i>n.</i> 5/6 knot <i>pl.</i> ma-tié
tê <i>v.</i> create, invent, found <i>npp.</i> ntéyâ <i>recip.</i> téyala	tî <i>v.</i> start walking, displace oneself <i>npp.</i> ntíyâ <i>recip.</i> tíyala
tê <i>v.</i> limp <i>recip.</i> téngala	tìnô <i>v.</i> tear out, harvest (tubers) <i>npp.</i> ntìná <i>appl.</i> tíle <i>recip.</i> tìnalá
tèè <i>v.</i> abandon <i>npp.</i> ntèngá <i>recip.</i> tèngala	tísònì <i>n.</i> 7/8 town <i>pl.</i> be-tísònì
-té'é le- <i>n.</i> 5/6 fatigue <i>pl.</i> ma-té'é	títímó <i>n.</i> 7/8 middle <i>pl.</i> be-títímó
té'è <i>v.i.</i> be soft, be weak <i>npp.</i> ntégâ <i>v.t.</i> tége soften, make soft	-tó le- <i>n.</i> 5/6 drop <i>pl.</i> ma-tó
tèbé <i>n.</i> 7/8 beach, shore <i>pl.</i> be-tèbé	tò <i>inv.</i> any
tébo <i>v.</i> get up, rise, stop, stand <i>npp.</i> ntélâ <i>appl.</i> téle place sth. upright <i>recip.</i> ntélala place each other	tfà <i>v.i.</i> boil <i>npp.</i> ntògá <i>recip.</i> tògala <i>v.t.</i> tòge boil sth.
tége <i>v.</i> make tired <i>npp.</i> ntégâ <i>caus.</i> tégese <i>recip.</i> téngala	tòdè <i>n.</i> 7/8 roundness <i>pl.</i> be-tòdè
-télè ma- <i>n.</i> 6 saliva (spit)	tódyínì <i>n.</i> 1/2 thousand <i>pl.</i> ba-tódyínì
tèmbowô <i>v.</i> set, go down (only for sun) <i>npp.</i> ntèmbá <i>caus.</i> ntèmbese	tóke <i>v.</i> take, pick up <i>npp.</i> ntókâ <i>caus.</i> tókese <i>recip.</i> tókala
tèmbówó má víssó ma- <i>n.</i> 6 sunset	-tólè le- <i>n.</i> 5/6 navel <i>pl.</i> ma-tólè
-tèndáà le- <i>n.</i> 5/6 ground cricket <i>pl.</i> ma-tèndáà	tòmbó <i>n.</i> 7/8 problem <i>pl.</i> be-tòmbó
tèndo <i>v.</i> tear <i>npp.</i> ntèndá <i>caus.</i> tèndese <i>recip.</i> tèndala	-tóndí le- <i>n.</i> 5/6 friend/lover <i>pl.</i> ma-tondí
tètèkè <i>n.</i> 7/8 frogs that fall from sky with rain <i>pl.</i> be-tètèkè	tòndò <i>n.</i> 1/2 nail <i>pl.</i> ba-tòndò
tfúada <i>v.</i> be late	tòntsá <i>n.</i> 7/8 mistletoe plant ( <i>Agelanthus djurensis</i> ) <i>pl.</i> be-tòntsá

t��le <i>v.</i> guide, direct	ts��� <i>n.</i> 9/6 blood <i>pl.</i> ma-ts���
t��s�� <i>adv.</i> no, never, nothing	ts��� <i>v.</i> cut <i>npp.</i> nts��� recip. ts��ala
t��w�� <i>inv.</i> all (used with time only, whole time/night/day/hour)	ts��� <i>v.</i> live, be well <i>npp.</i> nts���
t��wa <i>v.</i> drip, leak <i>npp.</i> nt��w��	-ts��� be-ny��g�� n- <i>n.</i> 1/2 butcher (cow slaughterer) <i>pl.</i> ba-ts��� b�� be-ny��g��
tr��s�� <i>n.</i> 1/2 thread <i>pl.</i> ba-tr��s��	ts��� <i>v.</i> make a knot, bind, tie <i>npp.</i> nts���l�� recip. ts��ala
t�� post. inside	ts������ <i>n.</i> 1/2 circumcision <i>pl.</i> ba-ts������
t������ <i>n.</i> 7/8 axe <i>pl.</i> be-t������	ts������ <i>v.</i> take off, start going (only with plural subject)
t������ <i>v.</i> move places/houses <i>npp.</i> nt��g�� caus. t��g���� recip. t��g��ala	ts������ <i>n.</i> 7/8 life <i>pl.</i> be-ts���
t������ <i>n.</i> 7/8 tumor <i>pl.</i> be-t������	ts������ <i>n.</i> 7/8 smallness, part, shortness, half <i>pl.</i> be-ts������
-t������ <i>n-</i> <i>n.</i> 1/2 older brother, cousin, close friend <i>pl.</i> ba-t������	ts������ y�� k��b�� <i>n.</i> 7/8 short skirt <i>pl.</i> be-ts������ b�� k��b��
t������ <i>n.</i> 7/8 country <i>pl.</i> be-t������	ts������ y�� m-��d�� <i>n.</i> 7/8 dwarf (small person) <i>pl.</i> be-ts������ b�� b-��d��
t������ <i>v.</i> miss <i>npp.</i> nt��nd�� recip. t��d��ala	ts������ y�� nd��w�� <i>n.</i> 7/8 room <i>pl.</i> be-ts������ m��-nd��w��
tw������ <i>v.</i> peck <i>npp.</i> ntw��l�� recip. tw��l��ala	ts������ y�� s��t�� <i>n.</i> 7/8 pants <i>pl.</i> be-ts������ b�� s��t��
TS	
ts������ <i>v.</i> spit <i>npp.</i> nts������ recip. ts������	ts������ <i>v.</i> write <i>npp.</i> nts������ caus. ts������ recip. tsilala
ts������ <i>v.</i> spit <i>npp.</i> nts������ recip. ts������	ts������ <i>n.</i> 7/8 plank <i>pl.</i> be-ts������
ts������ <i>v.</i> spit <i>npp.</i> nts������ recip. ts������	ts������ <i>v.</i> sneeze <i>caus.</i> ts������ recip. tsimala
ts������ <i>n.</i> 9/6 1) neck 2) voice <i>pl.</i> ma-ts���	ts������ <i>n.</i> 9/6 riverside, shore <i>pl.</i> ma-ts���
ts��� <i>v.</i> untie, unwrap, loosen <i>npp.</i> nts������ recip. ts������	-ts������ (l�� nk��) le- <i>n.</i> 5/6 heel (of the foot) <i>pl.</i> ma-ts������ m�� nk��
-ts�� <i>n-</i> <i>n.</i> 1/2 in-law <i>pl.</i> ba-ts��	-ts������ le- <i>n.</i> 5/6 1) party, festival 2) neuv��ne ceremony nine days after funeral <i>pl.</i> ma-ts������
ts�� <i>n.</i> 7/8 interdiction <i>pl.</i> be-ts��	ts������ <i>v.</i> push lightly, shove <i>npp.</i> nts������ recip. tsindala
-ts�� w�� m-��d�� <i>n-</i> <i>n.</i> 1/2 mother/sister-in-law <i>pl.</i> ba-ts�� b�� b-��d��	ts������ <i>n.</i> 1/2 question <i>pl.</i> ba-ts������
ts��� <i>v.</i> grind, trample (in mortar) <i>npp.</i> nts������ recip. tsibala	-ts������ le- <i>n.</i> 5/6 knot <i>pl.</i> ma-ts������
ts������ <i>n.</i> 1/2 honesty <i>pl.</i> ba-ts������	ts������ <i>n.</i> 1/2 animal, meat <i>pl.</i> ba-ts���
ts��� <i>n.</i> 1/2 animal, meat <i>pl.</i> ba-ts���	ts��k ts��k ts��k ts��k ideo. depiction of

noise that mice make

tsòp tsòp tsòp *ideo.* depiction of dripping sound or sound walking in mud

## U

-ù d- *n.* 5/6 oven, hearth *pl.* m-ù

-ùdâ m- *n.* 1/2 woman, wife *pl.* b-ùdâ

-ùdû m- *n.* 1/2 man, husband *pl.* b-ùdû

-ùdì m- *n.* 1/2 person *pl.* b-ùdì

-ùdì wà wóngó m- *n.* 1/2 soldier *pl.* b-ùdì bá bé-wóngó

ùf *ideo.* depiction of sound when something catches fire

-úgó dv- *n.* 5/6 toilet *pl.* m-úgó

-úmbó d- *n.* 5/6 wrap *pl.* m-úmbó

-úmbó lé ká d- *n.* 5/6 fish or meat wrapped and prepared in leaf *pl.* m-úmbó má ká

-úmbó lé nkê d- *n.* 5/6 fish or meat prepared in pot, dish with fish in lemon sauce *pl.* m-úmbó má nkê

-úndò d- *n.* 5/6 galago *pl.* m-úndò

-úú d- *n.* 5/6 nose *pl.* m-úú

-ùwò d- *n.* 5/6 daytime *pl.* m-ùwò

## V

-váá le- *n.* 5 thing

vàà v. praise, be proud *pp.* mvàgá *recip.* vågala

váïvái n. 7/8 generosity *pl.* be-váïvái

váló n. 7/8 polygamy *pl.* be-váló

vàmo kwè v. knock over

vásé v. rise (dough) *pp.* mvásâ *appl.* vásélé (caus. meaning)

vé inv. which

vé v. give *pp.* mvéyâ *recip.* véyala

vè'è v. try on (clothes) *pp.* mvègá *appl.* vè'ele (caus. meaning) *recip.* vègala

véélá n. 7/8 decoration *pl.* be-véélá

vèkò n. 7/8 drawing, painting *pl.* be-vèkò

-vémbó le- *n.* 5/6 guenon (*Cercopithecus*) *pl.* ma-vémbó

vémbo (kèmbè) v. blow nose (phlegm) *pp.* mvémâ *recip.* vémbala

vésô v. have desire *pp.* mvésâ *recip.* vésala

-véwò le- *n.* 5/6 cold, malaria *pl.* ma-véwò

vèwɔ v. breathe

vèye v. measure *pp.* mvèyá *recip.* véyala

ví n. 7/8 wooden part in trap hiding the hole in the ground *pl.* be-ví

vìde v. turn, return, roll sth. *pp.* mvìdá and mvìdálâ *appl.* vìdele turn sth. *recip.* vìdala *autoc.* vìdega

vídélè n. 7/8 smoke *pl.* be-vídélè

-vídósí le- *n.* 5/6 dawn, early morning *pl.* ma-vídósí

-vídú le- *n.* 5/6 darkness *pl.* ma-vídú

-vìlè le- *n.* 5/6 ginger species (*Aframomum*) *pl.* ma-vilè

vimala v. groan *pp.* mvímálâ

vímù n. 7/8 giant pangolin (*Manis gigantea*) *pl.* be-vímù

víndo v. hate *pp.* mvíndâ *recip.* víndala

-víno ma- *n.* 6 pus

vìnó n. 7/8 finger *pl.* be-vìnó

vìnó yá sâ n. 7/8 thumb (main finger) *pl.* be-vìnó bé sâ

vísó n. 8 sun

- vísɔ v. cover *npp.* mvísâ and mvísálâ  
*appl.* víséle *recip.* vísala
- vísɔ n. 7/8 bone, skeleton, fish bone  
*pl.* be-vísó
- vísɔ yá nkáàlè n. 7/8 backbone *pl.* be-vísó bé mí-nkáàlè
- víwɔ v. suck *npp.* mvíwâ *recip.* víwala
- víyâsa v. be light *npp.* mvíyâsâ
- víyala v. touch *npp.* mvíyálâ
- vìyó n. 8 fire
- vô v. 1) be calm 2) be cold *npp.* mvóyâ  
*caus.* vólëse calm sb. down *recip.* vólala
- vòdá le- n. 5/6 rest, vacation *pl.* ma-vòdá
- vòda v. rest, relax *npp.* mvòdá *recip.* vòdala
- vólè be- n. 8 grief (after sb.'s departure/death)
- vólè v. help *npp.* mvólâ *recip.* vólala
- vóvòlè n. 7 freshness, peace, tranquility
- vòwa v. wake (up) *npp.* mvòwâ  
*caus.* vòlëse *recip.* vòwala *autoc.* vòlega wake up
- vû v. leave *npp.* mvúyâ *appl.* vúle get rid of, take away *recip.* vúyala
- vùññ v. worry, be excited
- vúba nà v. hug sb.
- vúdù num. one
- vúelè v. blow (with mouth, e.g. into fire) *npp.* mvúálâ
- vúlò ma- n. 6 cutting edge (of e.g. knife or machete)
- vúlò v. be sharp *npp.* mvúlâ
- vúlù le- n. 5/6 foam *pl.* ma-vúlù
- vùlùngù n. 7/8 noose in trap *pl.* be-vùlùngù
- vúsí le- n. 5/6 hole *pl.* ma-vúsí
- vútò ma- n. 6 oil (for body)
- vùvùlè n. 7/8 baked bread or baguette  
*pl.* be-vùvùlè
- vùzì n. 7/8 abdomen *pl.* be-vúzì
- vyámbele v. surround *npp.* mvyám-bálâ
- vyè v. draw *npp.* mvyègá *recip.* vyè-gala

## W

- wă le- n. 5/6 twin *pl.* ma-wă
- wâ ma- n. 6 fat
- wâ ntúà m- n. 1/2 young woman  
*pl.* b-wâ bá túà
- wàà n. 1/2 chimpanzee, bonobo *pl.* ba-wàà
- wáadó n. 7/6 net *pl.* ma-wáadó
- wàlè n. 7/8 bitter kola (fruit and tree) (*Garcinia kola*) *pl.* be-wàlè
- wámè v. hurry
- wámiyé adv. fast
- wánò m- n. 1/2 1) child, baby 2) small, few *pl.* b-wánò
- wánò (wà) m-údâ m- n. 1/2 girl (female child), daughter *pl.* b-wánò b-údâ
- wánò (wà) mûdû m- n. 1/2 boy (male child), son *pl.* b-wánò b-údû
- wánò nlawó m- n. 3/4 twig (child of branch) *pl.* b-wánò mí-nláwó
- wányè le- n. 5/6 young man *pl.* ma-wányè
- wàwè v. spread (out) *npp.* mwàwá *recip.* wàwala *autoc.* wàwëga
- wáwɔ v. crawl
- wáyà n. 7/8 wire *pl.* be-wáyà
- wê le- n. 5/6 cry *pl.* ma-wê
- wè v. die *npp.* mwèyá

- wéé v. skin (animals with fur; burn the fur, then scratch fur off) *npp.* ngwéngâ *recip.* wéngala
- wómbelé v. sweep *npp.* mwómbálâ *recip.* wómbala
- wò le- n. 5/6 taro, cocoyam *pl.* ma-wò
- wò'ò n. 7/8 broom *pl.* be-wò'ò
- wólè n. 7/8 hawk *pl.* be-wólè
- wòm *ideo.* depiction of (sudden) silence
- wóngó n. 7/8 helmet *pl.* be-wóngó
- wóóóó *ide.* depiction of moving by foot or motorbike
- wùdè le- n. 5/6 cooking stone *pl.* ma-wùdè
- wùlà le- n. 5/6 time, hour *pl.* ma-wùlà
- wúmbé le- n. 5/6 wish, desire, want *pl.* ma-wúmbé
- wúmbé v. want, wish, need *npp.* mwúmbâ *recip.* wúmbala want each other's things, desire each other
- wúmbó le- n. 5/6 cotton *pl.* ma-wùmbó
- wùmè (kfúbò) v. pluck (chicken) *npp.* mwùmá *recip.* wùmala
- wúmò le- n. 5/6 ten *pl.* ma-wúmò
- wúndè n. 1/2 window *pl.* ba-wúndè
- wùndè n. 7/8 groundnut *pl.* be-wùndè
- wúngala v. wander, dangle
- wúnjò n. 2 Ewondo people
- wùsà n. 7/8 dry banana leaf *pl.* be-wùsà
- wùsa v. forget *npp.* mwùsá *recip.* wùsala
- wúsè n. 7/8 drought *pl.* be-wúsè
- wùù wúú wùù wúú *ideo.* depiction of sound of bees
- wùùùù *ideo.* depiction of pouring liquids or granulars
- wùwù n. 7/8 small bat *pl.* be-wùwù

## Y

- yákú n. 7/8 fire fly *pl.* be-yákú
- yàlané v. respond
- yándó n. 7/8 trace *pl.* be-yándó
- yàne v. must
- yâyâ - n. 1/2 pan *pl.* ba-yâyâ
- yé n. 7/8 mushroom *pl.* be-yé
- yé'é n. 7/8 thirst, desire, craving *pl.* be-yé'é
- yédélè n. 7/8 star (also used in Kwasio) *pl.* be-yédélè
- yélè n. 7/8 whistle (both with mouth and whistle) *pl.* be-yélè
- yémède v. tighten *npp.* myémâ *recip.* yémàlâ
- yéngè n. 7/8 yodel at wedding *pl.* be-yéngè
- yèyè yá m-ùdì - n. 7/8 retarded person *pl.* be-yèyè bé b-ùdì
- yí n. 7/8 wood, firewood, fire *pl.* be-yí
- yíè v. avoid, dodge *npp.* nyéyâ *recip.* yéala
- yílè n. 7/6 viper *pl.* ma-yílè
- yimbá n. 7/8 age *pl.* be-yimbá
- yimbálî le- n. 5/6 entrance *pl.* ma-yimbálî
- yimbɔ v. go for a walk, visit *npp.* yimbâ *recip.* yimbala
- yúlè n. 1/2 decedent, deceased person *pl.* ba-yúlè
- yúngú n. 7/8 sea eagle *pl.* be-yúngú

## Z

(m-ùdì wà) zìmbà *n.* 1/2 soldier  
*pl.* (b-ùdì bá) ba-zìmbà  
zíngó *n.* 7/8 short dress *pl.* be-zíngó  
zìbí *n.* 7/8 tsetse fly (*Glossina*) *pl.* be-zìbí

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# A grammar of Gyeli

This grammar offers a grammatical description of the Ngòló variety of Gyeli, an endangered Bantu (A80) language spoken by 4,000–5,000 “Pygmy” hunter-gatherers in southern Cameroon. It represents one of the most comprehensive descriptions of a northwestern Bantu language.

The grammatical description, which is couched in a form-to-function approach, covers all levels of language, ranging from Gyeli phonology to its information structure and complex clauses.

It draws on nineteen months of fieldwork carried out as part of the “Bagyeli/Bakola” DoBeS (documentation of endangered languages) project between 2010 and 2014. The resulting multimodal corpus from that project, which includes texts of diverse genres such as traditional stories, narratives, multi-party conversations and dialogues, procedural texts, and songs, provides the empirical basis for the grammatical description. The documentary text collection, supplemented by data from elicitation work, questionnaires, and experiments, are accessible in the Bagyeli/Bakola collection of the Language Archive. With additional ethnographic, sociolinguistic, diachronic, and comparative remarks, the grammar may appeal to a wider audience in general linguistics, typology, Bantu studies, and anthropology.

In 2019, the grammar received the Pāṇini Award by the Association for Linguistic Typology.

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