Topics in the Grammar of Bago

by

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Abstract

This thesis presents a detailed description and analysis of several topics in the grammar of Bago, a Gur language spoken in the central-eastern region of Togo. It covers areas in the phonology, syntax, and semantics of the language. The first chapter provides background information about the history and culture of the Bago people prior to giving an overview of the geographical location and classification of the language, previous literature, data collection, and the methodology used in this thesis. The second chapter describes the sound system and syllable structure of the language. It also analyzes the vowel harmony and tonal patterns in Bago nouns and verbs. Chapter three gives a brief overview of the grammar of Bago, and chapter four describes number suffixes, semantics and phonological processes observed in the five classes of nouns. The fifth chapter is concerned with personal pronouns, as well as the question of how to encode reflexivity and reciprocity. A discussion of (in)definiteness encoding is presented in chapter six, which also contains a description of the demonstrative morphemes in the language. Chapter seven deals with nominal modification expressed in the language by means of adjectival roots, predicative nominals, and intransitive verbs. In chapter eight, we investigate the distribution of the copular verbs and the distinction between dynamic and stative verbs. A preliminary description and analysis of the factative and the imperfective aspects are presented in chapter nine, while the following chapter aims to describe modality and conditionality. Chapter eleven is concerned with clausal and constituent negation. The final chapter examines lexical, morphological, and syntactic causative constructions in Bago.

Acknowledgements

Table of Contents

List of Tables

List of Figures

List of Abbreviations

[+ATR]	Advanced tongue root
[-ATR]	Unadvanced tongue root
C	Consonant
Adj	Adjective
ANPH	Anaphoric
ANT	Anteriority
CL	Class marker
COM	Comitative
COMP	Complementizer
COP	Copular verb
COUN	Counterfactual
DIST	Distal
DEM	Demonstrative
EMP	Emphatic pronoun
EMPH	Emphatic Reflexive
FAC	Factative
FIN	Finite form
FOC	Focus Marker
INDF	Indefinite
INF	Infinitive form
L	Low tone
LOC	Locative
MOD	Modal
MAN	Manner
H	High tone
NEG	Negative
NP	Noun phrase
NOM	Nominalizer
NUM	Numeral
OCP	Obligatory Contour Principle
PL	Plural
POSS	Possessive
POSSD	Possessed
POSSR	Possessor
PROX	Proximal
PURP	Purpose clause marker
Q	Polar question marker
REFL	Reflexive
REL	Relative pronoun
SG	Singular
SVO	Subject Verb Object
TSit	Time of situation
TT	Topic time
TU	Time of utterance
V	Vowel
VV	Long vowel
μ	Mora
*	Ungrammatical
#	Semantic-pragmatic infelicity
.	Syllable bounda

Chapter 1

Introduction

1.1 Socio-cultural context the Bago people

1.1.1 History

The people of Bago call themselves *Bagomba* "plural" and *Bagoŋŋɔ* "singular". There is no written history of the Bago people, and what they know about their origin comes from oral traditions. They believe that *bago lɔɔ* 'Bago forest', currently an abandoned area located near the village, was the place where their ancestors settled before the present settlement. It is known among all the clans living in Bago now that the land belongs to the *Akpetuna* clan to whom the chieftaincy is accorded. According to Dogo (2008) and Agossou (2010) (cited by Takougnandi 2016), the other clans are considered as non-natives who migrated from different places of origin to live with the Bago people. Historical texts written about the people of Togo identify the Bagomba as being from the Bariba people of Benin (see Cornevin 1969:112; Gayibor 1997: 272). The Bago people reject the claim that they are descended from the Bariba people.

The number of the Bago speakers is difficult to accurately determine because the national census does not provide information about ethnic affiliation and spoken languages. Afeli (2003), in his work on the languages of Togo, estimates the number of Bago speakers to be around 6,100.Azoti (2014) estimates a total number of 6,000 Bago people as residents in the village plus between 6,000 to 10,000 Bago people residing in other regions. Gbem-Poidi and Kantchoa (2018), to whom Bago and Kusuntu are considered to be names of different ethnic groups

1

speaking two dialects of a single language, gave a total population of about 9,900 inhabitants for both Bago and Kusuntu in 2010, and an estimated figure of 11,371 in 2015. According to the 2010 national census, the population of the canton of Bago is 21,634. Out of this total, 4,259 reside in the village of Bago. The remaining 17,375 live in Nyamassila, Olale, Afoule, Samai, Mono, Afosala, Adijai, Oronko, Akawlou, Assoula,Agoumana, Namba and Liring.

These are small settlements that are inhabited mostly by Kabiye and Lamba farmers who moved there and settled with the people of Bago. In these settlements, Bago, Kabiye and Lamba languages are spoken, and thus the number of Bago native speakers cannot be accurately estimated. Also, there is an unknown number of Bago speakers in several towns in Togo and Ghana.

1.1.2 Cultural background and religious practices

The people of Bago are known as farmers and hunters. Hunting is the domain of men. Farming is their daily activity, and it is still done traditionally by both men and women without the use of farm machinery. They spend most of their day on the farm and mainly grow yam, millet, corn andpeanuts. On Friday, people normally do not go to the farm. They stay in the village to attend the Friday prayer and visit relatives

Monday is the market day in the village; it is women who set out a stall there to sell their products. Many traders come on the market day from different towns and villages in the Tchamba district. Thevillage is located in the forest zone in the Central-Eastern region of Togo, and the Bago people are dependent on selling wood and charcoal as a source of currency. A few people also raise chickens, fowls and goats for the purpose of selling and eating.

According to the people I interviewed, Bago people had been worshiping fetishes for a long period of time. Around the beginning of the 20ᵗʰ century, a group from Bago migrated to Nigeria and converted to Islam after coming into contact with the Hausa people. As a result, after the return of this group, Islam spread among the Bago people. Currently, the majority of Bago people consider themselves Muslims and criticize the traditional practice of fetish worship that is still practiced by a few families in the village. The society also includes a few individuals who converted from Islam to Christianity.

1.1.3 Geographical location

The village of Bago is located in the forest zone in the Central-Eastern region of Togo. It is situated within the Tchamba district. To the North of Bago is the village of Goubi inhabited by the Ana people, to its South is the village of Issati inhabited by the Ife people, to its East is the village of Kpira in Benin inhabited by the Ntcha, and to its West is the village of Kazabuwa inhabited by the Kabiye people. The place named *Bago lɔɔ* 'Bago forest', which is believed by the Bago people to be their first settlement, is located about four kilometers to the Southwest of the Bago village. The village of Bago is composed of six small areas that are known as: Ateteŋa, Kpaala, Komooti, Kʋkʋrʋkʋ, Naronaro, and Subara.

1.2 Linguistic properties of the Bago language

1.2.1 Genetic classification

Bago is a language spoken in Togo, and it is classified as a member of the Eastern Gurunsi/Grusi subgroup of the Central Gur language family (see Bendor-Samuel 1971 and Kleinewillinghöfer 2000). The Gurunsi subgroup is composed of the Eastern Gurunsi, the Northern Gurunsi, and the Western Gurunsi. In Westermann's (1933) classification, Bago, Cala and Delo are considered as dialects of the language Tem. Manessy (1969) states that due to sufficient differences between Bago,Cala and Delo, they cannot be identified as dialects of the same language. In Fivaz and Scott's(1977) work, Bago is classified on its own as a language within the Eastern Gurunsi subgroup, which also includes Lamba, Dompago, Kabiye, Tem, Delo and Cala. Following Takassi (1983), Afeli (2003) considers Bago and Kusuntu as names of a single language. Similarly, Gbem-Poidi and Kantchoa (2012 and 2018) use the term Bago-Kusuntu to refer to dialects of a single language. However, Kleinewillinghöfer (2000), Moussa (2011) and Takougnandi (2016) recognize Bago and Kusuntu as closely related but distinct languages.
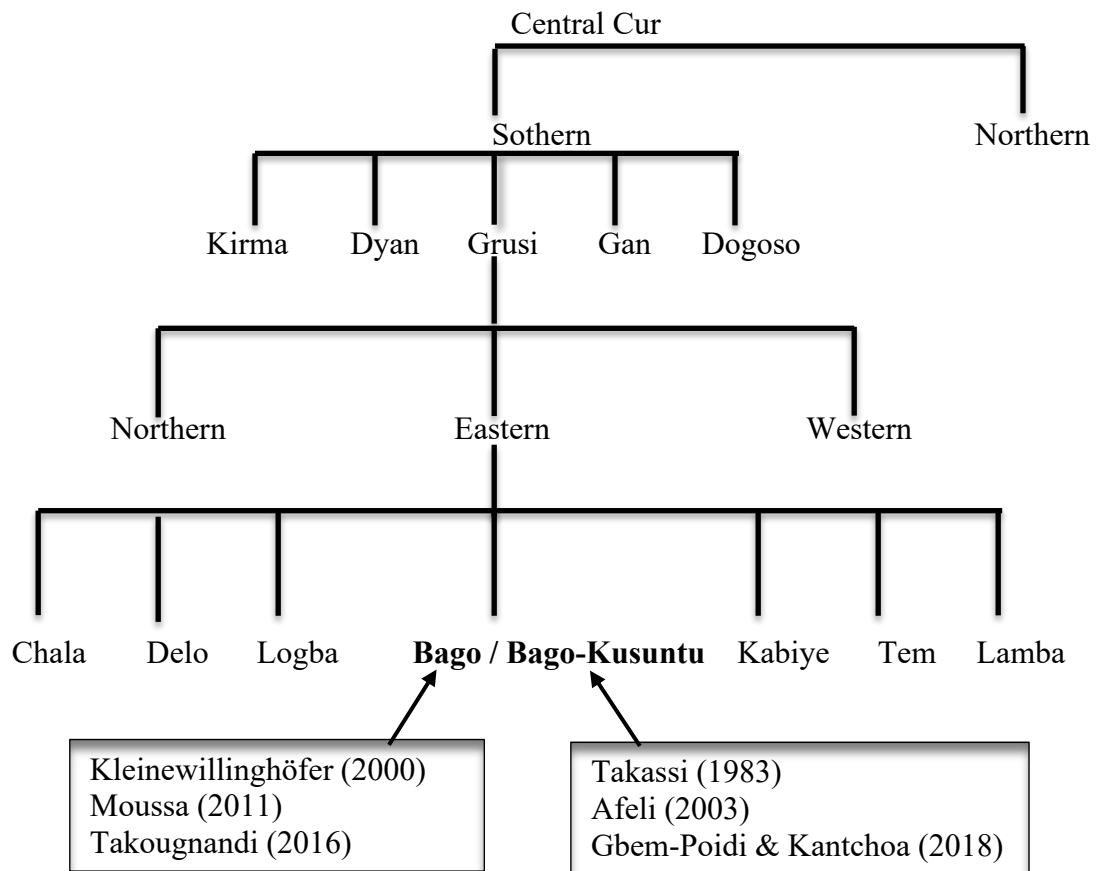
Figure 0.1: The classification of Bago in the Eastern Grusi (adapted from Naden 1989, p. 147)
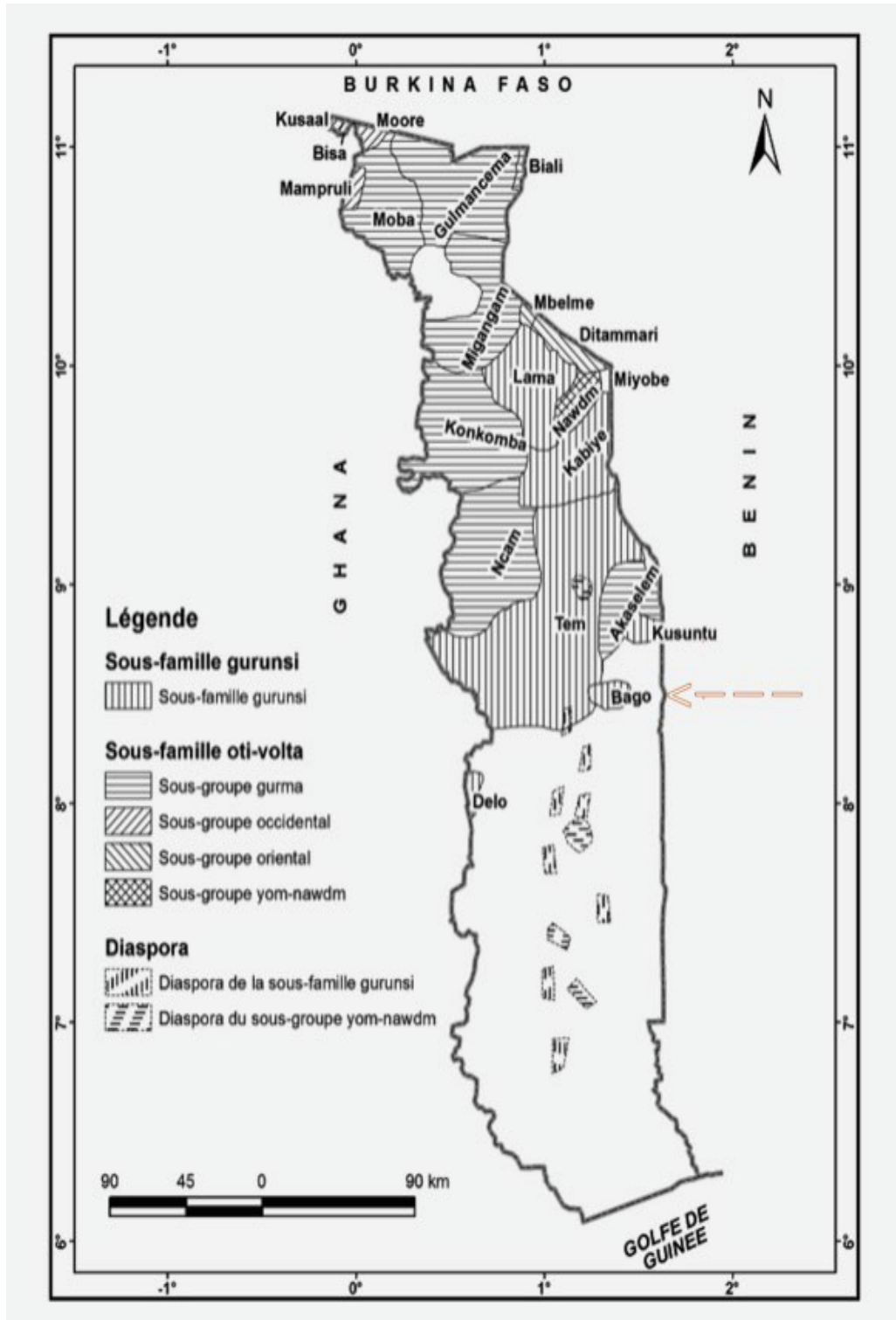
Figure 0.2: Map of the Gur languages in Togo (adapted from Gbem-Poidi & Kantchoa (2018, p. 147)

6

1.2.2 Earlier linguistic studies on Bago

The starting point for the study of Bago is Rongier's (1991) 35-page grammatical sketch, wherein he provides a short word list and identifies the pronominal and noun class systems of the language. Azoti (2000) conducts a sociolinguistic survey on speakers of Bago and Kusuntu to assess their level of comprehension of the other language. Azoti's (2015) work is an important source of information about personal naming in Bago which shows that Arabic names are used over traditional names due to the influence of Islam. Moussa (2011), who is a native speaker of Kusuntu, provides a list of words from Bago and Kusuntu and looks at phonological and lexical (dis)similarities. He concludes that Bago and Kusuntu are closely related languages rather than dialects of the same language. Gbem-Poidi and Kantchoa's (2016) work is also a comparison between Bago and Kusuntu to determine whether or not they are dialects of the same language. In their study, Bago and Kusuntu speakers were given a list of 100 French words to translate. According to the phonological, morphological and lexical similarities found between the Bago and Kusuntu, and they concluded that Bago and Kusuntu are variant dialects of the same languages.

Takougnandi's (2016) dissertation on Bago is the most extensive resource description containing the phonology and morphology of the language. The work is written in French, and it is organized into five main parts. The first part provides a description of the phonetic inventory and consonant and vowel and homorganic nasal assimilation. The second part describes the syllable structure and the tone system of the language. In the third part, Takougnandi covers derivational morphology and phonological adaptation of loanwords. The fourth part is a general description of nouns, verbs, adjectives, adverbs and ideophones. The last part looks at the grammatical

aspects and briefly discusses modality, negation and conditional marking in the language. Takougnandi's work is a valuable and a remarkable contribution to our understanding of Bago. However, there are still gaps to be addressed in the description of the language. One clear shortfallof his work is that the analysis of the tone system is limited in the verbal domain to finite forms. The study does not refer to the existence of infinitive verbal forms in the language. A discussion of the infinitive verbal forms is important because they exhibit different tonal patterns from their non- infinitive counterparts. Identifying the tonal patterns of the infinitive forms leads to a more accurate description of phonological and syntactic phenomena. Infinitive forms are used, for instance, in imperative utterances, negative utterances in the factative aspect and purpose clauses. Phonologically, identifying the tonal pattern of a verb is important because it may affect the tonal realization of object pronouns. As with many other Niger-Congo Languages, there is a very important distinction between stative and dynamic verbs in terms of the temporal interpretation that the grammatical aspects denote. This distinction was not addressed, and thus a review of thegrammatical aspects in Bago is required to elicit the behaviour of stative verbs when used in the factative/perfective and the imperfective aspects. Takougnandi's work was not intended to be a reference grammar of Bago, which means that many topics necessary to fully understand the Bago language are not addressed.

Given the gaps in Takougnandi's description, I will reinvestigate in this thesis the segmental and tonal phonology of Bago. Additionally, in order to achieve an accurate description of the aspectual system in Bago, I will devote a chapter to describing the marking of the factative and imperfective aspects and exploring the semantic interpretations they convey. As aresult of the very little attention that negation, modality and conditionality in Bago have received, a detailed description of these topics is one of the primary tasks in this thesis.

1.3 Context of the research

1.3.1 Aims of the study

The current work aims to provide a detailed description and analysis of specific topics in the Bago language. It contributes to the understanding of Bago by offering details and insights into specific phonological, syntactic and semantic topics. It intends to contribute to previous descriptions of the language by presenting new findings in the phonological and morphosyntactic, and semantic domains. This thesis goes beyond description to provide a predictive formal analysis of various phenomena, including tonal patterns, vowel harmony, pronominal marking, (in)definiteness, nominalmodification, copular verbs, grammatical aspects, negation and causative constructions. The analysisof these topics is presented, when relevant, in a dialogue with findings from other languages allowing a deeper understanding of the phenomena discussed.

The current study of Bago is motivated by my interest in working on African languages to contributeto a better understanding of languages that have received no or less attention. It is hoped that the dataand analyses presented in this work would be valuable for further theoretical and descriptive studies to obtain a more insightful understanding of the language. Most of all, it is hoped that this work would be valuable to the speaking community of Bago and would serve as a basis to create linguisticmaterials useful to them.

1.3.2 Data collection and transcription

The data for this thesis comes from three fieldwork trips to Bago. The first trip lasted three weeks December 2015, during which I worked with two consultants to develop a basic understanding of Bago phonology and syntax. During my second trip, which was from May 2017 to August

2017, I recorded 21 traditional stories told by females and males. The collected stories were transcribed and translated into English by replaying the recording to my main native speaker consultant, Shuaib. He repeated each sentence slowly in order for me to transcribe it. My transcription was guided by the help of Moussa, who has a Master degree in linguistics. Although he is a native speaker of Kusuntu, he speaks Bago well and worked previously on the Bago language.

During this second trip to the field, I had access to an important source of preexisting data, a wordlistprovided by Azoti, who has led the SIL team in Bago and Kusuntu for several years. The list includes verbs and nouns that are not marked for tones, totalling 983 items. Only singular nouns and infinitive verbs are included with French translation. In order for me to accurately retranscribe the word list, I worked with Shuaib and Rahman separately to record the entire list by each one. This listeventually grew to 1095 items with more words collected by me in the field or contributed spontaneously by my consultant.

The speakers that helped me in the task of compiling and correcting the wordlist are fluent in French. They were asked to read each word in Bago and its equivalent in French before articulating the Bago word three times. This procedure was repeated for every word in the list. Moussa and Rahman, who are linguists and speakers of Bago, supervised my transcription and tone assignment. Ialso checked the tone assignment through the use of the Praat acoustic analysis software (Boersma 2001). Because Bago has a noun class system, it is very important to record and transcribe the plural form of nouns, since the class cannot be deduced from the singular form alone. Further sessions werearranged to collect the plural forms. The participants were asked to use the plural forms in phrases such as *these books*, *his brothers* and *new cars*. Additionally, the collection of finite verbal formswas obtained through the use of each verb in a simple

indicative sentence. Throughout my work on Bago, I followed the same strategy whenever a new word was added to the original wordlistprovided by Azoti.

During my second trip to the field, I also conducted elicitation sessions in which consultants were given as many contexts as possible. To describe the language from within, I usually avoided asking my consultants to directly provide translation of English sentences. Elicitation of the distribution of grammatical items and basic syntactic structures was based on data extracted from the recorded stories.

In 2018, I spent four months in the city of Lome, where my principal consultant Shuaib lives. He hasan excellent understanding of English, which was the primary language of communication in our elicitation sessions. I did not work in the village because I did not have access to consultants speaking English as a second language. During my stay in Lome, Shuaib offered me Bago language lessons that made my elicitation sessions much easier. The elicitation sessions were organized according to the topics I planned to cover in this thesis. I employed elicitation to obtain the presenteddata because Shuaib is a very skillful English speaker. Also, the collected stories do not contain instances of all the contexts and structures that I intended to examine. Another advantage of elicitation is to obtain judgments as to whether contextually constructed sentences are grammatical and felicitous or not. For ungrammatical or infelicitous sentences, my consultant provides grammatical alternatives or contexts in which sentences can be uttered felicitously. To obtain abetter understanding of the language, I always provide my consultant with contexts for the elicited data. In many cases, I only inform my consultant about the topic that I want to focus on, and he provides examples in contexts. There is a small number of examples in this study taken from the collected stories. I also included some sentences that my consultants spontaneously produced.

After my return to Canada, I continued consulting with Shuaib through the phone, based on his availability. This was necessary due to the need for more clarification on the collected data as well asthe need to ask for additional data while in the process of writing each section.

Bago does not have an official orthography. In this thesis, the data is transcribed phonemically in theInternational Phonetic Alphabet (IPA). Long vowels are transcribed doubled: e.g. *soori*. A high tone is marked by an acute accent, whereas a low tone is unmarked e.g. *íre*. Contour tones, which only occur in long vowels, are marked by an acute accent over the high-toned segment e.g. *ɖɔɔ́ na*, *ɔjɔ́ ɔrí*.

The transcription in this thesis differs from that in Takougnandi's (2016) work in which the symbols /ɩ, ʋ, j, y/ are used for the IPA symbols /ɪ, ʊ, d͡ʒ, j/, respectively. Throughout the present study, a period (.) is used in the description of syllable structure to indicate a syllable boundary. A hyphen (-)is used to break up morphemes. A capital letter is used for an underspecified segment. Noun classes are indicated in the glossing by C followed by roman numerals I through V, e.g. CIV, as is standard in the description of noun class systems in African languages to indicate singular-plural pairings.The Hindu–Arabic numerals (1, 2, 3) indicate first and second person reference. The symbols (*) and(#) indicate ungrammaticality and semantic-pragmatic infelicity, respectively.

1.4 Outline of the thesis

This thesis covers specific topics in the grammar of Bago. It is organized into 10 chapters that revolve around the phonology, the nominal morphosyntax and verbal morphosyntax of the language.

Chapter 2 provides a description of the phonology of Bago. It begins with a representation of the phonemic inventory of the consonants. The following section describes the distribution of the consonants in the nominal and verbal domains. The vowel inventory of Bago includes nine vowels. The description addresses the distribution and the qualitative contrast between vowels. It also looks at the cases where the [ATR] value of nominal and verbal roots controls the realization of the adjacent affixes. The syllable structure is also addressed. The data shows that While all consonants in Bago can occur in onset position, only a nasal segment can appear in coda position. The final section deals with the tonal patterns of finite and non-finite verbs. It also discusses the tone rules applied as a result of the suffixation of the number suffix to a bound nominal root.

Chapter 3 serves to provide a brief overview of the grammar of Bago. First, it identifies the word categories of nouns, verbs, adjectives, adverbs and postpositions. The following section introduces the noun phrase structure focusing on the order between the head and its modifying constituents. This is followed by an overview of the basic clause structure. The final section briefly introduces various means of coding tense, aspect and modality.

Chapter 4 shows that Bago has five noun classes. Nouns are grouped into classes according to the five sets of singular and plural pronouns in the languages. The noun classes are divided into subclasses on the basis of the singular and plural suffixes. By examining the meanings of the nouns in each class, the data shows that only two classes are semantically oriented, namely, Class I and Class V. The description also demonstrates that the phonological shape of a noun does not determine its class.

Chapter 5 is devoted to discussing the subject, object and possessive pronouns. In Bago, a single set of pronouns is used for subject and possessive pronouns. It is only the position of a pronoun that determines its function. Additionally, this chapter focuses on the morpheme *tɪ*, which denotesreflexivity, and it is preceded by the same form of the subject pronouns. The final section is concerned with the morpheme *ɗɔ́ ŋɔ́* which functions as a pronoun to express reciprocity.

Chapter 6 examines the means of encoding (in)definiteness and demonstratives. Bago does not havea definite determiner. In this chapter, I show that bare nouns may receive a definite or an indefinite interpretation. It focuses first on the use of bare nouns to refer to a uniquely identifiable referent. I also point out that there are several contexts wherein an indefinite determiner is required to conveyan indefinite reading. The second part of this chapter provides a description of several demonstrativemorphemes functioning as modifiers, identifiers and adverbs.

Chapter 7 is concerned with describing noun modification in Bago. It looks at the closed class of adjectival roots in the language. They are obligatorily suffixed by agreement morphology reflecting the class and number features of the modified noun. In addition to adjectival roots, the language employs nouns and intransitive verbs to express adjectival concepts. The numeral system of the language is also described. Like adjectival roots, numerals are post-nominal modifiers, but agreement with the modified head is only marked prefixally on numerals from one to five.

Chapter 8 is devoted to identify the uses of the copular verbs jɛ́ and wɛ and to examine the differences between stative and stative verbs in the language. It investigates the distribution of the copular verbs in combination with nouns, adjectives, and locative phrases. Additionally, a description of the use of the copular verbs in predicative possessive constructions is provided.

The second part of this chapter deals with the distinction between stative and non-stative verbs by examining the temporal interpretations given to them in the factative and imperfective aspects.

Chapter 9 deals with the aspectual categories in Bago: the factative and the imperfective. I adopt Klein's (1994) approach in which aspect is defined in terms of the relation between the topic time and the situation time. The first section describes the marking of aspect, which is realized by lengthening the final segment of the verb in the factative and lengthening the final segment of the subject constituent in the imperfective. The sections on the factatve and imperfective aspects examine in detail the temporal readings that they convey with dynamic and stative eventualities. Thesection on the imperfective aspect also discusses the progressive structure in the language. The final section looks at the interpretations of factative and imperfective clauses in the presence of the particle *tíí*.

Chapter 10 deals with modality and conditionality. It presents several modal meanings in Bago, including ways of expressing (un)certainty, obligation, ability, permission, wishes and imperative. The second section of the chapter describes conditional sentences. It looks at the marking ofconditionality and the grammatical aspect used in the antecedent and the consequent clauses of simple and counterfactual conditional sentences.

Chapter 11 is concerned with describing negation. Negative utterances in Bago involves the preverbalmarker *tá* along with the clause-final particle *bɔ́ ɔ*. The section on non-verbal predicate shows that thecopular verbs *wɛ* and *jɛ́* behave differently in that only the latter co-occurs with the negative particle *tá*. The copular verb *wɛ* is in complementary distribution with the negative particle *tá*. The second section describes negated verbal-predicates in the factative and the progressive and non-progressive imperfective aspects. This chapter also looks at negation in

complex clauses in which a single clauseor both clauses are negated. The final section describes constituent negation.

Chapter 12 describes causative constructions. The first section looks at the lexical causatives expressed by causative-inchoative alternation and labile verbs. In the following section, I examinethe non-productive causative morpheme *-sI*. Finally, the syntactic causative construction is addressed.

Chapter 2

Phonology

This chapter provides a brief overview of the phonology of Bago. It begins with a description of the consonant and vowel phonemes. The distribution of these phonemes in morphemes and syllables is identified, followed by a discussion of vowel harmony. This chapter also provides a description of the syllable structure. Finally, the tonal patterns of nouns and verbs are discussed.

2.1 Consonants

In accordance with Takougnandi's (2016), the phonemic inventory of the consonants in Bago consists of 20 consonants which are presented in Table 2.1. Throughout this work, the representation of the phonemes follows the conventions of the International Phonetic Alphabet.

Table 2.1: Bago Consonant Inventory

	Place / Manner	Labial	Alveolar	Post-alveolar	Palatal	Velar	Labio-velar
Obstruents	Voiceless stops		t			k	k͡p
	Voiced stops	b	d	ɖ		g	g͡b
	Voiceless fricatives	f	s				
	Voiced fricatives	v					
	Voiced affricate			d͡ʒ			
Sonoran	Nasals	m	n		ɲ	ŋ	
	Liquids		l, r				
	Glides				j		w

17

The table shows that the consonants are articulated in six places and six manners. The obstruent manners involve a distinction in voicing, whereas sonorants are voiced. Among the sonorants, there are four independent nasal consonants /m, n, ɲ, ŋ/, which contrast in an identical environment. The trill /r/ differs from the lateral /l/ and the glides /j, w/ in that it does not occur in word-initial position except in one borrowed noun *rííba* 'profit'. Table 2.1 does not include additional consonants found in a few instances of borrowed words. The borrowed words found in the database contain the fricative /h/ and the voiceless stop /p/. Examples of words with /h/ and /p/ include:

1. a. /h/   alihééri   'goodness'   Arabic
                  háma   'hammer'   English
                  hiije   'wedding'   Tem

    b. /p/   lípolípo   'lipstick'   English
                  pɛ́ńtí   'to paint'   English
                  kɔ́ɔpʊ   'cup'   Portuguese
                  papawʊ́   'towel'   Portuguese

2.1.1 Minimal pairs of consonants

In order to understand the contrastive status of consonants in Bago, this section provides some examples illustrating the resulting change of meaning caused by a phonemic difference between related consonants. Since not all consonants are found both medially and initially, contrast between consonants will be shown in initial position for some, and in medial positions for others. The list of (near) minimal pairs is based on voicing, manner, and places features.

2. Minimal pairs illustrating voicing contrasts

Places		Voiceless			Voiced	
a. Labial	/f/	fɔkɔ 'to do laundry' fasɪ 'to peel'		/v/	vɔkɔ 'to be full' vasɪ 'to hide'	
b. Alveolar	/t/	tɔŋ 'to say' tánsí 'to separate'		/d/	dɔń 'to cork' dánsí 'to lose'	
c. Velar	/k/	kóń 'to defecate' kulu 'to crawl'		/g/	goń 'to lie' gulú 'to pull out'	
d. Labio-velar	/k͡p/	k͡pɪ 'to wash' g͡biki 'to vomit'		/g͡b/	g͡bɪ 'to be quiet' k͡pili 'to fold'	

3. Minimal pairs illustrating manner contrasts.

Manner → Place ↓		Oral stop			Nasal stop	
Labial	/b/	fɔkɔ 'to do laundry' fasɪ 'to peel'		/m/	vɔkɔ 'to be full' vasɪ 'to hide'	
Alveolar	/d/	tɔŋ 'to say' tánsí 'to separate'		/n/	dɔń 'to cork' dánsí 'to lose'	
Velar	/g/	kóń 'to defecate' kulu 'to crawl'		/ŋ/	goń 'to lie' gulú 'to pull out'	
Labio-velar	/k͡p/	k͡pɪ 'to wash' g͡biki 'to vomit'		/g͡b/	g͡bɪ 'to be quiet' k͡pili 'to fold'	

		Oral stop			Fricative	
Labial	/b/	báa 'palm tree' bɔkɔ 'to announce'		/v/	vá-a 'dog' vɔkɔ 'to be full'	
Alveolar	/t/	ta 'to rub ointment' tásí 'to spread'		/s/	sa 'to prepare paste' sasɪ 'to congratulate'	

		Nasal stop		Fricative	
Labial	/m/	mʊ 'to resemble'	/v/	vʊ 'to judge'	
Alveolar	/n/	ná 'to see' tónɛ 'dried animal skin'	/s/	sa 'to prepare paste' tósí 'to be out of its place'	

		Oral stop		Affricate	
Post.Alv	/ɖ/	ɖa 'to wait' ɖʊ 'to put'	/d͡ʒ/	d͡ʒa 'today' d͡ʒʊ 'to enter'	

4. Minimal pairs illustrating place contrasts with oral stop.

Labial /b/	Alveolar /t, d/	Post-Alv /ɖ/	Velar /k, g/	Labio-velar /k͡p/, /g͡b/
ba 'to dig'	*[1]	ɖa 'to wait'	ga 'to form clouds'	
bara 'to close'	dara 'to free'		gará-a 'foot'	g͡bala 'to practice quackery'
báŋ 'to lay on eggs'		ɖáŋ 'to be lost'	gaŋ 'to cook'	
bɔ́-ɔ 'hole'				g͡bɔ-ɔ́ 'way'
g͡bɪ 'be sharp'				g͡bɪ 'to be quiet'
	dara 'to free'	ɖa 'to wait'		
	doro 'to wake up'	ɖo 'to sleep'	goro 'to seduce'	
	dɔsí 'to patch'		gɔ 'to be tired'	
	dʊró 'to push'		gulú 'to root up'	
	deŋ 'to meet'		goro 'to seduce'	
	deŋ 'to meet'			g͡beŋ 'to fart'
		ɖɛ 'yesterday'	gɛ 'to want'	
		ɖáŋ 'to be lost'	gaŋ 'to cook'	
		ɖɪ '1PL'		g͡bɪ 'to be quiet'
		ɖɪŋ 'to go off'		g͡biŋ 'to catch'
			goŋ 'to lie'	g͡boŋ 'to doze off'
			gʊntí 'to bend'	g͡bonti 'to prevent'

---

[1] The alveolar /d/ is not attested in a light monosyllabic word.

5. Minimal pairs illustrating place contrasts with nasal stops.

Labial /m/	Alveolar /n/	Palatal /ɲ/	Velar /ŋ/
má 'to build'	ná 'to see'		
marɪ 'to move'	narɪ 'to spread'		
simá-sɛ 'cement-pl'	siná-sɛ 'rib cage-pl'		
mɔsɪ 'to take'		ɲɔsɪ 'to suck the breast'	
mɛsɪ 'to weigh'		ɲe-si 'to lick'	
mɛ '1SG.obj'			ŋɛ '2PL.obj'
mɔŋ 'to hit'			ŋɔŋ 'cook on fire'
mala 'to get used to'			ŋala 'to fry'
	nɔ́-ɔ 'mouth'	ɲɔ 'to drink'	
	nɔ́-sɛ 'mouth-PL'	ɲɔsɪ 'to suck the breast'	
	ná 'to see'		ŋa '3.PL.CIII'
	nɪnsɪ 'to warm'		ŋɔ́nsɪ 'to decrease'
		ɲɛŋ 'to sting'	ŋɛ́ní 'to melt'
		ŋɛ́ní 'to melt'	ŋɛŋɪ 'to rejoice'

6. Minimal pairs illustrating place contrasts with fricatives and glides.

Labial /f/	Alveolar /s/		Palatal /j/	Labio-velar /w/
fú 'to follow'	su 'to wear'		ja 'to call	wá 'to be cured'
fɛŋ 'to listen with attention'	sɛŋ 'to forgive'		jéŋ́ 'to be clear'	*2
fara 'to plough'	sara 'to sharpen'		jálɛ 'egg'	wálɛ 'coal'

2.1.2 Distribution of consonants

2.1.2.1 Stops

This section provides a description of the eight stops found in the database. As can be seen in Table 2.1, stops contrast in voicing except the phonemes /b, ɗ/ do not have voiceless counterparts. The voiced bilabial stop /b/ frequently occurs in word-initial position. It also occurs intervocalically, but not in verbs. As shown in (7), the stop /b/ can be followed by all the nine vowels in the language. It also occurs after the homorganic nasal /m/.

7. /b/   bɔ́ɔ   'hole'   ba   'to dig'
         bʊ́rɛ   'stone   bʊrɪ   'to pour'
         d͡ʒíba   'pocket'   bútí   'to return'
         fĭba   'fever'   bɛ́lɛ́kí 'to play'
         mbélí   'man'   bonsi   'to infect'
         mbúre   'heat'   bisi   'to ask'

The alveolar stop /t/ and /d/ are found initially and intervocalically in nouns. Only the voiceless alveolar /t/ occurs intervocalically in verbs. All vowels can occur after these alveolar stops. In a medial position, they can be preceded by the homorganic nasal /n/ in nouns. Only the voiceless alveolar /t/ occurs after a nasal in verbs. This is illustrated in examples (0)&(9) that follow.

---

2 2 The syllable shape CVN is not attested with the labio-velar /w/.

8. /t/
tamáa	'chin'		tʊ	'to insult'
tɔ́ɔ̂	'bow'		tɔkɔ	'to chew'
ak͡petesi	'alcohol'		tala	'to arrive'
okútú	'pot'		bútí	'to return'
kɛkɛnté	'scarf'		gantɪ	'to cross'
okontó	'snail'		kɔ́ńtí	'to knock'

9. /d/
dɔ́na	'frien'		dara	'to cut'
daálɛ	'kidney bean'		doli	'to learn'
dídɛgɪré	'hunter'		dʊŋ	'to jump'
ledúdúre	'gizzard'		dɔsí	'to patch'
sondímire	'cricket'		dʊrʊ	'to push'
dílénde	'lung'		deń	'to meet'

The following examples also show that the post-alveolar stop /ɖ/ occurs with all vowels. It behaves similarly to /b/ and /d/ in that it is not found intervocalically in verbs. In nouns, /ɖ/ occurs initially as well as intervocalically, in both the initial and medial positions of nouns. It is also attested to occur immediately after a homorganic nasal in the coda position of a preceding syllable.

10. /ɖ/
ɖág͡bará	'trap'		ɖɛnsɪ	'to get drunk'
ɖesí	'senior sister'		ɖo	'to sleep'
akɔɖʊ́	'banana'		ɖɔ́kʊ́	'to hold'
ɖeɖíya	'scar'		ɖí	'to eat'
salafɔ́ńɖɔ́	'wallet'		ɖuŋ	'to sow'
gúńɖá	'short'		ɖɪŋ	'to turn off'

For the velar pairs /k, g /, they occur initially with all vowels in both nouns and verbs. The data also shows that both velars occur intervocalically and after a homorganic nasal in nouns. With regard to verbs, the distribution of the voiced velar /g/ is restricted in that it only occurs once, after the homorganic nasal /ŋ/. However, the voiceless velar /k/ is widely distributed intervocalically, but it occurs after a nasal only in a single word. This is exemplified here in (11)&(12).

11. /g/
gɪsɔ́ɔ̂	'horse'		gɔló	'to kneel'
garáa	'leg'		gɛ	'to look'
ɖigésíré	'crocodile'		gań	'to cook'
águwa	'heritage'		gʊńtí	'to bend'
mɪŋgɔ́ɔ̂	'comb'		goń	'to lie'
aɲíŋgiri	'soursop'		láńgí	'to resow'

12. /k/   kad͡ʒaŋá   'sun'   kala   'to read'
           kʊ́d͡ʒɔɔ́   'yam'   ku   'to collect'
           kɛkɛ́   'bicycle'   sɔkɔ   'to set down'
           okontó   'snail'   lɛkɪ   'to imitate'
           ɔtɔŋ́kɔ   'toad'   d͡ʒekétí 'to shake'
           ɲíŋkíja   'axe'   ɲáŋkí   'to hurry'

The labio-velar consonants /k͡p, g͡b/ can both occur initially and intervocalically medial in nouns. There is no instance where they occur intervocalically in verbs. The following examples illustrate the distribution of these sounds.

13. /k͡p/   k͡páanʊ   'bowl'   k͡pɪ   'to wash'
          k͡pɛ́ɛ́rɛ   'doe'   k͡paarɪ 'to visit'
          tók͡póró   'window'   k͡pe   'to sing'
          tik͡púɲɛ   'forests'   k͡pɛrɛ   'to divide'
          sasak͡pʊró   'broom'   k͡píkí   'to blink'
          kataŋmk͡para   'thumb'   k͡pína   'to help'
          ŋk͡péle   'tongue'   k͡pɔkɔ   'to split'

14. /g͡b/   g͡baálɛ   'hour'   g͡bakí   'to hang'
          g͡belé   'chair'   g͡bɪ   'to be quiet'
          dɪg͡bend͡ʒo   'lord'   g͡biŋ́   'to catch'
          ág͡bʊ́rʊ́g͡bʊrʊ́na   'mouse'   g͡bosí   'to bark
          ag͡báŋ́mg͡ba   'plantain'   g͡biki   'to vomit'
          áŋ́mg͡bɛ́ɛsɪ   'black makeup'   g͡bonti 'to prevent'

The presented examples also show that the labio-velar consonants are possible after an immediately preceding nasal. In an intervocalic position, the voiced labio-velar /g͡b/ does not occur before the high back vowel /u/. Similarly, the back vowel /u/ does not occur immediately after /k͡p/ except when it is derived from an underlying /o/ by a raising rule. For instance, when the plural suffix -ŋɛ is attached to a nominal root that ends with /o/ as in *tik͡pó-* 'forest', the root final vowel surfaces as /u/.

2.1.2.2 Fricatives

Bago has three phonemic fricatives /f, v, s/. The distribution of the fricatives shows that they

frequently occur in noun and verb initial positions. They are also attested intervocalically and after

a homorganic nasal in nouns.

15. /f/   fʊ́wa   'farm'   fɛlɛkɪ   'to fall'
               fɔɔkɔ́   'soap'   fɪlɪ   'to whistle'
               ɔfa   'pig'   fʊ́sí   'to cover'
               ɖofó   'rain'   fóló   'to burp'
               atiŋfu   'pillow'   fasɪ   'to peel'
               féŋ́féle   'leaf'   fi   'to fetch'

As shown in (15), the fricative /f/ can be followed by any vowel. However, the voiced fricative

/v/ does not occur before the high front vowel /ɪ/. The following are examples of the distribution

of /v/.

16. /v/   vanɔ́ɔ   'hand'   vala   'to walk'
               vɔɔ́ŋɛ   'rope'   vɔŋ   'to tie'
               viíle   'river'   ve   'to refuse'
               ɖevú   'junior brother'   voń   'to pound'
               ŋveráa   'cooking pot   vusí   'to throw'
               vɛŋvɛnɔ́ɔ   'devil'   vʊ   'to judge'

The voiceless alveolar fricative /s/ does not have a voiced counterpart. It is the only fricative sound

attested in the verbal domain to occur in intervocalic position and after a nasal, as shown in (17).

17. /s/   sakúlú   'rat'   sélí   'to dislike'
               sisoó   'strainer'   su   'to wear'
               gɪsɔ́ɔ   'horse'   sɛŋ   'to forgive'
               lósumó   'hunger'   sʊlʊ   'to pray'
               ɖańsá   'pepper'   fɔsí   'to greet'
               fonsáa   'cranial vault'   nɪnsɪ   'to warm up'

2.1.2.3 Affricate

/d͡ʒ/ is the only affricate sound in the language. It occurs initially in verbs and nouns. It also occurs in medial position after a nasal as well as intervocalically. As illustrated in (18), the database includes examples of /d͡ʒ/ preceding all vowels except the back vowel /u/.

18. /d͡ʒ/   d͡ʒoóna   'chief'   d͡ʒɛŋ́ 'to be tall'
            d͡ʒɛlɔ́ɔ   'eagle'   d͡ʒɪŋ 'to know'
            íd͡ʒá   'truth'   d͡ʒʊ 'to enter'
            kúd͡ʒɔɔ́   'yam'   d͡ʒɔ 'to cry'
            ak͡pand͡ʒáa   'mushroom'   d͡ʒekí 'to move'
            d͡ʒińd͡ʒíja   'stem'   d͡ʒɪŋ́ 'to climb'

2.1.2.4 Nasals

The Bago segmental inventory consists of four contrastive nasals /m, n, ɲ, ŋ/. They occur in initial and intervocalic positions. In nasal-consonant clusters, the nasal segment is an archiphoneme /N/ which assimilates to the place of articulation of the consonant in the onset position of the following syllable. The bilabial, the alveolar, and the velar nasals /m, n, ŋ/ are found to be syllabic segments in word-initial position. The following are some examples:

19. /m/   mɛtí   'father in law'   má 'to build'
            memíre   'clitoris'   mɪ 'to hear'
            m.búre   'heat'   mɔrɔsɪ 'to write'
            ámúwa   'pincers'   mʊkɪ 'to laugh'
            kuɖambʊróɔ   'anthill'   mɛlɪ 'to steal'
            ɖidimbíle   'road'   málá 'to hide'

20. /n/   nemíja   'goat'   ná 'to see'
            nɔ́ɔ   'mouth'   nɛsɪ 'to think'
            n.so   'gun'   nɪnsɪ 'to worm'
            okúnu   'innocent'   k͡pína 'to help'
            ag͡banʊ́   'belt'   kɛrɛntɪ 'to carry on back'
            oníní   'bouton'   ŋéní 'to melt'

As illustrated in (21), the velar nasal /ŋ/ is frequently found in final position of verbs. However, it occurs finally in a few nouns such as *kalaŋ́* 'pen' and *nd͡ʒɔŋ* 'blind person', which are borrowed

from Arabic and Tem, respectively. In the database, the mid vowel /e/ occurs only once after the nasal /ŋ/. Also, there is no example of the velar nasal before /i/ and /o/.

21. /ŋ/   ŋírɛ   'head'   ŋéní 'to melt'
          aŋɔɔ́   'donkey'   ŋʊsɪ 'to cut'
          bíŋá   'year'   beleŋi 'to lament'
          d͡ʒoóŋu   'brother'   leŋeri 'to carry
          lʊŋʊ́rɛ   'dry season' tɔŋ   'to speak'
          gɔŋgɔsɔ   'sieve'   ɲáŋ́kí 'to hurry'

Similarly, the palatal nasal /ɲ/ does not precede all vowels. The data does not include examples of /ɲ/ preceding the vowels /o, ʊ/. The following are examples:

22. /ɲ/   ɲέmɔ   'sand'   ɲesi 'to lick'
          ɲímírɛ   'bone'   ɲaŋ 'to sell'
          ɲíŋ́kíja   'axe'   ɲεŋ 'to sting'
          ɲúúre   'thigh'   ɲɔ   'to drink'
          aɲíŋgiri   'soursop'   ɲúkútí 'to mix'
          kaɲalá   'wickedness' ɲákásí 'to shout'

2.1.2.5 Liquids

The segment /l/ is a voiced alveolar lateral, and it occurs in initial and intervocalic positions. Here are some examples of /l/ with all vowels:

23. /l/   lílɛ   'ear'   lɪ   'to go out'
         lobíja   'throat'   lú   'to fetch water'
         lʊ́lɛ   'birth'   sálá 'to break'
         d͡ʒelɔ́ɔ   'eagle'   bɪlɪ 'to grow'
         g͡belé   'chair'   ŋala 'to fry'
         abilid͡ʒó   'pineapple' wʊlɪ 'to teach'

The trill /r/, on the other hand, does not occur in initial position. It only surfaces intervocalically with vowels. As illustrated in 0, some of the examples form minimal pairs with words in (23) that contain the lateral /l/ in intervocalic position.

24. /r/	araá	'lightning'	ŋara	'to sew'
	ásárɔ́na	'frog'	sara	'to sharpen'
	íre	'day'	bɪrɪ	'to pour'
	fakóríja	'hoe'	mɔrɔsɪ	'to write'
	fúrɔ́o	'bag'	k͡paarɪ	'to visit'
	suúru	'patience'	wɛrɛkɪ	'to get rotten'

2.1.2.6 Glides

The palatal glide /j/ and the labio-velar glide /w/ occur initially and intervocalically in nouns. The only occurrence of glides in the verbal domain is in initial position, as exemplified in (25).

25. /j/	jálɛ	'egg'	jɛlɛŋɪ	'to suffer'
	jémo	'mushroom'	júkú	'to find'
	jíláŋɛ́	'horn'	jo	'to fight'
	jólóná	'sorcerer'	jɔkɔ́	'to kick'
	jíbíja	'dowry'	jari	'to threaten'
	ákojí	'parrot'	jɔɔrɪ	'to convince'

Note also that the glides do not occur medially after an immediately preceding nasal in a coda position. As illustrated in (25), the palatal glide /j/ and the labio-velar glide /w/ occur before all vowels.

26. /w/	wólíjá	'star'	wɛrɛkɪ	'to get rotten'
	wɪɪtáwó	'bride'	wʊlɪ	'to teach'
	sawéle	'squirrel'	wá	'to be cured'
	wɔrɔ́	'golden chain'	wuli	'to feel pain'
	d͡ʒawáa	'wound'	wili	'to burn the hair of an animal's skin'
	awú	'grandmother'	wósí	'to yawn'

This review shows that all the consonants in Bago occur word initially except the liquid /r/ which is found in intervocalic position. The distribution of the consonants in the verbal domain shows that only /s, t, l, r, n, ŋ, k/ are found in intervocalic position. Moreover, the final coda position of verbs is restricted to the velar nasal /ŋ/. The data also shows that the liquid and glide segments do not occur adjacent to a nasal consonant.

2.2 Vowels

The vowel inventory of Bago includes nine vowels, as presented in Table 2.2. Except for the central vowel /a/, vowels contrast in the Advanced Tongue Root feature (ATR). In addition, all vowels have long counterparts. In nouns, any vowel can be long, and more than one vowel in a root can be long. In verbs, on the other hand, long vowels appear only in the penultimate syllable.

Table 2.2: The vowel phonemes of Bago

	Front		Central	Back	
	/+ATR/	/-ATR/		/+ATR/	/-ATR/
High	i	ɪ		u	ʊ
Mid	e	ɛ		o	ɔ
Low			a		

2.2.1 Minimal pairs for vowels

This section illustrates the qualitative contrast between vowels in Bago through (near) minimal pairs. The contrast involves the height, backness and /ATR/ features. The following are examples:

27. /ɪ/
a. The following pairs show contrast with the back vowels /u, ʊ, o, ɔ/:
kɪ	'to pass'	/ku/	'to collect'
lɪlí	'to pour'	/lʊlʊ/	'to give birth'
kɪŋ	'to borrow'	/kóŋ́/	'to defecate'
fɔkɪ	'to pull up'	/fɔkɔ/	'to do laundry'

b. The following pairs show contrast with the front vowels /i, e, ɛ/:
bɪlɪ	'to grow'	bili	'to roll'
kílɛ	'tooth'	kɛkɛ́	'bicycle'
k͡pɪ	'to wash'	k͡pe	'to sing'

29

28. /i/
a. The following pairs show contrast with the back vowels /u, ʊ,o, ɔ/:
    ki   'to deny'   ku   'to collect'
    ki   'to deny'   kʊ́   'to kill'
    ḍí   'to eat'   ḍo   'to sleep'
    ti   'to grow again'   tɔ   'to shoot'

b. The following pairs show contrast with the front vowels /ɪ, e, ɛ/:
    bili   'to roll'   bɪlɪ   'to grow'
    g͡biń   'to catch'   g͡beń   'to fart'
    fili   'to make sauce'   fɛlɛ   'winnow'

29. /e/
a. The following pairs show contrast with the back vowels /u, ʊ, o, ɔ/:
    ḍeń   'to meet'   ḍuŋ   'to sow'
    ve   'to refuse'   vʊ   'to judge'
    g͡belé   'chair'sʊlʊ/   g͡boló   'to mix'
    sele   'to shiver'   sɔkɔ   'to sit'

b. The following pairs show contrast with the front vowels /i, ɪ, ɛ/:
    g͡beń   'to fart'   g͡biń   'to catch'
    kpe   'to sing'   kpɪ   'to wash'
    jélékí   'to entrust'   jɛlɛŋɪ   'to suffer'

30. /ɛ/

a. The following pairs show contrast with the back vowels /u, ʊ, o, ɔ/:
    lɛ   'to buy'   lú   'fetch water'
    fɛŋ   'to grill'   fʊŋ   'to do the hair'
    kɛké   'bicycle'   kókó   'porridge'
    fɛlɛ   'winnow'   fɔlɔ   'to flow'

b. The following pairs show contrast with the front vowels /i, ɪ, e/:
    kɛké   'bicycle'   kílɛ   'tooth'
    d͡ʒeń   'to be long'   d͡ʒɪŋ   'to know'
    jɛlɛŋɪ   'to suffer'   jélékí   'to entrust'

31. /u/
    The following pairs show contrast with the back vowels /ʊ, o, ɔ/:
    ku   'to collect'   kʊ́   'to kill'
    fúsí   'to cover'   fosi   'to blow the nose'
    su   'to wear'   sɔ́   'to dance'

32. /ʊ/
    The following pairs show contrast with the back vowels /u, o, ɔ/:
    kʊ́   'to kill'   ku   'to collect'
    sʊlʊ   'to pray'   sóló   'to remove'
    d͡ʒʊ   'to enter'   d͡ʒɔ   'to cry'

33. /o/
    The following pairs show contrast with the back vowels /u, ʊ, ɔ/
    fosi   'to blow the nose'   fúsí   'to cover'
    sóló   'to remove'   sʊlʊ   'to pray'
    voń   'tp pound'   vɔŋ   'to tie'

34. /ɔ/
    The following pairs show contrast with the back vowels /u, ʊ, o/
    sɔ́   'to dance'   su   'to wear'
    tɔ́   'to shoot'   tʊ   'to insult'
    vɔŋ   'to tie'   voń   'to pound'

2.2.2 Distribution of vowels

In the collected data, only the short vowels /a, i, ɪ, ɛ, o, ɔ/ are attested word-initially, but only in nominal roots. No verb that begins with a vowel. In this section we examine the distribution of each vowel in turn. In (35), examples of the central vowel /a/ are given, showing both its long and short variants.

35. /a/
    afáa   'mother'
    vala   'to walk'
    k͡paarɪ   'to visit'

As illustrated in (36), the short vowel /i/ occurs in initial and final syllables. The long vowel /ii/ is not found in a word-final syllable.

36. /i/
    íre   'day'
    síráa   'knife'
    k͡piiri   'to gather'

The unadvanced high vowel /ɪ/ is also found in all positions, as shown in (37). The data does not

include an example of the long vowel /ɪɪ/ in a word-final syllable.

37. /ɪ/
    íd͡ʒá   'truth'
    d͡ʒɪíja   'crab'
    dɔsí   'to patch'

The mid front vowel /e/ always occurs in a syllable structure that contains an onset. Its long form

does not occur word finally. The following are examples:

38. /e/
    d͡ʒéérí   'to trust'
    dídeeré   'breast'

The database includes only one noun begins with the mid vowel /ɛ/ in initial position.

39. /ɛ/
    [ég͡bɪrɛ́]   'mashed yam'
    [sɛɛrɪ]   'to dig up'
    [lílɛ]   'ear'

The following examples illustrate the distribution of the mid back vowel /o/. Like the central vowel

/a/, both long and short forms of /o/ occur word finally.

40. /o/
    okontó   'snail'
    ḍisooré   'bambara nut'
    ḍomóo   'sauce'

Similarly, the unadvanced back vowel /ɔ/ is also found at the beginning of a few nouns. As

illustrated in 41), the long form /ɔɔ/ is attested in a word-final syllable.

41. /ɔ/
    ɔfa   'pig'
    fɔ́ɔrɛ   'liver'
    kúd͡ʒɔɔ́   'yam'

Finally, the distribution of the high back vowels /u/ and /ʊ/ show that they do not occur as the initial segment of a word. The presence of a long high back vowel is rare in word final position. The database includes only the two instances presented here in (42)&43).

42. /u/
    juku   'to find'
    ɲúúre   'thigh'
    alíkútuútuú   'butterfly'

43. /ʊ/
    bʊ́ʊ   'mountain'
    d͡ʒanʊ́   'mother in law'
    gʊʊ́nɛ   'half'

It is important to note that Bago has a noun class system, which is reflected on nouns by the use of various singular and plural suffixes, which is realized in some classes as a short vowel. Therefore, the occurrence of a heavy open syllable in a noun-final position is the result of attaching a class marker to a bound nominal root, such as *bʊ́-ʊ* in (43). The data includes only three uninflected nouns for classes, which ends with a heavy open syllable. As far as I know, the noun *atɛnɛ́ɛ* in (44) is borrowed from Arabic.

44. amaŋgoróo   'flowers of kapok tree'
    alíkútuútuú   'butterfly'
    atɛnɛ́ɛ   'Monday'

2.2.3 Vowel length

The distinction between short and long vowels in Bago has already been highlighted. The discussion showed that all vowels occur in short and long variants in nouns. Except for /ɪ/ and /u/, all vowels occur short and long in verbs. The database includes a few minimal pairs that show lexical contrasts based on vowel length. As illustrated in (45), a sequence of identical vowels may bear identical or separate tones.

45. | sárí | 'to tear' | saarɪ | 'to gather' |
|-----|-----------|-------|-------------|
| kárá | 'sugarcane' | káráa | 'fence' |
| k͡pili | 'to fold' | k͡piiri | 'to gather' |
| k͡pɛɛrɪ | 'to massage' | k͡pérɛ́ | 'to divide' |
| sɔlɪ | 'to advise' | sɔɔlɪ | 'to love' |
| sɔ́sɔ́ | 'morning' | sɔsɔ́ | 'pickaxe' |
| fɔ́sí | 'to greet' | fɔ́ɔ́sí | 'to serve' |
| sosi | 'to forget' | soori | 'to peck' |
| sʊlʊ | 'to pray' | sʊʊrɪ | 'to suffer' |

Although the data lacks (near) minimal pairs for the vowels /e, u, ɪ/, there are several examples in which they appear to be long, as shown in (46).

46. | d̪ídeeré | 'breast' |
|-----|----------|
| d͡ʒɪíja | 'crab' |
| ɲúúre | 'thigh' |

Vowel length also has grammatical functions in Bago. For instance, it is used to realize the aspectual viewpoints in the language. As will be noted in the discussion of aspectual distinctions, the imperfective aspect is marked by a lengthening process, which affects the right edge of the subject constituent. Similarly, the factative aspect is expressed through the lengthening of the verb-final vowel. The verb-final lengthening, for instance, is the result of the insertion of a low-toned

segment that is a copy of the verb-final segment to encode factative. On the other hand, the

imperfective aspect is encoded via a high-toned segment that is a copy of the subject-final segment.

Examples (47a)&(47b) illustrate these points.

47. a. ḍɛ   d͡ʒoó-na   talá-a
      yesterday   chief-SG.CI   arrive-FAC
      'Yesterday, the chief arrived'

    b. sɛ́   d͡ʒoóna-á   talá
      tomorrow   chief-IMFV   arrive
      'Tomorrow, the chief will arrive'

Additionally, Yes/no-questions are constructed by means of vowel lengthening of the final vowel

in a declarative sentence. As shown in (48), there is neither an interrogative particle nor a difference

in order between an interrogative and the corresponding declarative sentence. The question is

simply formed by a low-toned copy of the segment in the declarative clause.

48. a. zakaríjá   lɛ́   tók͡póró
      Zakariya   buy   window
    'Zakariya bought the window'

    b. zakaríjá   lɛ́   tók͡póró-o
      Zakariya   buy   window-Q
    'Did Zakariya buy the window?'

2.2.4 Vowel harmony

As was shown in the previous section, the Bago vowel system has nine vowels divided into [+ATR]

and [-ATR] high and mid vowels. The low vowel /a/ does not have a harmonic counterpart, and it

co-occurs with vowels from both sets. For any nominal and verbal root, the vowels must be from

one of the two sets. The [ATR] value of a root does not alternate depending on the value of an

affix. What is obvious from the data is that roots are lexically specified for their [ATR] feature

because the tongue root harmony is not conditioned by any phonological feature that can be located in specific segments. Consider the following affixless nouns and verbs:

49.

[+ATR]		[-ATR]	
sosi	'to forget'	fɔsí	'to greet'
búlé	'to dilute'	k͡pɛ́rɛ́	'to divide'
fóló	'to burp'	d͡ɔ́kʊ́	'to hold'
ogó	'pants'	ɔg͡bɔ	'cocoyam'
olúlú	'dry okra'	ɔlɛlɛ	'food made of beans'
d͡ʒíba	'pocket'	tíra	'wedding ceremony'
sakúlú	'rat'	tasʊ́	'double-edged knife'

It has been proposed in the literature that [ATR] harmony can be root-controlled or dominant-recessive (Bakovic 2000; Clements 2000). In a root-controlled system, the [ATR] feature of the root remains unchanged and controls the realization of the adjacent affixes. The dominant-recessive system requires all the vowels in the domain of harmony to have the same value of the dominant vowel, which can be part of an affix or a root. In Bago, vowels of nominal and verbal roots do not shift according to the [ATR] value of an affix, and consequently I describe the harmony in the language as a root-controlled system.

The majority of nouns in Bago consist of a root and a number suffix. Following Hudu (2010), I use the term bound to label nominal roots that must be inflected with a singular or a plural number suffix to constitute a meaningful word that can stand alone. Nominal roots that do not need a number suffix in order to be recognized as complete words are labeled as free-standing nominal roots. Unlike a bound nominal root, a free-standing nominal root is unmarked in its singular form, and receives a suffix in the plural. As illustrated in 50, the singular and plural suffixes alternate to create a free-standing unit from a bound nominal root.

50. | **Bound roots** | **Singular form** | **Plural form** | **Gloss** |
|---|---|---|---|
| ɗɔɔ́- | ɗɔɔ́-na | ɗɔɔ́-ba | 'friend' |
| ásárʊ́- | ásárʊ́-na | ásárʊ́-ba | 'frog' |
| soŋa- | soŋa-á | soŋa-sɛ́ | 'hare' |
| símí- | símí-re | símí-na | 'eye' |
| sɔŋɔ- | sɔŋɔ-ɔ́ | sɔŋɔ-níŋɛ | 'donkey' |

51. | **Free-standing roots** | **Singular form** | **Plural form** | **Gloss** |
|---|---|---|---|
| d͡ʒoóŋu | d͡ʒoóŋu | d͡ʒoóŋu-náa | 'brother' |
| ɔfa | ɔfa | ɔfa-sɛ́ | 'pig' |
| g͡belé | g͡belé | g͡belé-na | 'chair' |
| ɔg͡bí | ɔg͡bí | ɔg͡bí-níŋɛ | 'snail' |

With respect to vowel harmony, singular suffixes are always realized with an [ATR] value that is identical to the root's [ATR] value. The following examples of bound nominal roots show that the singular suffixes harmonize in [ATR] with the root.

52. d͡ʒid͡ʒo-ó   'mother's family members-SG.CI'
    aŋɔ-ɔ́   'donkey-SG.CII'
    bʊ́-rɛ   'stone-SG.CIII'
    bó-re   'house-SG.CIII'
    besó-o   'pot-SG.CIV'
    d͡ʒɛlɔ́-ɔ   'eagle-SG.CIV'

Plural suffixes, however, do not harmonize with the nominal root except in one case. Since the low vowel /a/ does not have a counterpart, 53 includes only examples of nouns that take the plural suffixes of Class IV -*níŋɛ, -ŋɛ* and the plural suffix of the Class *II -sɛ́*. The data shows that the plural suffixes -*níŋɛ* and -*ŋɛ* always surface with a [-ATR] value whether they are attached to a free-standing root or a bound root. Note that the plural suffix -*ŋɛ* always attaches to bound roots.

53. a. -níŋɛ   **Bound Roots**   **Plural forms**   **Gloss**
sɔrɔ-   sɔrɔ-níŋɛ   'months'
kʊ́d͡ʒɔ-   kʊ́d͡ʒɔ-níŋɛ   'yams'
kulo-   kulo-níŋɛ   'districts'
siso-   siso-níŋɛ   'strainers'
d͡ʒií-   d͡ʒií-nɪŋέ   'tails'

b. -níŋɛ   **Free-standing Roots**   **Plural forms**   **Gloss**
ɔg͡bí   ɔg͡bí-níŋɛ   'snails'
d͡ʒɔlɔ   d͡ʒɔlɔ-níŋɛ   'carved gourds'
ogó   ogó-níŋɛ   'pants'
nso   nso-níŋɛ   'guns'

c. -ŋɛ   **Bound Roots**   **Plural forms**   **Gloss**
d͡ʒanfɔ́-   d͡ʒanfʊ́-ŋɛ   'scars'
d͡ʒɛlɔ́-   d͡ʒɛlí-ŋɛ   'eagles'
besó-   besú-ŋɛ   'pots'
lóló-   lólí-ŋɛ   'songs'

In the case of the plural suffix of Class II, its [ATR] value alternates only when it is attached to a

bound nominal root. In order for the [+ATR] value of a root to spread to the plural suffix, the high

vowel /i/ or /u/ must occur at the right edge of a bound root, as shown in (54b).

54. a. -sɛ́   **Bound Roots**   **Plural forms**   **Gloss**
fʊ́-   fʊ́-sɛ   'farms'
wʊ́lɪ-   wʊ́lɪ-sɛ́   'stars'
ḍoo-   ḍoo-sɛ́   'baskets'
ág͡bé-   ág͡bé-sɛ   'groups'
sírá-   sírá-sɛ   'knives'
kulá-   kulá-sɛ   'traces'

b. -sé   **Bound Roots**   **Plural forms**   **Gloss**
kokóri-   kokóri-sé   'insects'
nemí-   nemí-se   'goats'
áderí-   áderí-se   'scarves'
átú-   átú-se   'deers'
ɡuúɡú-   ɡuúɡú-se   'flowers'
kétú-   kétú-se   'nests'

38

However, when the plural suffix -*sέ* is attached to free-standing roots, it consistently surfaces with a [-ATR] value, regardless of the [ATR] value and the height feature of the root-final vowel. This is shown in the plural forms in 55.

55. d͡ʒeńle-sέ   'onions'
    abilid͡ʒó-sέ   'pineapples'
    sakúlú-sέ   'rats'
    okútú-sέ   'pots'
    aɲíŋgiri-sέ   'soursops'
    oníní-sέ   'buttons'

The examples in (55) show that the high vowels /i/ and /u/ do not trigger [+ATR] harmony when they occur at the right edge of a free-standing root. This means that the right edge of the root [+ATR] value is aligned with the right edge of a free-standing root. For instance, since *sakúlú* 'rat' and *aɲíngiri* 'soursop' are free-standing roots, the [+ATR] value of the root does not spread when they are pluralized to alter the [-ATR] value of the plural suffix. In contrast, *guúgú- and nemí-* in 54 are bound roots that need either a suffix or a plural suffix to constitute a meaningful word. When the [-ATR] plural suffix is attached to these roots, its vowel becomes [+ATR] because the right edge of a nominal root [+ATR] value must be aligned with a free-standing word if the root-final vowel is [+high].

With respect to verbs, the [ATR] value of the non-productive causative morpheme –*sI* is determined according to the [ATR] value of the verbal root. Consider the following examples:

56. a. dé̩-sí   c. doro-si
        be good-CAUS   wake s.o. up-CAUS
        'to fix'

    b. télí-sí   d. d͡ʒɛn-sɪ
        lean against-CAUS   be long.CAUS
        'to lean something against something'   'to lengthen'

Bago has a closed class of true adjectives that consists of the adjectival roots *tútʊbʊ́-* 'small', *bɛ́ŋ-* 'big' *fɔlí-* 'new' and *dɔɔ́-* 'old'. They must be marked for agreement by a suffix that reflects the class and number of the modified noun. As shown in (57), the suffix has the same [ATR] value of the adjectival roots. The language does not have an adjectival root with a [+ATR] value.

57. a. fakórí-se   fɔlí-sɛ
     hoe-PL.CII   new-PL.CII.AGR
     'New hoes'

    b. bó-re   bɛ́ń-ɖɛ
      house-SG.CII   big-SG.CIII.AGR
      'A big house.'

Finally, note that subject and object pronouns in Bago always have a [-ATR] value. An adjacent verb with a [+ATR] value does not affect their realization with a [-ATR] value, as seen in 58.

58. ɖɪ   ɖɪ́   bɛ
    1PL   eat.FAC   3PL.CI
    'We wan.'   (lit. We ate them.)

2.3 Syllable structure

It has been recognized in the phonological theory that segments group together according to sonority to form syllables (Clements, 1990; Blevins 1995). The syllable structure in Bago is restricted to the following types:

59. a. V / N (a syllabic nasal)
    b. VN
    c. CV
    d. CVV
    e. CVN

The syllable types V, N and VN are found only word-initially in nouns. While all consonants in Bago can occur in onset position, only a nasal segment can appear in coda position. Unlike in the verbal domain, the syllable type CVN does not occur word-finally.

2.3.1 The syllable type V/N

Lexical morphemes in Bago are at least monosyllabic with an onset. However, the set of the subject/possessive pronouns includes three pronouns that consist of just a nucleus and form a syllable by themselves, as shown in (60). Thus, the onset requirement is applied only to monosyllabic items from non-functional lexicon.

60. /N/   '2SG.SUB/2SG.POSS'
     ɪ   '2PL.SUB/2PL.POSS'
     ɔ   '3SG.SUB/3SG.POSS'

As shown in 61, the second person pronoun is a nasal archiphoneme, and its place feature is determined by the onset of the following syllable. It surfaces as [n] before alveolars, [ŋ] before velars, [ɲ] before palatals, [ɱ] before labio-dentals, [m] before bilabials, and [ŋ͡m] before labio-velars.

61. a. n   lá   fʊ́w-a   d͡ʒa-a
      2SG   go.FAC farm-SG.CII   today-Q
     'Did you go to the farm today?'

   b. bé-é   ŋ   gáŋ
      what-FOC   2.SG   cook.FAC
     'What did you cook?'

   c. ɲ   jál-aná
      2SG.POSS   egg.PL.CIII
     'Your eggs'

   d. m   mɛtí
      2SG.POSS   father in law
     'Your father in law'

e. ŋ   fʊ́w-a
    2SG.POSS   farm-SG.CII
    'Your farm.'

f. ŋ͡m   k͡pála   tók͡póró-o
   2SG   close.FAC   window-Q
  'Did you close the window?'

In non-monosyllabic morphemes, only the initial syllable may have the shape V or N, as illustrated in 62. Note that the majority of vowel-initial nouns in Bago begin with the low vowel /a/. The data includes one noun starting with /i/, five nouns starting with /ɪ/, ten nouns starting with /ɔ/, fourteen nouns starting with /o/, and one noun starting with /ɛ/.

   62. a.tɛ   'land'
       á.gá.má   'chameleon'
       a.ɡa.ro.ro   'rock'
       ɔ.fa   'pig'
       ɔ.tɔŋ.kɔ   'toad'
       ɛ.g͡bɪ.rɛ́   'mashed corn'
       í.re   'day'
       í.d͡ʒá   'truth'
       ɪ.bɔ.sɔ   'socks'
       o.lú.lú   'dry okra'
       o.su.ma.re   'rainbow'
       m.bú.re   'heat'
       m.bé.na   'man'
       n.so   'gun'
       ɱ.ve.ráa   'pot'
       ŋ͡m.k͡pé.le   'tongue'

The syllable shapes V and N in vowel/nasal-initial nouns are not always maintained unchanged. When a possessive pronoun of the syllable shape (C)V or N precedes a vowel/nasal-initial noun, a total assimilation may result. As shown in (63) &64), the non-high initial vowel in the possessed noun assimilates to the quality of the possessive pronoun vowel. As a result of this assimilation, the adjacent identical vowels are realized as a long vowel. This also occurs when the initial vowel of a possessive pronoun is identical to that of the possessive pronoun, as seen in (63b)&(64b). The

examples in (63a)&(64a) show that a high vowel does not assimilate to the vowel quality of a possessive pronoun resulting in adjacent vowels that are pronounced as two separate syllables.

63. a. /ʤɪ íre/   [ʤɪ.í.re]   'our day'   d. /ʤɪ ogó/   [ʤɪɪ.gó]   'our pants'
     b. /ʤɪ ɪsɔ́ɔ/   [ʤɪɪ.sɔ́ɔ]   'our God'   e. /ʤɪ ɔfa/   [ʤɪɪ.fa]   'our pig'
     c. /ʤɪ atɛ/   [ʤɪɪ.tɛ]   'our land'   f. /ʤɪ égbɪrɛ/   [ʤɪí.g͡bɪ.rɛ]   'our mashed corn'

64. a. /ɪ íre/   [ɪ.í.re]   'your day'   d. /ɪ ogó/   [ɪɪ.gó]   'your pants'
     b. /ɪ ɪsɔ́ɔ/   [ɪɪ.sɔ́ɔ]   'your God'   e. /ɪ ɔfa/   [ɪɪ.fa]   'your pig'
     c. /ɪ atɛ/   [ɪɪ.tɛ]   'your land'   f. /ɪ égbɪrɛ/   [ɪí.g͡bɪ.rɛ]   'your mashed corn'

Similarly, the presence of the third or second person possessive pronoun before a vowel-initial noun causes a non-high vowel to undergo a total assimilation and subsequently, an open heavy syllable is realized.

65. a. /ɔ íre/   [ɔ.í.re]   'his/her day'   d. /ɔ ogó/   [ɔɔ.gó]   'his pants'
     b. /ɔ ɪfɔ/   [ɔ.ɪ.fɔ]   'his/her destiny'   e. /ɔ ɔfa/   [ɔɔ.fa]   'his pig'
     c. /ɔ atɛ/   [ɔɔ.tɛ]   'his land'   f. /ɔ ébgɪrɛ/   [ɔɔ́.g͡bɪ.rɛ]   'his mashed corn'

66. a. /N íre/   [ŋ.í.re]   'your day'   d. /N ogó/   [ŋŋ.gó]   'your pants'
     b. /N ɪsɔ́ɔ/   [ŋ.ɪ.sɔ́ɔ]   'your God'   e. /N ɔjɔ́ɔrí/   [ŋɲ.jɔ́ɔ.rí]   'your locust'
     c. /N atɛ/   [nn.tɛ]   'your land'   f. /N égbɪrɛ/   [ŋmŋ̃m.g͡bɪ.rɛ]   'your mashed corn'

In a case where a vowel-initial noun is preceded by a low vowel of a possessive pronoun, both vowels stay unaffected. They are realized as two separate syllables if they are not identical.

67. a. /ma íre/   [ma.í.re]   'my day'   d. /ma ogó/   [ma.o.gó]   'my pants'
     b. /ma ɪsɔ́ɔ/   [ma.ɪsɔ́ɔ]   'my God'   e. /ma ɔfa/   [ma.ɔ.fa]   'my pig'
     c. /ma atɛ/   [maa.tɛ]   'my land'   f. /ma égbɪrɛ/   [ma.ɛ́.g͡bɪ.rɛ]   'my mashed corn'

Note that the assimilation of a non-high vowel of the syllable shape V is applied only if the preceding is a possessive pronoun. For instance, when a verb or a full DP precedes a vowel-initial noun, the initial syllable remains unaffected. It is also realized as a separate syllable when preceded by an identical vowel.

68.	a. /lɔ́ o.gó/	[lɔ́ o.gó]	* [lɔ́ɔ.gó]	'Throw the pants.'
	b. /ma sɔ.kɪ.nɪ a.tɛ/	[ma sɔ.kɪ.nɪ a.tɛ]	* [ma sɔ.kɪ.nɪɪ.tɛ]	'My sister's in law land'
	c. /sú.li ɔ.fa/	[sú.li ɔ.fa]	* [sú.lii.fa]	'Suli's pig'
	d. /sa.sɪ ɪ.sɔ́ɔ/	[sa.sɪ ɪ.sɔ́ɔ]	* [sa.sɪɪ.sɔ́ɔ]	'Thank God.'

2.3.2 The syllable type VN

This syllable type is very rare in Bago. Only one noun is found in the language with a simple nucleus followed by a homorganic nasal.

69. áŋ.g͡bɛ́ɛ.sɪ   'black makeup'

The syllable type VN is also found in the *Wh-word* that is equivalent to 'which'. This *Wh-word* is inflected by a class marker, whose initial syllable determines the place feature of the preceding nasal, as exemplified in (70).

70. am.bɛ́   'which.CI.PL'
    aŋ.kɛ́   'which.CII.SG'
    an.sí   'which.CII.PL'
    an.ɖ́í   'which.CIII.SG'
    aŋ.kʊ́   'which.CIV.SG'
    an.tʊ́   'which.CIV.PL'
    am.bʊ́   'which.CV'

2.3.3 The syllable type CV

The light syllable CV is attested in word-initial, word-medial and word-final positions. The list in 71) contains verbs and nouns.

71. so.si   'to forget'   CV.CV
    kɛkɛ́   'bicycle'   CV.CV
    k͡pii.ri   'to gather'   CVV.CV
    suú.ru   'patience'   CVV.CV
    mɔ.rɔ.sɪ   'to write'   CV.CV.CV
    sa.wé.le   'squirrel'   CV.CV.CV

The following list exemplifies the distribution of the syllable type CV among other types of syllables.

72.

í.re	'day'	V.CV
n.so	'gun'	N.CV
sɔ.rɔɔ́	'moon'	CV.CVV
k͡péɛ́.rɛ	'doe'	CVV.CV
k͡paa.rɪ	'to visit'	CVV.CV
ban.si	'cassava'	CVN.CV
kɔ́ń.tí	'to knock'	CVN.CV
ɖí.léń.de	'lung'	CV.CVN.CV
kɛ.rɛn.tɪ	'to carry on back'	CV.CVN.CV

2.3.4 The syllable type CVV

A look at the position of this heavy syllable, which consists of a consonant and a long vowel, shows that it only occurs initially in the verbal domain. It is found only in disyllabic verbs.

73.

sɔɔ.lɪ	'to love'	CVV.CV
k͡paa.rɪ	'to visit'	CVV.CV

With regard to nouns, the shape CVV occurs in word-initial, word-medial and word-final positions. Note that when this syllable forms a noun by itself, it consists of a nominal root and a singular suffix. Also, the final mora of a CVV syllable in final position of disyllabic and trisyllabic nouns is a singular suffix.

74.

búʊ	'mountain'	CVV
bɔ́ɔ	'hole'	CVV
a.táa	'father'	V.CVV
a.baa.wá	'service'	V.CVV.CV
a.ɖá.kaá	'coffin'	V.CV.CVV
d͡ʒa.d͡ʒɔ́ɔ	'elephant'	CV.CVV
k͡péɛ́.rɛ	'doe'	CVV.CV
sa.sa.baá	'mat'	CV.CV.CVV
ɖí.dee.ré	'breast'	CV.CVV.CV
laá.kaa.rɪ	'wisdom'	CVV.CVV.CV

2.3.5 The syllable type CVN

This syllable type is common in the verbal domain, and it is sufficient to form a verb by itself. In disyllabic verbs, it only occurs as the penultimate syllable. The data includes only one example in which the syllable CVN occurs medially in a trisyllabic verb. The following are examples:

75. dʊŋ   'to jump'
    duŋ   'to sow'
    g͡biń   'to catch'
    d͡ʒɪŋ   'to know'
    deń   'to meet'
    bɛn.tɪ   'to change'
    bon.si   'to infect'
    kɔ́ń.tí   'to knock'
    ɲáń.kí   'to hurry'
    kɛ.rɛn.tɪ   'to carry on back'

The data presented in (75) shows that any short vowel can precede the nasal segment. The nasal segment in the syllable shape CVN is realized homorganically with the onset of the following syllable (e.g *kɔ́ń.tí* and *ɲáń.kí*). In sentence-final position, /N/ surfaces always as [ŋ]. Note also that the velar nasal [ŋ] surfaces when the verb is followed by a vowel, as shown exemplified in 76.

76. a. ɔ   d͡ʒɛ́ŋ
       3SG.CI   be tall.FAC
       'S/he is tall.'

    b. ɔ   d͡ʒɪ́ḿ   ma   fá
       3SG.CI   know.FAC   1SG.POSS   mother
       'S/he knows my mother.'

    c. ɔ   d͡ʒɪ́ń   sɪ   dɪ   lá   fʊ́w-a
       3SG.CI   know.FAC   COMP   1PL   go.FAC   farm.SG.CII
       'S/he knows that we went to the farm.'

    d. n   d͡ʒɪɳ́   viíle   de-d͡ʒé-e
       2SG know.FAC   river   SG.CIII-DEM-Q
       'Do you know this river?'

    e. ma   d͡ʒɪɳ̂m   g͡bɔɔ́
       1SG know.FAC   way
       'I know the way.'

f. ma d͡ʒɪ́ŋ   ɔ   fá
1SG know.FAC   3SG.CI.POSS   mother
'I know his/her mother.'

g. ma d͡ʒɪ́ŋ   ɪsatí
1SG know.FAC   isati
'I know Isati.'

For nouns, the syllable type CVN does not form a noun by itself. Monosyllabic nouns in the language have only the shape CVV. Except for two borrowed nouns *kalaŋ́* 'pen' and *nd͡ʒɔŋ* 'blind person', the shape CVN does not occur in word-final position. This means that its occurrence is restricted to non-final position of nouns. In example 77 that follows, I list a number of polysyllabic nouns that contain this heavy syllable in non-final position.

77. ban.si   'cassava'   CVN.CV
    gaŋ́.ga.máa   'female izard'   CVN.CV.CVV
    ɖí.léń.de   'lung'   CV.CVN.CV
    ɖi.dim.bí.le   'road'   CV.CVN.CV.CV
    búḿ.bú.lí.ja   'crushing stone'   CVN.CV.CV.CV
    ɔ.tɔŋ.kɔ   'toad'   V.CVN.CV
    a.ɲíŋ.gi.ri   'soursop'   V.CVN.CV.CV
    a.fu.d͡ʒéń.d͡ʒé 'a type of fish'   V.CV.CVN.CV

Finally, the database shows that only one syllable of the pattern CVN is allowed in a noun. This is similar to what has been found in the verbal domain.

2.4 The tone system

In this section, I provide an overview of the tone system in Bago by defining its distribution, realization and function in nouns and verbs. There are only two tonal rules in the language which are observed in finite verb formation and suffixation of number affixes. The language contrasts two levels of tone: high and low. In the transcription, a high tone is marked by an acute accent, and a low tone is unmarked. Lexically, tone plays an important role in determining the meaning of a word. The following pairs differ in their meanings solely as a result of their tonal patterns.

78. ŋʊ́sí   'to moan'   ŋʊsɪ   'to cut'
    bɛ́lɛ́kí 'to play'   bɛlɛkɪ 'to encourage'
    d͡ʒɪŋ́   'to climb'   d͡ʒɪŋ   'to know'

In addition to the two levels, a contour tone is formed only in a heavy syllable. A falling or a raising

contour is never found on a short vowel. A nasal segment is a tone-bearing unit, as in many Niger-

Congo languages (see Morrison, 2009 for Kibena; Dorvlo, 2008 for Logba). Following Yip's

(2002) distinction between moraic and syllabic tone-bearing units, this thesis considers the mora

as the tone-bearing unit in Bago. This is due to the fact that a light syllable and a heavy syllable are

not always associated with the same number of tones. As can be seen in 79, while a mono-moraic

syllable can only be associated with a single tone, a bimoraic syllable can have two different tones.

79. ɔ.jɔ́ɔ.rí   'locust'
    ɖɔɔ́.na   'friend'
    kʊ́.d͡ʒɔɔ́   'yam'
    sɔ.rɔɔ́   'moon'

These examples also show that a contour tone is not restricted to the noun final-syllable, which

contain a class suffix, as in *kʊ́d͡ʒɔ-ɔ́* and *sɔrɔ-ɔ́*. Unlike nouns, long vowels in verbs always surface

with an identical tone.

2.4.1 Tone on verbs

To analyze the tonal patterns of Bago verbs, it is necessary to consider the difference between the

infinitival form of a verb and its finite form. The data shows that while some infinitival verbs

surface with low tones, others surface with one or more than one high tone. The tonal patterns LL,

HH and LH are found in bimoraic monosyllabic and disyllabic verbs. The tonal pattern HL is not

attested in the non-finite forms of light disyllabic and heavy monosyllabic verbs. Also the pattern

LLH is not found in trimoraic disyllabic verbs. In the trisyllabic verbs, we see them surface as LLL,

HHH, LHH or LLH. The examples of non-finite verbs in 80-82 are illustrations of these patterns:

80. a. <u>Monomoraic verbs</u>   b. <u>Bimoraic monosyllabic verbs</u>

    ɖí   ‘to eat’   H   sáŋ́   ‘to catch’   HH
    ba   ‘to dig’   L   d͡ʒɪŋ   ‘to know’   LL
                                          d͡ʒɪŋ́   ‘to climb’   LH

81. a. <u>Bimoraic disyllabic verbs</u>   b. <u>Trimoraic disyllabic verbs</u>

    k͡pí.kí ‘to blink’   H.H   k͡paa.rɪ   ‘to visit’   LL.L
    kpi.li ‘to fold’   L.L   ɲáŋ́.kí   ‘to hurry’   HH.H
    gɔ.lɔ́ ‘to kneel’ L.H   vań.tí   ‘to snatch’   LH.H

82. <u>Trisyllabic verbs</u>

    mɔ.rɔ.sɪ   ‘to write’   L.L.L
    bɛ́.lɛ́.kí   ‘to play’   H.H.H
    fɛ.lɛ.ná   ‘to disrespect’ L.L.H
    d͡ʒe.ké.tí   ‘to shake’   L.H.H

If we consider the distribution of the high tone in these non-finite verbs, we notice that high is not followed by low. Following Pulleyblank (1983), Bickmore (1999) distinguishes between high-toned and toneless roots in Ekegusii, a Bantu language spoken in Kenya. While a high-toned root contains at least one high tone, a toneless root is not phonologically specified for tone. In the same manner, I divide the non-finite verbs in 80-82 into lexically high-toned verbs and tone-less verbs.

The toneless non-finite verbs are as low-toned by default. On the other hand, the high-toned non-finite verbs are underlyingly specified with a high tone linked to a tone-bearing unit. The high tone in a non-finite verb is subject to a rightward unbounded spreading. This spreading results in the absence of several tonal patterns in the infinitival verbs, such as HL, HLH, and LHL. The following examples show the underlying representations of the non-finite verbs presented in (80)-(82).

83. a. <u>Light monosyllabic verbs</u>   b. <u>Heavy monosyllabic verbs</u>

    /ɖí/ → [ɖí] 'to eat'   /sáŋ/ → [sáŋ]   'to catch'
    /ba/ → [ba] 'to dig'   /d͡ʒɪŋ/ → [d͡ʒɪŋ]   'to know'
                                          /d͡ʒɪ́ŋ/ → [d͡ʒɪ́ŋ]   'to climb'

84. a. <u>Bimoraic disyllabic verbs</u>   b. <u>Trimoraic disyllabic verbs</u>

    /k͡pí.kí/ → [k͡pí.kɪ] 'to blink'   /k͡paa.rɪ/ → [k͡paa.rɪ]   'to visit'
    /k͡pi.li/ → [k͡pi.li] 'to fold'   /ɲáŋ.kɪ/ → [ɲáŋ.kí]   'to hurry'
    /gɔ.lɔ́/ → [gɔ.lɔ́] 'to kneel'   /vań.tɪ/ → [vań.tí]   'to snatch'

85. <u>Trisyllabic verbs</u>

    /mɔ.rɔ.sɪ/ → [mɔ.rɔ.sɪ]   'to write'
    /bɛ́.lɛ.kɪ/ → [bɛ́.lɛ́.kí]   'to play'
    /fɛ.lɛ.ná/ → [fɛ.lɛ.ná]   'to disrespect'
    /d͡ʒe.ké.ti/ → [d͡ʒe.ké.tí]   'to shake'

By looking at the finite forms of these infinitival verbs, we notice that they show tonal changes except when a monomoraic non-finite verb is high-toned. The following table illustrates the tonal difference between a non-finite form and its finite counterpart.

Table 2.3: The tonal patterns of non-finite and finite verbs

Non-finite Patterns			Finite Patterns	
a. ɖí	H	→	ɖí	H
b. ba	L	→	bá	H
c. k͡pili	L.L	→	k͡pilí	L.H
d. gɔlɔ́	L.H	→	gɔ́lɔ	H.L
e. mɔrɔsɪ	L.L.L	→	mɔrɔsí	L.L.H
f. fɛlɛná	L.L.H	→	fɛléna	L.H.L
j. d͡ʒekétí	L.H.H	→	d͡ʒekéti	L.H.L
h. k͡píkí	H.H	→	k͡píkɪ	H.L
i. bɛ́lɛ́kí	H.H.H	→	bɛ́lékɪ	H.H.L

In all the finite forms presented in Table 2.3, there is at least one high-toned bearing unit, as opposed to the non-finite forms. This asymmetry is attributed to the appearance of a grammatical

floating high tone, which I assume to be responsible for deriving the finite forms. In order to derive the finite forms, I assume that the grammatical floating high tone behaves differently depending on whether or not the non-finite form has an underlying high tone.

By examining infinitival verbs that are completely low-toned, the surface tonal patterns of their finite forms show that the grammatical high tone simply docks onto the rightmost mora. This process accounts for the absence of a completely low-toned finite form. In high-toned infinitival verbs, a lexical high tone is linked to a particular mora. To derive a monomoraic finite verb from a high-toned infinitival verb, the floating grammatical high tone is deleted because the mora is already linked to the lexical high tone. In the case of bimoraic or trimetric infinitival verbs, which have an underlying high tone that is linked rightmost mora, the finite form is derived by first associating the grammatical floating tone to the free tone-bearing unit that immediately precedes the lexical high tone. This association creates adjacent identical tones within the same morpheme, which causes an OCP violation.

86. Obligatory Contour Principle (OCP)   (McCarthy 1986, p. 208)
    At the melodic level, adjacent identical elements are prohibited.

To obey the OCP, the language requires the second of the two high tones to be deleted, resulting in a finite verb that surfaces as HL. Finally, when the lexical high tone of of bimoraic or trimoraic infinitival verb is linked to the first or second mora, the grammatical high tone associates with the rightmost underlyingly toneless mora. Similar to what has been proposed by Abakah (2005) and Paster (2010), when the grammatical floating high tone docks onto the final mora, it replaces the derived high tone, creating a sequence of adjacent High tones. Consequently, the OCP causes the grammatical high tone as being the second of adjacent high tones to be deleted.

To summarize, non-finite verbs in Bago are classified into high-toned and toneless verbs. A high-toned verb is analyzed as involving a lexical high tone that undergoes a rightward unbounded spreading. To account for the tonal patterns of the finite verbs, I assume the existence of a high grammatical tone. It associate with the rightmost tone-bearing unit that does not have a lexical high tone. If this association results in adjacent high tones, the second high tone is deleted.

2.4.2 Tone on nouns

This section demonstrates the tone patterns in Bago nouns. The first part is limited to a description of mono-morphemic nouns, which do not take a number suffix in their singular forms. The second part describes the possible combinations of high and low tones in nouns that must end with a number suffix and provides an explanation for the surface tonal shapes of the number suffixes.

2.4.2.1 Tone on suffixless nouns

As mentioned earlier, the minimum suffixless nominal root in Bago must be at least disyllabic. When the initial syllable of a disyllabic noun has an empty onset position, its nucleus is always short. Likewise, the final syllable must be made of a light syllable. In case the initial syllable has an onset, it can be either heavy or light. This means that a disyllabic noun may consist of two or three moras. As shown in 87, all possible combinations of the high and low tones are attested in disyllabic nouns with two moras.

87. Combinations of tones in nouns with two moras.

H.H	íd͡ʒá	'truth'
	kárá	'sugarcane'
H.L	íko	'means'
	d͡ʒíba	'pocket'
L.L	ɔfa	'pig'
	lɔkɔ	'water well'
L.H	ɔg͡bí	'snail'
	ɖofó	'rain'

In case the initial syllable has an onset, it can be either heavy or light. A heavy syllable can surface either with the same level tone or contour tones. The following examples illustrate the tonal patterns in some disyllabic nouns with a heavy syllable. The obvious gap to be noted here is that pattern HLH is not found in disyllabic nouns. Therefore, only seven combinations are attested. Therefore, only seven combinations are attested.

88. Disyllabic nouns with an initial heavy syllable

LL.L	bansi͡	'manioc'
LL.H	k͡paad͡ʒá	'albino person'
LH.H	ɖa̯ńsá	'chili pepper'
LH.L	suúru	'patience'
HH.H	báání	'evening'
HH.L	sááfɪ	'key'
HL.L	k͡páanʊ	'bowl'

However, all possible combinations are attested in trisyllabic nouns with light moras. As can be seen in 89, the pattern HLH is permitted.

89.
H.H.H	tók͡póró	'window'
H.H.L	fátáka	'wallet'
H.L.L	tákuku	'motorbike'
H.L.H	ɖág͡bará	'trap'
L.L.L	kʊd͡ʒɔkʊ	'gift'
L.L.H	kad͡ʒaŋá	'sun'
L.H.H	sakúlú	'rat'
L.H.L	lakásɪ	'behaviour'

The database also contains trisyllabic nouns, which have a heavy syllable. A heavy syllable can surface either with the same level tone or contour tones. In addition, LH and HL contours can be followed by a tone that is like the last tone of the contour (e.g., HL.L, LH.H).

90. HH.H.H   tóńtóró   'bottle'
   H.HH.H   ák͡páákʋ́   'sheet metal'
   HH.H.L   bɔ́ɔ́lʋ́kʋ   'plastering sand'
   L.LL.L   atinfu   'pillow'
   LL.L.L   bɔmbɔrɔ   'porridge'
   L.LL.H   abaawá   'service'
   L.HH.H   asíírí   'secret'
   LL.H.H   wɪɪtáwʋ́   'bride'
   L.HL.L   ag͡báŋ͡gba   'plantain'
   L.HH.L   aɖííku   'package'
   L.HL.H   ɔjɔ́ɔrí   'locust'
   LH.LL.L   laákaarɪ   'wisdom'
   LH.H.H   baásɛ́nɛ́   'father's younger brothers'

The surface tonal patterns of the nominal roots in 0 show that the sequence of tones is not predictable. The mora to which a high tone is attached appears to be lexically specified. While some nouns can have a low or a high tone on all its moras, some nouns have one, two or three moras that have the same tone level. In the same manner, several combinations are found in quadrisyllabic nouns. The following are examples:

91.   L.L.L.L   kuleleku   'steam'
   H.H.H.H   ásáráwʋ́   'damage'
   L.L.L.H   borofuɖé   'pawpaw'
   L.L.H.HH   afud͡ʒénd͡ʒé   'type of fish'
   L.H.L.L.L   aɲíŋgiri   'soursop'
   H.H.L.H   tákáradá   'book'

2.4.2.2 Nouns with number suffixes

I will now consider the tonal patterns of nominal roots that possess an obligatory number suffix reflecting the class of a noun. A number suffix may have the syllable shape -V, -CV, -CVCV. In 0), I present some examples from all the noun classes in their singular forms.

92. **Class**   **Singular**   **Root tone**   **Gloss**

Class	Singular	Root tone	Gloss
CI	d͡ʒid͡ʒo-ó	L.L	'mother's family members'
CI	afá-a	L.H	'mother'
CI	áḍetú-na	H.L.H	'girl'
CI	álʊ̌-na	H.H	'woman'
CII	kamílɪj-á	L.H.L	'ant'
CIII	í-re	H	'day'
CIII	bée-ré	HL	'palm-nut'
CIV	d͡ʒanfɔ́-ɔ	LL.H	'scar'
CIV	kʊ́d͡ʒɔ-ɔ́	H.L	'yam'

What is important to observe from the data presented above is that the tone of a suffix is opposite to the tone of the root-final mora. This phenomenon is attested in many Gur languages such as Moore and Lama (Kenstowicz et al. 1988), and Dagbani (Hyman, 1993; Olawsky, 1996).

In regard to the bound nominal roots, we can account for the tonal behavior of the plural suffixes by saying that a bound nominal root does not constitute a domain by itself. It requires a number suffix in order to stand alone in isolation. This means that the nominal root and the plural suffix are in the same domain. For the plural nouns in (93), the tone of the plural suffix does not associate with its mora to avoid a violation of the OCP. It will be deleted by a constraint that forbids a floating tone.

93. **Class** **Singular** **Plural** **Tones** **Gloss**

Class	Singular	Plural	Tones	Gloss
CI.c	ágolu-ná	ágolu-bá	H.L.L-H	'boy'
CI.c	áḍetú-na	áḍetú-ba	H.L.H-L	'girl'
CII	soŋa-á	soŋa-sɛ́	L.L-H	'hare'
CII	sírá-a	sírá-sɛ	H.H-L	'knife'

In these examples, the root-final vowel and the number suffix never exhibit identical tones. The plural suffix surfaces as high only when it is not adjacent to high-toned mora.

Finally, the plural suffix of class VI.b. surfaces either as [níŋɛ] or [nɪŋɛ́] when attached to bound nominal roots. As shown in 94, when the plural suffix of class VI.b is attached to a free-standing noun, it always surfaces as [níŋɛ]. I assume that this plural suffix is also specified with an

unassociated high tone which is linked to the rightmost mora only to satisfy the OCP. Consider the following data illustrating the surface forms of nouns that belong to the Class VI.b.

94. | **Singular** | **Plural** | **Tones** | **Gloss** |
|---|---|---|---|
| ɔɡ͡bɔ | ɔɡ͡bɔ-níŋɛ | L.L-H.L | 'cocoyam' |
| ogó | ogó-níŋɛ | L.H-H.L | 'pants' |
| sɔrɔ-ɔ́ | sɔrɔ-níŋɛ | L.L-H.L | 'month' |
| lɔ́-ɔ | lɔ́-nɪŋɛ́ | H-L.H | 'forest' |

Both *ɔɡ͡bɔ* and *ogó* are free-standing nominal roots. When the plural suffix is attached to these roots, its high tone associates with the leftmost mora. This association is permitted because the OCP does not apply when adjacent high tones are in different domains. Contrastingly, *sɔrɔ-* and *lɔ́-* are bound nominal roots that must be inflected with a singular or a plural suffix to be a free-standing unit. As bound roots, they constitute a single domain with the plural suffix. When the plural suffix is added to the bound root *sɔrɔ-*, the unassociated high tone is linked to the initial mora of the plural suffix. However, when the plural suffix is added to the root *lɔ́-*, the unassociated high tone must be linked to the final mora because the OCP bans sequences of adjacent high tones in the same domain.

95. a. [*sɔrɔ-níŋɛ*] 'months'   b. [*lɔ́-nɪŋɛ́*] 'forests'

[μ μ μ μ]	[μ́ μ μ] U.R.
H	H H
[μ μ μ μ]	[μ́ μ μ́] H Docking
H	H H
[μ μ μ́ μ]	[μ́ μ μ́] P.R.

In conclusion, the presented data of singular and plural nouns in Bago show that there is a correlation between the tone level of a number suffix and whether or not a noun can stand alone in isolation. A number suffix is invariably high when it is attached to a free-standing nominal root. In the case of bound nominal roots, the OCP causes the underlying high tone of a monosyllabic number suffix to be deleted when the root-final vowel is high-toned. This is because a bound root and a number suffix form a single domain. The behaviour of the disyllabic plural suffix of Class IV.b shows that the OCP does not cause deletion of the underlying high tone, but rather requires association with the final vowel to avoid a sequence of adjacent high tones. This happens only when the plural suffix is attached to a bound nominal root.

Chapter 3

A grammatical overview of Bago

The aim of this chapter is to provide a brief description of the grammar of Bago. It provides a general discussion of word categories, noun phrases structure, basic clause structure, and expression of tense, aspect and modal grammatical aspects.

3.1 Lexical categories

We recognize the following lexical categories in Bago: nouns, verbs, adjectives (a fairly small class), adverbs (also a very small class), postpositions, demonstratives, pronouns, and particles. The criteria for delimiting these categories are quite parallel to what they are in more familiar languages. However, lexcial categories can be identified to some extent via prosody. Déchaine (2015) examines the relation between propsdy and syntactic catigories in Yourba and Shona. In these language the mapping between syntactic categories and prosody is obviouse. This transparent relation argues against the view in *Disterbuted Morphology* which treats a root terminal node as a category-neutral/category-less, and its lexical category is determined via the functional heads n, v, and a (Marantz 1996; Embick & Marantz 2008). Déchaine points out that the assumption of a category-less lexicon should not be to imposed to Niger-Congo lnaguages wherein there are actually prosodic conttstraints. For instance, the category of verbs in Yourba is prosodically distinguished fom that of nouns. While verbs have the syllable shape [CV], nouns have the shape

[V-CV]. As will be shown in the following discussion of lexical categories, Bago has syllable structures that imply phono-syntactic bundling information. For instance, while a word in the syllable shpae [CVN] is always parsed as verb, a word in the syllable shape [VCV] is always parsed as a noun. In what follows, the class of nouns, that of verbs, and that of adjectives are examined in detail in separate sections, as well as those particles that are relevant to the expression of tense and aspect.

3.1.1 Identification of nouns via prosody, morphology, and distribution

The majority of nouns are morphologically complex in the sense that they consist of a root and a number suffix. Nouns in Bago are classified into five classes. There are five sets of third-person singular and plural pronouns by which a class of a noun is determined. As shown in (1), there are some nouns that are morphologically simple in their singular form. Singularity is not marked on these nouns, as opposed to the majority of nouns where alternating singular and plural suffixes attach to a nominal root.

1. | Singular | plural | Class | Gloss |
|----------|--------|-------|-------|
| awú | awú-náa | CI | 'grandmother' |
| ɔfa | ɔfa-sɛ́ | CII | 'pig' |
| g͡belé | g͡belé-ná | CIII | 'chair' |
| tóko | tóko-níŋɛ | CIV | 'shirt' |
| ɲímo | ɲímo-níŋɛ | CV | 'oil' |

2. | Singular | plural | Class | Gloss |
|----------|--------|-------|-------|
| d͡ʒoó-na | d͡ʒoó-ba | CI | 'chief' |
| vɔɔ́-ŋɛ | vɔɔ́-sɛ | CII | 'rope' |
| símí-re | símí-na | CIII | 'eye' |
| ato-ó | ato-níŋɛ | CIV | 'chimpanzee' |

Nouns also trigger associated words such as demonstratives, anaphoric determiners, indefinite determiners and adjectives to be marked for agreement. As illustrated by the examples in (3), the adjectival root *bə́ń-* 'big' is suffixed with a class marker in agreement with the modified noun.

3. a. bó-re   bə́ń-ɖɛ
     house-SG.CIII   big-SG.CIII.AGR
   'Big house.'

   b. d͡ʒad͡ʒɔ́-ɔ   bə́ŋ-kɔ
     elephant-SG.CIV   big-SG.CIV.AGR
   'Big elephant.'

Another characteristic of nouns is that they can be suffixed by the genitive marker *-Ń-* to signify possession, belonging or origin. The genitive marker must take a suffix reflecting the class and number features of the subject, as seen in (4). The example in (5) shows that the suffix attached to the genitive marker reflects the class and number features of the possessed noun.

4. ɖɪ   jə́   bagó-ḿ-ba
   1PL   COP.FAC Bago-POSS-1PL.AGR
   'We are Bago.'

5. ma   sosí   ma   nso   fʊ́w-a   mɛ   ma-á   la   kaa
   1SG   forget.FAC 1SG.POSS gun   farm-SG.CII LOC 1SG-IMPV go.INF to
   sʊlʊ   ma   tá-ŋ́-kɔ
   borrow.INF   1SG.POSS   father-POSS-SG.CIV
   'I forgot my gun in the farm. I will go to borrow my father's.'

Nouns can also be identified by their structural distribution. They occur in subject and complement position of lexical verbs and the copular verbs *wɛ* and *jə́*. The position of nouns with respect to the two negative markers of Bago clauses is also fixed. In a negative utterance, the subject noun precedes the preverbal negative marker, and the object noun occurs between the verb and the clause-final negative marker.

60

6. bíja   wɛ   fʊ́w-a   mɛ
    child.PL   COP   farm-SG.CII LOC
    'The children are in the farm.'

7. ma   d͡ʒoóŋu   jɛ́   ɔ́díw-ɔ
    1SG.POSS   brother   COP.FAC   hunter-SG.CIV
    'My brother is a hunter.'

8. zakaríjá   tá   la   fʊ́w-a   bɔ́ɔ
    Zakariya   NEG   go.INF   farm-SG.CII NEG
    'Zakariya did not go to the farm.'

Phonologically, nouns vary from verbs in that while verbs never begin with a vowel, the vowels /a/, /i/, /ɪ/, /o/, and /ɔ/ are attested at the beginning of nouns. Unlike verbs, the last syllable of nouns is open, with the exception of three borrowed nouns, namely, *kálaŋ* 'pen', *nsáŋ́* 'ceiling' and *nd͡ʒɔŋ* 'blind person'. In addition, the syllable shape CVN is attested only in trisyllabic and quadrisyllabic words that are nouns. The data also show that the syllable shape CVV may occur twice only in nouns. A long vowel may have contour tones in nouns, but not in verbs.

9. ɔ.g͡bí   'snail'
    a.fá-a   'mother-SG.CI'
    o.gú.w-o   'blacksmith-SG.CIV'
    a.ɲíŋ.gi.ri   'soursop'
    ɖí.léń.de   'lung'
    a.fu.d͡ʒéń.d͡ʒé   'a type of fish'
    laá.kaa.rɪ   'wisdom'
    ɔ.jɔ́ɔ.rí   'locust'
    ɖɔ́ɔ.na   'friend'

10. a. V.CV   →   Noun
    b. N.CV   →   Noun
    c. CVV   →   Noun
    d. CVV.CVV.CV   →   Noun
    e. CV.CVN.CV   →   Noun
    f. HL   →   Noun
    g. LH   →   Noun

Nouns do not have restriction on consonants in intervocalic position. In verbs, on the other hand, only sonorants and voiceless alveolar and velar are found in intervocalic position.

11. ḍág͡bará   'trap'
    kʊd͡ʒɔkʊ   'gift'
    borofuḍé   'pawpaw'

12. a. CV.g͡bV   →   Noun
    b.CV.d͡ʒV.CV   →   Noun
    c. CV.CV.ḍV   →   Noun

3.1.2 Identification of verbs via prosody, morphology, and distribution

Verbs are simplex lexical items. They can be distinguished from nouns and adjectives by being simple in the sense that they are not affixed by morphology reflecting number, person and class features. Also, they are usually unmarked for the imperfective and factative aspects, as exemplified in (13).

13. a. ma   tɔkɔ́   kʊ́d͡ʒɔ-ɔ́
       1SG   eat.FAC   yam-SG.CIV
       'I ate yam.'

    b. ḍɪ   tá-a   ɲań   ḍɪ   fʊ́-sɛ   bɔ́ɔ
       1PL   NEG-IMPV   sell   1PL.POSS   farm-PL.CII   NEG
       'We do / will not sell our farms.'

The factative aspect of a clause is marked on the verb by lengthening its final high-toned segment if it occurs finally in the clause, as shown in(14a). Unlike other categories, verbs have finite and non-finite forms that may differ in their tonal patterns (e.g., *la*NON-FIN *lá*FIN 'go', *ḍɔ́kʊ́ *NON-FIN *ḍɔ́kʊ*FIN 'hold', *kʊ́*NON-FIN *kʊ́*FIN kill'). The non-finite form of a verb is used, for instance, in imperative utterances and in the second conjunct of coordinated VPs. Another characteristic that distinguishes verbs from nouns lies in the fact that they are coordinated by *ka*, whereas nouns are coordinated by *na*.

62

14. a. ma fá kɔní-ɪ
   1SG.POSS mother come-FAC
   'My mother came.'

  b. ba   búti
   3PL.CI go back.FAC
   'They went back.'

15. a. ma bará boró-o
   1SG close.FAC door-SG.CIV
   'I closed the door.'

  b. bara   boró-o
   close.INF door-SG.CIV
   'Close the door'

16. a. ba   fɛlɛkí ka sɪwʊ
   3PL.CI   fall.FAC and die.INF
   'They fell down and died.'

  b. ma fɛ́   bɛ kʊ́d͡ʒɔ-ɔ́ na   bíí-na
   1SG five.FAC 3PL.CI yam-SG.CIV and money-PL.CIII
   'I gave them yam and money.'

As mentioned in the previous section, verbs differ from nouns in that they never begin with a vowel.

Also, closed and open syllables are commonly found to occur finally in the verbal domain. A long

vowel in a verb must surface with an identical tone, as opposed to what happens in a noun. As

illustrated by the examples in (17), there are a large number of verbs that consist of a light syllable.

Monosyllabic nouns, on the other hand, are always bimoraic, consisting of a bound root and number

suffix.

17. dʊŋ   'to jump'
  ɗuŋ   'to sow'
  g͡biŋ́   'to catch'
  d͡ʒɪŋ   'to know'
  sɔɔlɪ   'to love'
  k͡paarɪ   'to visit'
  ɲɔ   'to drink'
  tʊ   'to insult'

18. a. CVN#   →   Verb
  b. #CV#   →   Verb

A few verbs in Bago can be suffixed with the causative morpheme *-sI*. It is also observed that focalization is marked on the verb via the segment /a/ only when the subject is the focused element in a factative clause. With other categories, focalization is marked on the focused element by lengthening its final segment.

19. a. súli lɪ-sí náńtɔ ḍomó-o mɛ
        Suli go out-CAUS   meat   sauce-SG.CIV   LOC
        'Suli took the meat out of the sauce.'

    b. súli d͡ʒʊ-sí ḍá-ŋɛ bɔ́-ɔ mɛ
        Suli enter-CAUS   stick-SG.CII   hole-SG.CIV   LOC
        'Suli inserted the stick inside the hole.'

20. a. zakaríjá mɛlí-ja ŋ kɛkɛ́
        Zakariya   steal.FAC-FOC   2SG.POSS   bicycle
        'It was Zakariya who stole your bicycle.'

    b. ŋ kɛkɛ́-ɛ́ zakaríjá mɛlí-ɪ
        2SG.POSS bicycle-FOC   Zakariya   steal-FAC
        'It was your bicycle that Zakariya stole.'

3.1.3 Identification of adjectives via prosody, morphology, and distribution

The category of adjectives in Bago is small, as in many Niger-Congo languages. The data consists of four adjectival roots *tʊ́tʊbʊ́-* 'small', *bɛ́ŋ́-* 'big' *fɔlí-* 'new' and *dɔɔ́-* 'old'. Adjectival concepts can be expressed by means of lexical items that are categorially nouns or verbs. Unlike nouns and verbs, adjectives are morphologically marked for agreement. They are obligatorily marked with a suffix reflecting the class and number of the modified noun. As can be seen in (21), the adjective follows the head noun.

21. a. ḍɪ má bó-re bɛ́ń-ḍɛ fɛ́ d͡ʒoó-na
        1.PL   build.FAC   house-SG.CIII   big-SG.CIII.AGR   give   chief-SG.CI
        'We built a big house for the chief.'

    b. ma d͡ʒʊ́ nɔnɔ́-ɔ tʊ́tʊbʊ́-kɔ mɛ
        1SG   enter.FAC   room-SG.CIV   small-SG.CIV   LOC
        'I entered into the small room.'

Nouns that express adjectival concepts cannot be used adnominally as modifiers. Adjectives are syntactically distinguished from verbs in that they can be used predicatively in a copular clause. Contrast the following examples:

22. a. nɔnɔ́-ɔ   wɛ   tʊ́tʊbʊ́-kɔ
    room-SG.CIV   COP.FAC   small-SG.CIV
    'The room is small.'

   b. vɔɔ́-ŋɛ   (*wɛ)   d͡ʒɛ́ŋ
    rope-SG.CII   COP.FAC   long.FAC
    'The rope is long.'

Although nouns can be used predicatively, they are morphologically distinct from adjectives. As illustrated in (23b), marking the noun with the suffix -kɔ is not acceptable.

23. a. nɔnɔ́-ɔ   wɛ   tʊ́tʊbʊ́-kɔ
    room-SG.CIV   COP.FAC   small-SG.CIV.AGR
    'The room is small.'

   b. * nɔnɔ́-ɔ   wɛ   akukuw-á-kɔ
    room-SG.CIV   COP.FAC   darkness-SG.CII-AGR
    Intended: 'The room is dark.'

Like verbs, adjectives, as seen in the presented examples, are formed in the shape #CVN#. The category of adjective is distingused from that of verbs in that the syllable shape CVV is possible to constitutes a root.

3.1.4 Identification of adverbs via morphology and distribution

There is a small class of words used as adverbs in Bago. The data contains these manner and degree adverbs: *sɪsaɪ* 'quickly/early', *lélé* 'well/safly', *fɛtɛrɛ* 'slowly' and *sóóní* 'a little'. Here are some examples:

24. a. valá   sɪsɛɪ
     walk.INF   quickly
     'Walk quickly.'

  b. ɔ   tá   ɖé-sí   ma   tákuku   lélé   bɔ́ɔ
     3SG.CI NEG be.good.INF-CAUS 1SG.POSS   motorbike   well   NEG
     'He did not fix my motorbike well'

  c. ɲɔ   sóóní   na   ŋ́   fɛ́   n   ɖesí
     drink.INF a.little   and   2SG give.INF   2SG.POSS sister
     'Drink a little bit and give your sister.'

  d. ɖí   fɛtɛrɛ
     eat.INF   slowly
     'Eat slowly.'

The following are examples of the proximal demonstrative adverbs d͡ʒeé and the distal

demonstrative adverb mɔɔ́.

25. a. ɖí   sɔkɔ́   d͡ʒeé
     1PL   sit.INF   DEM.PROX.LOC
     'Let's sit here.'

  b. ɖɪ-í   jɛ́   mɔɔ́
     1PL.IMPV COP DEM.DIST.LOC
     'We will be over there.'

The following list provides examples of temporal expressions. They may occur initially or finally

in the clause.

26. faád͡ʒé   'now'
    d͡ʒa   'today'
    ɖɛ   'yesterday'
    doole   'the previous day'
    sɛ́   'tomorrow'
    sɛ́ wárí   'after tomorrow'
    sɔ́sɔ́   'morning'
    kad͡ʒaŋá   'afternoon [lit., sun]'
    báání   'evening'
    ílímó   'night'
    ɖɛ ílímó   'yesterday night'

In a neagted clause, however, the second negative particle *bɔɔ* must occcpy the clause-final

postion, as shown in 29).

27. sɛ́   ma-á   tɛ́sɪ viíle ka   la   gubí
    tomorrow 1SG.IMPV cross river and go.INF Gubi
    'Tomorrow, I will cross the river and go to Gubi.'

28. ma   álʊ́ lʊlʊ́   ɖɛ
    1SG.POSS wife give birth.FAC yesterday
    'My wife gave birth yesterday.'

29. zakaríjá tá-a   kɔní d͡ʒa bɔɔ
    Zakariya NEG-IMPV come today NEG
    'Zakariya will not come today.'

3.1.5 Identification of adposition via morphology, and distribution

In a postpostional phrase, the postposition is linearly ordered to the right of the noun and any

modifying elements. A post-postion is not marked for agreement. In a postpostional phrase, the

postposition is linearly ordered to the right of the noun and any modifying elements.

30. mɛ   in, inside, to, from
    lɔ́   on, about
    atɛtɛ   under
    d͡ʒáa   beside
    wárí   behinde
    bisí-re   bottom of
    símí-na mɛ front of

Of these, two are also nouns. The body part noun *bisíre* 'buttock-SG.CIII' functions on its own as

a postposition. The plural noun *símí-na* 'eye-PL.CIII', on the other hand, must be used in

combination with the postposition *mɛ* to denote a meaning equivalent to English 'in front of'. The

following examples illustrate the use of these postpositions with simple noun phrase complements.

31. ma   fá   bísa   nɔnɔ́-ɔ   mɛ
    1SG.POSS mother lie down.FAC   room-CIV LOC
    'My mother is lying down in the room.'

32. ma   lá   kɪjá-a   mɛ
    1SG   go.FAC   market-SG.CII   LOC
    'I went to the market.'

33. tɔŋ   fɛ́   súli   sɪ   sááfɪ   wɛ   téburu   lɔ́
    tell.INF   give   Suli   COMP   key   COP.FAC   table   on
    'Tell Suli that the key is on the table.'

34. sísa   bisí   n   lɔ́
    teacher   ask.FAC   2SG   about
    'The teacher asked about you.'

35. kúd͡ʒɔ-ɔ́   wɛ   g͡belé   d͡ʒáa
    yam-SG.CIV   COP.FAC   chair   beside
    'The yam is beside the chair.'

36. ɔ   vasí   ma   aḍimá-sɛ́   garó   atɛtɛ
    3SG.CI   hide.FAC   1SG.POSS   sandle-PL.CII   bed   under
    'He hid my sandles under the bed.'

37. ba   wɛ   ba-á   bɛ́lɛ́kɪ   bó-re   wárí
    3PL.CI   COP.FAC   3PL.CI-IMPV   play   house-SG.CIII   behind
    'They are playing behinde the house.'

38. ba   sɔkɔ́   tíw-ɔ   bisí-re
    3PL.CI   sit.FAC   tree-SG.CIV   buttock-SG.CIII
    'They are sitting under that tree'

39. ma   bó-re   wɛ   d͡ʒingíri   símí-na   mɛ
    1SG.POSS   house-SG.CIII   COP.FAC   mosque   eye-PL.CIII   LOC
    'My house is in fornt of the mosque.'

As illustrated in 40)&41), the modifiers *fɔlí-ka* 'new' and *kɔ-mɔɔ́* 'that' must preced the head of

the postpositional phrase.

40. d͡ʒa   ma   ná   súli   tákuku   fɔlí-ka   lɔ́
    today   1SG   see.FAC   Suli   motorbike   new-SG.CII.AGR   on
    'Today, I saw Suli on a new motorbike.'

41. ḍɪ-í   sɔkɔ́   tíw-ɔ   kɔ-mɔɔ́   bisí-re
    1PL.IMPV   sit   tree-SG.CIV   SG.CIII-DEM.DIST   buttock-SG.CIII
    'We will be sitting under that tree.'

3.2 Noun phrases structure

This section provides an overview of Bago noun phrases. It looks specifically at the order of the head of a noun phrase with respect to other elements. Generally, the head of a noun phrase precedes its modifier. As illustrated in (42), the adjective *fɔlí-ka* 'new' follows the modified noun *tákuku* 'motorbike'. In the same way, a modifying numeral follows its head noun. Note that numerals higher than five are not marked for agreement with the head noun.

42. d͡ʒa ma ná súli tákuku fɔlí-ka lɔ́
today 1SG see.FAC Suli motorbike new-SG.CII.AGR on
'Today, I saw Suli on a new motorbike.'

43. ba-á jέ nsɪ sɔrɔ-níŋɛ lɪɪd͡ʒʊ
3PL.CI-IMPV do like month-PL.CIV six
'They will spend around six months.'

44. fέ mɛ tíma-ná ŋa-násá
give.INF LOC spear-PL.CIII PL.CIII.AGR-four
'Give me four spears.'

(45)&(46) illustrate that demonstratives and quantifiers also follow the head noun.

45. nɔnɔ́-ɔ ko-d͡ʒé wɛ tʊ́tʊbʊ́-kɔ dɪ tá-a
room-SG.CIV SG.CIV-DEM.PROX COP.FAC small-SG.CIV.AGR 1PL NEG-IMPV
jála ka sɔkɔ d͡ʒeé bɔ́ɔ
be able to stay DEM.PROX.LOC NEG
'This room is small. We cannot stay here.

46. tɔŋ fέ bíja feé sɪ bá bɔ la viíle mɛ d͡ʒa bɔ́ɔ
tell.INF give child.PL all COMP 3PL NEG go.INF river LOC today NEG
'Tell all the children do not go to the river today.'

Note that in a case where more than one modifying element occurs in a noun phrase, the structure of the noun phrase is not freely ordered. As illustrated by the following example, the order of the modifiers within a noun phrase is: [N – Adj – Num – Dem – Quant].

47. ɔ fέ mɛ nso-níŋɛ fɔlí-tɔ tʊ-tooro to-d͡ʒé lɔlɔ
3SG.CI give.FAC 1SG gun-PL.CIV new-PL.CII.AGR PL.CIV.AGR-three PL.CIV.AGR-DEM only
'He gave me only these three new guns.'

Bago does not have a definite determiner. A bare noun generally receives a definite or an indefinite interpretation. However, there are contexts where the presence of the indefinite determiner –rV, which comes after a class marker for the referent, is pragmatically or structurally required (see §6.2 for detail). For instance, the indefinite determiner in the following examples is used to shift the hearer's thought to a referent other than the uniquely identifiable referent (i.e. *our chief*). As illustrated in 48, the indefinite determiner must follow the head noun.

48. a. ma mí   sɪ   d͡ʒoó-na   ŋʊ-rʊ   sɪwʊ́   d͡ʒa
    1SG hear.FAC COMP chief-SG.CI SG.CI-INDF die.FAC   today
    'I heard that a chief died today.'

    b. * ma mí   sɪ   ŋʊ-rʊ   d͡ʒoó-na   sɪwʊ́   d͡ʒa
     1SG hear.FAC COMP SG.CI-INDF chief-SG.CI die.FAC   today
    Intended: 'I heard that a chief died today.'

In a possessive construction, however, the possessor noun phrase precedes its head noun. (49)&(50) are examples of full possessor NPs.

49. súli   atá   váŋ
    Suli   father   be sick.FAC
    'Suli's father is sick.'

50. ma-á   mɔsí   zakaríja   d̠ág͡bará
    1PL   take   Zakariya   trap
    'I will take Zakariya's tarp.'

In 51), possession is expressed by the third person possessive pronoun. Note that Bago employ a single set for subject and possessive pronouns. They are interpreted as possessive pronouns when followed by a noun. Example (52) provides an instance of recursive possession where the head noun *nɔnɔ́-ɔ* is preceded by the possessor noun *áfá* 'mother', which in turn functions as a possessed noun.

51. vuú-na   ŋʊ-rʊ   tá   mɔsɪ   ɔ   fúró-o   bɔ́ɔ
    child-SG.CI   3SG.CI-INDF NEG take.INF 3SG.CI.POSS bag-SG.CIV NEG
     'Some child did not take his bag.'

52. ba   d͡ʒʊ́   ba   áfá   nɔnɔ́-ɔ   mɛ
   3PL.CI   enter.FAC   3PL.POSS.CI   mother   room-SG.CIV   LOC
   'They entered in their mother's room.'

3.3 Basic clause structure

A declarative clause in Bago has rigid SVO word order. Furthermore, there is no overt agreement between the predicate and any of its arguments, and no overt case marking on core arguments. The rigid word order may be seen in the ungrammaticality that results if the subject is placed after the verb, as in (53b). An adverbial phrase is not allowed to intervene between a verb and its arguments, as seen in (54b).

53. a. ŋɔ́rá-a   talá-a
   guest-PL.CI   arrive-FAC
   'The guests arrived.'

   b. * talá   ŋɔ́rá-a
    arrive.FAC   guest-PL.CI
   Intended: 'The guests arrived.

54. a. ma   fá   bísa   nɔnɔ́-ɔ   mɛ
   1SG.POSS   mother   lie down.FAC   room-CIV   LOC
   'My mother is lying down in the room now'

   b. * ma   fá   nɔnɔ́-ɔ   mɛ   bísa
    1SG.POSS   mother   room-CIV   LOC   lie down.FAC
   Intended: 'My mother is lying down in the room now'

In transitive and ditransitive clauses, the direct and the indirect objects must follow the verb. As it is the case with the subject in intransitive clauses, an adverbial phrase is not permitted to separate the object from the verb. The ditransitive clauses in (57), show that the recipient argument precedes the theme, except when the theme is a pronominal argument.

55. a. zakaríjá   mɔsí   ɗág͡bará-sɛ́
       Zakariya   take.FAC   trap-PL.CII
       'Zakariya took the traps.'

   b. * zakaríjá   ɗág͡bará-sɛ́   mɔsí-ɪ[3]
        Zakariya   trap-PL.CII   take-FAC
      Intended: 'Zakariya took all the traps.'

56. a. ɖɪ tɔkɔ́ kód͡ʒɔ-ɔ́   d͡ʒa
       1PL eat.FAC yam-SG.CIV   today
       'We ate yam today.'

   b. * ɖɪ tɔkɔ́   d͡ʒa kód͡ʒɔ-ɔ́
        1PL eat.FAC   today yam-SG.CIV
      Intended: 'We ate yam today.'

57. a. ma   wʊlí zakaríjá   ma   bó-re
       1SG   show Zakariya   1SG.POSS house-SG.CIII
       'I showed Zakariya my house.'

   b. ma fɛ́   zakaríjá   ma   nso na   ɔ́   ɲaŋ   kɛ́
      1SG give.FAC Zakariya   1SG.POSS gun PURP 3SG.CI sell.INF 3SG.CIV
      'I gave Zakariya my gun to sell it.'

   c. ɗɛ́   ma wɛ-ná   bíí-na   amá ma fɛ́   ŋɛ   ma   fá
      yesterday 1SG COP-COM money-PL.CIII but   1SG give 3PL.CIII 1SG.POSS mother
      'Yesterday, I had money, but I gave it to my mother.'

As demonstrated in the copular clauses below, nominal, adjective and locative predicates in copular clauses follow the copular verb. Bago has two copular verbs, namely, *wɛ* and *jɛ́*. The choice of a copular verb is semantically and aspectually determined. While the copular verb *jɛ́* is used in the factative and the imperfective aspect, the copular verb wɛ is appears only in a copular clause in the factitive aspect.

58. a. zakaríjá   wɛ   fʊ́w-a   mɛ
       Zakariya   COP.FAC   farm-SG.CII   LOC
       'Zakariya is/was in the farm.'

   b. ɖɪ-í   jɛ́   mɔɔ́
      1PL.IMPV COP DEM.DIST.LOC
      'We will be over there.'

---

[3] Note that the sentence is ungrammatical whether or not the factative aspect is overtly realized. As will be discussed in the following section, the factative aspect is overtly marked when the verb occurs in clause final position.

59. a. ɔ　　jɛ́　　ma　　ḍesí
　　　3SG.CI　COP.FAC　1SG.POSS　sister
　　　'She is my sister.'

　　b. ma-á　　jɛ́　　oguw-ó　　nsɪ　　ma　　tá
　　　1SG-IMPV　COP　blacksmith-SG.CIV　like　1SG.POSS　father
　　　'I will be a blacksmith like my father.'

60. a. ma　　aḍimá-sɛ́　　wɛ　　ḍɔɔ́-sɛ　　ag͡ba
　　　1SG.POSS　sandal-PL.CII　COP.FAC　old-PL.CII.AGR　very
　　　'My sandals are very old.'

　　b. ma　　ɲań　　ma　　bó-re　　ḍoómi　ḍɪ　wɛ　　tútʊbú-ḍɛ
　　　1SG　sell.FAC　1SG.POSS　house-SG.CIII　because　3SG.CII　COP.FAC　small-SG.CIV.AGR
　　　'I sold my house because it was small.'

A basic clause is negated by the preverbal negative particle *tá* and the clause final particle *bɔ́ɔ*.

The subject must precede the preverbal negative particle. In (61) , neither the complement nor the

postpositional phrase can follow the negative particle *bɔ́ɔ*.

61. ma　tá　sísí　kúd͡ʒɔ-ɔ́　nɔnɔ́-ɔ　me　bɔ́ɔ
　　　1SG　NEG　keep.INF　yam-SG.CIV　room-SG.CIV　LOC　NEG
　　　'I did not keep the yam in the room.'

62. ɔ　　tá　jɛ　　ma　　ḍesí　bɔ́ɔ
　　　3SG.CI　NEG　COP.INF　1SG.POSS　sister　NEG
　　　'She is not my sister.'

The word order SVO is modified in an object-focus construction, in which the object occurs

initially in the clause, marked with focus morphology which consists in the lengthening of its

final segment is lengthened, as shown in 63).

63. mʊ́w-a-á　　ma　kʊ́-ʊ
　　　deer-SG.CII-FOC　1SG　kill-FAC
　　　'It was a deer that I killed.'

64. nabílá　barafó-ó　ɔ　　vóŋ　　ɔ　　tá　vóm　　ma-ń-kɔ　　bɔ́ɔ
　　　Nabila　maize-FOC　3SG.CI　pound.FAC　3SG.CI　NEG　pound　1SG-POSS-SG.CIV　NEG
　　　'It is Nabila's maize that he pounded. He did not pound mine.'

73

Similarly, an interrogative pronoun referring to an object argument occurs in clause-initial position. Here are some examples:

65. a. bé-é   n   ɗí-i
      what-FOC 2SG eat-FAC
      'What did you eat?'

   b. bé-é   ɔ   fɛ́   nɪ
      what-FOC 3SG.CI give.FAC 2SG
      'What did he gave you?'

66. a. an-í-í   n   tirí-i
      who-SG.CI-FOC 2SG send-FAC
      'Who did you send?'

   d. am-bɛ́-ɛ́   ŋ   gɔ́lɔ
      who-PL.CI-FOC 2SG invite.FAC
      'Who did you invite?'

3.4 Expression of tense, aspect and modality

A clause in Bago may be ambiguous in regard to the relation of the time of the described event to the utterance time. The opposition between past, present and future is expressed by non-grammatical means (i.e., adjunct temporal expressions, context). For instance, the sentence in 67)&68) can be used to describe a present or a past eventuality.

67. ba   sɔkɔ́ ma   fá   nɔnɔ́-ɔ   mɛ (ɗɛ   / faád͡ʒé)
    3PL.CI sit.FAC 1SG.POSS mother room-SG.CIV LOC yesterday / now
    'They sat /they are sitting in my mother's room (yesterday/now).'

68. ma   wɛ   fʊ́w-a   mɛ (ɗɛ   ílímo / faád͡ʒé)
    1SG COP.FAC farm-SG.CII LOC yesterday night / now
    'I was/am in the farm (last night/now).'

As shown in these examples, the clause does not impose a single reading. Depending on the context or the adverbial phrase, the interpretation of the time reference is determined. The examples in 69 also show that the distinction between a future reading and a habitual reading is not grammaticalized. The sentence can be uttered in a context where the speaker intends to inform the

addressee about a single event that will take place at some time in the future. It can also be uttered in a context where the speaker wants to describe his regular activity.

69. ma-á   lá   fʊ́w-a   (láadɪ   báa   aŋ-kɛ́   / sɛ́)
    1SG-IMPV   go   farm-SG.CII   sunday every which-3SG.CII   tomorrow
    'I go/ will go to the farm (every Sunday /tomorrow).'

Bago has an aspectual distinction between the factative and the imperfective. Typically, the factative aspect with a dynamic event denotes that it has taken place in the past, and with the majority of stative events that they hold in the present. The factative is marked by a low-toned copy of the verb-final segment if: (i) the final segment of the verb is high-toned and (ii) the verb occurs in a clause final position, as shown in 73)&74).

70. ɔ   d͡ʒʊ́   ɔ   fá   nɔnɔ́-ɔ   mɛ
    3SG.CI   enter.FAC   3SG.POSS.CI mother   room-SG.CIV LOC
    'He entered in his mother's room.'

71. nabílá   fɪ́sɪ   ɔ   nɔnɔ́-ɔ
    Nabila   clean.FAC   3.SG.POSS.CI room-SG.CIV
    'Nabila cleaned her room.'

72. ma   sɔɔlí   nabílá
    1SG   love.FAC Nabila
    'I love Nabila.'

73. zakaríjá   tá-a   kɔní   d͡ʒa bɔ́ɔ   ɔ   gɔ́-ɔ
    Zakariya   NEG-IMPV come today NEG 3SG.CI be tired-FAC
    'Zakariya will not come today. He is tired.'

74. ma   fá   kɔní-ɪ
    1SG.POSS mother come-FAC
    'My mother came.'

The imperfective aspect permits habitual, future, non-progressive continuous readings, depending on the context. The readings associated with the imperfective marking differ according to the type of the predicate: (i) dynamic predicates have habitual and future readings, (ii) unmarked stative predicates have a future reading and (iii) marked stative predicates have continuous and future

readings. As illustrated in the following examples, imperfectivity is marked by a high-toned copied segment from the subject-final segment. In negative utterances, however, imperfectivity is marked by a low-toned copy of the negative particle *tá* vowel, as shown in (76).

75. ma   ḍesí-í   fará   ad͡ʒóle-ná
     1SG.POSS   sister   grow   okra-PL.CIII
     'My sister grows / will grow okra.'   (Dynamic predicate)

76. ḍɪ   tá-a   lá   fʊ́w-a   sɛ́   bɔ́ɔ
     1PL   NEG-IMPV   go   farm-SG.CII   tomorrow   NEG
     'We will not go to the farm today.'   (Dynamic predicate)

77. ma   ḍogó-ó   sɔɔlí   wɔrɔ-ɔ́   ko-d͡ʒé
     1SG.POSS   girlfriend-IMPV   love   golden chain-SG.CIV   SG.CIV-DEM.PROX
     'My girlfriend will love this golden chain.'   (Unmarked stative predicates)

78. ɔ-ɔ́   lá   ḍókíta   ḍoómi   ɔ   ɔ́lʊ́-ʊ́   váŋ
     3SG.CI.IMPV   go   hospital   because   3SG.CI.POSS   wife-IMPV   be sick
     'He will go to the hospital because his wife is sick.'   (Marked stative predicates)

Modal meanings in Bago are encoded by means of expressions, lexical verbs and the use of infinitive forms. While unmarked sentences denote certainty, the conventionalized expression 'if you do not know' is used to indicate the speaker's lack of commitment to the truth of a stated proposition. Permission is encoded by the phrase 'give way', which takes a complement clause expressing the eventuality permitted to be carried out. The verb *jála* 'can/be able' is also employed to denote permission and ability readings.

79. ń   n   tá   d͡ʒɪn   ɔ   wɛ   kɪjá-a   mɛ
     if   2SG   NEG   know.INF   3SG.CI   COP.FAC   market-SG.CI   LOC
     'He/she may be in the market.'

80. zakaríjá   fɛ́   mɛ   g͡bɔ́ɔ   sɪ   má   loŋ   ɔ   kɛké
     Zakariya   give.FAC   1SG   way   COMP   1SG   use.INF   3SG.CI.POSS   bicycle
     'Zakariya gave me permission to use his bicycle.'

81. zakaríjá   na   nabílá-á   jála   ka   jasɪ
     Zakariya   and   Nabila-IMPV   be able   to   swim.INF
     'Zakariya and Nabila are allowed/able to swim.'

For expressing obligation, the verb *bisi* 'to ask' is used with the expletive subject pronoun *bʊ*. The complement of the verb conveys the imposed obligation, and it is introduced by the complementizer *sɪ*. In (83), we note that imperative utterances are constructed by the use of the non-finite form of the verb and a high-tone subject in case of the of plural addressees. As will be discussed in §10.1.5, a command issued to a singular addressee is not always uttered with a covert pronominal subject.

82. bʊ   bisí   sɪ   má la   bó-re   mɛ   ma   álʊ́
    3.CV   ask.FAC COMP 1SG go.INF house-SG.CIII LOC   1SG.POSS wife
    tɪkí   ɔ   gará-a
    break.FAC   3SG.CI.POSS   leg-SG.CII
    'I have to go home. My wife broke her leg.'

83. a. k͡pálá   boró-o   b. í   kɔnɪ   d͡ʒeé
      open-INF   door-SG.CIV   2PL   follow.INF   DEM.PROX.LOC
      'Open the door.'   'Come here.'

Nominal Morphosyntax

Chapter 4

Noun Classes

This chapter provides a description of the noun class system in Bago. It investigates the singular and plural forms of the five classes in the language. The phonological representation of nominal roots in the singular and plural forms is examined to point out phonological processes that occur in the environment of certain singular and plural suffixes. It also looks at the semantics of nouns in the classes.

4.1 Introduction

Grammatical gender is generally defined as the categorization of nouns based on morphological marking on nouns and/or on other expressions related to nouns, such as determiners, adjectives, verbs, relative pronouns, and adverbs (see Hockett, 1958; Corbett, 1991; Comrie, 1999, among others). Some Niger-Congo languages, for instance, show class markers on associated words as well as on nouns (Corbett, 1991; Kihm, 2005). Consider the example shown in 1 from Manjak, an Atlantic language spoken in Guinea-Bissau and South Senegal.

1. ka-to   ka-mak
   7-house 7-big
   'the/a big house'   (Kihm 2005, p. 463)

What can be observed in 1 is that both the noun and the adjective are marked by the same prefix. This sort of agreement does not occur in Bago, as is discussed later. Languages like Manjak, which have more than three classes of nouns, are described as having a noun class system, as opposed to Indo-European and Afroasiatic languages with a gender system in which nouns are classified into two or three genders (Kihm, 2005). According to Cahill (2000), the term noun class is often used

in the description of Bantu languages to refer to a group of nouns that has the same singular or plural affix. If a language, for instance, has five singular affixes and five plural affixes, it is described as having ten classes. Nouns that have the same singular affix do not necessarily share the same plural affix. The term gender is used to refer to a group of nouns that has the same singular and plural affixes. In other words, while a particular gender includes singular and plural nouns, a class as traditionally defined has only either singular or plural nouns.

However, following Naden (1989) and Olawsky (1998), Cahill employs the term noun class in his description of Konni, a Gur language, to refer to a group of nouns that share the same singular and plural suffixes. He states that a group of nouns in Konni that have the same singular suffix always have the same plural suffix, and thus there is no need to group the nouns further under genders or to have separate classes for singular and plural nouns. Similarly, Bodomo and Charles (2007), in their studies of Dagaare, a Gur language, and Akan, a Kwa language, use the term noun class to organize nouns into classes based on the similarities of their singular and plural affixes.

According to Ourso (1989), all Gur languages have a noun class system. Brindle (2009, p. 84) states that "the Gurunsi languages, and indeed all Gur languages, historically had a system of nominal classification which was reflected in agreement. The third person pronominal forms and other parts of speech were at a certain time a reflection of the nominal classification". However, this is no longer the case synchronically in all of them. For instance, the pronominal system of Chakali does not reflect the noun class system of the language (Brindle, 2009). This is also the case in other Gur languages like Dagbani and Dagaare, in which only a single third person pronoun is used to refer to all nouns in the language (Bodomo, 1997; Olawsky, 2004). Noun classification in these languages is only signalled by various realizations of singular and plural suffixes. According to

Ourso (1989), the distinction between classes within the pronominal system remains in Lama. This is also the case in Bago.

It is generally proposed that a particular number affix in Gur languages is not selected by a group of nouns on the basis of their semantics (see e.g., Ourso, 1989; Olawsky, 2004; Bodomo & Charles, 2006; Moran, 2006). According to Olawsky (2004), the noun class system of Dagbani is not semantically oriented even though Class 2 in the language contains only human nouns. Also, Ourso (1989) points out that nouns within a specific class in Lama lack semantic homogeneity, but there exists a class in which the majority of nouns refer to humans. The discussion of noun classes in Bago in this thesis reports similar findings.

In the following sections, I will present the five noun classes in Bago, pairing up singular and plural forms in a single class. Note that the phonological realization of a singular and a plural suffix might vary within the same class, but the choice of pronoun that is used to refer back to a noun, as well as the limited agreement morphology that occurs on adjectives and other nominal modifiers, are unequivocal clues that nouns with various distinct singular suffixes belong to the same class and should be treated as subclasses. In Bago, the pronominal system uses five third-person singular pronouns to refer to five groups of nouns. In order to determine the class of a noun in my analysis of Bago, I rely on the form of third person pronouns. I also rely on agreement morphology on adjectives, numerals and demonstratives, as shown in 2.

2. a. bó-re   fɔlí-ɖɛ
  house-SG.CIII   new-CIII.SG
  'The/a new house.'

 b. fɛ́ mɛ tím-aná ŋa-násá   ŋa-d͡ʒé
  give.INF 1SG spear-PL.CIII PL.CIII.AGR-four PL.CIII.AGR-DEM
  'Give me these four spears.'

The following are some representative examples of nouns from different classes. A more analytic view of the various classes and subclasses is given in the conclusion to this chapter.

3.

SG Form	PL form	Gloss
d͡ʒid͡ʒo-ó	d͡ʒid͡ʒo-náa	'mother's family members'
akɔd̪ʊ́	akɔd̪ʊ́-sɛ́	'banana'
bó-re	bóó-na	'house'
saá[w]-ʊ	saá-ŋɛ	'locust'
límɔ	límɔ-níŋɛ	'water'

4.2 Class I

Nouns of Class I are referred to with the singular pronoun *ɔ* and the plural pronoun *ba*. This class includes nouns referring to humans as well as a few land-animals and insects. Other nominal meanings (e.g. mass, object, abstract, plant) are not found in this class. The number suffixes of nouns within this class are less regular than the other classes. This class can be divided into four sub-classes based on the various singular and plural suffixes a noun takes. Although nouns within this class differ in their number suffixes, they are all referred to by the same singular and plural pronouns and the same agreement morphology realized on an associated word.

4.2.1 Class I.a

As shown in Table 4.1, nominal roots within Class I.a take the plural suffix *–náa*. Only the root *d͡ʒid͡ʒo-* that has an overt singular suffix. I refer to nominal roots such as *d͡ʒid͡ʒo-* as bound nominal root roots. Unlike free-standing roots, they must be suffixed with a singular or a plural suffix that alternate to form a meaningful word that can stand alone in isolation. I assume that the singular suffix of Class I.a is *–V*, with phonological copying of the root final vowel filling in for the features of V.

Table 4.1: Class I.a

Singular   Plural
Ø/-V   -náa

Root	SG Form	PL Form	Pronouns		Gloss
			SG	**PL**	
d͡ʒid͡ʒo-	d͡ʒid͡ʒo-ó	d͡ʒid͡ʒo-náa	ɔ	ba	'mother's family members'
awú	awú	awú-náa	ɔ	ba	'grandmother'
mɛtí	mɛtí	mɛtí-náa	ɔ	ba	'wife's family male siblings'
d͡ʒanʊ́	d͡ʒanʊ́	d͡ʒanʊ́-náa	ɔ	ba	'wife's older female siblings'
sɔkɪnɪ	sɔkɪnɪ	sɔkɪnɪ-náa	ɔ	ba	'spouse's youger siblings'
d͡ʒoóŋu	d͡ʒoóŋu	d͡ʒoóŋu-náa	ɔ	ba	'older brother"
ḍogó	ḍogó	ḍogó-náa	ɔ	ba	'female friend'
ḍawʊ́	ḍawʊ́	ḍawʊ́-náa	ɔ	ba	'co-wife'

A singular suffix in Bago always surfaces with a tone that is opposite to the tone of the root-final mora. As can be seen in these examples, the plural suffix is realized with a high tone on its first mora whether or not the root-final mora is high-toned. It was shown in § 2.4.2.2 that a bimoraic plural suffix in Bago is specified with an unassociated high tone that is linked to the first mora if it is attached to a free-standing root or to a bound root whose final mora is low-toned. On the semantic side, all the nouns within this sub-class are human referents. It is also clear that the majority of kinship terms fall into this sub-class.

4.2.2 Class I.b

This sub-class consists of only two bound nominal roots denoting kin: *afá-* 'mother' and *atá-* 'father'. As shown in the table below, the singular suffix is realized as a low-toned *-a*, and the plural suffix is *-na*.

Table 4.2: Class I.b

<u>Singular</u>   <u>Plural</u>
-V   -na

Root	SG Form	PL Form	Gloss
afá-	afá-a	afá-na	'mother'
atá-	atá-a	atá-na	'father'

What distinguishes this subclass from Class I.a is the form of the plural suffix. As will be seen in the discussion of the following subclass, *-na* is also used as a singular suffix. The consequence of this is that singular and plural forms cannot be predictable from their counterpart in this class and other classes.

4.2.3 Class I.c

The nouns in this subclass take *-na* as a singular suffix and *-ba* as a plural suffix. This subclass differs from the previous sub-classes in that it includes nouns referring to humans and non-humans. There are only five non-human nouns found in this subclass that refer to land animals and bugs, such as *ásárʊ́-na* 'frog' and *ádʒamɪ-ná* 'louse'. It is worth noting that these do not seem to form what might be considered 'natural' groupings of animals and insects because other animals that belong to the same species are found in other classes. For instance, while the noun *asʊ́kʊ́-na* 'mouse' is in class I.c, the noun *sakúlú* 'rat' belongs to class II.

Table 4.3: Class I.c

Singular   Plural
-na   -ba

Root	SG Form	PL Form	Gloss
nantʊ́-	nantʊ́-na	nantʊ́-ba	'neighbor'
ɖɔɔ́-	ɖɔɔ́-na	ɖɔɔ́-ba	'male friend'
d͡ʒoó-	d͡ʒoó-na	d͡ʒoó-ba	'chief'
áɖetú-	áɖetú-na	áɖetú-ba	'girl'
amʊ́ŋgulú-	amʊ́ŋgulú-na	amʊ́ŋgulú-ba	'worms'
ɖóḿ-	ɖóm[í]-na	ɖóḿ-ba	'snake'
asʊ́kʊ́-	asʊ́kʊ́-na	asʊ́kʊ́-ba	'mouse'
ásɔ́ḿ-	ásɔ́m[í]-na	ásɔ́ḿ-ba	'breast feeding woman'
ásárʊ́-	ásárʊ́-na	ásárʊ́-ba	'frog'
ágolu-	ágolu-ná	ágolu-bá	'boy'
abɔbɔrɪ-	abɔbɔrɪ-ná	abɔbɔrɪ-bá	'bed bug'
ád͡ʒam-	ád͡ʒam[ɪ]-ná	ád͡ʒam-bá	'louse'

All the nouns in this subclass consist of a bound root and a number suffix. As can be seen, the singular and the plural suffixes surface with a high tone only if the root-final vowel is low-toned. This tonal alternation happens because of OCP, the which bans adjacent high tones, applies when a number suffix is attached to a bound root. Some of the roots presented in the table end with a nasal consonant (e.g. *ɖóḿ-, ásɔ́ḿ-, ád͡ʒam-*). In their singular forms, the epenthetic vowel [ɪ] is inserted avoid a sequence of two nasals.

4.2.4 Class I.d

Finally, this subclass contains only human-referring nouns. There are only four nouns in the data that has the suffix -*na* in the singular and –*a* in the plural.

Table 4.4: Class I.d

<u>Singular</u>   <u>Plural</u>
-na   -a

Root	SG Form	PL Form	Gloss
ŋɔ́rʊ́-	ŋɔ́rʊ́-na	ŋɔ́rá-a	'guest/stranger'
álʊ́-	álʊ́-na	álá-a	'woman/wife'
bálʊ́-	bálʊ́-na	balá-a	'man/husband'
álám-	álám[í]-na	álám-a	'person'

Note that the plural suffix appears to serve as an assimilation trigger, which causes the root-final vowel to take its place feature in order to avoid the presence of disagreeing adjacent vowels. For the root *álám-*, I treat [í] in the singular form as an epenthetic vowel. When the plural suffix *-a* is added to this consonant-final root, it syllabifies the root-final nasal into an onset position and epenthesis fails to occur.

4.3 Class II

Nouns of Class II are referred to with the singular pronoun *ka* and the plural pronoun *sɪ*, though the class contains 14 human-referring nouns that are referred to instead with the singular pronoun *ɔ* and the plural pronoun *ba*. This is the largest class in the language. Unlike class I, the nouns in this class are semantically diverse. Names of objects, animals, body parts, liquid and notionally abstract concepts are found in this class. All the plural forms of the nouns in this class are pluralized with the suffix *-sɛ*. However, the singular nouns do not have a unified form. Thus, I divide the nouns of this class into four subgroups based on their various singular forms.

The first subgroup in this class contains free-standing nominal roots. The singular form of a noun in this subclass is the same as its root. It is only the plural suffix that is added to the root to form a plural noun. The following table gives some examples.

86

Table 4.5: Class II, Free-standing roots

	Singular	Plural
	Ø	-sɛ

Root	SG Form	PL Form	Pronouns		Gloss
			SG	PL	
akúwá	akúwá	akúwá-sɛ́	ka	sɪ	'peanut'
ad͡ʒakp͡á	ad͡ʒakp͡á	ad͡ʒakp͡á-sɛ́	ka	sɪ	'tortoise'
akɔd͡ʊ́	akɔd͡ʊ́	akɔd͡ʊ́-sɛ́	ka	sɪ	'banana'
ɔfa	ɔfa	ɔfa-sɛ́	ka	sɪ	'pig'
gɔŋgɔsɔ	gɔŋgɔsɔ	gɔŋgɔsɔ-sɛ́	ka	sɪ	'sieve'
lɔkɔ	lɔkɔ	lɔkɔ-sɛ́	ka	sɪ	'water well'
kɛké	kɛké	kɛké-sɛ́	ka	sɪ	'bicycle'
motí	motí	motí-sɛ́	ka	sɪ	'lemon'
akutú	akutú	akutú-sɛ́	ka	sɪ	'orange'
akasa	akasa	akasa-sɛ́	ka	sɪ	'ladder'
asíírí	asíírí	asíírí-sɛ́	ka	sɪ	'secret'

Note that when the plural suffix of Class II attaches to a free-standing root, it always surfaces with a high tone regardless of the root-final tone. Noted also that the [ATR] value of the plural suffix does not alternate depending on the [ATR] value of the root. It was shown in §2.2.4 that the plural suffix of Class II is the only plural suffix whose [ATR] value alternates if it is attached to a bound nominal root whose final vowel is /i/ or /u/. In the following table, I present the bound nominal roots of Class II. The table is divided into three subgroups based on the singular suffixes that are found in this class.

Table 4.6: Class II, Bound roots

<u>Singular</u>   <u>Plural</u>
-a, -ɔ, -ŋɛ   -sɛ

Root	SG Form	PL Form	Gloss
i. bɔlá-	bɔlá-a	bɔlá-sɛ	'spoon'
tamá-	tamá-a	tamá-sɛ	'chin'
kasʊ́rá-	kasʊ́rá-a	kasʊ́rá-sɛ	'tsetse fly'
sírá-	sírá-a	sírá-sɛ	'knife'
soŋa-	soŋa-á	soŋa-sɛ́	'hare'
mʊ́-	mʊ́[w]-a	mʊ́-sɛ	'doe'
fʊ́-	fʊ́[w]-a	fʊ́-sɛ	'farm'
ḍoo-	ḍoo[w]-á	ḍoo-sɛ́	'basket'
ɡuúɡú	ɡuúɡú[w]-a	ɡuúɡú-se	'flower'
átú-	átú[w]-a	átú-se	'deer'
nemí-	nemí[j]-a	nemí-se	'goat'
áderí-	áderí[j]-a	áderí-se	'scarf'
áɡ͡bé-	áɡ͡bé[j]-a	áɡ͡bé-sɛ	'group'
wʊ́lɪ-	wʊ́lɪ[j]-á	wʊ́lɪ-sɛ́	'star'
ii. aŋɔ-	aŋɔ-ɔ́	aŋɔ-sɛ́	'donkey'
nɔ́-	nɔ́-ɔ	nɔ́-sɛ	'mouth'
iii. ḍá-	ḍá-ŋɛ	ḍá-sɛ	'wood'
jíla-	jíla-ŋɛ́	jíla-sɛ́	'horn'
k͡píra-	k͡píra-ŋɛ́	k͡píra-sɛ́	'wasp'
vɔɔ́-	vɔɔ́-ŋɛ	vɔɔ́-sɛ	'rope'
tɔrá-	tɔrá-ŋɛ	tɔrá-sɛ	'tooth brusher'
sɪná-	sɪná-ŋɛ	sɪná-sɛ	'rib cage'
sɔrá-	sɔrá-ŋɛ	sɔrá-sɛ	'pestle'

There are only seven nouns in Class II that have the singular suffix -*ŋɛ*, and only two nouns that take the singular suffix -*ɔ*. The examples in the first subgroup in the talbe show that the singular suffix -*a* surfaces with an opposite tone to that of the root-final vowel. The suffix is attached without modification to roots that end in /a/. In the case where the attachment of the singular suffix -*a* results in a sequence of disagreeing vowels, a glide consonant is epenthesized as a repair strategy. Note that while the epenthetic labial-velar glide /w/ is inserted after a back vowel, the palatal glide /j/ is epenthesized after a front vowel. The singular suffixes -*ɔ* and -*ŋɛ* also surface with a high tone only if the root-final vowel is low-toned. With these bound roots, the plural suffix always surfaces with a tone that is opposite to the tone of the root-final mora, except when it is attached to a root whose final vowel is [+high] and [+ATR], in which case it surfaces as [+ATR].

When assigning nouns to (sub)classes, it is important to look at the plural form of each noun, since a glide in the last syllable of a singular noun is not always an epenthetic segment. For instance, the noun *akúwá* 'peanut' in Table 4.5 looks, at first sight, to consist of the epenthetic glide /w/ and the singular suffix -*a*. However, when we see its plural form, it appears that the phonological string /wá/ is actually part of the root: (i) it is present in the plural form *akúwá-sɛ́* 'peanut(s)', (ii) its vowel carries the same tone as the preceding vowel. Thus, *akúwá* should be grouped with the free-standing roots.

Finally, it is worth mentioning that even though human-referring nouns are in Class I, there are some human-referring nouns that behave like the nouns in Class II insofar as their number morphology goes. These Class II human nouns behave like the nouns in Class I, which is strongly human-oriented, with respect to personal pronouns, determiners, and agreement morphology. As will be seen later, this also happens with two human nouns found in class IV. The table below provides a complete list of these nouns.

Table 4.7: Human-referring nouns in Class II

Root	SG Form	PL Form	Pronouns		Gloss	Source
			SG	PL		
sɔ́ɔ́d͡ʒa	sɔ́ɔ́d͡ʒa	sɔ́ɔ́d͡ʒa-sɛ́	ɔ	ba	'soldier'	English
kafínta	kafínta	kafínta-sɛ́	ɔ	ba	'carpenter'	English
laɖáánɪ	laɖáánɪ	laɖáánɪ-sɛ́	ɔ	ba	'prayer crier'	Arabic
gesééré	gesééré	gesééré-sɛ́	ɔ	ba	'pygmy'	
adig͡bébí	adig͡bébí	adig͡bébí-sɛ́	ɔ	ba	'hunter assistance'	
nd͡ʒɔŋ	nd͡ʒɔŋ	nd͡ʒɔŋ-sɛ́	ɔ	ba	'blind person'	
k͡paad͡ʒá	k͡paad͡ʒá	k͡paajá-sɛ́	ɔ	ba	'albino person'	
sanɪga	sanɪga	sanɪga-sɛ́	ɔ	ba	'leper'	
alʊfá-	alʊfá-a	alʊfá-sɛ	ɔ	ba	'religion teacher'	
kolokólo	kolokólo	kolokólo-sɛ́	ɔ	ba	'baby'	
g͡beé-	g͡beé[j]-a	g͡beé-sɛ	ɔ	ba	'slave'	
ág͡bérí	ág͡bérí	ág͡bérí-sɛ́	ɔ	ba	'notable person'	
okóbá-	okóbá-a	okóbá-sɛ	ɔ	ba	'sterile person'	

Rather than proposing a separate subclass of Class I, we propose here that these human-referring nouns actually belong to Class II, but because of their semantics, they are distinguished from the non-human nouns in this class. The choice of personal pronouns, determiners and agreement morphology to go with them is determined semantically, and thus they are treated as if they belonged to Class I. As shown in Table 4.8, some of the human-referring nouns are clearly loan words. Class II also includes non-animate loan words. Here are some examples:

Table 4.8: Non-animate loan-words

Root	SG Form	PL Form	Gloss	Source
láaɖɪ[4]	láaɖɪ	láaɖɪ-sɛ́	'sunday'	Arabic
timáti	timáti	timáti-sɛ́	'tomato'	French
bɔ́ɔlʊ	bɔ́ɔlʊ	bɔ́ɔlʊ-sɛ́	'ball'	English
d͡ʒírígí	d͡ʒírígí	d͡ʒírígí-sɛ́	'train'	Ewe

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[4] Names for days of the week are Arabic loan-words. They belong to Class II, and they are only marked with a number suffix in their plural form: *láaɖɪ / láaɖɪ-sɛ́* 'Sunday', *atɛnɛ́ɛ / atɛnɛ́ɛ-sɛ́* 'Monday', *atalááta / atalááta-sɛ́* 'Tuesday',

4.4 Class III

The singular pronoun *ɖɪ* and the plural pronoun *ŋa* are used in the language to refer to the nouns within this class. As the examples in the following tables illustrate, Class III consists of nouns that do not show any semantic homogeneity other than being non-human. It includes nouns referring to various meanings, such as animals, objects and body parts. I will divide this class into two subclasses based on differences in the realization of the root-final vowel after the attachment of the plural suffix. While Class III.a contains bound roots that do not undergo any phonological changes as a result of the attachment of the plural suffix, the root-final vowel in Class III.b becomes a low-toned /a/. As for the semantics, the two subclasses cannot be distinguished. For instance, names for body parts are found in both subclasses.

4.4.1 Class III.a

This subclass includes bound and free-standing nominal roots whose root-final vowel is maintained unchanged when they are pluralized. The singular and plural suffixes surface with a low tone if the root-final vowel is high-toned. The [ATR] value of the singular suffix is always identical to the [ATR] value of the root. Examples of nouns that belong to the subclass III.a are presented in the table below.

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alaarıbá / alaarıbá-sɛ́ 'Wednesday', *alaamísı / alaamísı-sɛ́* 'Thursday', *aresúma / aresúma-sɛ́* 'Friday', *asííbi / asííbi-sɛ́* 'Saturday'.

Table 4.9: Class III.a

<u>Singular</u>   <u>Plural</u>

Ø, -rɛ   -na

Root	SG Form	PL Form	Gloss
bʊ́-	bʊ́-rɛ	bʊ́ʊ́-na	'stone'
ŋí-	ŋí-rɛ	ŋíí-na	'head'
bó-	bó-re	bóó-na	'house'
k͡pɛ́ɛ́-	k͡pɛ́ɛ́-rɛ	k͡pɛ́ɛ́-na	'doe'
lʊŋʊ́-	lʊŋʊ́-rɛ	lʊŋʊ́-na	'dry season'
fɔ́ɔ́-	fɔ́ɔ́-rɛ	fɔ́ɔ́-na	'liver'
ɖɪgá-	ɖɪgá-rɛ	agá-na	'fork'
tóó-	tóó-re	tóó-na	'knot'
í-	í-re	í-na	'day'
mií-	mií-re	mií-na	'sorghum'
símí-	símí-re	símí-na	'eye'
ɖebí-	ɖebí-re	ɖebí-na	'picket'
ɖíbú-	ɖíbú-re	ábú-na	'mound'
ɖikoko-	ɖikoko-ré	akoko-ná	'noise'
ɖídugu-	ɖídugu-ré	áɖugu-ná	'proverb'
bée-	bée-ré	bée-ná	'palm-nut'
ɖíɖee-	ɖíɖee-ré	áɖee-ná	'breast'
g͡belé	g͡belé	g͡belé-ná	'chair'
ɖidimbilé	ɖidimbilé	adimbilé-ná	'road'
fóle	fóle	fóle-ná	'nerve'
kumóle	kumóle	kumóle-ná	'plate'
ŋk͡péle	ŋk͡péle	ŋk͡péle-ná	'tounge'
fénféle	fénféle	fénféle-ná	'leaf'
wúle	wúle	wúle-ná	'navel'
tíle	tíle	tíle-ná	'forehead'
viíle	viíle	viíle-ná	'river'

As shown in this table, the singular and the plural suffixes simply alternate in the case of bound nominal roots. When the plural suffix is added to a free-standing root, the root-final vowel does not undergo any changes. We also note that when a light monosyllabic bound root such as *bʊ́-* and *ŋí-* are pluralized, its nucleus is lengthened. This lengthening process does not happen when a light

92

monosyllabic root does not have an onset, as in *í-re / í-na* 'day(s)'. To explain this, recall that Bago allows the syllable shape V to occur only initially in nouns, but that there is no example of a verb or a noun that begins with the syllable shape VV. This means that the language may have a *VV constraint in word-initial position, and thus the initial vowel of the root í- is not lengthened in the plural form *í-na*.

It is also observable that there are some nouns that have in their initial syllable the string /ɖV/ which is replaced by *a-* in the plural. The data shows that the nucleus of /ɖV/, which is found initially in 26 nouns, can be /e/, /i/, /ɪ/, /u/ or /a/. In the plural form, the string /ɖV/ becomes /a/ except when the nucleus is /e/ or /a/. It appears difficult to find a phonological explanation for this alternation. One might suppose that the language forbids high vowels word-initially, and that both the insertion of a post-alveolar consonant /ɖ/ in the singular form, and the shifted of the initial high vowel to /a/ in the plural form are both fixes for this constraint. However, the high vowels /i/ and /ɪ/ are in fact found initially in a total of 8 nouns, such as *íd͡ʒá* 'truth', *ɪbɔsɔ* 'socks', and *íre* 'day', making the phonological explanation implausible. Thus, this alternation has to be described as a readjustment rule applied to a limited number of roots. This readjustment rule is triggered in the context of the feature [Plural], and it replaces the the string /ɖV(high)/ by /a/ (e.g. *ɖɪgá- > agá-*, *ɖúkú- > ákú-*). The new phonological material also carries the same tone of the replaced syllable.

4.4.2 Class III.b

The subclass III.b also contains both bound and free-standing roots. In this subclass, we see that the root-final vowel always becomes a low-toned /a/ in the presence of the plural suffix. The plural suffix always surfaces with a high tone. The free-standing roots in this subclass differ from sucbclass III.a in that they are [-ATR]. The bound roots, however, cannot be distinguished from

93

the bound roots in the subclass III.a based on their phonological features. As the examples in the following table show, this subclass also contains both [+ATR] and [-ATR] bound roots.

Table 4.10: Class III.b

Singular   Plural
-rɛ, Ø   -ná

Root	SG Form	PL Form	Gloss
tʊ́mʊ́-	tʊ́mʊ́-rɛ	tʊ́ma-ná	'work'
kímí-	kímí-rɛ	kíma-ná	'debt'
k͡pásí-	k͡pásí-rɛ	k͡pása-ná	'testicle'
sɔ́bí-	sɔ́bí-rɛ	sɔ́ba-ná	'mortar'
ɖíɖɛgɪ-	ɖíɖɛgɪ-rɛ́	áɖɛga-ná	'pond'
lékí-	lékí-re	léka-ná	'chest'
tími-	tími-ré	tíma-ná	'spear'
lílɛ	lílɛ	líla-ná	'ear'
kílɛ	kílɛ	kíla-ná	'tooth'
jálɛ	jálɛ	jála-ná	'egg'
ɖaálɛ	ɖaálɛ	ɖaála-ná	'kidney bean'
fárɛ	fárɛ	fára-ná	'trap board'
fʊ́nɛ	fʊ́nɛ	fʊ́na-ná	'feather'
tɔ́nɛ	tɔ́nɛ	tɔ́na-ná	'skin'
mánɛ	mánɛ	mána-ná	'vagina'
fĩnɛ	fĩnɛ	fĩna-ná	'penis'

Roots ending in the high vowels /i/, /ɪ/ and /ʊ/ occur in both subclasses. For instance, while the root *símí-* has the singular form *símí-re* 'eye' and the plural form *símí-na* 'eyes', the root *tími-* has the the singular form *tími-ré* 'spear' and the plural form *tíma-ná* 'spears'.

4.5 Class IV

Nouns belonging to Class IV are referred to with the singular pronoun *kʊ* and the plural pronoun *tʊ*. This class also includes nouns referring to different semantic categories such as animals, objects and body parts. There are only three human- referring nouns in this class, namely, *ódíw-o* 'deaf person', *ɔ́díw-ɔ* 'hunter' and *oguw-ó* 'blacksmith'. These human-referring nouns behave like the nouns in Class I in that they are referred to with the singular pronoun *ɔ* and the plural pronoun *ba*. I divide this class into three subclasses based on the form of the plural suffix and whether a singular-plural distinction is made in pronouminal reference. The first subcless contains nouns that take the plural suffix -*ŋɛ*. In the second subclass, plural nouns are formed by the plural suffix -*nɪŋɛ*. The third subclass contains nouns that do not show singular vs. plural distinction in morphological agreement on associated words and in pronominal reference. They behave as the plural nouns of the other subclasses in that only the plural pronoun *tʊ* can be used to refer to a single entity or plural entities.

4.5.1 Class IV.a

This subclass is distinct from the other two subclasses in three ways: (i) it includes only bound nominal roots, (ii) the root-final vowel is high-toned, (iii) nouns belonging to this subclass are referred to by both singular and plural pronouns. As illustrated in the following table, the phonological realization of the singular suffix depends on the place feature of the root-final vowel. It is realized as /ʊ/ when the root-final vowel is /a/, but as a mid back vowel elsewhere. The nouns in this subclass can be divided into three subgroups according to the surface form of the root-final vowel in the singular and plural forms of a noun. The first subgroup contains five nouns in which the vowels /a/, /i/ and /ɪ/ occur in root final position. The root-final vowel is maintained unchanged

in the singular and the plural forms. When the singular suffix is added to these roots, the epenthetic

glide /w/ is inserted to avoid a sequence of disagreeing vowels.

Table 4.11: Class IV.a

<u>Singular</u>   <u>Plural</u>
-V [back]   -ŋɛ

Root	SG Form	PL Form	Gloss
i. ɖaá	ɖaá[w]-ʋ	ɖaá-ŋɛ	'furrow'
saá	saá[w]-ʋ	saá-ŋɛ	'grasshopper'
sí	sí[w]-o	sí-ŋɛ	'guineafowl'
ódí-	ódí[w]-o	ódí-ŋɛ	'deaf person'
ɔ́dí-	ɔ́dí[w]-ɔ	ɔ́dí-ŋɛ	'hunter'
ii. besó-	besó-o	besú-ŋɛ	'pot'
fúró-	fúró-o	fúrú-ŋɛ	'bag'
gogó-	gogó-o	gogú-ŋɛ	'root'
kokotó-	kokotó-o	kokotú-ŋɛ	'round calabash'
k͡péló-	k͡péló-o	k͡pélú-ŋɛ	'baobab'
k͡pésó-	k͡pésó-o	k͡pésú-ŋɛ	'cough'
ɖomó-	ɖomó-o	ɖomú-ŋɛ	'sauce'
kutufúró-	kutufúró-o	kutufúrú-ŋɛ	'dust'
kulúló-	kulúló-o	kulúlú-ŋɛ	'cockroach'
kumó-	kumó-o	kumú-ŋɛ	'fire'
ɲiŋkó-	ɲiŋkó-o	ɲiŋkú-ŋɛ	'back of the head'
fʊ́tɔ́-	fʊ́tɔ́-ɔ	fʊ́tʊ́-ŋɛ	'sticky herb'
d͡ʒanfɔ́-	d͡ʒanfɔ́-ɔ	d͡ʒanfʊ́-ŋɛ	'scar'
lɪɡ͡bɔ́-	lɪɡ͡bɔ́-ɔ	lɪɡ͡bʊ́-ŋɛ	'back'
iii. ɡɪsɛ́-	ɡɪsɔ́-ɔ	ɡɪsí-ŋɛ	'horse'
d͡ʒad͡ʒɛ́-	d͡ʒad͡ʒɔ́-ɔ	d͡ʒad͡ʒí-ŋɛ	'elephant'
d͡ʒɛlɛ́-	d͡ʒɛlɔ́-ɔ	d͡ʒɛlí-ŋɛ	'eagle'
kʊsɔlɛ́-	kʊsɔlɔ́-ɔ	kʊsɔlí-ŋɛ	'cough grass'
ɲíŋɡɪlɛ́-	ɲíŋɡɪlɔ́-ɔ	ɲíŋɡɪlí-ŋɛ	'nail'
vanɛ́-	vanɔ́-ɔ	vaní-ŋɛ	'arm'
vɛnɛ́-	vɛnɔ́-ɔ	vɛní-ŋɛ	'fetish'
saalé-	saaló-o	saalí-ŋɛ	'boubou for woman'
wosé-	wosó-o	wosí-ŋɛ	'soul'
lóló-	lóló-o	lólí-ŋɛ	'song'
mbolé-	mboló-o	mbolí-ŋɛ	'abandoned place'

In the second subgroup, we note that the root-final vowel surfaces as a mid back vowel in the singular form, but as a high back vowel in the plural form. As can be seen in the examples in (ii), the root-final vowel is realized high whether it is preceded by a high or a non-high vowel. Changing the height feature of the root-final vowel might be the result of being adjacent to the velar nasal of the plural suffix. Cross-linguistically, there are many documented instances in which vowels assimilate to neighbouring consonants. Under the Unified Feature Framework, Clements (1991) discusses the labialization in Tulu, a Dravidian language, in which the high-unrounded central vowel [ɨ] is labialized when preceded by a labial consonant or a round vowel. A similar process is found in Maltese, in which the prefix vowel [i] of the imperfective appears only when the root-initial consonant is coronal (Hume, 1992). In a similar way, the realization of the root-final vowel as a high vowel could be accounted for by assuming that the secondary articulation feature [+high] of the suffix-initial velar -ŋɛ targets an immediately preceding mid vowel (e.g., /d͡ʒanfɔ́ŋɛ/ > [d͡ʒanfʊ́ŋɛ]). The examples provided in (iii) for the third subgroup show that while a mid back vowel precedes the singular suffix, the plural suffix is preceded by a high front vowel.

To explain this alternation, I assume here that the root-final vowel in this subgroup might be underlyingly a mid front vowel that undergoes assimilation to the place of the singular suffix to repair hiatus (e.g. /ɡɪsɛ́ɔ/ > [ɡɪsɔ́ɔ] , /lóléo/ > [lólóo]). Like what happens in the second subgroup, the secondary articulation feature [+high] of the velar nasal in the plural suffix causes the root-final mid vowel to become high (e.g. /ɡɪsɛ́ŋɛ/ > [ɡɪsíŋɛ]). It appears problematic to assume that the root-final vowel is underlyingly back and attribute the frontness of the vowel in the plural forms to a preceding vowel or a consonant. As can be seen in (iii), the root-final vowel surfaces as a front high vowel, whether it is preceded by a back or a front vowel. Similarly, assuming that the frontness

is a pattern of harmony triggered by a preceding coronal consonant fails to account for the difference between *besú-ŋɛ* 'pots' and *wosí-ŋɛ* 'souls'.

4.5.2 Class IV.b

This subclass contains bound and free-standing roots. Unlike the first subclass, roots in this subclass may end in a high or a low-toned vowel, and thus the singular and the plural suffixes exhibit tonal alternation. In the singular forms, the singular suffix surfaces with a tone opposite to that of the root-final vowel, as shown in the examples presented in (i). In the plural forms, the plural suffix surfaces with a high tone on its first mora if it is attached to a bound root whose final mora is low-toned as in (i), or if it is attached to free-standing root as in (ii).

Table 4.12: Class IV.b

<u>Singular</u>　　　　　<u>Plural</u>
Ø, -V [back]　　　　　*-nıŋɛ*

Root	SG Form	PL Form	Gloss
i. fɛmɔ-	fɛmɔ-ɔ́	fɛmɔ-níŋɛ	'mat'
ato-	ato-ó	ato-níŋɛ	'chimpanzee'
kulo-	kulo-ó	kulo-níŋɛ	'district'
kúd͡ʒɔ-	kúd͡ʒɔ-ɔ́	kúd͡ʒɔ-níŋɛ	'yam'
sɔrɔ-	sɔrɔ-ɔ́	sɔrɔ-níŋɛ	'moon/month'
siso-	siso-ó	siso-níŋɛ	'strainer'
bɔ́-	bɔ́-ɔ	bɔ́-nıŋɛ́	'hole'
bʊ́-	bʊ́-ʊ	bʊ́-nıŋɛ́	'mountain'
lɔ́-	lɔ́-ɔ	lɔ́-nıŋɛ́	'forest'
tɔ́-	tɔ́-ɔ	tɔ́-nıŋɛ́	'bow'
d͡ʒií-	d͡ʒií[w]-o	d͡ʒií-nıŋɛ́	'tail'
tí-	tí[w]-ɔ	tí-nıŋɛ́	'tree'
ii. ɔg͡bí	ɔg͡bí	ɔg͡bí-níŋɛ	'snail'
gúúní	gúúní	gúúní-níŋɛ	'lion'
barafó	barafó	barafó-níŋɛ	'maze'
ogó	ogó	ogó-níŋɛ	'pants'
tóko	tóko	tóko-níŋɛ	'shirt'
nso	nso	nso-níŋɛ	'gun'
tɔ́mɔ	tɔ́mɔ	tɔ́mɔ-níŋɛ	'problem'
ɔg͡bɔ	ɔg͡bɔ	ɔg͡bɔ-níŋɛ	'cocoyam'
ɔk͡pɔtɔ	ɔk͡pɔtɔ	ɔk͡pɔtɔ-níŋɛ	'piece of soap'

It is worth noting that the distinction between classes and subclasses in Bago cannot be predicted by making reference to the phonological shape of the root. For instance, while the noun *tíw-ɔ / tí-nɪŋé* 'tree(s)' belongs to this subclass, the noun *síw-o / sí-ŋɛ* 'guinea fowl(s)' belongs to subclass IV.a. Also, while the noun *tɔ́-ɔ / tɔ́-nɪŋé* 'bow(s)' belongs to this subclass, the noun *nɔ́-ɔ / nɔ́-sɛ* 'mouth(s)' belongs to Class II.

4.5.3 Class IV.c

This subclass differs from the previous subclasses in that it contains nouns that only can be referred to by the plural pronoun *tʊ*. Morphological agreement on associated words also appears in the plural form. The nouns in this subclass are notionally mass nouns except the noun *tɔ́tɔ* 'village'. The plural suffix *-níŋɛ* is used in this subclass to derive a plural form of a notionally count noun *tɔ́tɔ / tɔ́tɔ-níŋɛ* 'village(s)' or to contextually refer to different types of a notionally mass noun.

Table 4.13: Class IV.c

| | Singular | | Plural |
| | Ø | | -nɪŋɛ |

Root	SG Form	PL Form	Gloss
tɔ́tɔ	tɔ́tɔ	tɔ́tɔ-níŋɛ	'village'
fátɔ	fátɔ	fátɔ-níŋɛ	'medicine/leaf'
bɪrítɔ	bɪrítɔ	bɪrítɔ-níŋɛ	'sperm'
mútɔ	mútɔ	mútɔ-níŋɛ	'mashed yam'
fɛfétɔ	fɛfétɔ	fɛfétɔ-níŋɛ	'wind/air'
nántɔ	nántɔ	nántɔ-níŋɛ	'meat'
sótɔ	sótɔ	sótɔ-níŋɛ	'poison'
béntɔ	béntɔ	béntɔ-níŋɛ	'placenta'
bínto	bínto	bínto-níŋɛ	'dirt'
sóto	sóto	sóto-níŋɛ	'mustard'
awúto	awúto	awúto-níŋɛ	'cotton'

It is not the fact that these nouns are notionally mass which forbids the use of the singular pronoun *kʊ* to substitute these nouns. We have seen some notionally mass mass nouns in the sub-class IV.a, such as *ɖomó-o* 'sauce' and *kutufúró-o* 'dust', which are referenced by the singular pronoun *kʊ*,

with the plural pronoun *tʊ* being used when reference is made to different types. What all the nouns in this subclass have in common is that they all share the final syllable /tO/ which surfaces with a tone that is opposite to the preceding mora. I do not treat the nouns in this subclass as consisting of a root and a suffix, however, because /tO/ cannot be substituted by the plural suffix -*níŋɛ*, as it is the case in other classes (e.g., *nantʊ́-na* / *nantʊ́-ba* 'neighbour(s), *ɖikoko-ré* / *akoko-ná* 'noise(s)').

4.6 Class V

The pronoun *bʊ* is used to refer to nouns within Class V. This is the smallest class in Bago, and it is semantically oriented. It includes only notionally mass and abstract nouns such as 'water', 'flour' and 'hunger'. It should be noted that the presence of notionally mass and abstract nouns is not restricted to this class, as has been shown in the discussion of the previous classes. For instance, while the noun *lósumó* 'hunger' belongs to this class, the noun *ɖʊmbalɛ* 'thirst' belongs to class III. Nouns within this class can be pluralized by the plural suffix -*níŋɛ* to indicate different types. The language employs the pronoun *bʊ* when making reference to a noun within this class, whether or not it is pluralized.

Table 4.14: Class V

| | Singular | Plural |
| | Ø | -níŋɛ |

Root	SG Form	PL Form	Gloss
ɲímo	ɲímo	ɲímo-níŋɛ	'oil'
límɔ	límɔ	límɔ-níŋɛ	'water'
mɪlímɔ	mɪlímɔ	mɪlímɔ-níŋɛ	'flour'
tɔkɔlímɔ	tɔkɔlímɔ	tɔkɔlímɔ-níŋɛ	'ash'
ɲɛ́mɔ	ɲɛ́mɔ	ɲɛ́mɔ-níŋɛ	'sand'
ŋálɪmɔ́	ŋálɪmɔ́	ŋálɪmɔ́-níŋɛ	'gun powder'
sálɪmɔ́	sálɪmɔ́	sálɪmɔ́-níŋɛ	'blood'
lósumó	lósumó		'hunger'
ɲɛ́mʊŋɛ́	ɲɛ́mʊŋɛ́		'tiredness'
ɖóŋe	ɖóŋe		'strength'
ɲúŋe	ɲúŋe		'heaviness'

In summary, the noun class system of Bago consists of five classes that can be identified based on singular and plural suffixes, pronouns and morphological agreement on associated words. Most classes are not semantically oriented. It was observed that classes contain bound nominal roots to which a singular and a plural suffixes are alternatively added. Classes also contain free-standing nominal roots which are used as singular nouns, with only plurality being marked on them by means of an affix. I have organized four classes into subclasses based on differences in form of the singular and plural suffixes. I have divided Class III into two subclasses depending on the phonological realization of the root-final vowel. Class IV.c and Class V differ from the other classes in that they do not show a singular-plural distinction in the pronoun that is used to replace them and in the agreement on associated words. The following table summarizes the five classes in Bago.

Table 4.15: Bago noun classes

Class	Subclass	SG Suffix	PL Suffix	Pronouns
I	I.a	Ø, -V	-náa	ɔ / ba
	I.b	-V	-na	
	I.c	-na	-ba	
	I.d	-na	a-a	
II		Ø, -a, -ɔ, ŋɛ	-sɛ	ka / sɪ
III	III.a	Ø, -rE	-na	ɖɪ / ŋa
	III.b	Ø, -rE	a-ná	
IV	IV.a	-V [+back]	-ŋɛ	kʊ / tʊ
	IV.b	Ø , -V [+back]	-nɪŋɛ	
	IV.c	Ø	-nɪŋɛ	tʊ
V		Ø	-nɪŋɛ	bʊ

Chapter 5

Pronouns

This chapter is divided into three parts. The first part discusses personal pronouns in the language. It describes the form and distribution of subject, object, and possessive pronouns. Emphatic pronouns are exemplified and described. In doing so, this confirms the set of criteria that was used in the previose chapter for identifying the five nouns classes in the language. In addition, this shows the contrast between subject/object. Bago has two levels of tone: high and low. The description will pay attention to the inverimonets where a pronoun does not surface with its underlying tone pattern. The second part provides a description of the simple/pure reflexive morpheme *tɪ* which occurs in combination with a personal pronoun in object position to encode reflexivization. I will also examine the distribution of the emphatic reflexive tɪ-tɪŋɛ. Finally, the third part examines the morpheme *ɖɔ́ŋɔ́* which functions as a pronoun to express reciprocity. The description will pick out a varity of verbs to show how they differently interact with the reciprocal morpheme *ɖɔ́ŋɔ́*.

5.1 Personal pronouns

Personal pronouns in Bago encode person and number. Third person pronouns show that noun class is also relevant in determining the appropriate form of the pronoun. The language uses a single set for both subject and possessive pronouns. Object pronouns are expressed by a different set which is lexically specified with a high tone. There is also a set of emphatic pronouns which are used, for instance, in focus constructions and in elliptical sentences. Throughout my discussion, I refer to non-emphatic pronouns as bound pronouns in the sense that they are all (subject, object, and possessive) syntactically dependent on another element.

5.1.1 Bound subject and object pronouns

As can be observed in Table 5.1 the language follows an accusative system in the sense that it differentiates between subject and object pronouns by using distinct forms, and subject pronouns are used for subjects of both transitive and intransitive verbs. Note that the plural subject and object pronouns of class II differ only in tone. Other syncretisms in the table (e.g., 2PL obj and 3PL cl.III obj) are accidental.

Table 5.1: Bound Subject/possessive and Object Pronouns

Pronominal Forms					
Set A				Set B	
SUBJ		POSS		OBJ	
H-tone	L-tone			L-tone	H-tone
má	ma	ma		mɛ́	mɛ
ɖí	ɖɪ	ɖɪ		ɖʊ́	ɖʊ
ŋ́	ŋ	ŋ		ní	nɪ
í	ŋɪ	ŋɪ		ŋɛ́	ŋɛ
ɔ́	ɔ	ɔ		í	ɪ
bá	ba	ba		bɛ́	bɛ
ka	ka	ka		kɛ́	kɛ
sɪ	sɪ	sɪ		sí	sɪ
ɖɪ	ɖɪ	ɖɪ		ɖɛ́	ɖɛ
ŋa	ŋa	ŋa		ŋɛ́	ŋɛ
kʊ	kʊ	kʊ		kí	kɪ
tʊ	tʊ	tʊ		tí	tɪ
bʊ́	bʊ	bʊ		bí	bɪ

The third person pronoun *bʊ* is used to refer to both plural and singular nouns in Class V. This class includes only notionally mass and abstract nouns, which can be pluralized to denote types. The pronoun *bʊ* may also used as an expletive subject pronoun in two specific constructions, as shown in 1&2.

1. bʊ gɔ́ mɛ
 3.CV be tired.FAC 1SG
 'I am tired.'

2. bʊ tá jɛ alʊfá bɔ́ɔ
 3SG.CV NEG COP.INF alufa NEG
 'It is not Alufa.'

When a subject or an object pronoun is used, the presence of a coreferential full lexical DP is not possible. This fact prevents us from treating the subject and object pronouns as morphological agreement markers.

3. * alʊfá ɔ lá bagó
 Alufa 3SG.CI go.FAC Bago
 Intended 'Alufa went to Bago.'

Sentences in Bago manifest a rigid word order wherein a predicate is preceded by a subject pronoun and followed by an object pronoun. The subject pronoun can be adjacent to the verb as in 4 or separated from the verb by the negative marker *ta* or the anteriority marker *tíí*, as can be seen in 5 and 6.

4. ma sísɪ kʊ́d͡ʒɔ-ɔ́ nɔnɔ́-ɔ mɛ
 1SG keep.FAC yam-SG.CIV room-SG.CIV LOC
 'I kept the yam in the room'

5. ma tá sísí kʊ́d͡ʒɔ-ɔ́ nɔnɔ́-ɔ mɛ bɔ́ɔ
 1SG NEG keep.INF yam-SG.CIV room- SG.CIV LOC NEG
 'I did not keep the yam in the room.'

6. ɖɪ-í tíí lú límɔ viíle ɖe-d͡ʒé mɛ
 1PL-IMPV ANT fetch water river SG.CIII-DEM LOC
 'We used to fetch water from this river.'

Time adverbials do not intervene between a predicate and its arguments. They occur either initially or finally in the clause.

7. a. sɛ́   ma-á   lá   fʊ́w-a
       tomorrow   1SG-IMPV   go   farm-SG.CII
       'Tomorrow, I will go to the farm.'

    b. * ma-á   sɛ́   lá   fʊ́w-a
         1SG-IMPV   tomorrow go   farm-SG.CII
       Intended: 'Tomorrow, I will go to the farm.'

As is shown by the following examples, object pronouns always immediately follow the verb. The presence of a time adverbial or a postpositional phrase between a predicate and its complement results in ungrammaticality.

8. súli   já   mɛ   ɖɛ
    Suli   call.FAC 1SG   yesterday
    'Suli called me yesterday.'

9. * súli   já   ɖɛ   mɛ
      Suli   call.FAC yesterday   1SG
    Intended: 'Suli called me yesterday.'

10. súli   lɛ́   kʊ́d͡ʒɔ-ɔ́   lɔ́   ɔ   sísɪ   kí   nɔnɔ́-ɔ   mɛ
    Suli   buy.FAC yam- SG.CIV and   3SG.CI keep.FAC 3SG.CIV   room-SG.CIV LOC
    'Suli bought yam, and he kept it in the room.'

11. * súli   lɛ́   kʊ́d͡ʒɔ-ɔ́   lɔ́   ɔ   sísɪ   nɔnɔ́-ɔ   mɛ   kí
      Suli   buy.FAC yam- SG.CIV and   3SG.CI keep   room-SG.CIV   LOC   3SG.CIV
    Intended: 'Suli bought yam, and he kept it in the room.'

The discontinuity between an object pronoun and its predicate is only attested in negative constructions containing the aspectual adverb *tá* 'yet' which must immediately follow the verb, as shown in (12a). The ungrammaticality of (12b) is due to the occurrence of the object pronoun between the predicate and the aspectual adverb *tá*.

12. a. ma   taa   ná   tá   bɛ́   bɔ́ɔ
       1SG   NEG   see   yet   3PL.CI NEG
       'I did not see them yet.'

    b. * ma   taa   ná   bɛ   tá   bɔ́ɔ
         1SG   NEG   see   3PL.CI   yet   NEG
       Intended: 'I did not see them yet.'

The adverb *lɔlɔ* 'alone/only' can only intervene between a predicate and its subject argument. In order for *lɔlɔ* to modify the subject, it must follow the subject or form a constituent with a pronoun in the subject form placed at the end of the sentence.

13. a. ma lɔlɔ lá fʊ́w-a
   1SG alone go.FAC farm-SG.CII
   'I, alone, went to the farm.'

  b. ma lá fʊ́w-a ma lɔlɔ
   1SG go.FAC farm-SG.CII 1SG alone
   'I, alone, went to the farm.'

These examples show that in order for *lɔlɔ* to modify the subject, it must follow the subject or appear forming a constituent with a repeated subject pronoun at the end of the utterance. In a case where *lɔlɔ* is associated with the object argument, it forms a constituent with a pronoun in the subject form that is either placed side-by-side with the object pronoun or placed in the object slot. Consider the following examples:

14. a. ɔ   ná   mɛ ma lɔlɔ
   3SG.CI see.FAC 1SG 1SG alone
   'S/he saw me alone.'

  b. ɔ   ná ma lɔlɔ
   3SG.CI see.FAC 1SG alone
   'S/he saw me alone.'

  c. * ɔ   ná   lɔlɔ mɛ
    3SG.CI see.FAC alone 1SG
    Intended: 'S/he saw me alone.'

Example (14a) shows *lɔlɔ* with an object-oriented reading, co-occurring with a pronoun in the subject form following the object argument. In (14b), the predicate *ná* 'see' takes instead the constituent *ma lɔlɔ* 'I alone' as its complement, with a similar object-oriented reading. As shown in (14c), the presence of the adverb *lɔlɔ* between the object pronoun and the verb results in ungrammaticality; neither a subject nor an object-oriented reading is available. Note that in case

the adverb *lɔlɔ* occurs on its own following an object pronoun, it always functions as an event-oriented adverb.

Subject pronouns are always realized with a low tone regardless of the tone of adjacent elements if they are followed by a finite verb, and thus have no interaction with their hosts as far as tone rules go. As will be discussed in Chapter 9, the non-fininte form of verb is used in several construction such as imperative sentences, embedded clauses *gɛ́* 'want' and *sɔɔlí* 'like', purpose clauses and embedded calsues of *jelé* 'make' in the imperfective aspect.

15. í   **bara** / **k͡pálá** boró-o
    2PL close.INF open.INF door-SG.CIV
     'Close / open the door.'

16. ɔ   gɛ́   **ɔ́**   **mɛlɪ** n   tákuku
    3SG.CI want.FAC 3SG.CI steal.INF 2SG.POSS motorbike
     'S/he wanted to steal your motorbike.'

17. ma   fá-á   jelé má lalɪ   barafó
    1SG.POSS mother-IMPV make 1SG crush.INF maize
    'My mother makes / will make me crush the maize.'

However, object pronouns do interact with verbs tonally. The following examples show that an object pronoun is realized with a low tone when the verb's final vowel is high-toned. The fact that the object pronoun has an opposite tone to that of the verb-final vowel suggests that the verb and the object pronoun are in a single domain for the rule of deletion of the second of two identical high tones.

18. ma-á   já   nɪ   sɛ́
    1SG-IMPV call   2SG   tomorrow
    'I will call you tomorrow.'

19. ma   tá   ná   bɛ   bɔ́ɔ
    1SG   NEG   see.INF 3PL.CI NEG
    'I did not see them.'

20. fú   mɛ
    follow.INF   1SG
    'Follow me.'

21. ma-á   jála   ka   wʊlɪ   ní   bagó
    1SG-IMPV   be able   to   teach.INF   2SG   Bago
    'I can teach you Bago.'

22. ma   tá-a   k͡péri   ní   bɔɔ   n-ń   jála   ka   vala
    1SG   NEG-IMPV   carry   2SG   NEG   2SG-IMPV   be able   to   walk.INF
    'I will not carry you. You are able to walk.'

23. d͡ʒa   sɔsɔ   ma   ŋí-rɛ   k͡pása   mɛ́
    today   morning   1SG.POSS   head-SG.CIII   pain.FAC   1SG
    'Today [in the] morning, I had a headache.'   (lit. My head pained me)

24. ma-á   fɔ́sɪ   bɛ́
    1SG.IMPV   greet   3PL
    'I will greet them [for you].'

I assume that object pronouns in Bago are specified with an unassociated high tone. This high tone does not dock onto the pronoun's vowel if the verb's final vowel is high-toned, in order to avoid a violation of the OCP. Note that a verb only constitutes a single domain for this rule with an object pronoun. As shown in the following examples, a full DP in the object position remains unchanged whether or not the verb-final mora is high-toned.

25. ma   tɔkɔ́   kʊ́d͡ʒɔ-ɔ́   mɪnísíɪ   ma   lá   sukúru
    1SG   eat.FAC   yam-SG.CIV   before   1SG   go.FAC   school
    'I ate yam before I went to school.'

26. ɖɪ   tá-a   lá   fʊ́w-a   d͡ʒa   bɔɔ
    1PL   NEG-IMPV   go   farm-SG.CII   today   NEG
    'We will not go to the farm today.'

27. ɔ   mɔsí   álá-a   baa-lɛ
    3SG.CI   mary.FAC   wife-PL.CI   PL.CI.AGR-two
    'He married two wives.'

We have seen earlier that the object pronoun can be separated from its predicate by the aspectual adverb *tá* 'yet'. In this case, we would expect the object pronoun to be associated with its

underlying high tone because it occurs on its own in a separate domain. This turns out to be the case, as shown below.

28. ma   taa   ná   tá   bɛ́   bɔ́ɔ
    1SG   NEG   see   yet   3PL.CI   NEG
    'I did not see them yet.'

It can also be seen that the aspectual adverb surfaces with a high tone regardless of the tone of the verb-final vowel. This means that the verb does not form a domain with any syntactic element other than an adjacent object pronoun.

5.1.2 Possessive pronouns

In Bago, possessive pronouns and subject personal pronouns are morphologically identical, and only the position of a pronoun determines its function. It is a possessive modifier when it precedes a possessed noun phrase, and it functions as a subject when it is followed by a verb. The following examples illustrate the use of possessive pronouns:

29. ma   d͡ʒɩ́ŋ   ɔ   fɔlɔ́-ɔ
    1SG   know.FAC   3SG.POSS   place-SG.CIV
    'I know his place.'

30. ma   d̥esí   lá   bagó
    1SG.POSS   sister   go.FAC   Bago
    'My sister went to Bago.'

31. ɔ   d͡ʒʊ́   ɔ   fá   nɔnɔ́-ɔ   mɛ
    3SG.CI   enter.FAC   3SG.POSS.CI   mother   room-SG.CIV   LOC
    'He entered in his mother's room.'

32. bʊ́ʊ   ba   mɔsí   ba   fakórí-se   ka   fara
    then   3PL.CI   take.FAC   3SPL.POSS.CI   hoes-PL.CII   and   plough.INF
    'Then they took their hoses and ploughed.'

As can be seen in these examples, the head of the noun phrase follows the possessive pronouns. The sentence in 31) shows two phonological processes that are found only when a possessed noun follows a possessive pronoun. First, the four vowel-initial nouns presented in the table below lose

their initial vowel when preceded by a possessive pronoun. The loss of the initial vowel occurs only in the context of the first, second and third person singular possessive pronouns. These nouns are kinship terms that belong to Class I, and their initial segment is a low-toned /a/.

Table 5.2: Kinship terms that undergo apheresis

Kinship Terms	Examples	Gloss
afá-a mother-SG.CI.b	ma fá	'my mother'
atá-a fother-SG.CI.b	n tá	'your father'
awú grandmother.CI.a	ɔ wú	'his/her grandmother'
atád͡ʒanʊ́ grandfather.CI.a	ɔ tád͡ʒanʊ́	'his/her grandfather'

Apart from *álʊ́-na* 'wife/woman' and *álí-ja* 'older daughter', the remaining kinship terms are not vowel-initial words. The initial vowel of both álʊ́-na and álí-ja is never deleted when a possessive pronoun precedes it. They differ from the nouns in Table 5.2 in that their initial vowel is high-toned. No other nouns in Class I with an initial low-toned /a/ exist; nouns in other classes do not undergo initial /a/ deletion even if their first vowel is low-toned (e.g. *ma atɛ* 'my land', *ma ak͡pa* 'my tire', *ma akutú* 'my orange'). As shown in 33, the initial vowel of the noun *afá-a* is not deleted when it is not preceded by a possessive pronoun.

33. ɔ   kóro   afá-a   lobíj-a
    3SG.CI cut.FAC mother-SG.CI   throat-SG.CIV
    'He cut the mother's throat.'

This example shows furthermore that the singular suffix *-a* of the noun is preserved, as opposed to what happens in example (31). The data shows that a noun's singular suffix is deleted only when it serves as a possessee. This deletion happens only to five nouns, namely *afá-a* 'mother', *atá-a* 'father', *vuú-na* 'child' *bálʊ́-na* 'husband/man' and *álʊ́-na* 'wife/woman'. Unlike what happens

with the deletion of a noun's initial vowel, the singular suffixes of these nouns are deleted whether or not the possessor is a pronoun.

34. súli   atá   váŋ
     Suli   father   be sick.FAC
     'Suli's father is sick.'

35. ma   álʊ́   lʊlʊ́   ɖɛ
     1SG.POSS   wife   give birth.FAC   yesterday
     'My wife gave birth yesterday.'

36. ma   ŋʊ́rʊ́-na   talá   d͡ʒa
     1SG.POSS   guest-SG.CI   arrive.FAC   today
     'My guest arrived today.'

As exemplified in (36), the possessed noun *ŋʊ́rʊ́-na* 'guest', which belongs to the same class as the noun *álʊ́-na* 'wife', retains its singular suffix in a possessive construction. This means that the deletion of the singular suffix in the context of a possessive construction is lexically specified to the above-mentioned five nouns.

5.1.3 Emphatic Pronouns

Bago has a set of personal pronouns that are found in emphatic speech and certain constructions. Unlike bound personal pronouns, emphatic pronouns have a single form regardless of the argument position they fill. The table below shows that the phonological shapes of 1st, 2nd and 3SG. Singular CI emphatic pronouns are distinct from the corresponding bound pronouns. The remaining third person emphatic pronouns differ only in tone from their corresponding subject and possessive pronouns.

Table 5.3: Emphatic pronouns in Bago

Person	Emphatic Pronouns	Subject & Possessive	Object
		Non-emphatic pronouns	
1SG	mʊ́	ma	mέ
1PL	ḍá	ḍɪ	ḍʊ́
2SG	ná	ŋ	ní
2PL	amέ	ɪ	ŋέ
3SG CI	ɔ́ŋʊ́	ɔ	í
3PL CI	bá	ba	bέ
3SG CII	ká	ka	kέ
3PL CII	sí	sɪ	sí
3SG CIII	ḍɪ́	ḍɪ	ḍέ
3PL CIII	ŋá	ŋa	ŋέ
3SG CIV	kʊ́	kʊ	kí
3PL CIV	tʊ́	tʊ	tí
3SG CV	bʊ́	bʊ	bí

An emphatic pronoun is independent in the sense that it is sufficient to be used alone, as a single word in a response to a question, or in elliptical sentences.

37. a. aní   tɔkɔ́-wa   ma   akɔḍʊ́
       who.3SG.CI   drink-FOC   1SG   banana
       'Who ate my banana?'

   b. ɔ́ŋʊ́/ * ɔ /* í
      3SG.EMP.CI
      'Him/Her.'

38. a. losumó-ó   kʊ́   mɛ
       hunger-IMPV   kill   1SG
       'I am hungry.'

   b. mʊ́/ * ma/ * mɛ   ró
      1SG.EMP   too
      'Me too.'

In (37b), we see that the emphatic pronoun *ɔ́ŋʊ́* is used to answer a question about the actor of the event. The subject pronoun *ɔ* or the object bound pronoun *í* are ungrammatical when used

independently. Further examples also show the ungrammaticality of non-emphatic pronouns in a response to non-subject-oriented questions, as can be seen in (39b)&(40b).

39. a. aní-í   ŋ   gáŋ   fɛ́   wáásí
    who.3SG.CI-FOC   2SG   cook.FAC give beans-rice
    'For whom did you cook rice with beans?'

  b. ná/ * ŋ/ * ní
    2SG.EMP
    'You.'

40. a. aní-í   nabíla   já-a
    who.3SG.CI-FOC   Nabila   call-FAC
    'Who did Nabila call?'

  b. ná/ * ŋ/ * ní
    2SG.EMP
    'You.'

A reply to such questions does not necessarily involve only a single word, of course, but may consist of a complete sentence. In these cases, the pivot of the question is still focalized and requires an answer where an emphatic pronoun is used, as illustrated in the examples that follow.

41. a. aní   jasí-ja   kak͡pá-a   ɖɛ
    who.3SG.CI   sweep-FOC yard-3SG.CII yesterday
    'Who swept the yard yesterday?'

  b. ɔ́ŋʊ́/ *ɔ/ * í   jasí-ja   kɛ́
    3SG.EMP.CI   sweep-FOC 3SG.CII
    'It is him who swept it.'

42. a. nabílá jasí-já   kak͡pá-a   ɖɛ-ɛ
    Nabila   sweep-FOC yard-3SG.CII yesterday-Q
    'Is it Nabila who swept the yard yesterday?'

  b. woowó   mʊ́/ * ma jasí-ja   kɛ́
    no   1SG.EMP   sweep-FOC   3SG.CII
    'No, it is me who swept it.'

43. aní   jɛ́-ja   ná/amɛ́
   who.3SG.CI   COP-FOC   2SG/PL.EMP
   'Who are you?'

44. aní   jɛ́-ja   * ŋ/ * ní
    who.3SG.CI   COP-FOC   2SG
    'Who are you?'

In 43), the pronouns have an emphatic function restricting the attention to a particular individual or individuals. Note that such a question cannot be formed with non-emphatic subject or object pronouns, as shown in (44).

5.2 The reflexive *tɪ*

Reflexivity is expressed in Bago by means of a reflexive morpheme *tɪ* which must be immediately preceded by a pronoun that bears the same person, number and class features as its antecedent. The form of the pronoun used with the reflexive morpheme is identical to the form of subject and possessive pronouns. The reflexive morpheme in Bago is not identical or similar in form to body part words, as it is the case in some Niger-Congo languages such as Logba and Tafi (Dorvlo, 2008; Bobuafor, 2013).

45. ma   kóro   ma   tɪ
    1SG   cut.FAC   1SG   REFL
    'I cut myself.'

46. ɖɪ   kóro   ɖɪ   tɪ
    1PL   cut.FAC   1PL   REFL
    'We cut ourselves.'

47. ɔ   sɔɔlí   ɔ   tɪ
    3SG.CI love.FAC   3SG.CI REFL
    'He/she loves himself/herself.'

48. ba   sɔɔlí   ba   tɪ
    3PL.CI love.FAC   3PL.CI REFL
    'They love themselves.'

49. Súli   sɔɔlí   ɔ   tɪ
    Suli   love.FAC   3SG.CI REFL
    'Suli loves himself.'

These examples show that the reflexive morpheme *tɪ* has a single form regardless of the antecedent's person, number and class. In other words, the reflexive morpheme does not have a plural form and does not receive a plural morpheme. It is the form of the immediately preceding pronoun that bears all of these features, showing that the object argument is coreferential with the subject. The absence of either the reflexive morpheme or the personal pronoun results in ungrammaticality.

Reflexive pronouns qua reflexives are used exclusively in direct object function. However, like the English *self*, the reflexive morpheme can be used with pronouns as a modifier for emphasizing an argument in a contrastive way: it is used to convey the meaning that the argument so marked was the one involved in the event, rather than some plausible alternative. In such emphatic uses, the reflexive morpheme *tɪ* is suffixed by the morpheme *-tɪŋɛ*. Consider the following example.

50. rabíjá   tɪ-tɪŋɛ   kóro   tíw-ɔ
     Rabiya   REFL-EMPH   cut .FAC   tree-SG.CIV
     '**Rabiya herself** cut the tree.' (not someone else)

51. rabija _i   ná   d͡ʒoó-na _j   tɪ-tɪŋɛ   *i/j
     Rabiya   see.FAC   chief-SG.CI   REFL-EMPH
     'Rabiya saw the **chief himself.**' (not someone else)

As a marker of emphasis, the complex reflexive morpheme immediately follows the emphasized argument. The presence of a personal pronoun that bears the same features as the modified noun is not permitted on the reflexive morpheme. If a pronoun immediately precedes *tɪ-tɪŋɛ* it is because it itself is functioning as the subject of the sentence, as can be seen in examples (53)&(54).

52. * rabíjá   ɔ   tɪ-tɪŋɛ   kóro   tíw-ɔ
     Rabiya   3SG.CI   REFL-EMPH   cut.FAC   tree-SG.CIV
     Intended: 'Rabiya **herself** cut the tree.'

53. ɔ   tɪ-tɪŋɛ   kóro   tíw-ɔ
     3SG.CI   REFL-EMPH   cut.FAC   tree-SG.CIV
     'S/he **herself/himself** cut the tree.'

54. ma   tɪ-tɪŋɛ   kóro   tíw-ɔ
     1SG   REFL-EMPH cut.FAC   tree-SG.CIV
     'I **myself** cut the tree.'

However, the reflexive *tɪ-tɪŋɛ* can occur in sentence-final position with a pronoun to form a constituent that acts as a subject or an object-oriented modifier.

55. ma   kóro   tíw-ɔ   ma tɪ-tɪŋɛ
     1SG   cut.FAC   tree-SG.CIV   1SG REFL-EMPH
     'I **myself** cut the tree.'

56. rabíjá   kóro   tíw-ɔ   ɔ   tɪ-tɪŋɛ
     Rabiya   cut.FAC   tree-SG.CIV 3SG.CI   REFL-EMPH
     'Rabiya **herself** cut the tree.'

57. rabija $_i$ ná   d͡ʒoó-na $_j$ ɔ $_{i/j}$ tɪ-tɪŋɛ
     Rabiya   see.FAC chief-SG.CI 3SG.CI   REFL-EMPH
     'Rabiya **herself** saw the chief'
     'Rabiya saw the chief **himself.**'

Note that both *rabija* and *d͡ʒoó-na* can be pronominalized with *ɔ*, and so there is ambiguity as to whether the constituent *ɔ tɪ-tɪŋɛ* is co-indexed with the subject or the object argument. The ambiguity is resolved if the reflexive *tɪ-tɪŋɛ* follows by itself the object argument, as was shonw in (51).

5.3 The reciprocal *ɗɔ́ŋɔ́*

The typology of reciprocal constructions distinguishes between unary versus binary reciprocal constructions (Maslova 2008). In unary structures, a reciprocal expression serves as a substitute for an argument. That is to say, reciprocants do not occupy various syntactic positions. In a binary reciprocal construction, on the other hand, the reciprocal expression does not substitute a syntactic element in a non-reciprocal construction, and thus reciprocants participating in an activity fill different syntactic slots. In the binary strategy, reciprocity is expressed through affixation or an additional clause.

Bago employs a unary structure for expressing reciprocity, using the reciprocal element *ɖɔ́ŋɔ́* in a distinct syntactic position from that of the reciprocants, much like constructions with *each other* in English. The contrast between the two types of construction can be seen in the following examples, where the binary reciprocal strategies of Tonga and Cantonese in (58)&(59) are contrasted with the unary reciprocal strategy of Bago in (60).

58. Tonga (Bantu; Maslova 2008, p. 230, from Collins 1962, p. 74)
    joni   ba-la-yand-ana   amukaintu   wakwe
    joni   3pl-prs-love-recp   wife   his
    'John and his wife love each other.' (lit. 'John mutually loves his wife.')

59. Cantonese (Maslova 2008, p. 230, from Matthews and Yip 1994, p. 87)
    ngóh   béi-min   kéuih   kéuih   béi-min   ngóh
    1   give-face   him   he   give-face   me
    'He and I respect each other.'

60. Reciprocal construction in Bago
    Súli   na   ɔ   ólʊ́   sɔɔlí   ɖɔ́ŋɔ́
    Suli   and   3SG.POSS   wife   love.FAC   RECP
    'Suli and his wife love each other.'

The verb *sɔɔlí* 'love' in the Bago example is a two-place predicate, which assigns an Experiencer and a Theme θ-role. The Theme role is assigned to the free reciprocal expression in the complement position, which makes reference to both reciprocants in the subject position.

Reciprocity cross-linguistically is not always expressed through an additional element denoting that each participant has two distinct thematic roles. In fact, there are certain predicates that display reciprocity without the presence of a reciprocal expression (e.g. *meet, kiss, marry*). Dimitriadis (2008) refers to these predicates as irreducibly symmetric. Generally, an irreducibly symmetric predicate requires a binary relation involving semantically undistinguished participants in a single event. Whether a verb is irreducibly symmetric is language-specific. To examine this question in Bago I will discuss first those verbs that seem to be equivalent to the English irreducibly symmetric predicates *meet, kiss* and *marry*.

In Bago, the verb *ɗeŋ́* 'to meet' is used either intransitively with a plural subject or transitively in a discontinuous construction. It is lexically a reciprocal predicate and does not allow any non-reciprocal meaning. It requires a comitative phrase in its complement position when used transitively, and thus the sentence in 62 is unacceptable.

61. rabíjá ɗén na súli
    Rabiya meet.FAC COM Suli
    'Rabiya met with Suli.'

62. * rabíjá ɗén súli
    Rabiya meet.FAC Suli
    Intended: 'Rabiya met Suli.'

The reciprocal meaning that the sentence in 61 implies comes about purely from the semantics of the verb. Note that the reciprocal expression *ɗɔ́ŋɔ́* is not allowed anywhere in a discontinuous reciprocal construction such as 61, as the examples below show.

63. * rabíjá ɗén na súli ɗɔ́ŋɔ́
    Rabiya meet.FAC COM Suli RECP
    Intended: 'Rabiya met with Suli.'

64. * rabíjá ɗén ɗɔ́ŋɔ́ na súli
    Rabiya meet.FAC RECP COM Suli
    Intended: 'Rabiya met with Suli.'

When the verb *ɗeŋ́* 'to meet' is used intransitively with reciprocants in subject position, a reciprocal interpretation is obtained, as shown in (65).

65. rabíjá na malíká ɗéŋ
    Rabiya and Malika meet.FAC
    'Rabiya and Malika met.'

66. # rabíjá na malíká ɗén na ɗɔ́ŋɔ́
    Rabiya and Malika meet.FAC COM RECP
    Intended: 'Rabiya and Malika met with each other.'

Reciprocity in 65 is achieved through the use of the verb *ɗéŋ* as a one-place predicate with a conjoined subject. The comitative phrase *na ɗɔ́ŋɔ́* in 66 results in redundancy with inherently

118

reciprocal verbs such as *ɗéŋ*. Compare to what happens with the verb 'talk' in 67, where the absence

of *na ɗɔ́ŋɔ́* can lead to a reading where *Rabíjá* and *Malíká* each talked separately.

The verb *tɔŋ* 'to talk' is ambiguous between being a 1-place and a 2-place predicate. However, it

is not inherently reciprocal because it does not entail a symmetric reading when used intransitively

or in a discontinuous construction.

67. rabíjá   na   malíká   tɔ́ŋ-ŋ
    Rabiya   and   Malika   talk-FAC
    'Rabiya and Malika talked.'

68. rabíjá   tɔ́ń   na   malíká
    Rabiya   talk.FAC   COM   Malika
    'Rabiya talked to Malika'

69. rabíjá   na   malíká   tɔ́ń   na   ɗɔ́ŋɔ́
    Rabiya   and   Malika   talk.FAC   COM   RECP
    'Rabiya and Malika talked with each other.'

The sentence in 67 can be used to describe a single event in which *Rabíjá* and *Malíká* talk to one

another or to describe non-mutual talking events. Similarly, the discontinuous construction in 68

allows both mutual and non-mutual readings. Such ambiguity is resolved in 69 by means of the

reciprocal comitative phrase.

In the case of lexically reciprocal verbs such as *sa* 'to marry' and *mʊ* 'resemble/be alike', which

are strictly transitive, the reciprocal expression *ɗɔ́ŋɔ́* occurs by itself in the object position to denote

a reciprocal interpretation. As shown in 70, the use of a conjoined NP in the subject position does

not give rise to a reciprocal interpretation. The sentence is judged as incomplete. The same result

is obtained when the subject is a singular argument, and the object is left unspecified. (70e-

d)&(71e-d) show that the complement of these verbs cannot be a comitative phrase.

70. a. rabíjá   sá   samáḍu
       Rabiya   marry.FAC   Samadu
       'Rabiya married Samadu.'

   b. rabíjá   na   samáḍu   sá   ḍóŋó
      Rabiya   and Samadu   marry   RECP
      'Rabiya and Samadu married each other.'

   c.* rabíjá   na   samáḍu   sá-a
       Rabiya   and Samadu   marry-FAC
       Intended: 'Rabiya and Samadu got married.'

   d.* rabíjá   sá   na   samáḍu
       Rabiya   marry.FAC   COM   samdu
       Intended: 'Rabiya got married to Samdu.'

   e.* rabíjá   na   samáḍu   sá   na   ḍóŋó
       Rabiya   and Samadu   marry COM   RECP
       Intended: 'Rabiya and Samadu married each other.'

71. a. salámá   mʊ́   ɔ   fá
       Salama   resemble 3SG.POSS   mother
       'Salama resembles her mother.'

   b. salámá   na   ɔ   fá   mʊ́   ḍóŋó
      Salama   and 3SG.POSS   mother   resemble.FAC   RECP
      'Salama and her mother resemble each other.'

   c.* salámá   na   ɔ   fá   mʊ́-ʊ
       Salama   and 3SG.POSS   mother   resemble-FAC
       Intended :'Salama and her mother look alike.'

   d.* salámá   mʊ́   na   ɔ   fá
       Salama   resemble.FAC   and 3SG.POSS   mother
       Intended :'Salama is similar to her mother.'

   e.* salámá   na   ɔ   fá   mʊ́   na   ḍóŋó
       Salama   and 3SG.POSS   mother   resemble.FAC   COM   RECP
       Intended 'Salama and her mother resemble each other'

If we now consider lexically non-reciprocal transitive verbs, we see that they behave structurally

in the same way as the lexically reciprocal verbs in that reciprocity expressed by the presence of

ḍóŋó in the object position.

72. a. ma   d͡ʒɪ́ń   nɪ
       1SG   know.FAC   2SG
   'I know you.'

   b. dɪ   d͡ʒɪ́ń   ɗɔ́ŋɔ́
      1PL   know.FAC   RECP
   'We know each other.'

73. a. súli   tʊ́   rabíjá
        Suli   insult.FAC   Rabiya
   'Suli insulted Rabiya.'

   b. ba   tʊ́   ɗɔ́ŋɔ́
      3PL.CI   insult.FAC   RECP
   'They insulted each other.'

The element *ɗɔ́ŋɔ́* is invariable. The following examples show that *ɗɔ́ŋɔ́* is used whether the utterance describes a singular eventuality where the participants are mutually involved in carrying out the event 74, or a plural eventuality that is made of singular eventualities that occured at different times and in different places 75.

74. súli   na   rabíjá   tʊ́   ɗɔ́ŋɔ́
    Suli   and   Rabiya   insult.FAC   RECP
   'Suli and Rabiya insulted each other.'

75. a. salámá   na   rabíjá   sá   ɗɔ́ŋɔ́   d͡ʒoóŋu-náa
        Salama   and   Rabiya   marry.FAC   RECP   bother-PL.CI
   'Salama and Rabiya married each other's brothers.'

   b.* salámá   na   rabíjá   sá   ɗɔ́ŋɔ́   d͡ʒoóŋu
       Salama   and   Rabiya   marry.FAC   RECP   bother
   Intended: 'Salama and Rabiya married each other's brothers.'

Furthermore, the reciprocal construction in (75a) shows that possession and reciprocity are expressed by the juxtaposition of the reciprocal expression and the possessed noun. Note also that the possessed noun has to be in its plural form, and thus the use of the singular noun *d͡ʒoóŋu* 'brother' in (75b) results in ungrammaticality.

Chapter 6

(In)definiteness and demonstratives

This chapter is divided into two parts: the first part discusses the encoding of (in)definiteness in Bago. Bago does not have a definite determiner. Bare nouns may receive a definite or an indefinite interpretation. I will focus first on the use of bare nouns to refer to a uniquely identifiable referent. In the following section, I will discuss several contexts wherein an indefinite determiner is required to convey an indefinite reading. The second part of the chapter provides a description of several demonstrative morphemes functioning as modifiers, identifiers, and adverbs.

6.1 Definiteness

This section is concerned with the description of definite expressions in Bago. The concept of definiteness may be explained in terms of identifiability, as proposed by Lambrecht (1994). To him, an entity is identifiable if it has a representation in the mind of both the hearer and the speaker, whereas an unidentifiable entity has a mental representation only in the speaker's mind at the time of utterance. The identifiability of a referent may be encoded by (in)definite articles, demonstratives or sometimes by other means (e.g., in English, prenominal possessives convey definiteness). It is known that not all languages require the use of articles to mark identifiability. For instance, the majority of Slavic languages and Mandarin Chinese are articleless (Szwedek, 1974; Chen, 2004; Gebhardt, 2009; Czardybon, 2017). Alongside articleless languages, there are also many languages that have either a definite article or an indefinite article, but not both. Dryer's (2007) work, for instance, includes Amele, a Madang language, which only has an indefinite article.

In Bago, identifiable entities are expressed by means of bare nouns unless they have an anaphoric interpretation. The language employs an overt determiner to refer to a previously mentioned entity, but this determiner does not have the distribution of the English definite determiner. In particular, unique entities (e.g. *the sun*, *the moon*) will never be named with an overt determiner, whether they have been previously mentioned or not in the discourse, as exemplified in (1).

1. ɖɛ   ma   lá   fʊ́w-a   amá   kad͡ʒaŋá tá   jele má
   yesterday 1SG go.FAC farm-SG.CII but   sun   NEG   let.INF 1SG
   jɛ   túmʊ́-rɛ   bɔ́ɔ kad͡ʒaŋá wɛ   ɖóŋe g͡ba
   do.INF work-SG.CIII NEG   sun   COP.FAC strong very
   'Yesterday, I went to the farm but the sun did not let me work. The sun was very strong.'

In this example, the speaker uses the bare noun *kad͡ʒaŋá* 'sun' because the referent is inherently unique. Also, the use of the bare noun *fʊ́w-a* 'farm' encodes that the hearer is expected to identify a unique intended referent, although there are of course other farms in the world.

6.1.1 Bare nouns expressing definite readings

The literature on definiteness has identified both uniqueness and familiarity as being behind definite determiners. The uniqueness approach is based on the assumption that a definite noun phrase contributes to the interpretation that there exists a single entity that is believed by the speaker to be identifiable to the listener (Russell, 1905; Strawson, 1950). A referent is considered to be inherently unique if a single entity of such a referent exists in the real world or in shared world knowledge (e.g. *the sun*, *the king*). However, a definite noun phrase does not always entail the existence of only one referent that is unique in the world. For instance, Christophersen (1939, p. 140) suggests that even in contexts where more than one identical entity exists, the use of a definite noun phrase is felicitous in a sentence such as *Towards evening we came to the bank of a river*. In this example, it is clear that even though the river has two banks, the use of the definite article is allowed. A referent counts as familiar because "the speaker must always be supposed to know

which individual he is thinking of; the interesting thing is that the *the*-form supposes that the hearer knows it too" (Christophersen 1939, p. 28). Explaining familiarity in this way encompasses anaphoric noun phrases as well as unique entities known from world knowledge or from the context of a given discourse.

For Schwarz (2009; 2013), uniqueness and anaphoricity should be taken separately, as there are languages where the marking of definiteness for anaphoric reference is distinct from the marking used in reference to unique entities. Departing from his analysis of definite descriptions in languages such as German, Fering Frisian and Akan, he points out that these languages morphologically distinguish between unique and anaphoric definite noun phrases. When uniqueness is the core property of an intended referent, the "weak article" is used. However, when the purpose of the occurrence of a definite noun phrase is to encode anaphoricity, the "strong article"[5] must be used, as shown in 2.

2. a. ik   skal   deel   tu   a / *di   kuupmaan
   I   must   down   to   the weak / the strong   grocer
   'I have to go down to the grocer.'

   b. oki   hee   an   hingst   keeft   *a / di   hingst   haaltet
   oki   has   a   horse   bought   the weak / the strong horse   limps
   'Oki has bought a horse. The horse limps.'

                                    Fering (Schwarz, 2013, p. 538, from Ebert 1971, p. 161)

Bago is similar to Akan in that while uniqueness is encoded via bare nouns, anaphoricity is expressed through pronouns or a post-nominal determiner whenever a previously mentioned entity needs to be re-established. Beside globally unique entities (e.g. *the sun*, *the moon*), a referent may

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[5] The same contrast was proposed by Roberts (2003, p. 304) to distinguish between two types of familiarity. On the one hand, "strong familiarity", which creates an anaphoric link, corresponds to what Schwarz calls "strong article", and the term "weak familiarity", which means that a referent is familiar due to perceptual accessibility, global familiarity or the context of the discourse, corresponds to the so-called "weak article".

be uniquely identified according to both the speaker's and hearer's shared knowledge at the time of utterance (e.g. *the king, the mayor*). Based on the shared knowledge that there is only one sun and one chief in the village, the use of the bare nouns in the following examples is licensed in Bago.

3. d͡ʒoó-na-á   váŋ
    Chief-SG.CI-IMPV   be sick
    'The chief is sick.'

4. kad͡ʒaŋá k͡pá   mɛ
    sun   burn.FAC 1SG
    'The sun burnt me.'

Additionally, an entity is considered unique in a situation where the intended referent is visually present to the addressee. The uniqueness of the referent here results from the fact that there is only a single entity that matches the referent at the utterance time, as the context in 5 shows.

5. Context: Rabiya and Zakariya are sitting at the table chatting about their wedding arrangements. There is a book on the table near Rabiya. After a moment of silence, Zakariya asked Rabiya to give him the book.

    fɛ́   mɛ   tákárará
    give.INF   1SG   book
    'Give me the book.'

The bare noun *tákárará* 'book' is interpreted as a unique referent despite the fact that it has not been mentioned earlier in the discourse. As illustrated by the context, the book in this example is unique on the basis of being the only book available, and thus it is identifiable by the addressee regardless of the existence of many books outside the discourse world.

For a referent to be unique, it does not have to be visually accessible to the hearer. The bare noun *lɔ́ɔrɪ* 'car' in 6 is a unique referent. Although the sentence is uttered in a situation where the car is not visible to the hearer at the utterance time, it is the only car that the speaker owns.

6. kɔná   lɔ́ɔ́rɪ ma-á   gɛ́   má   la   bó-re   mɛ
   bring.INF car   1SG-IMPV want 1SG go.INF house-SG.CIII LOC
   'Bring the car. I want to go to the house.'

It is important to point out that a non-physically present referent is not always situationally unique because it is possible for more than one entity to match the definite description. According to Carlson et al. (2006), a non-anaphoric definite expression is a "weak definite" if there are several referents that can be possibly identified, as in sentences like *he went to the store* uttered in a city where there are many stores. Schwarz (2013) observes that in his sample of languages that morphologically differentiate between anaphoric and unique definites, a weak definite is always expressed in the same way as a definite description that refers to a unique entity. This observation holds true also for Bago, which uses bare noun phrases in cases where the noun phrase does not refer to a situationally unique entity.

7. a. lé-é   n   tá   wɛ
      where-FOC   2SG.POSS   father COP.FAC
      'Where is your father?'

   b. ɔ   lá   d͡ʒingíri
      3SG.CI   go.FAC   mosque
      'He went to the mosque.'

Firstly, the reply in (7b) is possible to be uttered whether the speaker is aware of the exact mosque to which his father went or not. The mosque may or may not be specific to the speaker. Secondly, the speaker does not have to presuppose that the mosque is specific to the addressee since there are several mosques in the village, and a response to this statement such as *which one?* is appropriate. Furthermore, the same utterance is used if the mosque is unique to both the speaker and the addressee based on the common knowledge between the interlocutors about the mosque where the father often performs his prayers.

6.1.2 Anaphoric determiners expressing definite readings

Bago makes use of anaphoric determiners in a case where a noun phrase has an anaphoric interpretation. They occur in a post-nominal position, and their forms depend on the class and number feature of a coreferential noun, as illustrated in the table below. Excluding the tone and 3SG.CIII, these are identical to the class markers that are used in indefinite determiners (see § 6.2.2), and shown here for comparison.

Table 6.1: Anaphoricity marking in Bago

Class	Anaphoric determiners	Indefinite determiners
3SG CI	ŋʊ́	ŋʊ-rʊ
3PL CI	bá	ba-rɪ
3SG CII	ká	ka-rɪ
3PL CII	sí	sɪ-rɪ
3SG CIII	ɖí	ɖa-rɪ
3PL CIII	ŋá	ŋa-rɪ
3SG CIV	kʊ́	kʊ-rʊ
3PL CIV	tʊ́	tʊ-rʊ
3SG CV	bʊ́	bʊ-rʊ

An anaphoric marker denotes that a particular referent has already been introduced into the discourse. A noun phrase accompanied with an anaphoric determiner is not permitted if it fails to establish a coreferential relation with a previously mentioned referent in the discourse. As the example in 8 shows, the presence of the anaphoric determiner results in an infelicitous utterance.

8. Context: Uttered as being the initial sentence of the discourse.

Zakaríjá mɔsí   ɖág͡bará # ká   lɔ́ ɔ   lá   lɔ́-ɔ   mɛ
Zakariya take.FAC trap   ANPH.CII and 3SG.CI go.FAC forest-SG.CIV LOC
'Zakariya took a / the[6] trap and went to the forest.'

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[6] As will be seen in the following section, a bare noun may be interpreted as definite, specific or non-specific indefinite.

127

Since the noun phrase *ɖágbará* 'trap' in 8 occurs for the first time in the discourse, the presence of the anaphoric marker results in an undesired meaning. In 9, however, the anaphoric marker *ŋʊ́* co-occurs with the second mention of the noun phrase *áɖetú-na* 'girl'.

9. a. ɖɪ   ná   áɖetú-na ŋʊ-rʊ   súli nɔnɔ́-ɔ   mɛ
       1PL   see.FAC   girl-SG.CI CI-INDF   Suli room-SG.CIV LOC
       'We saw a girl in Suli's room.'

    b. ma d͡ʒɪ́ŋ   áɖetú-na ŋʊ́   ɔ   wɛ   ɔ-ɔ́   k͡pí   nɔnɔ́-ɔ
       1SG know.FAC girl-SG.CI ANPH.CI 3SG.CI COP.FAC 3SG.CI-IMPV clean room-SG.CIV
       'I know such girl. She is cleaning the room.'

    c. ma d͡ʒɪ́ḿ   ɪ   / # áɖetú-na ɔ   wɛ   ɔ-ɔ́   k͡pí   nɔnɔ́-ɔ
       1SG know.FAC 3SG.CI /   girl-SG.CI 3SG.CI COP.FAC 3SG.CI-IMPV clean room-SG.CIV
       'I know her/#the girl. She is cleaning the room.'

In (9a), the noun phrase *áɖetú-na* refers to an individual that is indefinite to the speaker. The reply in (9b) contains the anaphoric description *áɖetú-na ŋʊ́* 'that girl' to corefer the noun phrase with the referent introduced in the preceding discourse. The purpose of the reply in (9b) is to denote that the referent in question, as opposed to other individuals, is known to the speaker. This means that the use of an anaphoric marker signals contrastive reference. As shown in (9c), while the pronoun can be used in reference to the noun phrase under discussion, the use of the bare noun is infelicitous here. In the following example, the storyteller uses the anaphoric description to relate it to a referent that was introduced earlier as a member of a set of individuals.

10. ɔ   mɔsí   álá-a   baa-lɛ   bʊ́ʊ́ ɔ   ɔ́lʊ́ ŋʊ-rʊ sɪwʊ́-ʊ
    3SG.CI take.FAC wife-PL.CI PL.CI.AGR-two then 3SG.CI.POSS wife CI-INDF die-FAC
    álʊ́-na   ŋʊ́   lʊlʊ́   bíja   baa-lɛ
    wife-SG.CI   ANPH.CI give birth.FAC child.PL   PL.CI.AGR-two
    'He married two wives. Then one of his wives died. That wife had given birth to two children.'

In this example, the anaphoric determiner is required to disambiguate the reference of the noun phrase. It refers back to the wife that has been made salient with regard to a set of potential referents in the discourse.

The following example also shows that the anaphoric marker establishes contrastive reference. Imagine a situation in which someone has been in two stores to buy a knife with his friend. He did not buy a particular knife that he liked in the first store because it was expensive. While he is in the second store looking at knives, his friend says the sentence in 11.

11. ɗɪ́ la kaa lɛ sírá-a ká ma-á kɪɱ́ fɛ́ nɪ bíí-na
    1PL go.INF to buy.INF knife-SG.CII ANPH.CII 1SG-IMPV lend give 2SG money-PL.CIII
    'Let's go to buy that knife. I will lend you money.'

In 11, the anaphoric marker co-occurs with the noun phrase *sírá-a* 'knife' in order to refer back to a particular knife that has a mental representation in both the speaker and the hearer's mind due to a shared experience. A bare noun can be used in this situation to refer to the knife in the first store, but it must be modified by a relative clause to narrow down the possible entities that can fit the noun phrase to only one entity. If the speaker wants to refer to a particular knife in the present store, the bare noun *sírá-a* co-occurs with the demonstrative determiner *ka-d͡ʒé*, as shown in 12.

12. ɗɪ́ lɛ sírá-a ka-d͡ʒé
    1PL buy.INF knife-SG.CII SG-CII-DEM.PROX
    'Let's buy this knife.'

A further case where the presence or absence of the anaphoric determiner results in different interpretations is when the use of a bare noun would give a generic reference, as shown in 13.

13. Context: Ramziya has been warned by her father not to go to a market called Atetena. On a subsequent day, Ramziya went to Atetena market, and her bicycle was stolen. Ramziya's sister ran to her father and said the sentence in 13, and the father replied with 13.

a. ba mɛlí ramzíja kɛké ateteŋá kíjá-a mɛ
   3PL.CI steal.FAC ramziya bicycle Ateteŋá market-SG.CII LOC
   'Ramziya's bicycle was stolen in Atetena market.'

b. ma tɔɱ́ fɛ́ ɪ sɪ ɔ́ bɔ la kíjá-a ká mɛ bɔ́ɔ
   1SG tell.FAC give 3SG.CII COMP 3SG.CII NEG go.INF market-SG.CII ANPH.CII LOC NEG
   'I told her do not go to such market.'

c. ma tɔɱ́ fɛ́ ɪ sɪ ɔ́ bɔ la kíjá-a mɛ bɔ́ɔ
   1SG tell give 3SG.CII COMP 3SG.CII NEG go.INF market-SG.CII LOC NEG
   'I told her do not go to the market.'

In this context, the use of the anaphoric marker as in (13b) makes the hearer interpret the noun phrase *kíjá-a* 'market' anaphorically rather than in a representative way to the whole class (i.e. markets in general). Thus, the absence of the anaphoric markers in (13c) is not acceptable as a reply to the statement in (13a) because it results in a general interpretation of the noun phrase.

If a previous mention of a noun phrase is what licenses the occurrence of the anaphoric marker, an example such as 14 might seem surprising:

14. a. ma   tá-á   k͡paarí d͡ʒoó-na   sɛ́
       1SG.POSS   father-IMFV   visit   chief-SG.CI   tomorrow
       'My father will visit the chief tomorrow.'

   b. d͡ʒoó-na   (#ŋʊ́)   lá   lomɛ
      chief-SG.CI   ANPH.CI   go.FAC   lome
      'The chief went to Lome.'

The response in (14b) shows that the presence of the anaphoric marker is not compatible with the unique individual *d͡ʒoó-na* despite the fact that it is previously mentioned in the discourse context. The reason why *ŋʊ́* is not permitted here is because anaphoric determiners are only employed if there is any possible ambiguity as to the referent; if an entity described by a noun is unique either because it is inherently unique as in 14 or because it is uniquely identifiable from the discourse to both the speaker and the hearer as in 15, the presence of an anaphoric marker is not acceptable.

15. ma-á   gɛ́   má lɛ   sírá-a   na   d̪ág͡bará
    1SG-IMPV   want   1SG   buy.INF   knife-SG.CII   and   trap
    amá   sírá-a   (#ká)   wɛ   bíína
    but   knife-SG.CII   ANPH.CII   COP   money
    'I want to buy the knife and the trap, but the knife is expensive.'

The sentence in 15 is uttered in a situation where the speaker is at a store negotiating the price of a particular knife. It can be seen that the second mention of the identifiable referent *sírá-a* 'knife' is not permitted to co-occur with the anaphoric determiner *ká*.

Discourse-familiarity with an entity may come in indirect ways. Schwarz (2013) and Cisneros (2018) show that the strategy used for marking definiteness in a so-called *bridging* construction may depend on whether a noun phrase has a part-whole or a product-producer relationship with its antecedent. The term bridging (Clark 1975) or associative anaphora (Hawkins 1978) is used to refer to cases where there is a hidden link or indirect relationship between a definite noun phrase and a preceding non-coreferential entity.

16. I looked into the room. The ceiling was very high.   (Clark, 1975, p. 171)

The noun phrase *ceiling* is definite, although it is hearer-new, because it is considered to be a unique entity with respect to the room. The uniqueness results from a part-whole relationship between the definite noun phrase and its antecedent. The second bridging context discussed in the literature is where the relationship between the definite description and the preceding entity is a product-producer relationship, as illustrated in 17.

17. John bought a book. The author is French.   (Clark, 1975, p. 171)

In this product-producer bridging example, the definite description *the author* is the producer of the indefinite referent *a book* in the preceding sentence. The definiteness of the noun phrase *the author* results from associating the producer, which needs to be identified in this context, to a particular product mentioned in the previous utterance. In Bago, a bare noun is used in a bridging construction that involves a product-producer relationship. For example, the sentence in 18 is uttered in a situation where the speaker and the hearer do not have shared knowledge about a specific blacksmith. The speaker intends to talk about a specific indefinite blacksmith, among others in the city, from whom he bought the knife.

18. ꝺɛ   mʊ na súli lá   kíjá-a   mɛ   ɔ   lɛ́   tasʊ́
    yesterday 1SG and Suli go.FAC market-SG.CII LOC   3SG.CI buy.FAC double-edged knife
    ogúw-o   (#ŋʊ́)   jɛ́   kɛ   lélé
    blacksmith-SG.CIV ANPH.CI make.FAC 3SG.CII well
    'Yesterday, Suli and I went to the market. He bought a double-edged knife. The blacksmith
    made it well.'

Although the noun phrase *ogúw-o* 'blacksmith' is mentioned for the first time in the discourse, the

product-producer relationship narrows down the reference of the producer to be uniquely

interpreted. An attempt to use the determiner *ŋʊ́* in this context, where the noun phrase is discourse-

new, results in infelicity because it would imply an anaphoric reading.

In case the bridging construction involves a part-whole relationship, the noun phrase that expresses

a part of its antecedent obligatorily co-occurs with a possessive pronoun. Consider the following

example.

19. zakaríjá tɔ́ŋ́   fɛ́   mɛ   sɪ   ɔ-ɔ́   kʊ́ nemíj-a d͡ʒa ka
    Zakariya tell.FAC give 1SG   COMP 3SG.CI-IMPV kill goat-SG.CII today and
    fɛ́   mɛ   #(ka)   ŋí-rɛ   (#ká)
    give 1SG   3SG.CII.POSS head-SG.CIII ANPH.CII
    'Zakariya told me that he will kill a goat today and give me its head.'

As shown in 19, the use of a bare noun in this bridging construction is not acceptable because it

would not be interpreted as being part of the killed goat. Also, my consultant rejected the use of

the anaphoric determiner to relate the noun phrase *ŋí-rɛ* 'head' to the antecedent *nemíj-a* 'goat'.

This strategy of requiring a possessive pronoun in a part-whole bridging construction has also been

found in Akan (Schwarz 2013; Arkoh and Matthewson 2013).

6.2 Indefiniteness

The data collected shows that a bare noun, in addition to the definite interpretation discussed in the

previous section, can have an indefinite interpretation with both specific and non-specific referents.

As will be shown in the following discussion, the pragmatic context in certain constructions

determines whether or not a bare noun is uniquely identifiable to both the speaker and the hearer, and therefore whether its reference is to be interpreted as definite, specific indefinite or non-specific indefinite. According to Lambrecht (1994, p. 80-81), the definition of specificity may be based on identifiability by the speaker:

20. <u>Specificity</u>

> A specific indefinite NP is one whose referent is identifiable to the speaker but not to the addressee, while a non-specific indefinite NP is one whose referent neither the speaker nor the addressee can identify at the time of the utterance.

In the following sentence, the bare noun *ɖágbará* 'trap' may be used in a situation where only the speaker has a specific trap in mind that he wants to buy or in a situation where there is no particular trap in the speaker's mind. Additionally, the bare noun may also receive a definite interpretation. It refers to a specific trap that the hearer knows about on the basis of the existance of a single entity that fits the description of the noun in the deictic space.

21. ma-á   gɛ́   má   lɛ̂   ɖágbará
    1SG-IMPV   want   1SG   buy.INF   car
    'I want to buy a / the trap.'

6.2.1 Bare nouns expressing (in)definite readings

In the previous section, we saw that bare nouns are used to refer to a unique entity in the deictic space, i.e., there is only one entity that fits the noun phrase. In a case where the intended referent is not visible to the addressee at the place and time of the utterance, a bare noun has an indefinite interpretation unless the referent is unique to the discourse participants on the basis of shared knowledge. For instance, the sentence in 22 can be uttered out of the blue whether or not the speaker refers to a uniquely accessible entity in the deictic space. However, if the entity is not physically present and there is no salient discourse entity that could pick up the reference, the interpretation of *tákárará* is non-specific indefinite. Also, the examples in 23&24 are acceptable even if the

hearer cannot identify the intended referent by using his/her background knowledge, but the interpretation varies according to whether such a referent is salient and unique.

22. fɛ́   mɛ   tákárará
    give   1SG   book
  'Give me a / the book.'

23. rabíjá tɔ́ŋ́   fɛ́   dʊ   dɪmʊ-rɛ́
    Rabiya tell.FAC give 1PL story-SG.CIII
    'Rabiya told us a / the story.'

24. d͡ʒa rabíjá já   mɛ   doómi   ɔ-ɔ́   gɛ́   ɔ́   lɛ́   atɛ
    today Rabiya call.FAC 1SG because 3SG.CI want 3SG.CI buy land
    'Today, Rabiya called me because she wants to buy a / the (plot of) land.''

For instance, the noun phrase *atɛ* 'land' in 24 has a definite reading in a situation where it refers to a unique plot of land that both the speaker and the hearer want to sell. On the other hand, an indefinite reading is obtained when the referent is not identifiable to the hearer or to both the speaker and the hearer.

It is worth mentioning that what we here call a bare noun is actually a bare singular, marked overtly in most though not all nouns by a singular class suffix, and is not neutral in terms of number. It can only be interpreted as referring to a single entity. In order to denote plurality, the presence of a plural class suffix is obligatory, as shown in 25.

25. súli ɲaŋ́   atɛ-sɛ́   tɔ́tɔ   mɛ
    Suli   sell.FAC land-PL.CII village LOC
    'Suli sold the / some plots of land in the village.'

In (25), the attachment of the plural suffix *-sɛ́* to the root *atɛ-* denotes the plurality of the indefinite noun phrase. Like with bare singulars, the interpretation of a bare plural noun is determined contextually. It receives a definite reading in situations where it refers to some salient subset that is shared by speaker and hearer. On the other hand, indefinite readings, either specific or non-

specific, are obtained when the referent is not identifiable to the hearer or to both the speaker and the hearer, respectively.

6.2.2 Contexts for the use of the indefinite determiner

So far, we have seen that a definite interpretation of a bare noun is preferred as long as a salient unique referent is available either in discourse context or in the deictic space. If there is a particular referent that is unique due to prior knowledge shared between the interlocutors, a bare noun cannot be used on its own to encode reference to a non-identifiable referent of the same type. In this case, the language employs the morpheme *-rV* which is identical to the numeral used for 'one'. This morpheme is prefixed with a class marker indicating the class and number of the noun phrase.

Table 6.2: Indefinite determiners

Class	Indefinite determiners
3SG CI	ŋʊ-rʊ
3PL CI	ba-rɪ
3SG CII	ka-rɪ
3PL CII	sɪ-rɪ
3SG CIII	ɗa-rɪ
3PL CIII	ŋa-rɪ
3SG CIV	kʊ-rʊ
3PL CIV	tʊ-rʊ
3SG CV	bʊ-rʊ

The vowel of the root *-rV* is realized as either /ʊ/ or /ɪ/. It surfaces as /ʊ/ only if the class prefix contains the vowel /ʊ/. In a sentence such as 26, the indefinite interpretation arises from the presence of the indefinite determiner *ɗa-rɪ*. The indefinite determiner here eliminates the possibility of a reference to a particular house that could be salient to the discourse. If the speaker and the hearer, for instance, have a house that they want to sell, the speaker uses the indefinite determiner

to denote that the house that *Rabiya* wants to buy is different from the house that is already uniquely identifiable by the hearer.

26. rabíjá já   me   ḍoómi ɔ-ɔ́   gɛ́ ɔ́ lɛ́ bó-re   ḍa-rɪ
    Rabiya call.FAC 1SG because 3SG.CI-IMPV want 3SG.CI buy house-SG.CIII SG.CIII-INDF
    'Rabiya called me because she wants to buy a house.'

The indefinite determiner in this example introduces a specific or a non-specific referent into the discourse. Similarly, the indefinite determiner is also used when the discourse context would normally point to a unique individual such as the chief of the village.

27. ma   mí   sɪ   d͡ʒoó-na   ŋʊ-rʊ   sɪwʊ́   d͡ʒa
    1SG hear.FAC COMP chief-SG.CI SG.CI-INDF die.FAC   today
    'I heard that a chief died today.'

Because the absence of the indefinite marker in 27 requires a definite interpretation of the referent (i.e. *our chief*), the speaker uses the indefinite marker in order to shift the hearer's thought to a referent other than the one that can be inferred on the basis of shared knowledge.

The data also shows that an indefinite determiner is required when reference is made to a specific or non-specific human referent. A bare noun that denotes a human referent can only receive a definite interpretation that results either from a previous discourse, shared knowledge or uniqueness. The human-referring nouns in the following examples are discourse-new, and the speaker assumes that the hearer does not have a mental representation of the intended referent. The indefinite determiner in 28 is used in a context in which the speaker refers to a specific doctor, among other doctors in the city, who is not identifiable to the hearer. This specific indefinite reading is unavailable without the presence of the indefinite determiner. The indefinite determiner is also required in 29, which is uttered in a context where the speaker does not have a specific referent in mind. The omission of the indefinite determiner in this sentence would not give rise to an

unambiguous reading between a non-specific and a definite referent: only a definite reading would be available.

28. ma tɔ́ŋ́ fɛ́ ma álʊ́ sɪ ɔ́ sɔkɔ na ma tá
    1SG tell.FAC give 1SG.POSS wife COMP 3SG.CI stay.INF COM 1SG.POSS father
    ɖoómi **ɖókíta ŋʊ-rʊ-ʊ́** kɔní kaa gɛ ɔ́ d͡ʒawá-a
    because doctor SG.CI-INDF-INFV come to look.INF 3SG.CI.POSS wound-SG.CII
    'I told my wife to stay with my father because a doctor will come to look at his wound.'

29. bɔ la fʊ́w-a d͡ʒa bɔ́ɔ la kaa ja **kafínta ŋʊ-rʊ**
    NEG go.INF farm-SG.CII today NEG go.INF to call.INF carpenter SG.CI-INDF
    na ɔ́ ɖé-si boró-o
    PURP 3SG.CI be good-CAUS door-SG.CIV
    'Do not go to the farm today. Go call a carpenter to fix the door.'

30. ɖɛ ílímo ma ná **bíja ba-rɪ** ŋ fʊ́w-a mɛ
    yesterday night 1SG see.FAC child.PL PL.CI-INDF 2SG.POSS farm-SG.CII LOC
    ba wɛ ba-á k͡pá m barafó
    3SG.CI COP.FAC 3SG.CI-IMPV pick 2SG.POSS maize
    'Yesterday [in the] night, I saw some children in your farm. They were picking your maize.'

31. bʊ́ʊ́ d͡ʒoó-na tɔ́ŋ́ bɛ́ sɪ bá la kaa tɔŋ **ɔ́díw-ɔ**
    then chief-SG.CI tell.FAC 3SG.CI COMP 3PL.CI go.INF to tell.INF hunter-SG.CIV
    ŋʊ-rʊ sɪ ɔ́ la kaa kʊ́ gʊ́ʊ́ní kʊ́
    SG.CI-INDF COMP 3SG go.INF to kill.INF lion ANPH.CIV
    'Then the chief told them go tell a hunter to go kill that lion.'

Similarly, the nouns *bíja* 'children' and *ɔ́díw-ɔ* 'hunter' in 30&31 have to be interpreted only as definite if they are not accompanied by the indefinite determiner.

The use of a bare noun in a context where both the speaker and the hearer do not have shared knowledge, for instance, about a particular group of children or a uniquely identifiable hunter or a doctor, leads the hearer to respond with a follow-up question asking about the identity of the referent. In order to avoid a reaction from the hearer that signals a presuppositional failure, the use of the indefinite determiner is needed to denote that the referent is specific or non-specific indefinite. Compare the sentences in 32&33, where the newly introduced referent *ɖókíta* 'doctor'

in 32 is not unique in that the provided information is about an individual within a set of individuals.

On the other hand, the bare noun in 33 is used to convey information about a discourse new referent

that is mutually known to both the speaker and the listener (e.g., they both live in a village where

there is only one clinic with a single doctor that works in it).

32. ba   bará   ɖókíta   ɖoómi   ɖókíta   ŋʊ-rʊ   sɪwʊ́-ʊ
    3PL.CI close.FAC clinic   because doctor   3SG.CI-INDF   die-FAC
    'They closed the clinic because a doctor died.'

33. ba   bará ɖókíta   ɖoómi   ɖókíta   sɪwʊ́-ʊ
    3PL.CI close clinic   because doctor   die-FAC
    'They closed the clinic because the doctor died.'

As was discussed in §6.2.1, non-human referring nouns, however, can either be interpreted as

definite or indefinite, depending on the context. The following are examples of utterances in which

bare nouns are used to refer to discourse-new and not uniquely identifiable entities.

34. bʊ́ʊ́ ka   lá   kaa   ɲɪŋ́ ɖág͡bará ka   fʊ́w-a   mɛ
    then   3SG.CII go.FAC   to   set   trap   3SG.POSS   farm-SG.CII LOC
    'Then it (spider) went to set up a trap in its farm.'

35. ba   átá   kɔní-ɪ   ɔ   ɖɔ́kʊ   ɖá-ŋɛ   bʊ́ʊ́ ɔ
    3PL.CI.POSS father come-FAC   3SG.CI   hold.FAC stick-SG.CII then   3SG.CI
    mɔḿ   bɛ
    beat.FAC   3PL.CI
    'Their father came. He was holding a stick. Then he beat them.'

36. ma   mí   sɪ   vá-a   ɲɛń   súli   ɖɛ
    1SG hear.FAC COMP   dog-SG.CII bite.FAC   Suli   yesterday
    'I herd that a dog bit Suli yesterday.'

37. ɔ́dí-ŋɛ   lá   lɔ́-ɔ   mɛ   bʊ́ʊ́ ba   ná   d͡ʒad͡ʒɔ́-ɔ   kʊ
    hunter-PL.CIV go.FAC forest-SG.CIV LOC   then   3PL.CI see.FAC elephant-SG.CIV SG.CIV
    wɛ   béŋ́-kɔ   g͡ba   bʊ́ʊ́ ŋʊ-rʊ   ba   mɛ   kɔ́   kɪ
    COP.FAC big-SG.CIV.AGR   very then   3SG.CI-INDF   3PL.CI LOC   kill.FAC 3SG.CIV
    'The hunters went to the forest. Then they saw an elephant. It was very big. Then
    one of them killed it.'

In many languages, such as Mandarin and Lango, a Nilotic language spoken in Uganda (Lyons

1999), the interpretation of bare nouns as specific/definite or non-specific is conditioned by the

position that they occupy in the sentence; in particular, subjects are normally interpreted as definite.

It is therefore important to note that, in Bago, when a noun phrase occurs in subject position, it may

still have both a definite or an indefinite reading. For instance, in 36 the bare noun *vá-a* 'dog' is

used without an indefinite determiner in a context where it receives a non-specific indefinite

reading. The presence of an indefinite determiner is needed if the speaker presupposes that the

hearer would understand the noun phrase as referring to a uniquely identifiable entity such as the

family dog, as shown in 38.

38. va-á   ka-rɪ   ɲɛ́ń   súli
    dog-SG.CII 3SG.CII-INDF   bite.FAC   Suli
  'A dog bit Suli.'

Another situation where an indefinite interpretation of a noun phrase requires the occurrence of the

indefinite marker is when there is a plural reference set from which the referent is chosen. Consider

the following contexts.

39. Context: This sentence is uttered in a room wherein several books are on a table, and the
    speaker does not have a particular book in mind.

    fɛ́   mɛ   tákárará   ka-rɪ
    give 1SG   book   SG.CII-INDF
  'Give me a book.'

40. Context: This sentence is uttered to by a father, who raises goats at his farm, ordering his
    son
    to go to the farm and kill a goat to serve his guests.

    la   kaa   kʊ́   nemíj-a   ka-rɪ   fɛ́ ɖʊ
    go.INF to   kill.INF goat-SG.CI SG.CII-INDF give 1PL
    'Go kill a goat for us.'

The contexts of these examples show that the speaker and the hearer have a shared set in mind

which consists of more than one entity. The speaker uses the indefinite determiner to refer to a

single entity. The absence of the indefinite determiner is not acceptable in these situations because

it results only in a definite interpretation of the intended referent. In such situations, the hearer

would fail to identify a unique referent, and thus a follow-up question like *tákárará / nemíj-a aŋkéé* 'which book/goat?' is asked in order to identify the intended referent.

Additional distribution of the indefinite determiners is attested in intransitive sentences with a non-human referring noun. As a subject of an intransitive verb, a non-human referring noun must co-occur with an indefinite determiner if the speaker presupposes that the intended referent is not identifiable by the hearer. Consider the following examples:

41. ɖɛ   ílímo   ma   tá   jala   ka   ɖo   bɔ́ɔ   va-á   ka-rɪ
     yesterday   night   1SG   NEG   be able.INF   to   sleep   NEG   dog-SG.CII   SG.CII-INDF
     wɛ   ka-á   ɡbósi   álɪ   asʊbá-a
     COP.FAC   3SG.CII   bark   until   dawn-SG.CII
     'Yesterday at [the] night, I could not sleep. A dog was parking until the dawn.'

42. ɖɪ   tá   tala   sɪsaɪ   bɔ́ɔ   ɖoómi   tíw-ɔ   kʊ-rʊ   fɛlɛkí   ka   dɔ̂ŋm   ɡbɔɔ́
     1PL   NEG   arrive.INF   quickly   NEG   because   tree-SG.CIV   SG.CIV-INDF   fall.FAC   and   block.INF   way
     'We did not arrive quickly because a tree fell down and blocked the way.'

If, for example, the speaker and the hearer do not have mutual knowledge about a specific dog or a tree that can be uniquely identified, the use of a bare noun in this situation is not appropriate because it leads the hearer to wonder which referent is meant by the speaker, and this would attract a follow-up question from the hearer that points to a presuppositional failure.

Finally, the indefinite determiner is necessary to distinguish between existential and locative interpretations of the sole "locative/existential" construction that exists in the language. Unlike English, Bago does not structurally differentiate a predicate locative construction from an existential construction. The locatum precedes the copular verb *wɛ* and the locative phrase regardless of whether the interpretation is to be existential or locative. A bare noun in the subject of this locative/existential construction may only be interpreted as definite. In the following example, the noun phrase refers to a particular key that is identifiable to both the speaker and the hearer.

43. lɔ́ɔrɪ   wɛ   fów-a   mɛ   koná   kɛ   fɛ́   mɛ
    car   COP.FAC   farm-SG.CII LOC   bring.INF SG.CII give   1SG
    'The car is in the farm. Bring it for me.'
    * 'There is a car in the farm. Bring it for me.'

44. tɔŋ   fɛ́   súli   sɪ   sááfɪ   wɛ   téburu   lɔ́
    tell.INF give   Suli   COMP   key   COP.FAC   table   on
    'Tell Suli that the key is on the table.'
    * 'Tell Suli that there is a key on the table.'

In order for these examples to be uttered felicitously, the speaker must refer to a car/key that is

unique in some way to the hearer. The use of the bare nouns *lɔ́ɔrɪ* 'car' and *sááfɪ* 'key' does not

give rise to an existential interpretation. The following examples show that for a locative/existential

construction to be interpreted as existential, the presence of the indefinite determiner is obligatory.

45. tɔŋ   fɛ́   bíja   feé   sɪ   bá   bo   la   viíle   mɛ   d͡ʒa   bɔ́ɔ
    tell.INF give   child.PL   all   COMP   3PL   NEG   go.INF   river   LOC   today   NEG
    gúúní   kʊ-rʊ   wɛ   bɔlɔ́
    lion   SG.CIV-INDF   COP.FAC   there
    'Tell all the children do not go to the river today. There is a lion there.'

46. a. ma   fá-á   gɛ́   sírá-a
      1SG.POSS   mother   want   knife-SG.CI
      'My mother wants a knife.'

    b. d͡ʒʊ   nɔnɔ́-ɔ   mɛ   (sírá-a)   ka-rɪ   wɛ   téburu   lɔ́
       enter.INF   room-SG.CIV   LOC   knife-SG.CII   SG.CII-INDF   COP.FAC   table   on
       'Enter the room. There is one (knife) on the table.'

The sentence in 45 is uttered in a context where the speaker refers to the existence of a specific lion

that is not identifiable by the hearer. The sentence in (46a) is uttered in a context where the speaker

is asking for a non-specific knife to borrow rather than a uniquely identifiable one. The speaker's

reply in (46b) contains the noun *sírá-a* 'knife' in combination with the indefinite determiner to

assert the existence of a particular knife that he has in mind. It is also observable from (46b) that

the presence of the noun *sírá-a* is optional, which means that an indefinite determiner in Bago can

be used pronominally. It should be noted that in a case where the indefinite determiner *-rV* is used

pronominally to refer to a discourse-new human referent, the class markers *ŋʊ-* and *ba-* are prefixed

to *-rV* to give the meaning of 'someone' and 'some people', respectively. As was outlined

previously, the prefixes *ŋʊ-* and *ba-* are realizations of Class I, which is specifically for humans.

47. ŋʊ-rʊ   já   ŋ   ŋí-rɛ
     3SG.CI-INDF   call.FAC   2SG.POSS   head-SG.CIII
     'Someone called your name [lit., head].'

48. ba-rɪ-í   gɛ́   nɪ
     3PL.CI-INDF-IMPV   want   2SG
     'Some people want you.'

For a non-human referent, the pronominal *bʊ-rʊ* 'something' is used, as shown in the following

examples.

49. ma   wɛ   ma-á   jɛ́   bʊ-rʊ
     1SG   COP   1SG-IMPV   do   CV-INDF
     'I am doing something.'

50. bʊ-rʊ   fɛlɛkí-ɪ
     CV-INDF   fall-FAC
     'Something fell down.'

In 50, the referent's identity is unidentifiable, and thus *bʊ-rʊ* is used as a pronominal noun phrase.

However, if the speaker presupposes that the hearer will infer the intended referent, the form of the

pronominal depends on the class of the referent.

51. Context: Zakariya is in a store with his friend who just bought a basket that is full of
bananas. When his friend lifted the basket, Zakriya noticed that one of the bananas fell down
and said the following:

     ka-rɪ   fɛlɛkí-ɪ
     SG.CII-INDF   fall-FAC
     'One fell down.'

In this context, the use of the class prefix *ka-* helps the hearer to identify the referent. It is also

possible to explicitly make reference to the entity by means of a singular noun phrase followed by

the indefinite determiner (e.g. *akɔɖʊ́ ka-rɪ fɛlɛkí-ɪ* 'a banana fell down').

It can be concluded that bare nouns in Bago may generally receive a definite or an indefinite

interpretation. A definite reading is obtained when reference is made to inherently unique entities

142

or when an entity is unique on the basis of shared knowledge, or is unique in the discourse context or in the deictic space. It has also been seen that human-referring bare nouns are unambiguously interpreted as definite. A human-referring noun must co-occur with an indefinite determiner to have either specific or non-specific indefinite reading. Non-human referring bare nouns, on the other hand, can either be interpreted as definite or indefinite in subject or object position of transitive sentences. They can be used in a context where the referent is discourse-new and not uniquely identifiable by the hearer. However, when there is shared knowledge between the interlocutors about a unique entity, the intended referent co-occurs with an indefinite determiner to shift the hearer's thought to an unidentifiable entity. The occurrence of the indefinite determiner is also required when there is a plural reference set from which a referent is chosen to denote a partitive reading. Finally, the presented data has shown that an indefinite interpretation of a bare noun does not arise if it functions as the subject of an intransitive verb or a copular locative clause. In these cases, indefiniteness is explicitly expressed by the indefinite determiner to refer in an intransitive sentence to a specific or non-specific entity that is assumed to be unknown to the hearer and to give rise to an existential reading to a locative copular clause.

6.3 Demonstratives

 Demonstratives are spatial deictic elements (e.g., *this, that, here and there*). They are used to denote the location of a referent according to the position of the speaker and hearer (Diessel, 1999; Dryer, 2007). Diessel (1999, p. 2) defines demonstratives as "deictic expressions serving specific syntactic functions". He points out that demonstratives can function as pronouns, modifiers and locational adverbs. In terms of their pragmatic function, Diessel (1999, p. 2) notes that demonstratives are "primarily used to focus the hearer's attention on objects or locations in the speech situation". Despite the fact that a majority of languages have a two-way distinction in

demonstratives as far as the distance of a referent to the deictic center goes, there are a few languages that do not exhibit a deictic distance contrast in at least some functions of the demonstratives (Heath, 1999; Diessel, 1999). For instance, demonstratives such as *dies* 'this/that' in some dialects of German and *ce* 'this/ that' in French do not express a distance contrast. Rather, a distinction is made, when necessary, by other elements that indicate distance contrast, such as the post-nominal morpheme *-ci* and *-là* in French. Carlson (1990) also shows that in Supyire, a Gur language spoken in Mali, demonstrative pronouns and modifiers are neutral with respect to distance, as shown in 52.

52. ŋ̀gé   ba-ŋí
    DEM.G1.SG   river-DEF.G1.SG
    'This / that river.'   Carlson (1990, p. 329)

The literature commonly distinguishes between demonstrative modifiers and demonstrative pronouns. While demonstrative modifiers serve as a modifying deictic element of a noun, the latter act as complete NPs. Languages also differ in whether they employ a single form for both types or have distinct elements for each type.

6.3.1 Demonstrative modifiers and pronouns in Bago

In Bago, demonstrative modifiers display a contrast between proximal and distal forms, identical to the forms that are used as demonstrative pronouns when a noun is unexpressed. While a proximal demonstrative is used for a near referent, a distal demonstrative denotes that a referent is in a more distant location. The deictic center is always the location of the speaker. Note also that demonstrative modifiers and pronouns are restricted to referents that are visually accessible in the speech situation.

53. ma   kalá   tákárará   ka-d͡ʒé
    1SG read.FAC book   SG.CII-DEM.PROX
    'I read this book.'

54. ma   kalá   tákárará-sɛ́   se-d͡ʒé
    1SG   read.FAC   book-PL.CII   PL.CII-DEM.PROX
    'I read these books.'

55. súli   má   bó-re   ɖɛ-mɔɔ́
    Suli   build.FAC house-SG.CIII   SG.CIII-DEM.DIST
    'Suli built that house.'

56. Súli   má   bóó-na   ŋa-mɔɔ́
    Suli   build.FAC house-PL.CIII   PL.CIII-DEM.DIST
    'Suli built those houses.'

57. ma-á   loŋ́ ka-d͡ʒé   ɲ-ɲ́   jála   ka   mɔsɪ   se-d͡ʒé
    1SG-IMPV use   SG.CII-DEM.PROX 2SG-IMPV be able to   take.INF PL.CII-DEM.PROX
    'I will use this one (trap). You can take these ones.'

58. jele   má   kóró tíw-ɔ   ko-d͡ʒé   la   kaa   kóró   ka- mɔɔ́
    let.INF 1SG   cut.INF tree-SG.CII SG.CII-DEM.PROX go.INF to   cut.INF SG.CII-DEM.PROX
    'Let me cut this tree. Go to cut that one.

As shown in these examples, morphologically distinct roots are used for distal and proximal demonstratives. These are prefixed with a class marker that reflects the class and number feature of the modified noun. Demonstrative modifiers are always post-nominal. Like English, Bago does not formally distinguish between pronominal and modifier demonstratives. A pronominal demonstrative stands alone as an argument, and also requires the presence of a prefix denoting the class of the referent. Table 6.3 hows the form of the demonstrative for all noun classes.

Table 6.3: Class markers on demonstratives

Class	Proximal Demonstratives	Distal Demonstratives
3SG CI	ŋo-d͡ʒé	ŋɔ-mɔɔ́
3PL CI	ba-d͡ʒé	ba-mɔɔ́
3SG CII	ka-d͡ʒé	ka-mɔɔ́
3PL CII	se-d͡ʒé	sɛ-mɔɔ́
3SG CIII	ɖe-d͡ʒé	ɖɛ-mɔɔ́
3PL CIII	ŋa-d͡ʒé	ŋa-mɔɔ́
3SG CIV	ko-d͡ʒé	kɔ-mɔɔ́
3PL CIV	to-d͡ʒé	tɔ-mɔɔ́
3SG CV	bo-d͡ʒé	bɔ-mɔɔ́

As a pronominal or a nominal modifier, the demonstrative must appear with a class marker. The absence of the class marker results in ungrammaticality, as shown below.

59. a. ma-á   mɔsí fúró-o   ko-d͡ʒé
    1SG-IMPV take   bag-SG.CIV SG.CIV-DEM.PROX
    'I will buy this bag.'

   b. * ma-á   mɔsí fúró-o   d͡ʒé
      1SG-IMPV take   bag-SG.CIV   DEM.PROX
    Intended: 'I will buy this bag.'

60. a. ma-á   gɛ́   ko-d͡ʒé
    1SG-IMPV want   SG.CIV-DEM.PROX
    'I want this one.'

   b. * ma-á   gɛ́   d͡ʒé
      1SG-IMPV want   SG.CIV-DEM.PROX
    Intended: 'I want this one.'

The same form of the demonstrative is used with noun phrases in any syntactic position (i.e., demonstratives do not display case distinctions, as personal pronouns do), and demonstratives are likewise invariable when used as demonstrative pronouns.

61. ma   d͡ʒoóŋu fɛ́   mɛ gɪsɔ́-ɔ   ko-d͡ʒé
    1SG.POSS brother   give.FAC 1SG horse-SG.CIV   SG.CIV-DEM.PROX
    'My brother gave me this horse.'

62. súli ɗó   nɔnɔ́-ɔ   ko-d͡ʒé   mɛ
    Suli   sleep.FAC room-SG.CIV SG.CIV-DEM.PROX LOC
    'Suli slept in this room.'

63. kʊ́d͡ʒɔ-ɔ́   ko-d͡ʒé   wɛrɛkí-ɪ
    yam-SG.CIV SG.CIV-DEM.PROX   spoil-FAC
    'This yam is spoiled.'

64. ma-á   lɛ́ ka-d͡ʒé
    1SG-IMFV buy CII.SG-DEM.PROX
    'I will buy this one.'   (The referent is an object that belongs to *Class II*)

65. ɗe-d͡ʒé   wɛ   bíí-na
    CIII.SG-DEM.PROX COP.FAC money-PL.CIII
    'This is expensive.'   (The referent is an object that belongs to *Class II*)

6.3.2 Demonstrative adverbs

A two-way distinction in distance may also be observed in locative deictic elements. Following the work of Fillmore (1982) and Diessel (1999), I use the term demonstrative adverb to refer to the spatial deictic elements d͡ʒeé 'here' and mɔɔ́ 'there'. According to Diessel (1999) and Dixon (2003), languages often employ distinct forms to encode demonstrative modifiers/pronouns and demonstrative adverbs. In Bago, the main difference setting apart demonstrative adverbs from demonstrative modifiers/pronouns in that the former are not inflected with a class marker. As can be seen in 66&67, while the demonstrative adverb d͡ʒeé 'here' differs slightly in form from the root of the proximal demonstrative determiner -d͡ʒé 'this', the demonstrative adverb mɔɔ́ 'there' is identical to the root of the distal demonstrative determiner -mɔɔ́ 'that'.

66. dɪ   dúḿ   barafó   d͡ʒeé
    1PL   sow.FAC   maize   DEM.PROX.LOC
    'We sowed maize here.'

67. dɪ   bá   lɔkɔ   mɔɔ́
    1PL   dig   well   DEM.DIST.LOC
    'We dug the well there.'

68. * ma   dó   ko-d͡ʒeé
      1SG   sleep   CIV-DEM.PROX
    Intended: 'I slept here.'

What the example in 68 illustrates is that the demonstrative adverb d͡ʒeé 'here' cannot be prefixed with a class marker that indicates the identity of the place in which the event occurred. The presence of the prefix ko- 'SG.CIV' is not acceptable, even if it is plausible to imply that the event of sleeping occurred in a location whose name is a noun in Class IV (such as nɔnɔ́-ɔ 'room-SG.CIV').

Note that the distal demonstrative adverb mɔɔ́ 'there' cannot be used anaphorically to refer to an out-of-sight location. Instead, the language employs the word bɔlɔ́ 'there' as an anaphoric demonstrative adverb. Consider the following examples.

69. n tá lá fʊ́w-a lɔ́ ɔ-ɔ́ ḍó bɔlɔ́ / # mɔɔ́
    2SG father go.FAC farm-SG.CII and 3SG.CI-IMPV sleep there / DEM.DIST.LOC
    'Your father went to the farm, and he will sleep there.'

70. a. ba mɛlí ramzíja kɛkɛ́ atateŋá kíjá-a mɛ
       3PL.CI steal.FAC ramziya bicycle atateŋá market LOC
       'Ramziya's bicycle was stolen in Atetena market.'

    b. ma tɔḿ fɛ́ ɪ sɪ ɔ́ bɔ la bɔlɔ́ / # mɔɔ́ bɔ́ɔ
       1SG tell.FAC give 3SG.CII COMP 3SG.CI NEG go.INF there DEM.DIST.LOC NEG
       'I told her do not go there.'

As shown in 69&70, the use of the distal demonstrative adverb *mɔɔ́* to establish a coreferential relation with an entity that has been already mentioned in the discourse is not permitted. The proximal demonstrative adverb *d͡ʒeé* 'here' also cannot be used anaphorically to refer to a place at which the locatum was at some time in the past, unless, as in 71, it is the same location we are in.

71. ma talá bagó d͡ʒa ma-á sɔkɔ́ d͡ʒeé í-na lʊŋlɛ
    1SG arrive.FAC Bago today 1SG-IMPV stay DEM.PROX.LOC day-PL.CIII seven
    'I arrived Bago today. I will stay here for seven days.'

72. ma lá bagó tení ma sɔkɔ́ bɔlɔ́ / # d͡ʒeé í-na lʊŋlɛ
    1SG go.FAC Bago last year 1SG stay.FAC there DEM.PROX.LOC day-PL.CIII seven
    'I went to Bago last year. I stayed there for seven days.'

6.3.3 Demonstrative identifiers

Bago has two demonstratives that are used as identifiers in Diessel's (1999) sense. A demonstrative identifier is used to identify a particular referent to the addressee, as shown in 73. Like demonstrative adverbs, demonstrative identifiers do not take a class marker prefix. Syntactically, a demonstrative identifier does not co-occur with a copular verb, as thus I consider it to function as a predicate, as in the work of Carlson (1990).

73. a. bé-é d͡ʒé
       what-FOC DEM.PROX.IDEN
       'What is this?'

    b. ḍágbará-á d͡ʒé
       trap-FOC DEM.PROX.IDEN
       'This is a trap.'

The demonstrative identifier d͡ʒé can only be used to refer to a visible entity near the deictic centre. Its form is identical to the proximal demonstrative determiner except that it is not inflected with a class marker. Moreover, the last segment of the referent constituent must be lengthened. Since the demonstrative identifier is not inflected with a class marker, it can co-occur with a singular or a plural referent.

74. d͡ʒoóna-á   d͡ʒé
    chief-FOC   DEM.PROX.IDEN
    'This is the chief.'

75. ma   d̪ɔ́-ba-á   d͡ʒé
    1SG.POSS   friend-PL.CI-FOC   DEM.PROX.IDEN
    'These are my friends.'

The other demonstrative identifier is d͡ʒɛ́, with a [-ATR] vowel, and it is used for a referent that is far from the deictic centre, as shown in 76.

76. a. bé-é   d͡ʒɛ́
       what-FOC   DEM.PROX.IDEN
       'What is that?'

    b. máŋgo   tíw-ɔ-ɔ́   d͡ʒɛ́
       mango   tree-SG.CIV-FOC   DEM.PROX.IDEN
       'That is a mango tree.'

The form of the distal demonstrative identifier is distinct from the root of the distal demonstrative determiner -mɔɔ́. It would be ungrammatical to use -mɔɔ́ in an identity verbless clause, as exemplified in 77.

77. a. * bé-é   mɔɔ́
         what-FOC   DEM
         Intended: 'What is that?'

    b. * máŋgo   tíw-ɔ-ɔ́   mɔɔ́
         mango   tree-SG.CIV-FOC   DEM
         Intended: 'That is a mango tree.'

The following examples show that while the copular verb *jɛ́* is not permitted in cases where the demonstrative identifier serves as a predicate in the clause, its presence is obligatory when the demonstrative is used pronominally as the subject of the clause.

78. ma   fá-á   (*jɛ́)   d͡ʒé
    1SG.POSS   mother-FOC   COP   DEM.PROX.IDEN
    'This is my mother.'

79. ŋo-d͡ʒé   *(jɛ́)   ma   fá
    SG.CI-DEM.PROX   COP   1SG.POSS   mother
    'This is my mother.'

A final point regarding the differences between the demonstrative identifiers is that only the distal demonstrative identifier *d͡ʒé* can be used anaphorically to identify a referent mentioned earlier in the discourse. For instance, the sentence in (80b) is uttered as a response to identify the identity of the unknown woman in (80a) to the hearer.

80. a. ɖɛ   ma   ná   nɪ   na   álʊ́-na   ŋʊ-rʊ   kíjá-a   mɛ
       yesterday 1SG   see.FAC 2SG COM woman-SG.CI SG.CI-INDF market-SG.CI LOC
      'Yesterday, I saw you with a woman in the market.'

    b. ma   ɖesí-í   d͡ʒé / * d͡ʒé
      1SG.POSS   sister-FOC   DEM.DIST / DEM.PROX
      'That is my sister.'

Using a demonstrative determiner or a demonstrative pronoun as in (81)&(82) to reply to the statement in (80a) is infelicitous, because, as was discussed above, their usage is restricted to referents visible in the speech situation. Instead, Bago has a set of anaphoric determiners, introduced in the previous chapter, which could be used in such situations. As shown in 83, the use of the anaphoric determiner along with the noun phrase is felicitous in a reply to the statement in (80a). The anaphoric determiner cannot be used pronominally in Bago, however, and thus the absence of the noun phrase *álʊ́-na* in 83 results in ungrammaticality.

81. # ŋo-d͡ʒé   /   ŋɔ-mɔɔ́   jɛ́   ma   ḍesí
    SG.CI-DEM.PROX   SG.CI-DEM.DIST   COP.FAC   1SG.POSS   sister
    Intended: 'This / that is my sister.'   (The referent is out of sight)

82. # álʊ́-na   ŋo-d͡ʒé   /   ŋɔ-mɔɔ́   jɛ́   ma   ḍesí
    woman-SG.CI   SG.CI-DEM   SG.CI-DEM.DIST   COP.FAC   1SG.POSS   sister
    Intended: 'This / that (woman) is my sister.'   (The referent is out of sight)

83. álʊ́-na   ŋʊ́   jɛ́   ma   ḍesí
    woman-SG.CI   SG.CI.ANAPH   COP.FAC   1SG.POSS   sister
    'That woman is my sister.'   (The referent is out of sight)

6.3.4 Manner demonstratives

Deictic reference to the manner of carrying out an action in Bago is expressed by *mɔɔ́*, which is identical to the root of the distal demonstrative determiner. As shown in 85&86, the manner demonstrative *mɔɔ́* is preceded by the lexical expression *nsɪ* meaning 'like'. The presence of *nsɪ* in this context is needed because *mɔɔ́* on its own functions as a distal demonstrative adverb meaning 'there'.

84. ma-á   jɛ́   oguw-ó   nsɪ   ma   tá
    1SG-IMPV   COP   blacksmith-SG.CIV   like   1SG.POSS   father
    'I will be a blacksmith like my father.'

85. ḍɔ́kʊ́   vɔɔ́-ŋɛ   nsɪ   mɔɔ́
    hold.INF   rope-SG.CII   like   DEM.MAN
    'Hold the rope like this.'

86. ma   sɔ́   nsɪ   mɔɔ́
    1SG   dance.FAC   like   DEM.MAN
    'I danced like this.'

These examples are uttered while the speaker is demonstrating to the hearer the actions of holding and dancing. Note that the expression *nsɪ mɔɔ́* cannot be used if the deictic reference is intended to denote comparison, as shown in 87. Instead, a comparison is expressed by the use of the demonstrative pronoun, as exemplified in 88.

87. * ma-á   gɛ́   má   lɛ   kɛ́kɛ   nsɪ   mɔɔ́
    1SG-IMPV   want   1SG   buy.INF   bicycle   like   DEM.MAN
    Intended 'I want to buy a bicycle like this.'

88. ma-á   gɛ́ má lɛ kɛ́kɛ nsɪ ka-d͡ʒé
    1SG-IMPV want 1SG buy bicycle like SG.CII-DEM.PROX
    'I want to buy a bicycle like this one.'

The use of the demonstrative pronoun *ka-d͡ʒé* indicates that the referent is near the deictic center.

However, if the referent is at some distance from the speaker, the distal demonstrative pronoun *ka-mɔɔ́* is used.

Furthermore, the use of the manner demonstrative expression *nsɪ mɔɔ́* is not acceptable if reference is made to an action that is not being pointed at somehow by the speaker. The sentence in 89, for instance, is uttered without mimicking to ask why the addressee is not walking properly.

89. bé   já-ja   lɔ́ n-ń   valá mɪnɛ́ / # nsɪ   mɔɔ́
    what happen-FOC and 2SG-IMPV walk like.this   like   DEM.MAN
    'Why do you walk like this?'

The example 89 shows that the language employs the word *mɪnɛ́* to deictically refer to an action not performed by the speaker. This distinction between whether or not the speaker is the one demonstrating the action has also been found in the Asante dialect of Akan, a Kwa language spoken in Ghana, where *séí* is used only if the speaker is demonstrating the action, and *saà* is used elsewhere (Amfo, 2007). In the following table, I summarize the discussed forms and functions of anaphoric and deictic elements in Bago.

Table 6.4: Anaphoric and spatial deictic elements in Bago

	Pronouns	**Determiners**	**Adverbs (spatial)**	**Identifiers (predicate)**	**Manner**
Proximal	CM-d͡ʒé		d͡ʒeé	d͡ʒé	nsɪ CM-d͡ʒé
Distal	CM-mɔɔ́		mɔɔ́	d͡ʒé	nsɪ CM-mɔɔ́
Anaphoric	(Regular pronouns)	CM (Anaphoric markers)	bɔlɔ́	d͡ʒé	
Preformed action					nsɪ mɔɔ́
Noticed action					mɪnɛ́

Chapter 7

Noun modification

7.1 Introduction

This chapter is concerned with adjectival concepts that qualify nouns in Bago. The language has a very small number of words that can be classified as adjectives. The category of adjectives in many Niger-Congo languages is considered to be closed, as opposed to nouns and verbs. Welmers (1973, p. 250) states that "It is important to note, however, that in almost all Niger-Congo languages which have a class of adjectives, the class is rather small, and many concepts expressed by adjectives in European languages are expressed by other kinds of constructions using nouns or verbs or both." This claim is supported in subsequent sources on Niger-Congo languages. For instance, Ameka (1991) asserts that there are five underived adjectives in Ewe; Bobuafor (2013) lists three underived adjectives in Tafi; Dorvlo (2008) lists the word *ĝbálí* 'bad' as the only underived adjective in Logba.

Although the category of adjectives is small in Bago, adjectival concepts can be expressed by means of lexical items that are categorially nouns and verbs. Before discussing how the language expresses adjectival concepts, it is necessary to briefly review the general properties that identify the categories of nouns and verbs.

Nouns: The majority of nouns are morphologically complex. They are divided into classes based on various singular and plural suffixes attached to bound roots (e.g., *ásárʊ́-na* / *ásárʊ́-ba* 'male 'frog(s)', *símí-re* / *símí-na* 'eye(s)'). They also trigger agreement on associated words such as determiners and adjectives (e.g., *ásárʊ́-na ŋo-dʒé* 'this frog', *símí-re bέń-ɖɛ* 'small eye'). Another

characteristic of nouns is that they can be followed by the genitive marking -Ń́- to signify possession, belonging or origin.

1. dɪ   jɛ́   bagó-ḿ-ba
   1PL   COP.FAC   Bago-POSS-1PL.AGR
   'We are Bago.'

2. ma   sosí   ma   nso   fʊ́w-a   mɛ   ma-á   la   kaa
   1SG   forget.FAC 1SG.POSS gun   farm-SG.CII LOC   1SG   go.INF to
   sʊlʊ   ma   tá-ŋ́-kɔ
   borrow.INF   1SG.POSS   father-POSS-SG.CIV
'I forgat my gun in the farm. I will go to borrow my father's.'

Phonologically, nouns vary from verbs with regard to the distribution of vocalic segments. Unlike nouns, verbs in Bago never begin with a vowel (see §2.3.1). In addition, verbs are commonly formed in the syllable shape CVN. Except for two loan words, the syllable shape CVN does not form a noun (see §2.3.5). Because most nouns consist of a root and a number suffix, the syllable shape CVV occurs finally often in nouns.

Verbs: In Bago, verbs are simplex lexical items. They have finite and non-finite forms that may differ in their tonal patterns (e.g., *la*_NON-FIN *lá*_FIN 'go', *ɗɔ́kʊ́* _NON-FIN_ *ɗɔ́kʊ*_FIN_ 'hold'). They are not marked with features for number, person and class, as opposed to nouns. In some cases, the final vowel of verbs is lengthened to realize the factative aspect. Another characteristic that distinguishes verbs from nouns lies in the fact that they are coordinated by *ka*, whereas nouns are coordinated by *na*.

3. ɔ   kóro   vɔɔ́-ŋɛ   lɔ́   ba   fɛlɛkí   ka   sɪwʊ
   3SG.CI cut.FAC   rope-SG.CII   and   3PL.CI   fall.FAC and   die.INF
   'He cut the rope, and they fell down and died.'

4. ma   fɛ́   bɛ   kʊ́jɔ-ɔ́   na   bíí-na
   1SG   give.FAC 3PL.CI   yam-SG.CIV   and   money-PL.CIII
   'I gave them yam and money.'

7.2 Adjectival roots

Having established some criteria for recognizing nouns and verbs, I now turn to look at the criteria that identify the category of adjectives based on morpho-syntactic grounds. According to the research completed for this thesis, there exist four roots that seem to constitute the category of adjectives in the language.

Table 7.1: Adjectival roots

Adjectival root	Class marker		Gloss
tútʊbʊ́-	I	-ŋɔ / -ba	'small'
bɛ́ŋ́-	II	-ka / -sɛ	'big'
fɔlí-	III	-ɖɛ / -ŋa	'new'
dɔɔ́-	IV	-kɔ / -tɔ	'old'
	V	-bɔ	

Adjectival roots never stand alone without a suffix reflecting the class and number of the modified noun. Note that the suffix that an adjectival root takes is not identical to the number suffixes attached to a nominal root to mark singularity or plurality. Therefore, they should be treated as being part of a distinct category. As has been outlined in Chapter three, there are many nouns in Bago that are not inflected with a number suffix in their singular forms. When such nouns are modified by one of these adjectival roots, the adjectival root must still be overtly marked through a suffix to indicate the class of the noun it modifies, as shown in 6.

5. fɛ́   mɛ sírá-a   tútʊbʊ́-ka   ka-d͡ʒé
   give.INF 1SG knife-SG.CII small-SG.CII.AGR SG.CII-DEM.PROX
   'Give me this small knife.'

6. ba   mɛlí   ma   kɛkɛ́   fɔlí-ka
   3.PL steal.FAC 1SG.POSS bike.SG.CII new-SG.CII.AGR
   'My new bike was stolen.' (lit. They stole my new bike)

7. ɖɪ   má   bó-re   bɛ́ń-ɖɛ   fɛ́   d͡ʒoó-na
   1.PL build.FAC house-SG.CIII big-SG.CIII.AGR   give chief-SG.CI
   'We built a big house for the chief.'

As shown in these examples, an adjective is linearly positioned after a modified noun and before a demonstrative modifier. It would be ungrammatical to place an adjective before the noun it modifies or after the demonstrative modifier.

8. a. * fɛ́   mɛ   tʊ́tʊbʊ́-ka   sírá-a   ka-d͡ʒé
      give.INF 1SG small-SG.CII.AGR knife-SG.CII   SG.CII-DEM.PROX
      Intended: 'Give me this small knife.'

   b. * fɛ́   mɛ   sírá-a   ka-d͡ʒé   tʊ́tʊbʊ́-ka
      give.INF 1SG knife-SG.CII   SG.CII-DEM.PROX small-SG.CII.AGR
      Intended: 'Give me this small knife.'

The following examples show that the adjectival roots may function predicatively to denote a property concept of the subject in a copular clause.

9. ma   ad͡ʒimá-sɛ́   wɛ   dɔɔ́-sɛ   ɡ͡ba
   1SG.POSS   sandal-PL.CII COP.FAC   old-PL.CII   very
   'My sandals are very old.'

10. ak͡pa   wɛ   fɔlí-ka
    tire   COP.FAC   new-SG.CII
    'The tire is new.'

A predicate adjective occurs after the copula and must be marked for agreement. As the following discussion will show, many adjectival concepts in Bago are coded by means of verbs (e.g., *vaŋ́* 'be sick', *bí* 'be sharp', *ɖé* 'be good/beautiful'). Adjectival roots differ from verbal roots in that they are marked for agreement as well as in the requirement for the copula. Nominal roots are similar to adjectival roots in these traits, but they must occur with the number suffix from their own class when they are used predicatively, as shown in 12. The following examples show the difference:

11. nɔnɔ́-ɔ   wɛ   tʊ́tʊbʊ́-kɔ
    room-SG.CIV COP.FAC   small-SG.CIV
    'The room is small.'

12. nɔnɔ́-ɔ   wɛ   akukuw-á
    room-SG.CIV COP.FAC   darkness-SG.CII
    'The room is dark.'

13. nɔnɔ́-ɔ   ɖé-e
     room-SG.CIV   be beautiful/good-FAC
     'The room is beautiful/good.'

These examples illustrate that the adjectival root *tʊ́tʊbʊ́-* is distinct in that it agrees in class when used predicatively. Based on this property and the fact that adjectival roots function as adnominal modifiers without any sort of derivation, I distinguish the closed category of adjectives from the categories of nouns and verbs which cannot be used on their own as adnominal modifiers.

As shown in the following examples, only the adjectival root can serve as an adnominal adjective of the noun *nɔnɔ́-ɔ* 'room'. Placing the noun *akukuw-á* 'darkness' in a postnominal position does not allow it to function as a modifier, but rather results in an unambiguously possessive interpretation. Putting the intransitive verb *ɖé* 'be good/beautiful' with the intent to modify the complement of the verb *d͡ʒʊ́* 'enter' results in ungrammaticality..

14. ma   d͡ʒʊ́   nɔnɔ́-ɔ   tʊ́tʊbʊ́-kɔ   mɛ
     1SG   enter.FAC   room-SG.CIV   small-SG.CIV   LOC
     'I entered into the small room.'

15. # ma   d͡ʒʊ́   nɔnɔ́-ɔ   akukuw-á   mɛ
     1SG   enter.FAC   room-SG.CIV   darkness-SG.CII   LOC
     Literally: 'I entered into the room's darkness.'
     * 'I entered into the dark room.'

16. * ma   d͡ʒʊ́   nɔnɔ́-ɔ   ɖé   mɛ
     1SG   enterd.FAC   room-SG.CIV   be beautiful/good   LOC
     Intended: 'I entered into the beautiful/good room.'

In the following sections, I will discuss how items from various classes are used non-predicatively to modify a noun phrase.

7.3 Adjectival concepts that are nouns

This section considers some property concepts that are expressed predicatively through nouns. I identify them as nouns according to their syntactic and morphological behaviour. The following is a non-exhaustive list of nouns that belong to different classes:

Table 7.2: Nouns that may be used to denote property concepts

Class	Noun	Gloss
CII	kɔkɔlɪj-á	'anger'
CII	akukuw-á	'darkness'
CII	ak͡pow-á	'shame'
CII	suúru	'patience'
CIII	ɖɪkɔ́-rɛ	'laziness'
CIII	mbú-re	'heat'
CIII	gɔɔ́-rɛ	'difficulty'
CIV	bíńto	'dirt'
CV	ɖóŋe	'strength'
CV	ɲúŋe	'heaviness'

As shown, most of these nouns consist of a root and a singular suffix that reflect the class of the noun. Unlike adjectival roots, the suffixes attached to these nominal roots are inherent singular suffixes, and thus they do not change according to the subject of a copular verb. The following examples show that the predicate noun *mbú-re* behaves like an adjective in the sense that it asserts a property of the subject.

17. ɲímo   wɛ   mbú-re
    oil.CV   COP.FAC   heat-SG.CIII
    'The oil is hot.'

18. ɖomó-o   wɛ   mbú-re
    sauce-SG.CIV COP.FAC   heat-SG.CIII
    'The suace is hot.'

Although the referents in these sentences belong to different classes, the use of the predicate noun *mbú-re* is morphologically the same in both sentences. Replacing the singular suffix of the predicate by an agreement suffix or adding an agreement suffix to the noun is not an option.

19. a. * ḍomó-o   wɛ   mbú-ko
       sauce-SG.CIV   COP.FAC   heat-SG.CIV.AGR
       Intended: 'The sauce is hot.'

   b. * ḍomó-o   wɛ   mbú-re-ko
       sauce-SG.CIV   COP.FAC   heat-SG.CV-SG.IV.AGR
       Intended: 'The sauce is hot.'

Furthermore, the nounness of the property concepts presented in Table 7.2 is further evidenced by the fact that they cannot be used adnominally as modifiers. As can be seen in the following examples, the presence of these property words immediately after another noun results in a possessive construction.

20. # ma   tá   kɔná   [fúró-o   ɲúŋe]   bɔ́ɔ
       1SG   NEG   bring.INF   bag-SG.CIV   heaviness   NEG
       Literally: 'I did not bring the bag's heaviness'
       * 'I did not bring the heavy bag.'

21. # ḍʊ́   séndɛ́lɛ   [nɔnɔ́-ɔ   akukuw-á]   mɛ
       put   candle   room-Sg.CIV darkness-SG.CII   LOC
       Literally: 'Put the candle in the room's darkness.'
        * 'Put the candle in the dark room.'

22. # ma-á   gɛ́   [límɔ   mbú-re]
       1SG-IMPV   want   water-CIV   heat-SG.CIII
       Literally: 'I want the water's heat.'
       * 'I want hot water.'

Another characteristic that distinguishes these nouns from the adjectival roots is that they may occur alone as arguments. Note that the noun *akuku-wá* in 25 is not interpreted as a modifier of an elided noun because no contextual effect on the interpretation can be perceived. When an adjectival root occurs alone in an argument position, it is interpreted as a modifier of an elided noun, as exemplified in 26.

23. ḍí   suúru
       eat.INF   patience
       'Be patient.' (lit. eat patience)

24. n   ɖʊ́   mɛ   ak͡pow-á
    2SG   put.FAC   1SG   shame-SG.CII
    'You gave me shame.'   (lit. you put me shame)

25. nabílá-á   ɲaŋ́   akukuw-á
    Nabila-IMPV   fear   darkness-SG.CII
    'Nabila fears the darkness.'

26. ma   tákuku   wɛ   dɔɔ́-ka   ma-á   gɛ́   sɪ   má
    1SG.POSS   motorbike   COP.FAC   old-SG.CII.AGR   1SG-IMPV   want   COMP   1SG
    lɛ   fɔlí-ka
    buy.INF   new-SG.CII.AGR
    'My motorbike is old. I want to buy a new one.'

So far, we have seen that nouns can be used attributively as adjectives only when they are used predicatively in a copular clause. If they occur immediately after a noun, they serve as a possessed element. In Bago, the genitive marker -*Ń*- can be used to indicate possession or origin of people, as we have seen in §7.1. When a noun inflected with the genitive marker follows another noun, it acts as a modifying phrase. As shown in the following examples, while possession is expressed in 27 through juxtaposition (i.e., <PSSR, PSSD>), the possessed noun in 28 is followed by the possessor noun which is marked by the genitive suffix.

27. ma   lɛ́   zakaríjá   bó-re
    1SG   buy   Zakariya   house-CIII
    'I bought Zakariya's house.'

28. ma   lɛ́   bó-re   zakaríjá-ń-ɖɛ
    1SG   buy   house-SG.CIII   Zakariya-POSS-SG.CIII.AGR
    'I bought the house of Zakariya.'

The genitive marker is suffixed for agreement with the possessed noun *bó-re* 'house'. The semantics of this possessive construction conveys that an X belongs to Y. 29 is an example where the noun marked by the genitive suffix indicates a place of origin (i.e., X belongs to the place Y).

29. ma-á   mɔsí   álʊ́-na   bagó-ŋ́-ŋɔ
    1SG-IMPV   take   woman-SG.CI   Bago-POSS-1SG.AGR
    'I will marry [lit., take] a Bago woman.'

To make a property such as heavy, dark, hot and strong modify a noun adnominally, the genitive marker -Ń- is suffixed to the noun expressing the property concept, indicating that the modified noun constitutes a feature that belongs to this concept. The following examples are given to illustrate this modifying strategy.

30. jele   zakaríjáá   k͡pérí   g͡belé-na   ɲúŋe-ŋ́-ŋa
    let.INF Zakariya   carry.INF chair-PL.CIII heaviness-POSS-PL.CIII.AGR
    'Let Zakariya carry the heavy chairs.'

31. ma álʊ́ tá ma   lıg͡bɔ́-ɔ   ɲímo   mbú-re-ḿ-bɔ
    let wife rob 1SG.POSS back-SG.CIV oil.SG.CV heat-SG.CIII-POSS-SG.CV.AGR
    'My wife rubbed hot oil on my back.'

32. ma-á   gɛ́   vɔɔ́-ŋɛ   ɖóŋe-ŋ́-ka
    1SG-IMPV want   rope-SG.CII strength-POSS-SG.CII.AGR
    'I want a strong rope.'

33. ma   d͡ʒʊ́   nɔnɔ́-ɔ   akukuw-á-ŋ́-kɔ   mɛ
    1SG   enter.FAC   room-SG.CIV   darkness-SG.CII- POSS-SG.CIV.AGR LOC
    'I entered into the dark room.'

As shown in these examples, the form of the suffix that attaches to the genitive morpheme agrees with the modified noun in class and number. This construction is restricted to property concepts that are expressed by nouns. Neither adjectival nor verbal roots are compatible with the genitive morpheme -Ń-, as exemplified below.

34. a. ma lɛ́ vɔɔ́-ŋɛ   ɖóŋe-ŋ́-ka
       1SG buy rope-SG.CII strength-SG.CV-POSS-SG.CII.AGR
       'I bought a strong rope.'   (Nominal root)

    b. * ma lɛ́ vɔɔ́-ŋɛ   fɔlí-ka-ŋ́-ka
         1SG buy rope-SG.CII new-SG.CII.AGR-POSS-SG.CII.AGR
       Intended: 'I bought a new rope.'   (Adjectival root)

    c. * ma lɛ́ vɔɔ́-ŋɛ   d͡ʒéŋ-ŋ́-ka
         1SG buy rope-SG.CII be long-POSS-SG.CII.AGR
       Intended: 'I bought a long rope.'   (Verbal root)

The sentence in (34b) is ungrammatical whether or not the adjectival root fɔlí- 'new' is marked for agreement. The sentence in (34c) also shows that verbal roots such as d͡ʒéŋ 'be long' behave

syntactically differently from nominal roots in that they cannot co-occur with the genitive morpheme to denote a description of an entity. The next section looks at several adjectival concepts that are expressed by means of verbs in Bago.

7.4 Modification by intransitive verbs

Bago has some adjectival concepts that are expressed by verbal roots without any derivational process. They denote properties that are attributed to their subject. As shown in Table 7.3, the concepts that these property verbs express belong to the semantic categories of colour, dimension, value and physical states.

Table 7.3: Property intransitive verbs in Bago

Type	Verb	Gloss
Colour	g͡bɛtɪ	'be black'
	fʊlʊɲ́	'be white'
	fóe	'be red/ripe'
Dimension	d͡ʒɛɲ́	'be tall/long'
	tɪrɪ	'be fat'
Value	bɔsɔ	'be rotten'
	ɗé	'be nice/beautiful'
	wɛrɛkɪ	'to break down'
Physical states	fɛ	'be wet/cold'
	wólɪ	'be dry'
	fʊ	'be soft/easy'
	bí	'be sharp'
	vaɲ́	'be sick'
	wá	'be cured'

As noted earlier, verbal roots in Bago differ from nominal and adjectival roots in that the latter require a copula when predicating.. The following examples show that the verbs presented in the table above are used alone to predicate a description of the subject.

35. a. lɔ́ɔrɪ   g͡bɛtí-ɪ
    car   be black-FAC
    'the car is black.'

  b. nabílá   ɖé-e
    Nabila   be beautiful-FAC
    'Nabila is beautiful.'

  c. ma   tákuku   wɛrɛkí-ɪ
    1SG.POSS   motorbike   break down-FAC
    'My motorbike is broken.'

  d. nabílá   lékí-re   wɛrɛkí-ɪ
    Nabila   heart-SG.CIII break down-FAC
    'Nabila is sad.'   (lit., Nabila's heart broke down)

  e. sɔkɔrɔ́   fʊ́-ʊ
    mashed yam   be.soft-FAC
    'The mashed yam is soft.'

  f. zakaríjá / vɔɔ́-ŋɛ   d͡ʒέŋ
    Zakariya   rope-SG.CII be.tall/long.FAC
    'Zakariya / the rope is tall/long.'

The lengthening of the predicate's final-vowel in 0 to realize the factative is a clear indication that these property concepts are verbs. Additionally, these property verbs are similar to other normal verbs in that they have finite and non-finite forms (see § 2.4.1 for details). These predicates further differ from adjectives in that some of them can be morphologically causativized by the unproductive suffix -*sɪ* (e.g., *wʊlí* 'to be dry' *wʊlí-sí* 'cause to be dry', *d͡ʒɛŋ́-sí* 'to be long' *d͡ʒɛŋ́-sí* 'to lengthen'). Finally, they differ from adjectival roots in not displaying agreement with the modified noun.

How are these types of property concepts used non-predicatively to describe an entity? The data shows that relative clauses are needed in order to use these property concepts to modify a noun. This is exemplified below.

36. d͡ʒa   dɪ   ná   dómi-ná   ŋɔɔ́   d͡ʒɛŋ́-ŋa   g͡ba   fʊ́w-a   mɛ
    today   1PL   see.FAC   snake-SG.CI   REL.SG.CI   be long-FOC   very   farm-SG.CII   LOC
    'Today, we saw a very long snake in the farm.'

37. fɛ́   nemí-se   kʊ́d͡ʒɔ-ɔ́   kɔɔ́   bɔsɔ́-wa
    give   goat-PL.CII   yam-SG.CIV   REL.SG.CIV   be rotten-FOC
    'Give the goats the yam that got rotten.'

38. ma-á   gɛ́   sírá-a   kaá   bí-ja   g͡ba
    1SG-IMPV   want   knife-SG.CII   REL.SG.CII   be sharp-FOC   very
    'I want a knife that is very sharp.'

Modification of a noun phrase through a relative clause seems to be the only way to employ most of the property concepts presented in Table 7.3 other than as main predicates. Colour terms, however, are exceptional in this regard.

There are two subclasses of colour terms according to their behaviour. All colour terms have in common that they do not need a relativizer to modify. The colour terms *g͡bɛtɪ* 'be black' *fʊlóŋ* 'be white', *foe* 'be red/ripe' are special in that they can be used as verbs in a modifying relative clause in addition to having an adjective-like adnominal use. When they are used adnominally, they behave like adjectival roots by taking a suffix that agrees with the modified noun. Consider the following examples:

39. a. lɔɔ́rɪ   g͡bɛtí-ɪ
       car.SG.CII   be black-FAC
       'The car is black.'

    b. zakaríjá   lɛ́   lɔɔ́rɪ   kaá   g͡bɛtí-ja
       Zakariya   buy.FAC   car.SG.CII   REL.SG.CII   be black-FOC
       'Zakariya bought a car that is black.'

    c. zakaríjá   lɛ́   lɔɔ́rɪ   g͡bɛtɪ-ka
       Zakariya   buy   car.SG.CII   black-SG.CII.AGR
       'Zakariya bought a black car.'

40. a. nemí-ja   fʊlɔ́ŋ
      goat-SG.CII   be white.FAC
      'The goat is white.'

   b. sáŋ́   nemí-ja   kaá   fʊlɔ́ŋ-ŋa
      catch.INF   goat-SG.CII   REL.SG.CIV   be white-FOC
      'Catch the goat that is white.'

   c. sáŋ́   nemí-ja   fʊlʊ́ŋ-ka
      catch.INF   goat-SG.CII   white-SG.CIV.AGR
      'Catch the white goat.'

41. a. ogo   fóe
      pant.SG.CIV be red.FAC
      'The pants are red.'

   b. ma   fá-á   gɛ́   má   su   ogo   kɔɔ́   fóe-ja
      1SG.POSS mother-IMPV want 1SG wear.INF pant.SG.CIV REL.SG.CIV be red-FOC
      'My mother wants me to wear the pants that are red.'

   c. ma   fá   gɛ́   má   su   ogo   fɛ́ŋ-kɔ
      1SG.POSS mother want 1SG wear pant.SG.CIV red-SG.CIV.AGR
      'My mother wants me to wear the red pants.'

The language employs the same forms of the colour terms *white* and *black* to function predicatively and adnominally, but the adnominal forms are bound roots because they must be marked for agreement, as shown in (39c)&(40c). On the other hand, the predictive and the adnominal forms of the colour term *red* are different for an unknown reason, as shown in 41. According to my consultant, an attempt to use *fóe-kɔ* to modify the noun *ogo* 'pants' in (41c) is completely unacceptable. The language thus may have two distinct roots for the colour term *red*. While it uses the root *fóe* 'to be red' predictively, it specifies the bound root *fɛ́ŋ-* 'red' for adnominal use only.

The rest of the colour terms in the language belong to a distinct subclass for two reasons. First, they predicate a description of a referent in a copulative sentence, as exemplified in (42a). Example (42b) shows that these colour terms cannot be used predicatively. Second, they differ from true adjectives in that they are not marked for agreement when they are used adnominally, as shown in

(43a). This subclass of colour terms includes *ɪbɔrɔ* 'blue', *gɛríŋɛ* 'yellow', *tɔkɔlímɔ tɔkɔlímɔ* 'gray' *fátɔ fátɔ* 'green'. The last two colours, *gray* and *green*, are expressed by reduplicating the nouns *tɔkɔlímɔ* 'ash' and *fátɔ* 'leaves'.

42. a. fúró-o   wɛ   gɛríŋɛ
    bag-CIV   COP.FAC   yellow
    'The bag is yellow.'

   b. * fúró-o   gɛríŋɛ
      bag   yellow
   Intended: 'The bag is yellow.'

43. a. zakaríjá   mɔsí   fúró-o   ɪbɔrɔ
    Zakariya   take.FAC   bag-SG.CIV   blue
    'Zakariya took the blue bag.'

   b. * zakaríjá   mɔsí   fúró-o   ɪbɔrɔ-kɔ
      Zakariya   take.FAC   bag-SG.CIV   blue-SG.CIV.AGR
   Intended: 'Zakariya took the blue bag.'

   c. * zakaríjá   mɔsí   fúró-o   kɔ́ɔ   ɪbɔrɔ-wa
      Zakariya   take.FAC   bag-SG.CIV   REL.SG.CIV   blue-FOC
   Intended: 'Zakariya took the bag that is blue.'

The ungrammatical examples (43b)&(43c) show that the colour term *ɪbɔrɔ* 'blue' cannot be marked for agreement or be used in a relative clause to modify a noun, as opposed to the colour terms for white, black and red.

Finally, the data shows that the words *lɔlɔ* 'good' and *ɗaɗa* 'bad' are the only adjectival concepts that can be used pre-nominally as modifiers. They may not be used as main predicates, as shown in 44.

44. a. zakaríjá   jɛ́   lɔlɔ / ɗaɗa   álámí-na
    Zakariya   COP   good   bad   person-SG.CI
    'Zakariya is a good / bad person.'

   b. * zakaríjá   jɛ́   lɔlɔ / ɗaɗa
      Zakariya   COP   bad   bad
   Intended: 'Zakariya is good / bad.'

When one of these two adjectives is used in post-nominal position, it must be followed by the genitive morpheme -Ń-CM. Their occurrence with the genitive morpheme makes them similar to property concepts that are expressed by nouns. However, they are different in that they can occur before the modified noun while the latter cannot, as can be seen in 45.

45. a. zakaríjá-á   ɲań   besú-ŋɛ   ɖaɖa-ŋ́-tɔ
    Zakariya-IMPV   sell   pot-PL.CIV   bad-POSS-PL.CIV.AGR
'Zakariya sells bad pots.'

b. zakaríjá-á   ɲań   lɔlɔ   besú-ŋɛ
    Zakariya-IMPV   sell   good   pot-PL.CIV
'Zakariya sells good pots.'

In the following table, I summarize the different strategies that have been discussed to modify a noun in Bago.

Table 7.4: Summary of modificational strategies

Class → Function↓	True adj.	Intr.V	Noun	Red,black, white	Other colours	lɔlɔ, ɖaɖa
As adnom. Pre-N	*	*	*	*	*	Unmarked
As adnom. Post-N	-AGR.CM	REL CL	-POSS- AGR.CM	-AGR.CM	Unmar ked	-POSS- AGR.CM
As predicate	COP -AGR.CM	Unmarked	COP	Uunmarked	COP	*

7.5 Modification by numerals and quantifiers

In Bago, the numeral system is decimal. The numerals from one to five are morphologically complex. They consist of a root and a prefix that reflects the class of the counted entity. Speakers make use of *Class II* when there is no reference to a particular entity in mind. The following are the citation forms of the numerals from one to ten.

46. **kaa**-rɪ   'SG.CII-one'
    sɪɪ-lɛ   'PL.CII-two'
    sɪ-tooro   'PL.CII-three'
    sɪ-násá   'PL.CII-four'
    sɪɪ-nɔ́   'PL.CII-five'
    lɪɪd͡ʒʊ   'six'
    lʊnlɛ   'seven'

    ḍik͡peere   'eight'
    kákaarɪ   'nine'
    saláa   'ten'

As shown, while the numeral *kaa-rɪ* 'one' is prefixed with *kaa-* to denote singularity, the numerals from two to five are marked with *sɪ(ɪ)-* for plurality. It can be seen that the length of the vowel of the prefix depends on the syllable shape of the root. It is realized as a long vowel only when it is attached to a light monosyllabic root[7]. Lengthening the nucleus of a numeral prefix is not limited to class II. In 47, the numerals from one to five are given to show that lengthening applies whenever the root has the syllable shape CV. I present each numeral with five prefixes to show how entities that belong to different classes are counted.

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[7] In §4.4, we have seen a similar lengthening process that affects the length of monosyllabic nominal roots within *class III*, such that the nucleus of a light monosyllabic root is lengthened only in the presence of the plural suffix *-na (e.g., bó-rɛ* 'stone' *bɔ́ɔ́-na* 'stones'*, bó-re* 'house' *bóó-na* 'houses' and *ŋí-rɛ* 'head' *ŋíí-na* 'heads'). This lengthening process does not apply to any affixes in the language other than class prefixes on numerals.

47.

CI	CII	CIII	CIV	CV	
ŋʊʊ-rʊ	kaa-rɪ	ɖaa-rɪ	kʊʊ-rʊ	bʊʊ-rʊ	'SG.CM-one'
baa-lɛ	sɪɪ-lɛ	ŋaa-lɛ	tʊʊ-lɛ	bʊʊ-lɛ	'PL.CM-two'
ba-tooro	sɪ-tooro	ŋa-tooro	tʊ-tooro	bʊ-tooro	'PL.CM-three'
ba- násá	sɪ-násá	ŋa-násá	tʊ-násá	bʊ-násá	'PL.CM-four
baa-nɔ́	sɪɪ-nɔ́	ŋaa-nɔ́	tʊʊ-nɔ́	bʊʊ-nɔ́	'PL.CM-five'

The numbers between eleven and nineteen are formed by combining the number *saláa* 'ten' with the numbers from one to nine, which behave as above.

48.

saláa ŋʊʊ-rʊ	(ten SG.CI-one)	'eleven'
saláa sɪɪ-lɛ	(ten PL.CII-two)	'twelve'
saláa ŋa-tooro	(ten PL.CIII-three)	'thirteen'
saláa tʊ-násá	(ten PL.CIV-four)	'fourteen'
saláa bʊʊ-nɔ́	(ten PL.CV-five)	'fifteen'
saláa lɪɪd͡ʒʊ	(ten six)	'sixteen'
saláa lʊnlɛ	(ten seven)	'seventeen'
saláa ɖik͡peere	(ten eight)	'eighteen'
saláa kákaarɪ	(ten nine)	'nineteen'

The words for twenty and thirty are mono-morphemic forms. By means of the conjunction *na* 'and', the numerals 1-9 are added to *ákó* 'twenty' and *ág͡baá* 'thirty' to obtain the numerals 21-29 and 31-39. Again they behave as above, with one to five agreeing with the modified noun, and six to nine being invariable.

49.

ákó	(twenty)	'twenty'
ákó na ŋʊʊ-rʊ	(twenty and SG.CI-one)	'twenty-one'
ákó na sɪɪ-lɛ	(twenty and PL.CII-two)	'twenty-two'
ákó na ŋa-tooro	(twenty and PL.CIII-three'	'twenty-three'
ág͡baá	(thirty)	'thirty'
ág͡baá na tʊ-násá	(thirty and PL.CIV-four)	'thirty-four'
ág͡baá na bʊ-nɔ́	(thirty and PL.CV-five)	'thirty-five'
ág͡baá na lɪɪd͡ʒʊ	(thirty and six)	'thirty-six'

To express the remaining multiples of ten 40-100, the language makes use of the bound root *ŋɪ(ɪ)-*. It is attached to the roots of the numerals 2-5 and multiplies them by twenty to form the words for 'forty', 'sixty', 'eighty' and 'hundred'. As shown below, the words for 'fifty', 'seventy' and

'ninety' are formed by adding the conjunction *na* 'and' and the word for 'ten' after the words for 'forty', 'sixty' and 'eighty', respectively.

50. ŋɪɪ-lɛ   (20×2)   'forty'
    ŋɪɪ-lɛ na saláa   (20×2 and 10)   'fifty'
    ŋɪ-tooro   (20×3)   'sixty'
    ŋɪ-tooro na saláa   (20×3 and 10)   'seventy'
    ŋɪ-násá   (20×4)   'eighty'
    ŋɪ-násá na saláa   (20×4 and ten)   'ninety'
    ŋɪɪ-nɔ́   (20×5)   'hundred'

One might expect that if the word for 'forty' consists of *ŋɪɪ-* plus the word for two, then the form *ŋɪɪ-rɪ* (20×1) could be expected to mean 'twenty'. This form is meaningless, however.

The numbers 41-49, 61-69 and 81-89 are formed by adding the conjunction *na* 'and' followed by a number from 1-9. However, the numbers 51-59, 70-79 and 91-99 are simply formed by adding a number from 1-9 after the word for 'ten' without the conjunction *na* 'and'.

51. ŋɪɪ-lɛ na **sɪɪ**-lɛ   (twenty-two and PL.CII-two)   'forty two'
    ŋɪɪ-lɛ na saláa **ŋa**-tooro   (twenty-two and ten PL.CIII-three)   'fifty three'

Numerals resemble other categories in several respects. As will be discussed below, quantifiers and numerals occur linearly after the noun they modify, as is also the case with the categories of true adjectives and demonstrative modifiers. Numerals from one to five are very much like demonstratives in that they are marked for agreement through prefixation, as opposed to true adjectives which are marked for agreement through suffixation. The quantifiers *feé* 'all' and *lɔlɔ* 'only' are similar to the numerals from 6 to 10 in that they are not inflected by a prefix indicating the class of the modified noun. According to my consultants, it would be semantically odd for the quantifier *feé* 'all' to co-occur with a numeral because both denote the quantity of the referent. The following examples illustrate the attributive use of numerals.

52. ɔ   mɔsí   álá-a   baa-lɛ
    3SG.CI take.FAC wife-PL.CI PL.CI.AGR-two
    'He married two wives.'

53. kʋ   lá   kaa   gɔlɔ́   tɔ́tɔ-níŋɛ   tʋ-tooro
    3SG.CIV go.FAC to   invite.INF village-PL.CIV   PL.CIV.AGR-three
    'It (spider) went to invite three villages.'

54. ba-á   jɛ́ nsɪ sɔrɔ-níŋɛ   lɪɪd͡ʒʋ
    3PL.CI-IMPV do like month-PL.CIV six
    'They will spend around six months.'

The numeral *lɪɪd͡ʒʋ* 'six' in 54 is not marked for agreement, whereas the numerals in 52 and 53 must take a prefix that agrees with the head nouns. A numeral and a demonstrative in a postnominal position are not ordered freely. The numeral must precede the demonstrative in relation to the modified noun, as illustrated in (55c). The sentence would be unacceptable with the order reversed, as shown in (55d).

55. a. fɛ́   mɛ tíma-ná   ŋa-násá
       give.INF 1SG spear-PL.CIII PL.CIII.AGR-four
       'Give me four spears.'

    b. fɛ́   mɛ tíma-ná   ŋa-d͡ʒé
       give.INF 1SG spear-PL.CIII PL.CIII.AGR-DEM
       'Give me these spears.'

    c. fɛ́   mɛ tíma-ná   ŋa-násá   ŋa-d͡ʒé
       give.INF 1SG spear-PL.CIII PL.CIII.AGR-four PL.CIII.AGR-DEM
       'Give me these four spears.'

    d. * fɛ́   mɛ tíma-ná   ŋa-d͡ʒé   ŋa-násá
       give.INF 1SG spear-PL.CIII PL.CIII.AGR-DEM   PL.CIII.AGR-four
       'Give me these four spears.'

In comparison with adjectives, we observe in 56 that the numeral is linearly ordered after the modifying adjective.

56. a. dʋ́   gáá-sɛ   fɔlí-sɛ   sɪɪ-lɛ   akpókpów-a mɛ
       put.INF arrow-PL.CII new-PL.CII.AGR   PL.CII.AGR-two quiver-SG.CII LOC
       'Put the two new arrows in the quiver.'

    b. * dʋ́   gáá-sɛ   sɪɪ-lɛ   fɔlí-sɛ   akpókpów-a mɛ
       put.INF arrow-PL.CII PL.CII.AGR-two new-PL.CII.AGR quiver-SG.CII LOC
       Intended 'Put the two new arrows in the quiver.'

As shown in (57), the surface position of a numeral with respect to other modifers is [N > Adj > Num > Dem].

57. mɔsɪ   gáá-sɛ   fɔlí-sɛ   sɪɪ-lɛ   se-d͡ʒé
    take.INF   arrow-PL.CII   new-PL.CII.AGR   PL.CII.AGR-two   PL.CIII.AGR-DEM
    'Take these two new arrows.'

The data also show that a numeral may be used nominally without its head noun. Since the quantified referents in 58 and 59 are recoverable from the context, the numerals are preferentially used alone as arguments.

58. a. d͡ʒa   ma   kʊ́   soŋa-sɛ́   bʊ   vʊ́-ʊ
      today   1SG   kill.FAC   hare-PL.CII   3SG.CV   be enough-FAC
      'Today, I killed many hares.'

    b. ma-á   la   kaa   fɔ́sí   d͡ʒoó-na   ka   fɛ́   ɪ   sɪ-tooro
      1SG-IMPV   go   to   greet.INF   chief-SG.CI   and   give.INF   3.SG.CI   PL.CII-three
      'I am going to greet the chief and give him three.'

59. a. zakaríjá   mɔsí   ɗág͡bará-sɛ́   feé
      Zakariya   take.FAC   trap-PL.CII   all
      'Zakariya took all the traps.'

    b. tɔn   fɛ́   ɪ   sɪ   ɗɪ-í   gɛ́   sɪɪ-lɛ
      tell.INF   give   3SG.CI   COMP   1PL.IMPV   want   SG.II.AGR-two
      'Tell him that we want two.'

The following examples show that when numerals are used predicatively to assert the quantity of something, they occur in a copulative sentence.

60. a. ba   wɛ   baa-nʊ́
      3PL.CI   COP   PL.CI.AGR-five
      'They are five.'

    b. kʊ́jɔ-níŋɛ   wɛ   saláa   tʊ-tooro
      yam-PL.CIV   COP   ten   PL.CIV.AGR-three
      'The yams are thirteen.'

    c. ɗɪ   wɛ   saláa
      1PL   COP   ten
      'We are ten.'

Finally, the quantifier words *feé* 'all' and *lɔlɔ* 'only' are used in postnominal position. While the quantifier *lɔlɔ* 'only' is acceptable to co-occur with a numeral modifier, as in (61a), speakers disprefer the presence of the quantifier *feé* 'all' after a numeral. The ungrammaticality of (61b) shows that *lɔlɔ* must be linearly positioned after the numeral modifier. In (62b), we see that the presence of the quantifier *feé* before the head noun results in ungrammaticality.

61. a. ɖɛ   ma gɔ́-ɔ   ma k͡pá   máŋgo-sɛ́   ákó   lɔlɔ
       yesterday 1SG be tired-FAC 1SG pick.FAC   mango-PL.CII twenty only
       'Yesterday, I was tired. I picked just twenty mangos.'

    b. * ɖɛ   ma gɔ́-ɔ   ma k͡pá   máŋgo-sɛ́   lɔlɔ   ákó
         yesterday 1SG be tired-FAC 1SG pick.FAC   mango-PL.CII only   twenty
         Intended: 'Yesterday, I was tired. I picked just twenty mangos.'

62. a. sukúru   bíja   feé síŋi   kak͡pá-a   lɔ́ faád͡ʒé
       school   child.PL all   stand.FAC yard-SG.CII on   now
       'All the students are standing on the yard now.'

    b. * feé   sukúru   bíja   síŋi   kak͡pá-a   lɔ́ faád͡ʒé
         all   school   child.PL   stand.FAC yard-SG.CII on   now
         Intended: 'All the students are standing on the yard now.'

We have seen earlier that a demonstrative modifier occurs linearly to the right of a numeral modifier. As illustrated in 63&64, the quantifier must follow the demonstrative modifier.

63. a. ɔ   fɛ́   mɛ nso-níŋɛ   tʊ-tooro   to-d͡ʒé   lɔlɔ
       3SG.CI give.FAC 1SG gun-PL.CIV PL.CIV.AGR-three PL.CIV.AGR-DEM   only
       'He gave me only these three guns.'

    b. * ɔ   fɛ́   mɛ nso-níŋɛ   tʊ-tooro   lɔlɔ to-d͡ʒé
         3SG.CI give.FAC 1SG gun-PL.CIV PL.CIV.AGR-three only   PL.CIV.AGR-DEM
         Intended: 'He gave me only these three guns.'

64. a. dʊ́   gáá-sɛ   fɔlí-sɛ   se-d͡ʒé   feé ak͡pók͡pów-a mɛ
       put.INF arrow-PL.CII new-PL.CII.AGR PL.CII.AGR-DEM all   quiver-SG.CII LOC
       'Put all these new arrows in the quiver.'

    b. * dʊ́   gáá-sɛ   fɔlí-sɛ   feé se-d͡ʒé   ak͡pók͡pów-a mɛ
         put.INF arrow-PL.CII new-PL.CII.AGR all   PL.CII.AGR-DEM quiver-SG.CII LOC
         Intended: 'Put all these new arrows in the quiver.'

It should be noted that the quantifier *feé* 'all' differs from the other modifiers in that it cannot be used nominally. As shown in 65, the quantifier must be accompanied by a pronoun, which is

identical in form to the subject pronoun of the referent, to form a constituent in object position.

Similarly, We see in (66b) that the quantifier *feé* cannot stand alone to produce a fragment answer

in the same way numerals, demonstratives and adjectives are used.

65. a. gáá-sɛ   wɛ   téburu lɔ́   dʊ́   sɪ   feé ak͡pók͡pów-a   mɛ
    arrow-PL.CII COP.FAC table   on   put.INF 3PL.CII all quiver-SG.CII   LOC
    'The arrows are on the table. Put all of them in the quiver.'

    b. * gáá-sɛ   wɛ   téburu lɔ́   dʊ́   feé ak͡pók͡pów-a   mɛ
    arrow-PL.CII COP.FAC table   on   put.INF all quiver-SG.CII   LOC
    Intended: 'The arrows are on the table. Put all (of them) in the quiver.'

66. a. gáá-sɛ   sɪɪ-míí   súli   mɔsí-ɪ
    arrow-PL.CII PL.CII.AGE-how many   Suli   take-FAC
    'How many arrows did Suli take?'

    b. * feé / sɪ   feé
    all / 3PL.CII all
    'All of them.'

To summarize, this chapter looked at the closed class of adjectival roots in the language. They are

obligatorily suffixed by agreement morphology reflecting the class and number features of the

modified noun. In addition to adjectival roots, the language employs nouns and intransitive verbs

to express adjectival concepts. Unlike adjectival roots, nouns are not used adnominally. In order

for a noun to be used adnominally, it must be marked by the genitive suffix *-Ń-CM*. It was also

observed that the two words *lɔlɔ* 'good' and *ɗaɗa* 'bad' are exceptional in that they can be used

prenominally and postnominally. They differ from adjectival roots in that they cannot be used

predictively. Additionally, when they occur in a postnominal position, they behave in the same

way as nouns in that they are obligatorly suffixed by the genitive morpheme *-Ń-CM*. Finally, the

description of the numeral system demonstrated that numerals are postnominal modifiers, and

agreement with the modified head is only marked prefixally on numerals from one to five. A

numeral modifier may co-occur with other modifiers in a strict order, but its co-occurrence with

the quantifier *feé* 'all' is dispreferred.

Verbal Morphosyntax

Chapter 8

Copular verbs and the classification of verbal predicates

This chapter deals with the distribution of the copular verbs *jé* and *wɛ*. It investigates their uses with nominal, adjectival and locative predicates. A second section discusses the classification of verbs into stative and non-stative. It provides a characterization of the two subclasses based on the verbs' temporal interpretation in the factative and imperfective aspects.

8.1 Copular verbs

This section identifies the uses of the copular verbs *jé* and *wɛ* in Bago. These two items are used as linkers between a subject and a non-verbal predicate. As will be shown, the choice of copular verb depends on the type of predicate and on the aspect of the clause. The use of a copular verb in combination with nouns, adjectives and locative phrases is examined in detail. A description is provided of the copular verbs in predicative possessive constructions, where they are suffixed with the comitative morpheme *-na* and followed by the possessed noun.

8.1.1 Locative copular clauses

The copulas *jé* and *wɛ* are both used in locative clauses. In this construction, the choice between *jé* and *wɛ* covaries with the choice between the aspectual categories of imperfective and factative. As was already mentioned in Chapter 3 and as will be discussed at length in §9.2, imperfectivity is marked in Bago by lengthening the final segment of the subject constituent, whereas the factative aspect is marked by lengthening the final vowel of the verb, but is only marked overtly on a verb whose final segment is high-toned and occurs in clause final position.

176

A locative copular clause appears in the factative with the copula *wɛ* to talk about an eventuality that holds true at the present time or held true at some time in the past, following the pattern of interpretation of the factative when on stative verbs in the language. As exemplified below, the copular verb *wɛ* is employed to describe the location of a referent at the present time or at a specific time in the pastt.

1. a. lé-é   n   tá wɛ
  where-FOC 2SG.POSS father COP.FAC
  'Where is your father?'

 b. ɔ wɛ fʊ́w-a mɛ
  3SG.CI COP.FAC farm-SG.CII LOC
  'He is in the farm.'

2. ma-á gɛ́ má k͡paarı nabílá ɔ wɛ dókíta mɛ ɖɛ
 1SG-IMPV want 1SG visit.INF Nabila 3SG.CI COP.FAC clinic LOC yesterday
 'I want to visit Nabila. She was in the clinic yesterday.'

3. sáa kaá   má lá-ja bagó ma   tá wɛ bɔlɔ́
 time REL.3SG.CII 1SG go-FOC Bago 1SG.POSS father COP there
 'When I went to Bago my father was there.'

The example in 1 shows the use of *wɛ* to talk about the location of the referent at the present moment. The copular verb *wɛ* is also used in 2, wherein reference is made to the location of the referent at a past time. The copular clause in 3 has a past time reference because the speaker refers to the location of the subject *ma tá* 'my father' at a time prior to the utterance time set by the event of going to Bago.

The copular verb *jɛ́* must be used when the time reference is in the future, as shown in (4)&5. Future is the interpretation that imperfective aspect receives also with stative verbs.

4. d͡ʒoó-na-á jɛ́ ɔ fʊ́w-a mɛ sɛ́
 chief-SG.CI-IMPV COP 3SG.POSS farm-SG.CII LOC tomorrow
 'The chief will be in his farm tomorrow.'

5. a. lé-é   ma-á   júku   ŋέ
      where-FOC   1SG.IMPV find   2PL
      'Where will I find you?'

   b. ḍɪ-í   jɛ́   mɔɔ́
      1PL.IMPV   COP   DEM.DIST.LOC
      'We will be over there.'

The temporal adverb *sɛ́* 'tomorrow' in 4 is merely used to point to a specific moment in the future.

Its absence does not result in ambiguity; the sentence can only convey a future time reference. As

shown by the reply in (5b), the event has not occurred yet at the utterance time, but it is planned to

occur at a future time that precedes the arrival of their friend. The examples in (6a)&(6b) show that

the copular verb *jɛ́* cannot be used in a locative copular clause with a past or a present interpretation,

respectively.

6. a. * zakaríjá jɛ́   tɔ́tɔ   mɛ   ḍɛ
      Zakariya   COP village LOC   yesterday
      Intended: 'Zakariya was in the village yesterday.'

   b. * ma   fá   jɛ́   d͡ʒingíri   mɛ   faád͡ʒé
      1SG.POSS mother COP mosque   LOC   now
      Intended: 'My mother is in the mosque now.'

In (7a), we show that the copular verb *wɛ* is not permitted in locative clauses with imperfective

marking, with an intended future interpretation.

7. a. lé-é   ma-á   júku   ŋέ
      where-FOC   1SG.IMPV find   2PL
      'Where will I find you?'

   b. * ḍɪ-í   wɛ   d͡ʒingíri   mɛ
      1PL.IMPV COP   mosque   LOC
      Intended: 'We will be in the mosque.'

8.1.2 Nominal predicates in copular clauses

In this section, we will see that the copular verb *jɛ́* is not always required in imperfective copular

clauses with future time reading. In clauses with nominal predicates, the copula *jɛ́* is used regardless

of the aspect of the clause. Here, I will be concerned with nominal predicates that express the semantic relations of identity (equation), role (proper inclusion), and place of origin. The following examples show that the copular verb *jɛ́* is used in a factative clause in which a nominal predicate denotes any of those semantic relations.

8. ma   jɛ́   zakaríja
   1SG   COP.FAC   Zakariya
   'I am Zakariya.'

9. ɔ   jɛ́   ma   ḍesí
   3SG.CI   COP.FAC   1SG.POSS   sister
   'She is my sister.'

10. ma   tá   jɛ́   oɡuw-ó
    1SG.POSS   father   COP.FAC   blacksmith-SG.CIV
    'My father is a blacksmith.'

11. zakaríjá   d͡ʒoóŋu-náa   jɛ́   ɔ́dí-ŋɛ
    Zakariya   brother-PL.CI   COP   hunter-PL.CIV
    'Zakariya's brothers are hunters.'

12. ḍɪ   jɛ́   baɡó-m̀-ba
    1PL   COP.FAC   Bago-POSS-1PL.AGR
    'We are Bago.'

From these examples, it may be seen that a present time reference interpretation is obtained when a nominal predicate denoting a time-stable property follows the copular verb *jɛ́*. The predicates in these copular clauses are understood to hold from a prior time point that continues until the utterance time. The copular verb *jɛ́* is also used if a nominal predicate holds at a past time excluding the present time, as shown in 13.

13. tení   súli   jɛ́   sɔ́ɔ́d͡ʒa   amá   faád͡ʒé   ɔ   jɛ́   kafîntá
    last year   Suli   COP.FAC   soldier   but   now   3SG.CI   COP.FAC   carpenter
    'Last year, Suli was a soldier but he is now a carpenter.'

The following examples show that when the clause is marked for imperfectivity to convey a future time reference, the copular verb *jɛ́* must still be used.

14. ma-á   jɛ́   dókíta
    SG-IMPV   COP   doctor
    'I will be a doctor.'
    * 'I am / was a doctor.'

15. zakaríjá-á   jɛ́   lɔlɔ   ɔ́díw-ɔ
    Zakariya-IMPV   COP   good   hunter-SG.CIV
    'Zakariya will be a good hunter.'
    * 'Zakariya is / was a good hunter.'

The copular verb *wɛ* is not compatible with a nominal predicate expressing the semantic relations of identity (equation), role (proper inclusion), and origin of place. As illustrated in the following examples, using the copular verb *wɛ* results in ungrammaticality whether the clause is expressed in the factative or the imperfective aspect.

16. * ŋo-d͡ʒé   wɛ   ma   fá
    SG.CI-DEM.PROX   COP.FAC   1SG.POSS   mother
    Intended: 'This is my mother.'

17. * ń   d͡ʒoó-na   sɪwʊ́-ʊ zakariíjá-á wɛ   d͡ʒɪ   d͡ʒoó-na
    if   chief-SG.CI   die-FAC Zakriya-IMPV COP   1PL.POSS   chief-SG.CI
    Intended: 'If the chief dies, Zakariya will be our chief.'

18. * tení   ma   wɛ   sukúru   vuú-na
    last year 1SG COP school   child-SG.CI
    'Last year, I was a student.'

8.1.3 True adjectives in copular clauses

As discussed in §7.2 about nominal modification, Bago has a closed class of true adjectives that consists of the adjectival roots *tʊ́tʊbʊ́-* 'small', *béŋ-* 'big' *fɔlí-* 'new' and *dɔɔ́-* 'old'. These adjectives can be used predicatively after the copular verbs *jɛ́* and *wɛ*. The data shows that the copular verb *jɛ́* is required if the utterance conveys a future time reference, which is expressed in the imperfective aspect, as illustrated in 19.

19. ń d͡ʒɪ má nɔnɔ́-ɔ   d͡ʒeé   bavó-re-é   jɛ́ tʊ́tʊbʊ́-d͡ʒɛ
    if 1PL build room.SG.CIV DEM.PROX.LOC bath.room-SG.CIII-IMPV COP small-SG.CIII.AGR
    'If we build the room here, the bathroom will be small.'

To denote that a property concept holds at the present time, the copular verb *wɛ* is employed. In 20, for instance, the speaker uses *wɛ* to describe the state of his motorbike at the present time.

20. ma   tákuku   wɛ   dɔɔ́-ka   ma-á   gɛ́ sɪ   má lɛ   fɔlí-ka
    1SG.POSS   motorbike   COP.FAC   old-SG.CII.AGR 1SG-IMPV want COMP 1SG buy.INF new-SG.CII.AGR
    'My motorbike is old. I want to buy a new one.'

21. nɔnɔ́-ɔ   ko-d͡ʒé   wɛ   tʊ́tʊbʊ́-kɔ   dɪ tá-a
    room-SG.CIV SG.CIV-DEM.PROX   COP.FAC small-SG.CIV.AGR 1PL NEG-IMPV
    jála   ka   sɔkɔ   d͡ʒeé   bɔ́ɔ
    be able   to   stay   DEM.PROX.LOC   NEG
    'This room is small. We cannot stay here.'

In addition, the copular verb *wɛ* is used to talk about the state of a referent at a contextually given time in the past, as illustrated in the following examples.

22. ma   ɲań   ma   bó-re   d̪oómi dɪ   wɛ   tʊ́tʊbʊ́-d̪ɛ
    1SG   sell.FAC   1SG.POSS house-SG.CIII because 3SG.CII COP.FAC small-SG.CIV.AGR
    'I sold my house because it was small.'

23. ɔ́dí-ŋɛ   lá   lɔ́-ɔ   mɛ bʊ́ʊ́ ba   ná   d͡ʒad͡ʒɔ́-ɔ   kʊ
    hunter-PL.CIV go.FAC forest-SG.CIV LOC then 3PL.CI see.FAC elephant-SG.CIV 3.SG.CIV
    wɛ   béŋ́-kɔ   g͡ba bʊ́ʊ́ ŋʊ-rʊ   ba   mɛ kɔ́   kɪ   na nso
    COP.FAC big-SG.CIV.AGR very then 3SG.CI-INDF 3PL.CI LOC kill.FAC 3SG.CIV COM gun
    'The hunters went to the forest. Then they saw an elephant. It was very big. Then one of them killed it with a gun.'

24. ma   tákuku   wɛ   dɔɔ́-ka   ma-á   gɛ́ sɪ   má
    1SG.POSS   motorbike COP.FAC   old-SG.CII.AGR 1SG-IMPV want   COMP 1SG
    lɛ   fɔlí-ka
    buy.INF   new-SG.CII.AGR
    'My motorbike is old. I want to buy a new one.'

8.1.4 Attributive abstract nouns in copular clauses

Beyond the closed list of adjectival roots, the language expresses some attributive concepts by means of abstract nouns that can be used adnominally and predicatively. When nouns such as *ak͡pow-á* 'shyness' *d̪ɪkɔ́-rɛ* 'laziness', and *kɔkɔlɪj-á* 'anger' are used as predicates in a copular

181

clause, they co-occur with the copular verb *wɛ* to predicate a typical/individual-level property of the subject. Consider the following examples:

25. ma   bíja   wɛ   ɖɪkɔ́-rɛ
    1SG.POSS child.PL COP.FAC   laziness-SG.CIII
    mʊ́-ʊ̌   jasí kakpá-a   sɔ́sɔ́   báa   aŋ-kʊ́
    1SG.EMPH-IMPV   sweep yard-SG.CII morning.SG.CIV every which-SG.CIV.AGR
    'My children are lazy. It is me who sweeps the yard every morning.'

26. zakaríjá   wɛ   kɔkɔlɪj-á   gba
    Zakariya   COP.FAC   anger-SG.CII very
    ɖɪ   tá-a   gé   sɪ   ɔ́   wʊlɪ   ɖʊ́   kʊraání   bɔ́ɔ
    1.PL NEG-IMPV want COMP 3SG teach.INF   1PL Quran   NEG
    'Zakariya is a very angry person. We do not want him to teach us the Quran.'

27. nabílá   wɛ   akpow-á
    Nabila   COP   shyness-CII
    'Nabila is a shy person.'

The following example shows that the copular verb *wɛ* is used when an attributive concept denotes a permanent state at a certain period of time in the past.

28. sáa kaá   ɲ   jɛ́-ja   vuú-na   ɲ   wɛ   akpow-á
    time REL.3SG.CII 2SG COP.FAC-FOC   child-SG.CI 2SG COP.FAC   shyness-SG.CII
    'When you were child, you were a shy person.'

The use of the copular verb *wɛ* with these property concepts does not permit a reading in which the state is transient (s-level). For this reason, the presence of the temporal expression in 29 results in ungrammaticality.

29. * ma   fá   wɛ   kɔkɔlɪj-á   dʒa   sɔ́sɔ́
      1SG.POSS father COP.FAC   anger-SG.CII today morning
      Intended: 'My mother was angry today [in the] morning.'

If the speaker's intention is to describe a transient state that has held at a particular time in the past, the copular verb *jɛ́* is used, as shown below. Note that such clauses are not marked in the imperfective as in other clauses with *jɛ́* seen so far, but rather are factative (morphologically unmarked if the copula is not clause-final).

182

30. ma   fá   jέ   kɔkɔlɪj-á   d͡ʒa   sɔ́sɔ́
    1SG.POSS   mother   COP.FAC   anger-SG.CII   today   morning
    'My mother was angry today [in the] morning.'

31. ɖɛ   ma   jέ   ɖɪkɔ́-rɛ   ma   k͡pá   máŋgo-sέ   ákó   lɔlɔ
    yesterday   1SG   COP.FAC   laziness-SG.CIII   1SG   pick.FAC   mango-PL.CII   twenty   just
    'Yesterday, I was lazy. I picked just twenty mangos'

The judgment of my informant reveals that answering the question in (32b) by *ma wɛ ɖɪkɔ́-rɛ* is

inappropriate in this context because it conveys a permanent state reading. Also, a reply such as

ma jέ ɖɪkɔ́-rɛ is not acceptable because only a past reference reading of a transient state is obtained.

32. a. ma   tá-a   gέ   má   lá   fʊ́w-a   d͡ʒa   bɔ´ɔ
       1SG   NEG-IMPV   want   1SG   go.INF   farm-SG.CII   today   NEG
       'I do not want to go to the farm today.'

    b. be   lɔ
       what   on
       'Why?'   (lit. On what)

    c. # ma   wɛ   /   jέ   ɖɪkɔ́-rɛ
         1SG   COP.FAC   laziness-SG.CIII
       Intended: 'I feel lazy.'

If transient states expressed with the copula *jέ* are never interpreted in the present and using *wɛ* for

this purpose is not a possibility, one might wonder how to express a current transient state. The

construction employed to describe a transient state with a present time reference is more complex

than a simple copula clause. As the following examples illustrate, the noun denoting the property

concept precedes the copular verb *wɛ*, which is suffixed with the comitative morpheme *–na* to

derive a stem that functions as a possessive predicate. The noun referring to the experiencer of a

current transient state follows the complex verb *wɛ-na* 'have'.

183

33. a. ma   tá-a   gɛ́   má lá   fʊ́w-a   d͡ʒa bɔ́ɔ
    1SG   NEG-IMPV   want 1SG go.INF farm-SG.CII today NEG
    'I do not want to go to the farm today.'

    b. be   lɔ
     what   on
     'Why?'   (lit. On what)

    c. ḍɪkɔ́-rɛ   wɛ-na   mɛ
     laziness-SG.CIII   COP.FAC-COM 1SG
     'I feel lazy.'   (lit., 'Laziness has me.')

34. g͡bɪ   kɔkɔlɪj-á   wɛ-na   ɪ   ɪtá
    be quiet.INF   anger-SG.CII COP.FAC-COM   2PL.POSS   father
    'Be quiet, your father is angry.'   (lit., 'Be quiet, anger has your father.')

Unlike in a regular possessive construction (see §8.1.5 below), the possessed noun denoting the attributive concept serves as the subject, and the possessor noun occurs as the complement of the complex verb *wɛ-na* (POSSD + COP-COM + POSSR). The complex verb *wɛ-na* is also used to describe an ongoing transient state that held at a contextually given time in the past. For instance, the following sentence is uttered to describe the father's transient state of anger that was still true at the time of the speaker's coming.

35. sáa kaá   ma kɔní-ja   bó-re   mɛ   kɔkɔlɪj-á   wɛ-na
    time REL.3SG.CII 1SG come.FAC-FOC house-SG.CIII LOC   anger-SG.CII COP.FAC.COM
    ma   tá   ḍoómi   súli   mɔsí   ɔ   nso
    1SG.POSS father because Suli   take.FAC 3SG.POSS gun
    'When I came home, my father was angry because Suli took his gun.'

Like in the previous type of copular clauses, to denote a state that will hold at a future time the copular verb *jɛ́* with imperfective is used. As shown in (36b)&(37b), the presence of the complex verb *wɛ-na* and the copular verb *wɛ* is ungrammatical in combination with the imperfective aspect.

36. a. zakaríjá-á   jɛ́   kɔkɔlɪj-á   n   ḍɪ loń   ɔ   tákuku
      Zakariya-IMPV   COP anger-CII   if 1PL use.FAC 3SG.POSS   motorbike
     'Zakariya will be angry if we use his motorbike.'

    b. * kɔkɔlɪj-á-á   wɛ-na   zakaríjá n ḍɪ loń   ɔ   tákuku
      anger-CII-IMPV   COP.FAC.COM Zakariya if 1PL use.FAC 3SG.POSS motorbike
     Intended: 'Zakariya will be angry if we use his motorbike.'

37. a. ɲɔ   fátɔ   to-d͡ʒé   ŋ   ŋɔ́ma-ná-á   jɛ́ ɖóŋe
      drink.INF medicine PL.CIV.AGR-DEM.PROX   2SG.POSS bone-PL.CIII-IMPV COP strength
      'Drink this medicine. Your bones will be strong.'

    b. * ɲɔ   fátɔ   to-d͡ʒé   ŋ   ŋɔ́ma-ná-á   wɛ ɖóŋe
      drink.INF medicine PL.CIV.AGR-DEM.PROX   2SG.POSS bone-PL.CIII-IMPV COP strength
      Intended: 'Drink this medicine. Your bones will be strong.'

As the table below summarizes, the copular verb *jɛ́* is always used in a copular clauses with future time reference. The the copular verb *wɛ* occurs in copular clauses referring to a present and to a past time with a locative predicates, true adjectival predicates, and attributive abstract nouns to denote an i-level state. The complex verb *wɛ-na* 'be-with = have' is used with attributive abstract nouns to talk about an s-level state at the present time or at some time in the past. Finally, the data shows that the copular verb *jɛ́* occurs with a nominal predicate expressing the relation of identity (equation), role (proper inclusion), and place of origin at the present time or at a given time in the past.

Table 8.1: The distributions of *wɛ* and *jɛ́* in copular clauses

Time reference:	PAST	PRES	FUT
Location	Subj > wɛ	Subj > wɛ	Subj-IMPV > jɛ́
Equation Proper inclusion Place of origin	Subj > jɛ́	Subj > jɛ́	Subj -IMPV > jɛ́
True Adjectives	Subj > wɛ	Subj > wɛ	Subj -IMPV > jɛ́
Attributive abstract nouns	wɛ > concept (i-level) concept > wɛ-na (s-level)	wɛ > concept (i-level) concept > wɛ-na (s-level)	Subj -IMPV > jɛ́

8.1.5 The copular verbs in predicative possessive constructions

In Bago, there is no simple verb that means 'to have' or 'to own'. In the above discussion of sentences denoting ongoing transient states we introduced possessive constructions where the copular verb *wɛ* is suffixed with the comitative morpheme *-na*. The possessive predicate *wɛ-na* 'have' in such construction is used to express an attributive possessive relationship between a

possessor in the complement position and a property concept as a possessee in the subject position.

As can be seen in 38, if the noun *kɔkɔlɪj-á* 'anger' follows the verb *wɛ-na*, the sentence loses the attributive reading and becomes literally possessive, leading to an infelicitous reading with this noun.

38. a. g͡bɪ   kɔkɔlɪj-á   wɛ-na   ɪ   ɪtá
     be quiet.INF   anger-SG.CII   COP.FAC-COM   2PL.POSS   father
     'Be quiet, your father is angry.'   (lit., 'Be quiet, anger has your father.')

     b. # g͡bɪ   ɪ   ɪtá   wɛ-na   kɔkɔlɪj-á
     be quiet.INF   2PL.POSS   father   COP.FAC-COM   anger-SG.CII
     Literally: 'Be quiet, your father has the anger.'
     * 'Be quiet, your father is angry.'

In a typical predicative possessive construction that does not imply an ongoing transient state as being attributed to a referent, the possessor occurs in subject position, and the possessee follows the possessive predicate. Here are some examples:

39. ma   d͡ʒoóŋu   wɛ-na   lɔ́ɔ́rɪ   d͡ɪ́   la   kaa   mɔsɪ   kɛ́
     1SG.POSS   brother   COP.FAC-COM   car   1PL   go.INF   to   take.INF   3SG.CII
     'My brother has a car. Let's go take it.'

40. zakaríjá   wɛ-na   álá-a   baa-lɛ
     Zakariya   COP.FAC-COM   wife-PL.CI   PL.CI.AGR-two
     'Zakariya has two wives.'

41. nɔnɔ́-ɔ   wɛ-na   tók͡póró
     room-SG.CIV   COP.FAC-COM   window
     'The room has a window.'

42. zakaríjá   wɛ-na   símí-na   g͡bɛtɪ-ŋa
     Zakariya   COP.FAC-COM   eye-PL.CIII   black-PL.CIII.AGR
     'Zakariya has black eyes.'

43. ɲ   wɛ-na   akutú-u
     2SG   COP.FAC-COM   orange-Q
     'Do you have oranges?'

44. ma   wɛ-na   bíí-na
     1SG   COP.FAC-COM   money-PL.CIII
     'I have money.'

These examples show that in predicative possessive constructions encoding a relationship of ownership, kinship and (in)alienable possession, the possessive complex predicate occurs between the possessor and the possessee "X COP-COM Y". The element that precedes the complex verb *wɛ-na* can only be interpreted as a possessor. For this reason, the following sentences are judged to be infelicitous.

45. # lɔ́ɔrɪ wɛ-na   ma   d͡ʒoóŋu d̪ɪ́ la   kaa mɔsɪ kɛ́
         car   COP.FAC-COM 1SG.POSS brother 1PL go.INF to   take.INF 3SG.CII
      Literally: 'The car has my brother. Let's go take it.'
      * 'The car is with / there is a car with my brother. Let's go take it.'
      * 'My brother has a car. Let's go take it.'

46. # álá-a   baa-lɛ   wɛ-na   zakaríjá
         wife-PL.CI PL.CI.AGR-two   COP.FAC-COM Zakariya
       Literally: 'Two wives have Zakariya.'
       * 'The two wives / there are two wives with zakariya'
       * 'Zakariya has two wives.'

47. # bíí-na   wɛ-na   mɛ
         money-PL.CIII COP.FAC-COM 1SG
       Literally: 'The money has me.'
       * 'The money is with me'
       * ' I have money.'

48. # tókpóró   wɛ-na   nɔnɔ́-ɔ
         window   COP.FAC-COM   room-SG.CIV
       Literally: 'The window has a room.'
       * 'The room has a window.'

The time reference of a predictive possessive construction plays a role in determining the form of the copular verb. The examples presented in 39-44 show that the possessive predicate *wɛ-na* is used in a possessive construction that has present time reference. In 49 and 50, we see that *wɛ-na* is also used when a past time reference is indicated contextually or by a temporal adverb.

49. sáa kaá   ma jɛ́-ja   vuú-na   ma wɛ-na   kɛkɛ́
      time REL.3SG.CII 1SG COP.FAC-FOC child-SG.CI 1SG COP-COM bicycle
      'When I was a child, I had a bicycle.'

50. ɖɛ́ ma wɛ-na bíí-na amá ma fɛ́ ŋɛ ma fá
    yesterday 1SG COP-COM money-PL.CIII but 1SG give 3PL.CIII 1SG.POSS mother
    'Yesterday I had money, but I gave it to my mother.'

However, when the predictive possessive construction has future time reference, the copular verb *jé-na* must be used, with the final segment of the subject lengthened to realize the imperfective aspect.

51. ŋ́ ɪsɔ́ɔ k͡pá-a ma-á jɛ́-na / * wɛ-na bíí-na ka la maká
    if God accept-FAC 1SG-IMPV COP-COM COP-COM money-PL.CIII and go.INF Mecca
    'God willing, I will have money and go to Mecca.'

52. sáa kaá ma-á bɪlí ma-á jɛ́-na / * wɛ-na lɔ́ɔrɪ
    time REL.3SG.CII 1SG-IMPV grow up-FAC 1SG-IMPV COP-COM COP-COM car
    na bó-re bɛ́ń-ɖɛ
    and house-SG.CII big-SG.CIII.AGR
    'When I grow up, I will have a car and a big house.'

53. sɛ́ ma-á jɛ́-na / * wɛ-na bíí-na
    tomorrow 1SG-IMPV COP- COM COP- COM money-PL.CIII
    'Tomorrow, I will have money.'

8.2 Classification of verbal predicates

8.2.1 Introduction

In Bago, verbs can be divided into two classes: stative and non-stative. This distinction is based on lexical semantics, without any morphological marking that differentiates the two classes. However, as will be shown, classifying Bago verbs into two classes is crucial because the temporal interpretation of a proposition is sensitive to the class of the verb. Welmers (1973) was the first to point out that active (non-stative) and stative verbs behave differently in many Niger-Congo languages in this regard. In describing Yoruba, Welmers (1973, p. 346-347) utilizes the term "factative" to refer to a viewpoint that "expresses the most obvious fact about the verb in question,

which in the case of active verbs is that the action took place, but for stative verbs is that the situation obtains at present".

The stative/non-stative contrast is relevant in Bago in the way described for Yoruba and other Niger-Congo languages: in the factative, a stative verb typically denotes a state that holds true at the present time, whereas a non-stative verb typically denotes an event that has occurred in the past. In the imperfective, while a stative verb denotes a state that will hold in the future, a non-stative verb is typically ambiguous between a habitual and a future reading.

To illustrate how a proposition expressing a current state is constructed in the same way as one expressing a completed non-stative event, let us first present some examples with activity, accomplishment and achievement verbs as defined in Vendler (1957), which together constitute the class of non-stative verbs.

54. ma   jasí   límɔ   viíle   mɛ
    1SG   swim.FAC   water   river   LOC
    'I swam in the river.'   (Activity)

55. ɖɪ   má   bó-re   bɛ́ń-ɖɛ   fɛ́   d͡ʒoó-na
    1.PL build.FAC house-SG.CIII big-SG.CIII.AGR   give   chief-SG.CI
    'We built a big house for the chief.'   (Accomplishment)

56. ma   ŋɔ́rʊ́-na   talá   d͡ʒa   sɔ́sɔ́
    1SG.POSS guest-SG.CI   arrive.FAC today   morning
    'My guest arrived today [in the] morning.'   (Achievement)

From these examples, it can be seen that when a clause contains a non-stative verb, it receives a past time interpretation in the factative aspect, which is morphologically unmarked in most cases.

To express a habitual or future with non-stative verbs, Bago requires marking in the imperfective aspect (realized by lengthening the final segment of the subject constituent as in (57); see § 9.2. for further details). As shown in (58), to convey a progressive reading, a slightly different construction

containing a copular verb is required, in which the subject is doubled by a pronoun of the appropriate class and number placed between the copula and the lexical verb. This pronoun is lengthened to indicate imperfective.

57. zakaríjá-á   jasí   límɔ   viíle   mɛ
    Zakariya-IMPV swim water river   LOC
    'Zakariya swims / will swim in the river.'
    *'Zakariya is / was swimming in the river.'

58. zakaríjá wɛ[8]   ɔ-ɔ́   jasí   límɔ   viíle   mɛ
    Zakariya COP   3SG.CI-IMPV   swim water river   LOC
    'Zakariya is / was swimming in the river.'

Depending on the discourse context, the sentence in (57) conveys either a habitual or a future interpretation, without any further obligatory marking. It can freely occur with a habitual or a future adverbial. The progressive sentence in (58) conveys an ongoing event with a present or a past time reference.

With stative verbs, on the other hand, the factative normally conveys that a state is holding at the present time, as exemplified in (59). It does not signal that the state has reached its endpoint.

59. zakaríjá sɔɔlí   nabílá
    Zakariya love.FAC   Nabila
    'Zakariya loves Nabila.'
    *'Zakariya loved Nabila.'

When the imperfective aspect is used with such predicates, the clause normally describes a state that will hold at a future time, as in (60).

60. n   vú-ú   d͡ʒɛ́ŋ
    2SG.POSS   child-IMPV   be tall
    'Your child will be tall.'
    *'Your child is tall.'

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[8] For a future progressive, the copular verb *jé* is used instead. Furthermore, in the future both the subject preceding *jé* as well as the pronoun preceding the lexical verb are marked for the imperfective aspect by lengthening (see §9.5.2. for examples and discussion).

However, there are in fact a few stative verbs in the language such as *ɲaŋ* 'to fear' and *vaŋ́* 'to be sick' that do not have a present time reading in the factative. Instead, the imperfective aspect is required to convey, for instance, that the state of being sick holds true at the present time or will hold at a future time. The factative aspect with this group of stative verbs denotes a state in the past. Therefore, the basic division between stative and non-stative verbs needs to be revised by proposing a subdivision that distinguishes between two classes of stative verbs.

A possible explanation for the fact that some stative verbs in Bago behave like non-stative verbs as far as their interaction with aspect goes is that this subset of stative verbs is lexically specified with a terminal endpoint. Most stative verbs lack a lexicalized terminal endpoint, and hence the factative aspect with them yields a present interpretation of a state that has begun at a prior time and continues to hold. In the next subsection, I examine this (unmarked) class of stative verbs (e.g., *sɔɔlɪ* 'to love', *d͡ʒɛŋ́* 'to be tall', *wʊlɪ* 'to be dry') with which the factative highlights the state itself.

8.2.2 Unmarked-stative verbs

The majority of stative verbs in Bago belong to this type. With these verbs, imperfective conveys a future time reference, and factative describes a state that holds true at the present time. The following table presents a list of verbs in this class. They are grouped into semantic subclasses merely for the sake of descriptive convenience.

Table 8.2: Unmarked-Stative verbs

Semantic classes	Verbs	Gloss
Permanent states	g͡bɛtɪ	'be black'
	fʊlʊ́ŋ	'be white'
	fóe	'be red'
	d͡ʒɛ́ŋ	'be tall/long'
	tɪrɪ	'be fat'
	ɖé	'be beautiful'
	mʊ	'to resemble'
	sɔɔlɪ	'to love/like'
	siri	'to hate/dislike'
	d͡ʒɪŋ	'to know'
Resulting states	bɔsɔ	'be rotten'
	fóe	'be ripe'
	wʊlɪ	'be dry'
	wá	'be cured'
	fʊ	'be soft'
	wɛrɛkɪ	'be broken'
	fɛ	'be wet/cold'
	ɖáŋ	'be lost'
	gɔ	'be tired'
Posture states	bísá	'to lie down'
	síŋí	'to stand'
	sɔkɔ	'to sit'
	málá	'to hide'

8.2.2.1 Permanent states

Verbs within the subclass of permanent states refer to property, emotional/preference and mental concepts. The property concepts include some colour, dimension and value words. Here are some examples:

61. zakaríjá   g͡bɛtí-ɪ
    Zakariya   be black-FAC
    'Zakariya is black.'

62. d͡ʒa   ma   ná   bagó   d͡ʒoó-na   ɔ   d͡ʒɛ́ŋ
    today   1SG   see   Bago   chief-SG.CI   3SG.CI   be tall.FAC
    'Today, I saw the chief of Bago. He is tall.'

63. d͡ʒoó-na   áɖetú-na   ɖé-e
    chief-SG.CI   girl-SG.CI   be beautiful-FAC
    'The chief's daughter is beautiful.'

As shown below, while the factative aspect in (64a) denotes that the state of being fat holds true at the present time, the imperfective in (64b) indicates that the state will hold at a future time.

64. a. zakaríjá   tɪrí-ɪ
        Zakariya   be fat-FAC
       'Zakariya is fat.'

     b. zakaríjá-á   tɪrí
        Zakariya-IMPV   be fat
       'Zakariya will be fat'
     *'Zakariya is fat.'

Further examples of the permanent states presented in Table 8.2 are the transitive verbs *sɔɔlɪ* 'to love/like' *sili* 'to hate/dislike' *d͡ʒɪŋ* 'to know'. They also express time-stable states that are not marked lexically for termination, and thus they receive a present time interpretation with the factative, as shown in (65a)&(66a). Examples (65b)&(66b) show that the imperfective with such verbs allows only a future reading.

65. a. zakaríjá   sɔɔlí   nabílá
        Zakariya   love.FAC   Nabila
       'Zakariya loves Nabila.'

     b. ma   ɖogó-ó   sɔɔlí   wɔrɔ-ó   ko-d͡ʒé
        1SG.POSS   girlfriend-IMPV   love   golden chain-SG.CIV   SG.CIV.AGR-DEM
       'My girlfriend will love this golden chain.'
     *'My girlfriend loves this golden chain.'

66. a. ba   d͡ʒɪŋ́   ma   ɖesí
        3PL.CI   know.FAC   1SG.POSS   sister
       'They know my sister.'

     b. ma-á   d͡ʒɪŋ́   ŋ   ŋí-rɛ
        1SG.IMPV   know   2SG.POSS   head-SG.CIII
       'I will know your name.'   (lit., 'I will know your head.')
     * 'I know your name.'

193

One might wonder if what I call unmarked-stative verbs should be understood as having basic inceptive ("begin to") meanings. By proposing that stative verbs such as *sɔɔlí* 'love' and *d͡ʒɪŋ́* 'know' denote the inception of the state rather than the state itself, one might be tempted to bridge the contrast between the stative predicate in (65a)&(66a) and the dynamic predicate in (67).

67. nabílá   gáŋ   kʊ́d͡ʒɔ-ɔ́
    Nabila   cook.FAC   yam-SG.CIV
    'Nabila cooked yam.'

Under such as analysis, the interpretation of (65a)&(66a) would be "Zakariya started to love Nabila" and "They came to know my sister", respectively, and the factative aspect would be doing to inceptive-stative verbs exactly what it does to dynamic verbs, namely putting the reference situation in the past: in the case of inceptive-stative verbs this situation would be the inception of the state.

There are a number of arguments that could be put forward to challenge this idea, however. First, if the factative aspect with a stative verb such as *sɔɔlí* 'love' is assumed to highlight only the initial point of entering into a state, then we would expect the stative verb to behave like achievement verbs, which cannot combine with a durative adverbial 'for X time'. It has been observed in the theoretical literature that while stative verbs are acceptable with durative adverbials, achievement verbs are not, due to their non-durative nature (Dowty, 1979; Smith, 1997; Rothstein, 2004 among others). As illustrated in 68, adding *bíŋ́-sɛ sʊ-lɛ* 'two years' to the VP introduces the time-span at which the state of Nabila's love holds in the past. In contrast, the expression *míŋ́ti bíja lʊŋlɛ* 'seven minutes' is not acceptable with the achievement verb *talá* 'arrive'.

68. nabílá   sɔɔlí   súli   bíŋ́-sɛ   sʊ-lɛ
    Nabila   love.FAC   Suli   year-PL.CII   PL.CII.AGR-two
    'Nabila loved Suli for two years.'

69. # nabílá talá mínti bíja lʊŋlɛ
Nabila arrive.FAC minute child.PL seven
Intended: 'Nabila arrived for seven minutes.'

As the translation in (68) shows, the phrase *bíń-sɛ sɪɪ-lɛ* 'two years' is equivalent to the English adverbial phrase 'for two years'. The fact that the durative phrase is acceptable in (68) indicates that the factative aspect with the stative verb *sɔɔlí* 'love' does not depict the starting point of Nabila's being in love, but the total time-span of the state of love, further entailing that the state does not hold at the utterance time. If the speaker wants to assert that the time-span of the state is two years and holds true at the present time, the word *d͡ʒa* 'today' is added before the phrase identifying the period of time, as exemplified in 70. This way of modification with the stative verb *sɔɔlí* 'love' entails that the state continues to hold at the present time.

70. nabílá sɔɔlí súli d͡ʒa bíń-sɛ sɪɪ-lɛ
Nabila love.FAC Suli today year-PL.CII PL.CII.AGR-two
'Nabila has been in love with Suli for two years.'

These facts can be used to show a further contrast between the putatively inceptive statives and actual achievement predicates. If a sentence like (70) is followed by the conjunction *amá* 'but' followed by a clause that asserts that the state does not hold any longer, it yields a contradiction with the first clause, as shown in (71). The fact that it is not possible to infer a terminated interpretation from the second clause in (71), indicates that the verb *sɔɔlí* does not have an inceptive meaning in the factative.

71. # nabílá sɔɔlí súli d͡ʒa bíń-sɛ sɪɪ-lɛ amá sɔrɔ-níŋɛ
Nabila love.FAC Suli today year-PL.CII PL.CII.AGR-two but month-PL.CIV
tʊ-tooro-ó ɔ sɔɔlí ɪ
PL.CIV.AGR-three-FOC 3SG.CI love.FAC 3SG.CI
Intended: 'Nabila fell in love with Suli two years ago, but she loved him for three months.'

Contrast this to a sentence with the same modifier and an achievement predicate in the factative. The sentence in (72) does not say anything about whether or not the target state of *Nabila's* arrival still holds at the present time. The modifier merely identifies the time at which the event of arriving occurred. Therefore, adding a modifier that implies the termination of the target state does not yield a contradiction, as exemplified below.

72. nabílá   talá   bagó   d͡ʒa   í-na   lʊŋlɛ   amá   í-na   ŋa-tooro-ó
    Nabila   arrive.FAC   Bago   today   day-PL.CIII   seven   but   day-PL.CIII   PL.CIII.AGR-three-FOC
    ɔ   jɛ́   bɔlɔ́
    3SG.CI   do.FAC   there
    'Nabila arrived Bago seven days ago, but it was three days that she spent there.'

Another piece of evidence that supports that the factative aspect with *sɔɔlí* 'love' and *d͡ʒɪŋ́* 'know' does not refer to the initial point of the state is the fact that sentences with these predicates are not compatible with a locative phrase, as opposed to achievement verbs.

73. a. # ma   sɔɔlí   nabílá   fʊ́w-a   mɛ
        1SG   love.FAC   Nabila   farm-SG.CII LOC
        Intended: 'I fell in love with Nabila in the farm.'

    b. # ma   d͡ʒɪŋ́   nabílá   fʊ́w-a   mɛ
        1SG   know.FAC   Nabila   farm-SG.CII LOC
        Intended: 'I got to know Nabila in the farm.'

    c. ma   júku   nabílá   fʊ́w-a   mɛ
       1SG   find.FAC   Nabila   farm-SG.CII LOC
       'I found Nabila in the farm.'

The infelicity of (73a)&(73b) is attributed to the presence of the locative phrase because it implies that the states of love and knowing, which are permanent, hold only in a particular location. If the factative aspect with these stative verbs has an inceptive reading, then we would expect the presence of the locative phrase in (73a)&(73b to be acceptable and give rise to a reading describing a change into the states of loving and knowing that occurred in the farm. In contrast, the

achievement verb *júku* 'find' in (73c) describes an instantaneous event, and thus it makes sense to modify it with a locative phrase.

Lastly, when the VP *sɔɔlí nabílá* 'love Nabila' is modified by a past temporal adverbial such as *tení* 'last year' and *ɖɛ* 'yesterday', the proposition implies that the described state is entirely contained in the past. If the factative aspect had a 'fall in love' reading, the adverbial in (74) would be expected to modify the time of the starting point of the described state, but such an interpretation is not available.

74. nabílá   sɔɔlí   súli   tení
    Nabila   love.FAC Suli   last year
    'Nabila loved Suli last year.'
    * 'Nabila fell in love with Suli last year.'

Therefore, I claim instead that the factative aspect with the stative verbs in Table 8.2 highlights the state itself rather than its inception; the runtime of the state (TSit) is interpreted by default as including the time of utterance (TU) and the topic time (TT), as they are defined in Klein (1994).

75. a. nabílá   sɔɔlí   súli
       Nabila   love.FAC Suli
       'Nabila loves Suli.'

    b. |- TSit
                           (   ) TT
                                  TU

In the case of (75b), the TT overlaps TU, the factative also allows TT to be in the past given an appropriate context or modifier. In the following example, the runtime of Nabila's love for Suli is understood to hold before and after the speaker's visit including the present time if the context does not imply that the state of love has terminated. In (76a), the sentence only expresses what the speaker noticed during his visit at a past time. There is no implication as to whether the state of love still holds, and hence the TT in (76b) precedes the TU.

76. a. sáa   kaá   má k͡paarí-ja   nabílá ɔ   sɔɔlí   súli
       time REL.3SG.CII 1SG visit-FOC   Nabila 3SG.CI love.FAC Suli
       'When I visited Nabila, she was in love with Suli.'

    b. |- TSit
            (   ) TT
                              TU
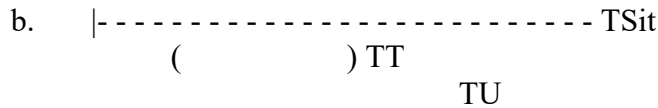
There are also some cases in which a temporal adverbial conveys that a state does not hold at the present time. For instance, the durative expression *bíń-sɛ sɪɪ-lɛ* 'for two years' in (68) and the temporal expression *tení* 'last year' in (74) set up a TT which in the most natural reading wholly contains the TSit, though the TT and TSit may also coincide. These examples are visually illustrated and repeated in (77) for convenience.

77. a. nabílá   sɔɔlí   súli tení   / bíń-sɛ   sɪɪ-lɛ
       Nabila   love.FAC Suli last year   year-PL.CII PL.CII.AGR-two
       'Nabila loved Suli last year / for two years.'

    b. |- - - - - - - - - - - - - - - - - - | TSit
            (   ) TT
                                              TU

In (77b), the factative expresses a complete past situation due to the temporal adverbial whose presence requires the target state to be terminated before the utterance time.

As was shown in (75b)&(76b), without a delimiting adverbial, there is no right boundary that can be selected by the factative in viewing the state. It follows that the time-span of the state contains the utterance time. That the factative already yields a present ongoing meaning with these stative verbs is possibly the reason why the imperfective with these verbs does not trigger a present interpretation.

The imperfective always gives a future time reference that is brought about by placing the topic time before the time-span of the state, which, in turn, may have begun before the utterance time or

may occur after it. For instance, the sentence in (78a) is uttered in a context where the speaker and the hearer are at a shop looking at a golden chain that the speaker wants to buy for his girlfriend. The speaker presupposes that the state of love will hold at a future time. The sentence in (78b) can be uttered can be uttered to talk about what the speaker believes to hold at a future time or what he believed in prior to the time-span of Nabila's love which has begun before the utterance time.

78. a. ma   ɖogó-ó   sɔɔlí wɔrɔ-ɔ́   ko-d͡ʒé
    1SG.POSS girlfriend-IMPV love   golden chain-SG.CIV SG.CIV.AGR-DEM
    'My girlfriend will love this golden chain.'

    b. ma fɛ́   íd͡ʒá sɪ   nabílá-á   sɔɔlí súli
    1SG give.FAC truth COMP   Nabila-IMPV   love   Suli
    'I believe/believed that Nabila will/would love Suli.'

    c. |- - - - - - - - - - - - - - - - - - TSit
       (   ) TT
        TU
               TU

As depicted in (78c), the imperfective with stative verbs like *sɔɔlí* 'love' relates the TT to the TSit in terms of precedence. The TT precedes the TSit in both examples, regardless of the location of the utterance time.

8.2.2.2 Resulting states

Let us now turn to the second class of stative verbs in Table 8.2. This class includes some stative verbs that encode result states (e.g., *bɔsɔ* 'to be rotten', *wʊlɪ* 'to be dry', *wɛrɛkɪ* 'to be broken', *gɔ* 'to be tired'). As with permanent stative verbs, the factative aspect denotes that a result state holds at the present time, and the imperfective aspect gives rise to a future interpretation. Here are some examples:

79. sɔkɔrɔ́   bɔsɔ́-ɔ   fɛ́   kɪ   nemí-se
    mashed yam   be rotten-FAC   give   3SG.CIV   goat-PL.CII
    'The mashed yam is rotten. Give it to the goats.'

199

80. ma   ogo   fɛ́-ɛ
    1SG   pant   be wet-FAC
    'My pants are wet.'

81. ma   ásíj-a   ɖáŋ
    1SG.POSS   cat-SG.CII   be lost.FAC
    'My cat is lost.'

82. atɛ   wʊlí-ɪ   ɖɪ   tá-a   jála   ka   fara   bɔ́ɔ
    land   be dry-FAC   1PL   NEG-IMPV   be able   to   plough.INF   NEG
    'The land is dry. We will not be able to plough.'

The factative aspect in these examples indicates that a result state which came to be at a prior time holds true at the present time. The factative aspect with predicates in this class may also be used to describe a change of state, as shown below.

83. sɔkɔrɔ́   bɔsɔ́-ɔ   mɪnísíɪ   ɖɪ   ɖí   kɛ
    mashed yam   be rotten-FAC   before   1PL   eat.FAC   3SG.CIV
    'The mashed yam rotted before we ate it.'

84. ɖofó   fɛ́   ma   ogo-níŋɛ
    rain   be wet.FAC   1SG.POSS   pant-PL.CIV
    'The rain wet my pants.'

85. ma   ásíj-a   ɖáŋ   d͡ʒa   sɔ́sɔ́
    1SG.POSS   cat-SG.CII   be lost.FAC   today   morning
    'My cat got lost today [in the] morning.'

86. n   tóko-níŋɛ   wʊlí-ɪ   lɔ́   ma   ɖʊ́   tɪ   fúró-o   mɛ
    2SG.POSS   shirt-PL.CIV   be dry-FAC   and   1SG   put.FAC   3PL.CIV   bag-SG.CIV   LOC
    'Your shirts dried up, and I put them in the bag.'

In these examples, the verbs express dynamic eventualities that describe change of state rather than expressing the state of a referent. This behaviour distinguishes predicates that express result states from predicates expressing permanent properties (e.g., d͡ʒɛ́ŋ́ 'to be tall, d͡ʒɪŋ 'to know', sɔɔlɪ 'to love' mʊ 'to resemble'), which always convey a durative state.

It is worth pointing out that a distinction between predicates denoting result states based on (ir)reversibility is helpful in accounting for the distribution of the durative adverbial (for X time).

The verbs *bɔsɔ́* 'be rotten' and *fóe* 'be ripe' are irreversible. The result states described by these verbs do not have an inherent endpoint, and thus they are conceptualized to hold permanently over time. Due to this characteristic, a *for*-durative adverbial specifying a period of time is not acceptable with the verb *bɔsɔ́* 'be rotten', whereas adding an *in*-durative adverbial is acceptable to refer to the period of time of a gradual change leading to the existence of the result state. Consider the following examples:

87. a. # m   mbilid͡ʒó   bɔsɔ́   i-na   ŋa-tooro
        2SG.POSS   pineapple   be rotten.FAC   day-PL.CIII   PL.CIII.AGR-three
        Intended 'Your pineapple(s) were rotten for three days.'

    b. m   mbilid͡ʒó   bɔsɔ́   i-na   ŋa-tooro   mɛ
        2SG.POSS   pineapple   be rotten.FAC   day-PL.CIII   PL.CIII.AGR-three   in
        'Your pineapple(s) became rotten in three days.'

On the other hand, verbs such as *wʊlɪ* 'be dry', *gɔ* 'be tired', *fɛ́* 'be wet' *ɗáŋ* 'be lost' *wɛrɛkɪ* 'be broken' denote reversible result states. As shown in the following examples, the transitory character of a reversible result state allows the presence of a *for*-adverbial to measure the time-span during which the state holds.

88. ma   tóko   fɛ́   g͡baál-aná   ŋaa-lɛ
    1SG.POSS   dress   be wet.FAC   hour-PL.CIII   PL.CIII.AGR-two
    'My dress was wet for two hours.'

89. n   tóko   wʊlí   mínti   bíja   ákó   mɪnísíɪ kʊ   fɛ́   ró
    2SG.POSS   dress   be dry.FAC   minute   child.PL   twenty   before   3SG.CIV   be wet.FAC   again
    'Your dress was dry for twenty minutes before it became wet again.'

90. ma   ásíj-a   ɗáŋ   í-na   ŋaa-lɛ
    1SG.POSS   cat-SG.CII   be lost.FAC   day-PL.CIII   PL.CIII.AGR-two
    'My cat was lost for two days.'

91. ma   tákuku   wɛrɛkí   sɔrɔ-níŋɛ   tʊ-tooro
    1SG.POSS   cat-SG.CII   be lost.FAC   month-PL.CIV   PL.CIV.AGR-three
    'My motorbike was broken for three months.'

It is also important to note that verbs denoting reversible states can be subdivided into two classes because they do not exhibit the same behavior with respect to the acceptability of an *in*-durative adverbial, which measures the time preceding the change of state. With verbs like *ɗáŋ* 'be lost' and *wɛrɛkɪ* 'be broken', the presence of an *in*-durative adverbial is judged to be unacceptable. This might be explained in terms of whether or not a result state is brought about by a gradual process. An *in*-durative adverbial is used to measure the time before the change to a result state is achieved. The state of being lost, for instance, is not attained due to a gradual process that leads to the change of state. The transition from not being lost to being lost happens instantaneously. Therefore, the sentence in (92a) is infelicitous with the *in*-durative adverbial. According to my informant, it would be possible to express how long it was before the state of being lost occurred by means of the conjunction *mɪnísíɪ* 'before' in a temporal subordinate clause, as shown in (92b).

92. a. # ma lá-na   nabílá lomɛ lɔ́ ɔ   ɗáŋ   míńti bíja   ákó   mɛ
       1SG go-APPL Nabila   Lome and 3SG.CII be lost.FACT minute child.PL twenty LOC
    'I took Nabila to Lome, and she was lost in twenty minutes.'

    b. ɔ   jɛ́   míńti bíja   ákó   mɪnísíɪ ɔ   ɗáŋ
       3SG.CII   do.FAC   minute child.PL twenty before   3SG.CII   be lost.FACT
    'She took twenty minutes before she got lost' (lit., 'She did twenty minutes ...')

In contrast, the verb *wʊlí* 'be dry' is compatible with both durative adverbials 'in X time' and 'for X time'. Normally the transition from the state of being wet to the state of being dry involves a gradual change that takes time. The time-span of this gradual change toward the state of being dry is referred to by the *in*-durative adverbial, as exemplified in (93).

93. n   tóko wʊlí   míńti bíja   ákó   mɛ
    2SG.POSS dress wet.FAC minute child.PL twenty LOC
    'Your dress became dry in twenty minutes.'

8.2.2.3 Posture states

This section looks at last group of the unmarked-states in Table 8.2. It contains the posture verbs *bísá* 'to lie down', *síŋí* 'to stand', *sɔkɔ* 'to sit' and *málá* 'to hide'. With the factative aspect, they describe either a present or a past ongoing state depending on the context. In (94)&(95), for instance, the use of the adverbial *faádʒé* 'now' clearly indicates that the situation holds at the time of utterance. The past temporal clause in (96) indicates that the time of being in a seated position includes the time of the speaker's arrival, which, in turn, is prior to the time of the utterance.

94. ma   fá   bísa   nɔnɔ́-ɔ   mɛ   faádʒé
    1SG.POSS   mother   lie down.FAC   room-CIV   LOC   now
    'My mother is lying down in the room now.'

95. sukúru   bíja   feé   síŋɪ   kakpá-a   lɔ́   faádʒé
    school   child.PL all   stand.FAC   yard-SG.CII   on   now
    'All the students are standing on the yard now.'

96. sáa   kaá   má   talá-ja   ba   sɔkɔ́   tíw-ɔ   bisí-re
    time   REL.3SG.CII   1SG   arrive-FOC   3PL.CII   sit.FAC   tree-SG.CIV buttock-SG.CIII
    'When I arrived, they were sitting under the tree.'

97. ma   mála   lɔ́-ɔ   mɛ   í-na   ŋa-tooro
    1SG   hide.FAC forest-SG.CIV   LOC   day-PL.CIII   PL.CIII.AGR-three
    'I hid in the forest for three days.'

In (97), we see that the factative aspect does not have a present reading due to the presence of the *for*-durative adverbial which measures and entails the termination of the time-span of the postural state. To convey that the time-span of the state holds true for three days up to the utterance time, the modifying phrase must consist of the word *dʒa* 'today' in order for the utterance time to occur within the topic time, as shown in (98).

98. ma   mála   lɔ́-ɔ   mɛ   dʒa   í-na   ŋa-tooro
    1SG   hid.FAC forest-SG.CIV   LOC   today   day-PL.CIII   PL.CIII.AGR-three
    sɛ́   ma-á   tɛ́sɪ   viíle   ka   la   gubí
    tomorrow   1SG.IMPV   cross   river   and   go.INF   Gubi
    'I have been hiding in the forest for three days. Tomorrow, I will cross the river and go to Gubi.'

Finally, it can be seen that posture stative verbs are not compatible with an *in*-durative adverbial, as exemplified in (99).

99. # ma sɔkɔ́ tíw-ɔ bisí-re mínti bíja lɪɪd͡ʒʊ mɛ
    1SG sit.FAC tree-SG.CIV buttock-SG.CIII minute child.PL six LOC
    Intended: 'I sat down under the tree in six minutes.'

One might wonder if the sentence in (99) would be acceptable if it talks about the transition into a seated position of a group of individuals, which normally may take time. Imagine a situation in which a group of individuals were asked to be in a seated position, but a few minutes passed before everyone sat down. According to my informant, the use of an *in*-durative adverbial in this case is also unacceptable. In order to measure the time-span that was before all the members of the group are in a seated position, the language expresses this situation in two clauses by means of the conjunction *mɪnísɪ́ɪ* 'before', as shown in (100).

100. dɪ jɛ́ mínti bíja lɪɪd͡ʒʊ mɪnísɪ́ɪ dɪ sɔkɔ́-ɔ
    1PL do.FAC minute child.PL six before 1PL sit-FAC
    'We took six minutes before we sat down.'

Before turning to the second type of stative verbs, it should be noted that the presence of the imperfective aspect with a posture verb gives rise to either a future or a habitual reading.

101. d͡ʒoó-na-á sɔkɔ́ g͡belé ɖe-d͡ʒé lɔ́
    chief-IMPV sit down chair SG.CIII-DEM on
    'The chief sits / will sit on this chair.'

Depending on the context, this sentence can be said to mean that the chief has the habit of sitting down on this particular chair, or that there is an occasion at a future time in which the chief will sit down on this chair.

8.2.2.4 Marked-stative verbs

As was mentioned in the introduction, there are a few stative verbs in Bago that do not occur with the factative aspect to convey that a certain state holds true at the present time. Instead, the factative aspect with these verbs describes a state in the past. I assume here that the stative verbs in the table below are lexically specified with a terminal end-point, which associates the factative aspect with a reading that views a particular state with its left and right boundaries contained in the topic time, as depicted in (102). The imperfective aspect, on the other hand, is used to convey two types of meaning components, namely, that a particular state is holding or will hold. As depicted in (103), the time-span of the state may contain or follow the topic time.

102. Marked-stative verbs in the factative

```
        |- - - - - - - - -| TSit
    (                  ) TT
```
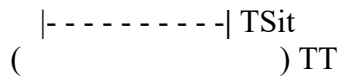
103. Marked-stative verbs in the imperfective

a.
```
      - - - - - - - - - - - - - - - TSit
              (     ) TT
```

b.
```
              - - - - - - - - - - - - - - - TSit
     (     ) TT
```
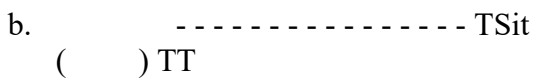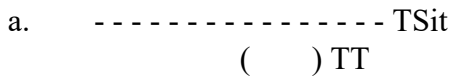
Table 8.3: Marked-stative verbs

Semantic classes	Verbs	Gloss
Permanent states	ɲaŋ	'to fear'
	mɪ	'to know a language'
Transient states	gɛ	'want/need'
	vań	'be sick'
	d̪ɔŋɔ	'to have pain'
	k͡pasá	'to have a headache'
	mɪlɪ	'to have a stomachache'

As can be seen in this table, the terminated-state interpretation occurs in verbs that express both permanent and transient properties. The emotional verb *ɲaŋ* 'to fear' denotes a permanent property in the same way the verb *sɔɔlɪ* 'to love' does. However, since the verb *ɲaŋ* 'to fear' is lexically specified with a terminal end-point, the factative aspect is used to talk about a terminated experience in the past. It does not convey a state that holds true at the present time, as is the case with the stative verb *sɔɔlɪ* 'to love'. The following examples illustrate this contrast:

104. nabílá   ɲań   dómi-ná
     Nabila   fear.FAC   snake-SG.CI
     'Nabila feared the snake.'
     *'Nabila is afraid of the snake.'

105. nabílá   sɔɔlí   zakaríjá
     Nabila   love.FAC   Zakariya
     'Nabila loves Zakariya.'
     *'Nabila loved Zakariya.'

The imperfective aspect with the verb *ɲaŋ* 'to fear' does allow an ongoing, a future or a general truth interpretation, depending on the context. The sentence in (106), for instance, has a generic reading because it is uttered in a context where there is no reference to a specific snake, as opposed to (104).

106. nabílá-á   ɲań dómi-ná
     Nabila-IMPV fear snake-SG.CI
     'Nabila fears snakes.'

107. gɛ   nabílá-á   ɲań ásíj-a
     look.INF Nabila-IMPV fear   cat-SG.CII
     'Look, Nabila is afraid of the cat.'

108. ń nabílá lá   bagó   lɔ́   ɔ   ná   k͡pak͡padʒɪmɔ́-ɔ ɔ-ɔ́   ɲań
     if   Nabila   go.FAC Bago   and 3SG.CI see.FAC bat-SG.CIV   3SG.CI-IMP fear
     'If Nabila goes to Bago and sees a bat, she will be afraid.'

The only other predicate in this class that expresses a permanent property is the verb *mɪ*. It is a

perception verb that means 'to hear' as in (109), but when its object is the name of a language, it

gives the meaning 'to know a language'. In Bago, the verb *d͡ʒɪŋ* 'to know' may not take a noun

referring to a language in its complement, and thus the noun *Bagó* in (110) refers to the name of

the village.

109. ma   mí   sɪ   n   lá   bagó
     1SG   hear.FAC COM   2SG go.FAC   Bago
     'I heard that you went to Bago.'

110. ma   d͡ʒɪ́ŋ   bagó
     1SG   know.FAC Bago
     'I know (the place called) Bago.'

111. a. ma-á   mí   bagó
        1SG-IMPV   hear   Bago
        'I know (the language called) Bago.'   (lit., 'I hear Bago.')

    b. ḿ   ma   sɔkɔ́   bagó   sɔrɔ-níŋɛ   lʊŋlɛ   ma-á   mí   bagó
       if   1SG   stay.FAC   Bago   month-PL.CIV   seven   1SG-IMPV   hear   Bago
       'If I stay at Bago for seven months, I will know (the language called) Bago.'

To know a language is a time-stable property. As shown in (111), the mental verb *mí* 'know a

language' behaves in the same way as the verb *ɲaŋ* 'to fear' in that it conveys a situation that holds

true at the present time or will become true at a future time. Contrastingly, the sentence in (110)

shows that in order to describe a situation that holds at the present time, the factative aspect is used

with the mental verb *d͡ʒɪ́ŋ* 'know', which belongs to the class of unmarked stative verbs.

The second list in Table 8.3 includes stage-level predicates expressing transient states such as *gɛ́*

'to want/need', *vaɲ́* 'to be sick', *ɗɔŋɔ* 'to have pain' and *k͡pasá* 'to have a headache'. The

imperfective aspect is used with these verbs to describe a present or a past ongoing state, as

exemplified in (112a)&(112b), respectively. The imperfective is also used to talk about a state that

will hold at a future time, as the example in (112c) shows. The factative aspect, on the other hand,

is used to refer to a state that has occurred entirely in the past, as exemplified in (113).

112. a. d͡ʒa sɔ́sɔ́ ma k͡paarí ma ḍesí ɔ-ɔ́ váŋ
    today morning 1SG visit.FAC 1SG.POSS sister 3SG.CI-IMPV be sick
    'Today [in the] morning, I visited my sister. She was sick.'

   b. ma fá-á váŋ ɔ tá-a lá fóʊw-a d͡ʒa bɔ́ɔ
    1SG.POSS mother-IMPV be sick 3SG.CI NEG-IMPV go farm-SG.CII today NEG
    'My mother is sick. She will not go to the farm today.'

   c. ń ḍɪ tɔkɔ́ kʊ́d͡ʒɔ-ɔ́ ko-d͡ʒé ḍɪ-í váŋ
    if 1PL eat.FAC yam-SG.CIV PL.CVI.AGR-DEM 1PL.IMPV be sick
    'If we eat this yam, we will be sick.'

113. a. ḍɛ ma lóto mɪlí mɛ
    yesterday 1SG.POSS stomach pain.FAC 1SG
    'Yesterday, I had a stomachache.'   (lit., 'My stomach pained me.')

   b. d͡ʒa sɔ́sɔ́ ma ŋí-rɛ k͡pása mɛ́
    today morning 1SG.POSS head-SG.CIII pain.FAC 1SG
    'Today [in the] morning, I had a headache.'   (lit., 'My head pained me.')

I conclude that the imperfective on a marked stative verb denotes that the inception of the state follows or is within topic time, as seen in (112). The factative aspect, on the other hand, denotes that the a past state was *terminated* within the topic time, as seen in (113). The factative aspect views the state as a whole. The lexical specification of termination in this small class of marked stative verbs leads to them being interpreted in the factative aspect in the same way that dynamic verbs are, and unlike the majority of stative verbs in the language, with which factative denotes that the situation time contains the utterance time if there is no delimiting adverbial that requires the termination of the situation time within the topic time.

In summary, the analysis of stative and non-stative verbs in Bago leads us to conclude that three types of verbs need to be distinguished according to the temporal interpretations that they receive in the factative and the imperfective aspects. The factative aspect is used with the majority of stative verbs to highlight a state that holds true at the present time or at a contextually given time in the past. In the imperfective aspect, a clause containing an unmarked stative verb conveys a future time

reference. A small number of stative verbs in Bago behave like dynamic verbs in the factative aspect. They refer to a state terminated in the past. However, they are distinguished from dynamic verbs in that in the imperfective aspect they describe a present/past ongoing state or a state predicted to hold in the future. In the following table, I summarize the above discussion by presenting the temporal interpretations given to dynamic and stative eventualities in the factative and imperfective aspects.

Table 8.4: Temporal interpretation of dynamic and stative eventualities

Eventualities	Factative	Imperfective
Dynamic *arrive, eat ...*	Past (completed) TSit ⊆ TT	Future or Habitual (*not* Ongoing) TT < TSit or TT ⊆ TSit$_{pl}$ (*TT ⊆ TSit$_{sg}$)
Marked-States *sick, fear*	Past (completed) TSit ⊆ TT	Future or Ongoing TT < TSit or TT ⊆ TSit
Unmarked-States *love, tall, dry ...*	Ongoing TT ⊆ TSit	Future TT < TSit

Chapter 9

Aspect

9.1 Introduction

This chapter presents a preliminary description of aspectual distinctions in Bago. I propose that the main distinction in aspectual categories in Bago is between the factative and the imperfective aspects. They are signalled by means of lengthening the final segment of a constituent in distinct positions in the clause. While the imperfective is marked at the right edge of the subject constituent or on the negative particle (which immediately follows the subject), the factative is marked by lengthening the final segment of the verb. However, in many cases, the factative is simply unmarked. The description addresses the tonal patterns that surface on finite verbs to show that, pace Takougnandi (2016: 257), the factative is overtly marked if the final segment of a finite verb in a clause-final position is high-toned.

Bago distinguishes morphologically between a habitual or a future imperfective and an ongoing imperfective, both of which share the exponent of lengthening of the subject-final segment of the lexical verb. To describe events in progress, the construction must involve the copula *wɛ* to convey a present/past time reference and the copula *jɛ́* to convey a future time reference. In examining the aspectual system, I adopt Klein's (1994) proposal that aspect is a relation between the topic time and the situation time.

9.2 Aspect marking and finiteness

As shown in §2.4.1, there is a tonal opposition between the finite and the non-finite form of verbs in Bago. I assume that finite forms are derived from their corresponding non-finite forms because

the former must include at least one high-toned bearing unit while the latter are unconstrained. I

have proposed that a grammatical floating high tone is responsible for deriving the tonal patterns

of the finite forms presented in the following examples.

1. The tonal patterns of the finite verbs

	INF	FIN	Gloss
a.	la	lá	'go'
b.	jɛ	jɛ́	'be/do'
c.	k͡pálá	k͡pála	'open'
d.	tɔkɔ	tɔkɔ́	'eat'
e.	d͡ʒekétí	d͡ʒekéti	'shake'

The finite form of a verb is what commonly surfaces in a simple clause with factative or

imperfective aspectual reference. The non-finite form, which is used by speakers in providing a list

of verbs in isolation, is required in a number of specific environments, listed in Table 9.1. These

environments are characterized by also requiring pronominal subjects to carry a high tone. An non-

finite form is consistently glossed as 'Verb.INF'.

Table 9.1: Contexts where non-finite verbs are used

Clausal contexts	Structures
Imperative	*la* 'go'
Hortative	*ɖí la* '1PL go'
Complement clauses of *gɛ́* 'want' and *sɔɔlí* 'like'	*gɛ́ má la* 'want 1SG go'
Second VP conjunct (FAC or IMPV)	*ka la* 'and go'
Purpose clause (FAC or IMPV)	*na má la* 'PURP 1SG go'
Complement of *mɪnísɪɪ* 'Before' (IMPV)	*mɪnísɪɪ má la* 'before 1SG go'
Negative clause (FAC)	*tá la* 'NEG go'
Complement of *jelé* 'make' (IMPV)	*jelé má la* 'make 1SG go'

As shown in (2), in contrast to declarative sentences, the imperative and the prohibitive constructions require the non-finite form of the verb. In the case of plural addressees, they additionally require the presence of the second person plural pronoun with a high tone on it.

2. a. ma   **bará** / **k͡pála**   boró-o
        1SG   close.FAC   open.FAC   door-SG.CIV
        'I closed /opened the door.'

    b. **bara** / **k͡pálá**   boró-o
        close.INF   open.INF   door-SG.CIV
        'Close / open the door.'

    c. í   **bara**   / **k͡pálá**   boró-o
        2PL   close.INF   open.INF   door-SG.CIV
        'Close / open the door.'

    d. bɔ   **bara** / **k͡pálá**   boró-o   bɔ́ɔ
        NEG   close.INF   open.INF   door-SG.CIV   NEG
        'Do not close / open the door.'

    e. í   bɔ   **bara** / **k͡pálá**   boró-o   bɔ́ɔ
        2PL   NEG   close.INF   open.INF   door-SG.CIV   NEG
        'Do not close / open the door.'

The non-finite form of a verb is also found in a hortative clause, which is used with first and third person pronouns to express an indirect command or a recommendation to be brought about. Hortative could be considered to be part of one paradigm with imperative, differing only in that the latter is used with second person subjects. Like in imperative and prohibitive clauses, the vowel of the pronominal subject has a high tone. The following are examples:

3. a. ɖí   la   fʊ́w-a
        1PL   go.INF   farm-SG.CII
        'Let's go to the farm.'

    b. bá   fɔ́sí   ɪsɔ́ɔ
        3PL.CI   greet.INF   God
        'Let them pray.'   (lit., 'Let them greet God.')

    c. ɔ́   tɔkɔ   fɔ́ɔ-rɛ
        3SG.CI   eat.INF   liver-SG.CIII
        'Let him/her eat liver.'

Similarly, the verbs *gέ* 'want' and *sɔɔlí* 'like' require non-finite verbs in their complement clauses. The pronominal subjects of the main clause and the complement clause are distinct with respect to tonal value.

4. a. ɔ   gέ   **ɔ́**   **mɛlı**   n   tákuku
    3SG.CI   want.FAC   3SG.CI   steal.INF   2SG.POSS   motorbike
    'S/he wanted to steal your motorbike.'

    b. ɔ-ɔ́   gέ   **ɔ́**   **mɛlı**   n   tákuku
    3SG.CI-IMPV   want.FAC   3SG.CI   steal.INF   1SG.POSS   motorbike
    'S/he wants to steal your motorbike.'

    c. ɔ   sɔɔlí   **ɔ́**   **k͡pe**   lóló-o
    3SG.CI   like.FAC   3PL   sing.INF   song-SG.CIV
    'S/he likes to sing.'

In Bago, verbal phrases are conjoined by means of the conjunction *ka* in both the factative and the imperfective aspects. As shown in (5), while the verb of the first conjunct is expressed in the finite form, the verb of the second conjunct always surfaces in its non-finite form.

5. a. ma-á   **k͡paarí**   ma   fá   ka   **la**   fʊ́w-a
    1SG-IMPV   visit   1SG.POSS   mother   and   go.INF   farm
    'I visit / will visit my mother and go to the farm.'

    b. ma   **lá**   fʊ́w-a   ka   **k͡paarı**   ma   fá
    1SG   go.FAC   farm-SG.CII   and   visit.INF   1SG.POSS   mother
    'I went to the farm and visited my mother.'

In (6), we see that the particle *na*, which is used to introduce a purpose clause, requires the verb to be in its non-finite form and the pronominal subject to have a high tone.

6. a. ma   sʊlʊ́   fέ   zakríjá   ma   kɛkέ   na   **ɔ́**   **la**   sukúru
    1SG   lend.FAC give   Zakariya   1SG.POSS   bicycle   PURP   3SG.CI go.INF   school
    'I lent Zakariya my bicycle so that he go to school.'

    a. ma-á   sʊlʊ́ fέ   zakríjá   ma   kɛkέ   na   **ɔ́**   **la**   sukúru
    1SG-IMPV   lend   give   Zakariya   1SG.POSS   bicycle   PURP   3SG.CI go.INF   school
    'I lend / will lend Zakariya my bicycle so that he go to school.'

In the following examples, it can be observed that the non-finite form of the verb is used in the clause introduced by the adverb *mɪnísíɪ* 'before' only when the main clause has an imperfective aspect, as the sentence in (7a) shows.

7. a. ma-á   tɔkɔ́   kʊ́d͡ʒɔ-ɔ́   mɪnísíɪ   má   **la**   sukúru
     1SG-IMPV   eat   yam-SG.CIV   before   1SG   go.INF   school
     'I eat / will eat yam before I go to school.'

    b. ma   tɔkɔ́   kʊ́d͡ʒɔ-ɔ́   mɪnísíɪ   ma   **lá**   sukúru
     1SG   eat.FAC   yam-SG.CIV   before   1SG   go.FAC   school
     'I ate yam before I went to school.'

Also, the pronominal subject in (7a) is realized with a high tone, as opposed to (7b) where the finite form of the verb is used. While the contrast between (7a)&(7b) in terms of aspect of the main clause might lead one to think that the non-finite form in (7a) is some sort of allomorphic variant of the imperfective, I argue here that non-finite is a distinct morphosyntactic category, required in specific clausal contexts. This is supported by the fact that when VPs are coordinated with *ka*, for instance, the non-finite form is obligatorily used on the second conjunct without implying any of the senses that imperfectives normally bear, as shown in (5b) where the sentence implies completed actions. Another element of evidence in favour of this idea comes from negative clauses, where the non-finite form is used in the factative rather than the imperfective aspect, as shown below.

8. a. ɖɪ   tá   ɲan   ɖɪ   fʊ́-sɛ   bɔ́ɔ
     1PL   NEG   sell.INF   1PL.POSS   farm-PL.CII   NEG
     'We did not sell our farms.'

    b. ɖɪ   tá-a   ɲań   ɖɪ   fʊ́-sɛ   bɔ́ɔ
     1PL   NEG-IMPV   sell   1PL.POSS   farm-PL.CII   NEG
     'We do / will not sell our farms.'

The negative particle *tá* behaves like the adverb *mɪnísíɪ* 'before' in that it accepts both finite and non-finite forms of verbs in its complement, but the choice of form is exactly opposite as with *mɪnísíɪ*: non-finite with the factative aspect. Therefore, it seems that non-finite forms do not

correspond to a particular aspectual meaning. Instead, the negative particle *tá* and the adverb *mɪnísíɪ* can be represented as having two subcategorization frames, one selecting finite verbs, the other selecting non-finite ones, much in the same way that some verbs in English tolerate both finite and non-finite complements and some do not.

The verb *jele* 'to make', like the adverb *mɪnísíɪ*, takes both finite and non-finite complements in causative constructions. As shown in (9), while the finite form of the verb describing the caused event is used when the causative verb is factative, the non-finite form is used when the causative verb is imperfective.

9. a. ma fá jelé ma lalí barafó
   1SG.POSS mother make.FAC 1SG crush.FAC maize
   'My mother made me crush the maize.'

  b. ma   fá-á   jelé má lalɪ barafó
    1SG.POSS mother-IMPV make 1SG crush.INF maize
    'My mother makes / will make me crush the maize.'

The presented examples so far show that the finite form of a verb is not marked for the factative. Imperfectivity is marked on the subject of a finite verb by a high-toned copy of its final segment, as shown in (9b). The following simple declarative sentences also show that the contrast between the factative in (a) and the imperfective in (b) appears to be between marked versus unmarked subject.

10. a. ma jasí límɔ viíle mɛ
   1SG swim.FAC water river LOC
   'I swam in the river.'

  b. ma-á jasí límɔ viíle mɛ
    1SG-IMPV swim water river LCO
    'I swim / will swim in the river.'

11. a. ma k͡paarí ma fá alaamísı
    1SG visit.FAC 1SG.POSS mother Thursday
    'I visited my mother on Thursday.'

b. ma-á k͡paarí ma fá alaamísı
   1SG-IMPV visit 1SG.POSS mother Thursday
   'I visit / will visit my mother on Thursday.'

Therefore, it can be said that the difference between the factative and the imperfective is that, while the factative is unmarked, the imperfective is marked by lengthening the subject-final segment. According to Nurse et al. (2016, p. 25), the factative aspect is nearly always unmarked in many Niger-Congo languages when compared to other aspectual categories. In Bago, this generalization is true to some extent, as there are instances where factative is in fact marked. The facative is marked by a low-toned copy of the verb-final segment if (i) the final segment of the verb is high-toned and (ii) the verb occurs in a clause-final position. This means that overt marking of the factative is conditioned by linear order and the verb's tonal pattern.

The sentences in 10&11 include transitive verbs, which do not normally occur in a clause-final position, and where the final segment of the verb is therefore not lengthened whether or not the final segment of the verb is high-toned. However, if we look at intransitive verbs and cases where transitive verbs occur in a clause-final position and where the verb has a final high tone, it becomes clear that the verb in the factative and in the imperfective form are distinct. Consider the following examples:

12. a. ma fá kɔní-ı
    1SG.POSS mother come-FAC
    'My mother came.'

b. ma fá-á kɔní
   1SG.POSS mother-IMPV come
   'My mother will come.'

13. a. d͡ʒoó-na   k͡pá-a
    chief-SG.CI   agree-FAC
    'The chief agreed.'

  b. d͡ʒoó-na-á   k͡pá
    chief-SG.CI-IMPV   agree
    'The chief will agree.'

From these examples, we see that Bago speakers make a difference between the factative and the imperfective in terms of what constituent is lengthened: the factative is realized by lengthening the verb-final segment, whereas the imperfective is realized on the subject by lengthening its final segment. This overt marking of the factative does not occur when the verb-final segment is not high-toned, as exemplified in (14).

14. a. ba   búti
    3PL.CI   go back.FAC
    'They went back.'

  b. ba-á   búti
    3PL.CI-IMPV   go back
    'They will go back.'

In the case of transitive verbs, the SVO word order causes the verb-final segment to be non-final in the clause, and thus the factative is always unmarked. However, if we consider the use of a transitive verb in an object interrogative construction in which the question word is moved to the start of the clause, we see that the factative is marked on the verb if its final segment is high-toned.

15. a. bé-é   n   ɖí-i
    what-FOC   2SG   eat-FAC
    'What did you eat?'

  b. bé-é   n-ń   ɖí
    what-FOC   2SG-IMPV   eat
    'What do /will you eat?'

16. a. bé-é   n   ɖúŋ́-ŋ
      what-FOC   2SG   sow-FAC
      'What did you sow?'

    b. bé-é   n-ń   ɖúŋ́
      what-FOC   2SG-IMPV sow
      'What do / will you sow?'

The fact that the verb in (15b)&(16b) is not lengthened indicates that the lengthening of the final segment in (15a)&(16a) is not simply a result of forming an interrogative construction. One might think that the lengthened segment in (15a)&(16a) is an interrogative marker that appears only in the factative. However, this turns out to be false because this lengthening disappears if the verb-final segment is not high-toned, as shown in (17).

17. a. bé-é   nabílá   vóŋ
      what-FOC   Nabila   pound.FAC
      'What did Nabila pound?'

    b. aní-í   ŋ   gɔ́lɔ
      who-FOC   2SG   invite.FAC
      'Who did you invite?'

Moreover, if lengthening the verb-final segment in (15a)&(16a) is a property of interrogative constructions rather than marking the factative, we would expect the final segment of the interrogative sentences in (18) to be lengthened as well.

18. a. lé-é   n   vasí   ma   nso
      where-FOC   2SG   hide.FAC   1SG.POSS   gun
      'Where did you hide my gun?'

    b. bé-é   n   fɛ́   nabílá
      what-FOC   2SG   give.FAC   Nabila
      'What did you give Nabila?'

The fact that the final segments in these examples are not lengthened indicates that lengthening has nothing to do with interrogative constructions, but it is used to mark the factative aspect if a verb whose final segment is high-toned occurs in a clause-final position.

Another instance in which a transitive verb may occur in a clause-final position is in an object focus construction, where the object occurs in the left periphery of the clause. As shown in (19b), in this case the verb-final segment is lengthened to realize the factative aspect.

19. a. ma   já   zakaríjá
       1SG   call.FAC   Zakariya
    'I called Zakariya.'

   b. zakaríjá-á   ma   já-a
      Zakariya-FOC   1SG   call.FAC
    'It is Zakariya that I called.'

It can thus be said that Bago makes a distinction between the factative and the imperfective with respect to the form of the verb, even if this distinction is effaced in some contexts because of the tonal pattern of the verb or because of the verb's position in the clause.

It is not surprising that an aspectual category such as factative should be marked directly on the verb. However, marking the aspect on the subject as the imperfective is marked in Bago is somewhat rarer, but it is attested in many Niger-Congo languages such as the Atlantic languages Wolof and Kisi (Childs, 1988). Marchese (1982) also notices a strong tendency in several Kru languages to mark the imperfective on the subject.

Finally, it should be pointed out that imperfective is marked on the subject when the subject constituent immediately precedes the verb, regardless of the subject's tonal pattern, but in cases where the element immediately to the left of the verb is not the subject, namely when it is the negative particle *tá*, imperfective manifests itself on the particle. In this case imperfective is expressed with a low rather than high tone. The following examples illustrate this:

20. a. ma   ḍesí-í   lá   ɔ   fʊ́w-a   d͡ʒa
     1SG.POSS   sister-IMPV   go   3SG.CII..POSS   farm-SG.CII   today
     'My sister will go to her farm today.'

   b. ma   ḍesí   tá-a   lá   ɔ   fʊ́w-a   d͡ʒa   bɔ́ɔ
     1SG.POSS   sister   NEG-IMPV   go   3SG.CII..POSS   farm-SG.CII   today   NEG
     'My sister will not go to her farm today.'

21. a. ma   d͡ʒoóŋu-ú   kɔní   sɛ́   bɔ́ɔ
     1SG.POSS   brother-IMPV   come   tomorrow   NEG
     'My brother will come tomorrow.'

   b. ma   d͡ʒoóŋu   tá-a   kɔní   sɛ́   bɔ́ɔ
     1SG.POSS   brother-IMPV   NEG-IMPV   come   tomorrow   NEG
     'My brother will not come tomorrow.'

I consider this lengthening of the negative particle to be an exponent of imperfectivity because it

never occurs when a negative clause has factative aspectual value, as shown below.

22. ḍɪ   tá   la   fʊ́w-a   d͡ʒa   bɔ́ɔ
     1PL   NEG   go.INF   farm-SG.CII   today   NEG
     'We did not go to the farm today.'   (la_{INF}, lá_{FIN})

23. ba   tá   gɔlɔ́   mɛ   bɔ́ɔ
     3PL.PL   NEG   invite.INF   1SG   NEG
     'They did not invite me.'   (gɔlɔ́_{INF}, gɔ́lɔ_{FIN})

A negative clause in the factative requires the verb to be in its non-finite form. It could be thought

that a tonal deletion rule in (22) and a tonal shift rule in (23) are applied to the finite forms *lá* and

gɔ́lɔ as a result of their being adjacent to the high tone of the negative particle. However, it becomes

evident from (24)&(25) that this is not the case because there is no high tone adjacent to the

negative particle in (24). Also, the tones of the verbal segments in (25) are not affected at all by the

high tone of the negative particle.

24. zakaríjá   tá   kɔnɪ   bɔ́ɔ
     Zakariya   NEG   come.INF   NEG
     'Zakariya did not come.'   (kɔnɪ_{INF}, kɔní_{FIN})

25. ma   tá   k͡pálá   boró-o   bɔ́ɔ
     1SG   NEG   open.INF   door-SG.CIV   NEG
     'I did not open the door.'   (k͡pálá_{INF}, k͡pála_{FIN})

9.3 The semantics of viewpoint

While tense is generally understood as locating an eventuality (actually the topic time with respect to which the eventuality is situated) on a timeline, aspect is traditionally understood as encoding "different ways of viewing the internal temporal constituency of a situation" (Comrie 1976:3). It is the role of aspect to distinguish, for instance, between ongoing and completed events at a certain point in time. Comrie's definition of aspect states that aspectual categories are distinguished based on whether or not the time interval of a situation is viewed *from within*. Viewing the interval time of a situation from within is what the imperfective aspect denotes. The perfective aspect, on the other hand, denotes that a situation is viewed as a *single whole* without reference to the internal phases of the situation.

Similar is the view of Smith (1997), who defines viewpoint aspects as a way of depicting an event with a specific focus, as does the lens of a camera. This focus highlights the entire interval or a particular portion inside the interval of a situation. The perfective functions as a lens that focuses on the whole situation by which the receiver of the utterance infers that the event includes both initial and final points. The imperfective viewpoint makes no reference to either the initial or the final point. A prototypical example of the imperfective aspect is found in a progressive construction, in which only an internal stage is visible inside a durative event. The perfective-imperfective opposition is thus stated in terms of how the interval of a situation is viewed by a speaker with respect to its end-points.

Klein (1994, p.99) proposes a theory of aspect that relies entirely on temporal relations between intervals, where "aspects are ways to relate the time of situation (TSit) to the topic time (TT): TT can precede TSit, it can follow it, it can contain it, or be partly or fully contained in it." The topic

time is an interval that is in the common ground or is introduced by the speaker in an utterance, while the time of situation refers to the entire interval during which an event occurs or a state holds. In the imperfective, topic time is entirely included within the situation time. Note that the situation can have clear endpoints, but these endpoints are unseen in the imperfective, since the topic time at best touches them, but never includes them.

26. TSit is interpreted as fully including TT in the imperfective. (Klein 1994, p.102)

```
- - - - - - - - - - - - - - - - - - -  TSit
          [     ] TT
```
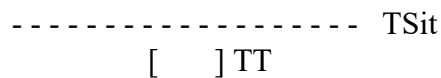
In the perfective, the situation time is either fully included in the topic time, or partly included with one if its endpoints. The representation in (27a) depicts, for instance, an event that was initiated and terminated within a topic time, such as the time when the speaker is at a particular place. According to Klein, it is possible to conceive the relation between the topic time and the situation where they overlap in other ways, as shown in (27b)&(27c).

27. TSit is interpreted as including a part of TT. (Klein 1994, p.103)

```
a.       - - - - - - - - - - - - - - - - - -  TSit
      [                            ] TT

b.   - - - - - - - - - - - - - - - - - -  TSit
                   [              ] TT

c.       - - - - - - - - - - - - - - - - - -  TSit
      [        ] TT
```
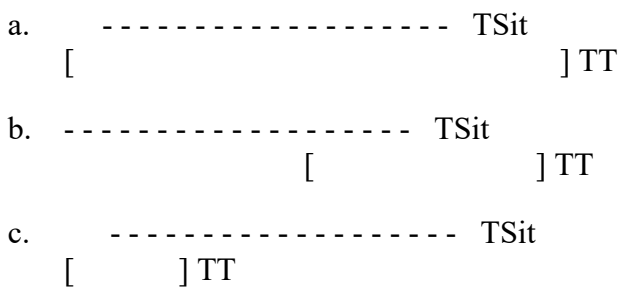
Klein clarifies the ordering relation in (27b)&(27c) by the sentence *Mary slept*, which may be uttered to describe what the speaker observed during a topic time that includes only a part of the situation time, namely the final stages in (27c) and the beginning stages in (27b).

Once aspectual categories in Klein's model are defined based on temporal relationships, it is possible to consider the further possibility that the topic time entirely before or after the situation time. This is represented in (28).

28. TSit is interpreted as excluding TT. (Klein 1994, p.103)

a.   - - - - - - - - - - - - - - - - - - TSit
                                    [   ] TT

b.   - - - - - - - - - - - - - - - - - - TSit
        [   ] TT

These correspond to actual aspectual categories, in fact. The aspect is said to be perfect when the topic time is located after the situation time, as in (28a). When the ordering locates the topic time before the situation time, the denoted aspectual viewpoint is the prospective, as in (28b).

The following summarizes the ordering relations between the topic time and the situation time in this framework.

29. Aspectual categories in Klein's framework (1994, p. 108)

a.	Imperfective:	TT	INCL	TSit
b.	Perfective:	TT	AT	TSit
c.	Perfect:	TT	AFTER	TSit
d.	Prospective:	TT	BEFORE	TSit

These four notional aspectual categories possibly exhaust the logical possibilities for relating TT and TSit, but more needs to be said regarding their relation to the actual aspectual categories found in a language. The relation of notional imperfective with the actual morphological imperfective in Bago illustrates this.

According to Klein's view, in predicates denoting permanent states the topic time is always fully included in the situation time, and thus such predicates are only compatible with the imperfective. In Bago, however, the majority of predicates expressing permanent states cannot receive the

imperfective to denote an ongoing permanent state that holds true at the utterance time or at another time prior to the utterance time. To describe an ongoing state, a clause with a predicate denoting a permanent state needs to be marked aspectually with the factative, just like a dynamic situation that is viewed as a single whole and situated in the past. The imperfective aspect is compatible with stative verbs, but it gives them a future reading.

The factative itself, which I use in my description the term factative in opposition to the imperfective (following Welmers 1973, Kari 2002 and Nurse et al. 2016), does not match Klein's notional categories, but rather has a meaning that depends on whether the verb that it attaches to is stative or dynamic.

In a general sense, applying Klein's relational theory to the factative aspect in Bago requires that while the topic time is included in the situation time with stative verbs, the situation time is included in the topic time with dynamic verbs. In the case of the imperfective aspect, the topic time with dynamic verbs is either included or is in the pretime of the situation time. With stative verbs, the imperfective aspect only allows the topic time to be located in the pretime of the situation time.

9.4 The Factative

As stated in §9.2, the factative aspect is overtly realized by lengthening the final segment of the verb if it is high-toned and occurs clause-finally. Typically, the factative aspect with a dynamic event denotes that it has taken place in the past, and with stative events that they hold in the present. The following examples illustrate both atelic and telic situations that occurred prior to the utterance time.

30. bʊ́ʊ́   ba   mɔsí   ba   fakórí-se   ka   fara
    then   3PL.CI   take.FAC   3SPL.POSS.CI   hoes-PL.CII   and   plough.INF
    'Then they took their hoes and ploughed.'

31. ɔ   d͡ʒʊ́   ɔ   fá   nɔnɔ́-ɔ   mɛ
    3SG.CI   enter.FAC   3SG.POSS.CI   mother   room-SG.CIV   LOC
    'He entered his mother's room.'

32. ba   dʊ́rʊ   lɔ́ɔ́rɪ   ḍofó   mɛ
    3PL.CI   push.FAC   car   rain   LOC
    'They pushed the car in the rain.'

33. ɔ   valá   tɔ́tɔ   mɛ   ka   tɔŋ   fɛ́   álám-a   sɪ   ba   mɛlí
    3SG.CI   walk.FAC   village   in   and   tell.INF   give   person-PL.CI   COMP   3PL.CI   steal.FAC
    ɔ   bíí-na
    3SG.POSS.CI   money-PL.CIII
    'He walked around the village and told the people that his money was stolen.'

The factative aspect, however, is also used in conditional utterances to refer to a situation that is taken to be complete at a possible world prior to another situation. The data shows that the factative aspect is marked on the verb of an "if clause" to denote a potential occurrence of the described eventuality. This can be seen in the following examples:

34. sɛ́   ŋ́   ɔ   kɔní-ɪ   ja   mɛ́
    tomorrow   if   3SG.CI   come.FAC   call.INF   1SG
    'Tomorrow, if he comes call me.'

35. ń   ḍofó   tɔ́-ɔ   bɔ   la   fʊ́w-a   bɔ́ɔ
    if   rain   rain-FAC   NEG   go.INF   farm-3SG.CII   NEG
    'If it rained do not go to the farm.'

36. ń   d͡ʒoó-na   k͡pá-a   ma-á   ɲaŋ́   ma   atɛ
    if   chief-SG.CI   agree-FAC   1SG-IMPV   sell   1SG.POSS   land
    'If the chief agrees I will sell my land.'

The factative aspect does not entail that the described situation is terminated if the situation is an activity. The schema in (37a) wherein the initial and final points of the activity are located within the topic time represents, for instance, the event of entrance described in (31). The activities of *pushing* in (32) and *walking* in (33) have a time interval that can be entirely or partially witnessed by the speaker. In a case where the speaker refers to the initial stages of the pushing and walking

activities that he saw, the topic time is partially included within the situation time, as presented in (37b).

37. Temporal relations in the factative with atelic activities

    a.   - - - - - - - - - - - - - - - - - - TSit
       [   ] TT

    b.   - - - - - - - - - - - - - - - - - - TSit
      [   ] TT

In contrast, a sentence with a telic eventuality in the factative encodes that the event has been completed. According to my informant's judgment, the sentence in (38) is infelicitous to describe a situation in which the speaker witnessed the initial stages of the event and left while the event is still in progress. Therefore, the representation in (37b) is restricted to activity verbs.

38. nabílá   físɪ   ɔ   nɔnɔ́-ɔ
     Nabila   clean.FAC   3.SG.POSS.CI   room-SG.CIV
     'Nabila cleaned her room.'

Smith (1997) points out that the perfective morpheme –*le* in Mandrain Chinese does not entail completion with accomplishment verbs, as in *wo zuotian xie-le yifeng xin* 'I wrote a letter yesterday', and can be followed by a conjoined clause indicating that the event of writing the letter has not been completed. In Bago, however, the use of an accomplishment verb in the factative necessarily entails completion. The example in (39a), for instance, denotes that the event of building is completed. It cannot be uttered to denote that a partial success of the intended goal was achieved, and thus the conjoined clause in (39b) causes contradiction.

39. a. ma   má   bó-re   tɔ́tɔ   mɛ
             1SG build.FAC   house-SG.CIII   village   LOC
      'I built a house in the village.'

    b.# ma   má   bó-re   tɔ́tɔ   mɛ amá ma tá tɛlɪ   ɖɛ́   bɔ́ɔ
        1SG   build.FAC house-SG.CIII village in   but   1SG NEG finish.INF 3SG.CIII NEG
      Intended 'I built a house in the village, but I did not finish it.'

In contrast to dynamic verbs, the factative aspect with the majority of stative verbs (e.g., *sɔɔlí* 'love/like' *d͡ʒɪ́ŋ* 'know' *gɔ́* 'be tired' *wʊlí* 'be dry' *bɔsɔ* 'be rotten') denotes that a particular state holds true at the utterance time or at a contextually given time in the past. No reference is made to the temporal boundaries of the described state, which means that the topic time is included within the situation time.

40. ma **d͡ʒɪ́ŋ**   ɔ   tá
    1SG know.FAC 3SG.POSS.CI father
    'I know his father.'

41. d͡ʒa   ma   ná   bagó d͡ʒoó-na   ɔ   **d͡ʒɛ́ŋ**
    today   1SG   see   Bago chief-SG.CI 3SG.CI   be tall.FAC
    'Today, I saw the chief of Bago. He is tall.'

42. ma   **sɔɔlí**   nabílá   amá   ɔ   fá   tá-a   gɛ́
    1SG   love.FAC   Nabila   but   3SG.POSS.CI   mother   NEG-IMPV   want
    sɪ   má   mɔsɪ   í   bɔ́ɔ
    COMP   1SG   take.INF   3SG.CI   NEG
    'I love Nabila but her mother does not want me to marry [lit., take] her.'

43. zakaríjá   tá-a   kɔní   d͡ʒa   bɔ́ɔ   ɔ   **gɔ́-ɔ**
    Zakariya   NEG-IMPV   come   today NEG   3SG.CI   be tired-FAC
    'Zakariya will not come today. He is tired.'

44. d̥ɛ   ma   ná   nɪ   kɪjá-a   mɛ   n   **sú**   ág͡bárá
    yesterday 1SG   see.FAC   2SG   market.SG.CII LOC   2SG   wear.FAC   boubou
    'Yesterday, I saw you in the market. You were wearing a boubou.'

As can be seen from these examples, the factative simply indicates that a state holds true at the present time or at a prior time. I have provided several reasons in §8.2.2.1 to argue against the assumption that the factative with a stative verb designates an inchoative interpretation. It is also clear from the example in (44) that the speaker does not make a claim about the initial stage of the wearing event, but rather describes the addressee as being in the state of wearing a boubou at the time he was seen. Additionally, the sentence in (41) is uttered in a context where the speaker, who saw the chief for the first time, is giving a physical characteristic of the chief. Therefore, since the

227

factative is used to refer to the state itself, the topic time is included in the time interval at which the described state holds, as diagrammed in (45).

45. Temporal relation in the factative with stative verbs

a. - - - - - - - - - - - - - - - - - - TSit
          [   ] TT
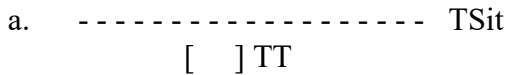
Stative verbs, which express result states (e.g., *sú* 'wear' *gɔ́* 'be tired' *wɛrɛkí* 'be broken') can also be used in the factative to predicate a past eventuality. A past event interpretation is pragmatically derived —it does not arise from a grammatical feature. As shown below, these utterances do not attribute an ongoing property to the referent, but describe an event that indicates transition into a state.

46. ma **sú** ma tóko ka lɪ
    1SG   waar.FAC   1SG.POSS   shirt   and   go out.INF
    'I put on my shirt and went out.'

47. ma lá gubí lɔ́ ma tákuku **wɛrɛkí** bʊlɔ́
    1SG   go.FAC   Gubi   and   1SG.POSS   motorbike   be.broken.FAC   there
    bʊ́ʊ́ ma d͡ʒʊ́ lɔ́ɔrɪ ka kɔnɪ
    then   1SG   enter.FAC   car   and   come.INF
    'I went to Gubi, and my motorbike got broken there, then I took a car to come.'

48. ɖɪ wɛ ɖɪ-í jɛ́ tʊ́mʊ́-rɛ lɔ́ zakaríjá **gɔ́-ɔ**
    1PL   COP.FAC   1PL-IMPV   do.FAC   work-SG.CIII   and   Zakariya   be tired-FAC
    mɪnísíɪ ɖɪ tɛlí-ɪ
    before   1PL   finish-FAC
    'We were working, and Zakariya got tired before we finished.'

The topic time in these examples includes the transition from a state to another, as diagrammed in (49) where the dashes represent the source state, and the plus signs represent the target state.

49. Temporal realtion in the factative with a change of state meaning

a. - - - - - - - - + + + + + + + + TSit
          [   ] TT
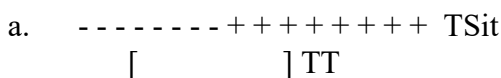
As noted earlier, the factative does not convey a present reading with a few stative verbs in the language, such as *ɲań* 'fear' *váŋ* 'be sick' and *ɖɔŋɔ́* 'feel pain'. I have assumed that these verbs, which semantically are just states without natural endpoints, are lexically specified with a terminal endpoint that is highlighted in the factative aspect to yield a bounded interpretation. The speaker, as shown in the following examples, chooses to describe a situation at a specific moment in the past.

50. tíw-ɔ   fɛlɛkí   ba   nɔnɔ́-ɔ   lɔ́ ba   **ɲań**   ka fóé
    tree-SG.CIV   fall.FAC 3PL.POSS.CII   room-SG.CIV   on 3PL.CII fear.FAC and run.INF
    'The tree fell down on their room. They feared and ran.'

51. súli   lá   fǒw-a   ɔ   kaa fara   amá   ɔ   tá   jala
    Suli   go.FAC   farm-SG.CII   3SG.CI to   plough   but   3SG.CI NEG   be able.INF
    ka   fara   bɔ́ɔ ɔ   gará-sɛ   **ɖɔŋɔ́**   ɪ
    to   plough.INF   NEG 3SG.CI.POSS   leg-PL.CII   pain.FAC   3SG.CI
    'Suli went to the farm to plough, but he could not plough. His legs pained him.'

52. ɖɪ   sísa   tá   kɔnɪ   sukúru d͡ʒa   bɔ́ɔ ɔ   **váŋ**
    1PL.POSS   teacher   NEG   come.INF   school today NEG 3SG.CI   be sick.FAC
    'Our teacher did not come today to school. He was sick.'

The interpretation that arises in (50) is that the referents experienced the psychological state of fear at the moment of the tree falling event. In (51), although the speaker asserts that there was a time interval (i.e., the time Suli was at the farm to plough) during which Suli felt pain in his leg, no assertion is made about whether or not the pain still holds at the utterance time. That is, the factative aspect is used whether the speaker is aware or not that the described event has reached its endpoint after the topic time. In (52), the adverbial *d͡ʒa* 'today' explicitly denotes the topic time for which the assertion is made. The factative aspect is used whether or not the speaker is aware that the sickness of the teacher has reached its endpoint at a later time. If the speaker, however, wants to refer to the continuation of the described situation, the language requires the use of the imperfective aspect, as will be discussed in the following section.

9.5 The Imperfective

The imperfective aspect generally refers to a situation with non-visible endpoints (Smith, 1997). In this sense, Klein (1994) defines imperfectivity in terms of inclusion: the topic time is fully included in the situation time. In Comrie's work (1976), the imperfective aspect is subdivided into three categories: habitual, progressive continuous and non-progressive continuous. Languages differ according to whether they specify every category within the general imperfective with a particular form or include more than one imperfective category into a single structure through a single form. In Bago, imperfective meanings share a basic structure. For instance, the imperfective marking in (53) can give rise to habitual and future readings of the activity verb, and interpretational ambiguity is resolved through contextual information or the use of adverbials.

53. ma   ḍesí-í   fɔkɔ́   ma   ákú-na
    1SG.POSS   sister-IMPV   wash   1SG.POSS   clothes-PL.CIII
    'My sister washes my clothes.'
    'My sister will wash my clothes.'
    * 'My sister is washing my clothes.'

As seen in the translation of (53), the imperfective aspect marked on the subject does not convey a progressive reading. In order to impose a progressive reading, the structure must contain, in addition to the main verb, whose subject is marked for imperfectivity, a copular verb with its own subject (see §9.5.2 below). In (54), the sentence is said to describe a single event that is ongoing at the utterance time.

54. ma   ḍesí   wɛ   ɔ-ɔ́   fɔkɔ́   ma   ákú-na
    1SG.POSS   sister   COP.FAC   3SG.CII-IMPV   wash   1SG.POSS   clothes-PL.CIII
    'My sister is/was washing my clothes.'

Despite the structural differentiation between the progressive and the non-progressive sentences, the common element that they share is that the subject of the described eventuality is marked for imperfectivity. The following section discusses both structures separately and explains how various

readings associated with each structure differ in terms of the temporal and the cardinal components of the imperfective aspect.

9.5.1 Non-progressive imperfective

The plain (non-progressive) imperfective construction permits habitual, future, non-progressive continuous readings, depending in part on the context. It has been shown in §8.2 that the readings obtained with the imperfective marking differ according to the type of the predicate; (i) dynamic predicates have habitual and future readings, (ii) unmarked stative predicates have a future reading, (iii) lexically terminated stative predicates have continuous and future readings.

9.5.1.1 Dynamic eventualities

The imperfective aspect denotes a habitual or a future reading with dynamic eventuality descriptions. As Comrie (1976, p. 27) puts it, habituality signifies "a characteristic of an extended period of time", which is defined by several occurrences of a dynamic eventuality. In (55), for example, the sentence describes a practice that the people of the village carry out regularly when a girl is born.

55. kusúńtú   tɔ́tɔ   mɛ   ba-á   dará   áɖetú-ba   ró
    kusuntu   village in   3PL.CI-IMPV circumcise girl-PL.CI also
    'In Kusuntu, they also circumcise girls.'

Similarly, the example given in (56) describes a plural eventuality that is presented as a characteristic of the referent. In (57), we see that a habitual meaning is signalled by means of the frequency adverbial.

56. ma   d͡ʒoóɲu   wɛ-na   fʊ́w-a   ɔ-ɔ́   fará   ad͡ʒóle-ná
    1SG.POSS   brother   COP-COM   farm-SG.CII   3SG.CI-IMPV   grow   okra-PL.CIII
    'My brother has a farm. He grows okra.'

57. báa abééré ma-á   já   ma   áló mɪnísíɪ má d͡ʒʊ́   bó-re
    any when 1SG.IMPV call 1SG.POSS wife before 1SG enter.INF house-SG.CIII
    mɛ ɖoómi ma   nantʊ́-na-á   bará boró-o   bɛ́ŋ-kɔ
    LOC because 1SG.POSS neighbour-SG.CI-IMPV close door-SG.CIV big-SG.CIV.AGR
    'I always call my wife before I enter into the house, because my neighbour closes the main door.'

The imperfective aspect is also used to place a dynamic situation in the future. As shown in the following examples, the linguistic context conveys that an event is predicted or planned to take place at a future time rather than holding at the topic time.

58. a. fɔ́sí   m   bíja
       greet.INF 2SG.POSS child.PL
       'Greet your children [for me]!'

    b. **ma-á**   fɔ́sɪ bɛ́
       1SG.IMPV greet 3PL
       'I will greet them.'

59. bɔ lɪ   bɔ́ɔ **ba-á**   sán   ní
    NEG go out.INF NEG 3PL.CII-IMPV arrest 2SG
    'Do not go out. They will arrest you.'

60. óóó ma   ɖɔɔ́-na   sɪwʊ́-ʊ ma **tá-a**   butí   tɔ́tɔ
    oh 1SG.POSS freind-SG.CI die-FAC 1SG NEG-IMPV go back village
    mɛ ró   bɔ́ɔ **ma-á**   kʊ́ ma tɪ d͡ʒeé
    LOC again NEG 1SG-IMPV kill 1SG REFL DEM.PROX.LOC
    'Oh, My friend died. I will not go back to the village again. I will kill myself here.'

In (61)&(62), the future adverbials *sɛ́* 'tomorrow' and *kad͡ʒaŋá* 'sun' explicitly denote that the sentences refer to a future event.

61. ma-á   lá bagó sɛ́
    1SG-IMPV go Bago tomorrow
    'I will go to Bago tomorrow.'

62. bíja-á   jasí límɔ kad͡ʒaŋá
    child.PL-IMPV swim water sun
    'The children will swim at noon.'

It should be noted that, in an out-of-the-blue context, these examples could still receive a future reading even if they are uttered without the future adverbials.

One way to describe the opposition between habitual and non-habitual meanings of the imperfective is that the former denote plural eventualities, while the latter denote singular ones (Ferreira 2005). In the Bago imperfective aspect with dynamic eventualities, the temporal ordering relation between the topic time and the situation time depends on a number specification for the event that is determined by contextual or adverbial cues. Singular eventualities are understood as occurring at time that is in the future with respect to topic time, while plural eventualities occur over an extended period of time (in the sense of Verkuyl, 1999; Ferreira, 2005; Arche, 2006) which overlaps with the topic time. The two possibilities are shown in (63).

63. a. Habitual   E   E   E   E   E   E   E   TSit
                              [   ] TT

     b. Future   -   TSit
             [   ] TT

The sub-events of a plural event have their own time interval, and the topic time may or may not coincide with the time interval of a sub-event (Zagona, 2007). For instance, if the sentence in (64) is uttered to describe an event that the referent *Zakariya* does in a regular manner as a job, there is no assertion as to whether or not the described activity is ongoing at the topic time, which is taken to be the utterance time. Zakariya may or may not be involved in building a house at the topic time.

64. zakaríjá-á   má   bóó-na
     Zakariya-IMPV   build   house-PL.CIII
     'Zakariya builds houses.'

If the speaker wants to refer to an ongoing event, the progressive construction would be used instead, as will be discussed later. Moreover, for a habitual reading to be obtained from the utterance in (64), the internal argument of the verb *má* 'build' must be a plural noun phrase in order for the verb to denote a regular activity rather than an accomplishment. An accomplishment event is an outcome resulting from a durative process (Smith, 1997). If an accomplishment event is

233

considered to be a single outcome or a conclusion, then it must be a singular event in nature. For this reason, a non-progressive imperfective structure with verbs such as *má* 'build' and *mɔrɔsí* 'write', whose internal argument is a singular entity that comes into existence as a result of a process, does not give rise to a habitual interpretation. As can be seen in (65)&(66), both examples indicate that an event will take place at a future time.

65. zakaríjá-á   má   bó-re
    Zakariya-IMPV   build   house-SG.CIII
    'Zakariya will build a house.'

66. ma-á   mɔrɔsí   tákárará   fɛ́   d͡ʒoó-na
    1SG-IMPV   write   letter   give   chief-SG.CI
    'I will write a letter to the chief.'

These examples do not allow a habitual interpretation in their basic constructions, but they can be coerced into a habitual meaning when the events of building and writing are modified by a frequency adverbial such as *sɔrɔɔ́ báa aŋkʊ́* 'every month'.

9.5.1.2 Stative verbs in the imperfective

The imperfective marking with most stative verbs in the language denotes that a permanent or a transient state is predicted to hold at a future time, as exemplified below.

67. sáa   kaá   n   lʊlʊ́-wa   ma   tɔ́ŋ   fɛ́   nɪ   sɪ
    time   REL.3SG.CII   2SG   give birth.FAC-FOC   1SG   tell.FAC   give   2SG   COMP
    vuú-na   ŋo-d͡ʒé-é   d͡ʒɛ́ŋ
    child-SG.CI   SG.CI-DEM.PROX-IMPV   be tall
    'When you gave birth, I told you that this child would be tall.'

68. ma   ɖogó-ó   sɔɔlí   wɔrɔ-ɔ́   ko-d͡ʒé
    1SG.POSS   girlfriend-IMPV   love   golden chain-SG.CIV   SG.CIV-DEM.PROX
    'My girlfriend will love this golden chain.'

69. a. lé-é   ma-á   júku   ŋɛ́
      where-FOC   1SG.IMPV   find   2PL
      'Where will I find you?'

    b. ɖɪ-í   sɔkɔ́   tíw-ɔ   kɔ-mɔɔ́   bisí-re
       1PL.IMPV   sit   tree-SG.CIV   SG.CIII-DEM.DIST   buttock-SG.CIII
       'We will be sitting under that tree.'

70. sɛ́   wárí   í   kɔnɪ   má   ɲaŋ   fɛ́   ŋɛ   ma   máŋgo
    tomorrow after   2PL   come.INF 1SG   sell.INF give 2PL 1SG.POSS mango
    ma   fɛ́   íd͡ʒá   sɪ   **ka-á**   fóe
    1SG give.FAC truth   COMP 3SG-IMPV   be ripe
    'Come after tomorrow for me to sell you my mango. I believe it will be ripe.'

In these examples, the described state does not exist or has not come into existence. The
imperfective aspect denotes a relation of precedence in the same way that we have seen when a
dynamic event refers to a singular occasion: the topic time is located before the situation time.

In § 8.2.2., I presented a list of stative verbs in Bago, which was subdivided into three categories:
(i) permanent states such as *sɔɔlí* 'love' and *d͡ʒéŋ* 'be tall', (ii) result states such as *gɔ́* 'be tired' and
bɔsɔ́ 'be rotten', (iii) posture states such as *sɔkɔ́* 'to sit' *málá* 'to hide'. The data shows that
unmarked stative verbs that express result states and posture states can be used in the imperfective
both to talk about a future transition into a new state (71)-(73) or to describe a typical property of
an entity in a generic sense (74)-(77).

71. ma   tákuku-ú   wɛrɛkí   ḿ ma   fú   g͡bɔ́   ko-d͡ʒé
    1SG.POSS   motorbike-IMPV   be broken if 1SG follow.FAC   way   SG.CIV-DEM.PROX
    'My motorbike will break down if I take this way.'

72. sɔkɔrɔ́-ɔ́   bɔsɔ́   í   tɛlɪ   kí
    mashed yam-IMPV be rotten   2PL   finish.INf SG.CIV
    'The mashed yam will get rotten. Finish it.'

73. ɔ   tɔ́ŋ sɪ   **ɔ-ɔ́**   mála lɔ́-ɔ   mɛ   mɪnísíɪ bá   tala
        3SG.CI say   COMP 3SG-IMPV hide forest-SG.CIV LOC before   3PL.CI come.INF
    'He said that he will hide in the forest before they arrive.'

74. tíw-ɔ   bíja-á   bɔsɔ́   sɪsaɪ
    tree-SG.CIV child.PL-IMPV   be rotten   quickly
    'Fruits become rotten quickly.'

75. **máŋgo-ó**   fóe   ḿ   mbú-re   wɛ
    mano-IMPV   be ripe   if   heat-SG.CI   COP.FAC
    'Mangoes become ripe if the weather is hot.'

76. bɔ   lɛ   bata-sɛ́   bɔ́ɔ   **sɪ-í**   wɛrɛkí   sɪsaɪ
    NEG   buy.INF   flip-flop-PL.CII   NEG   3PL.CII-IMPV   be broken   quickly
    'Do not buy flip-flops. They get broken quickly.'

77. **bɛ́ɛ́-rɛ-ɛ́**   mála   tíw-ɔ   lɔ́
    monkey-SG.CIII-IMPV   hide   tree-SG.CIV   on
    'Monkeys hide on the tree.'

In contrast to what happens in the majority of stative verbs, the imperfective aspect with a few marked stative verbs in the language gives rise to a continuous or a future reading, depending on the context. As already discussed, the factative aspect is typically used to describe a continuous state, but with these exceptional stative verbs, it denotes that the time span of the state is either fully or partially included within the topic time, much like it does with dynamic verbs. These exceptional statives differ from dynamic verbs, however, in that the latter do not allow a continuous interpretation with the non-progressive imperfective, but rather only with a future or a habitual. As shown below, Bago speakers use the non-progressive imperfective structure to assert that states such as *váŋ* 'be sick' and *ɲaɲ́* 'fear' still hold or will hold at a future time.

78. ma   d͡ʒóóŋu tɔɲ́   fɛ́   mɛ   sɪ   ɔ-ɔ́   lá   ɖókíta
    1SG.POSS   brother   tell.FAC   give   1SG   COMP   3SG.CI.IMPV   go   hospital
    ɖoómi   ɔ   **ɔ́lʊ́-ʊ́**   váŋ
    because   3SG.CI.POSS   wife-IMPV   be sick
    'My brother told me that he will go to the hospital because his wife is sick.'

79. **ba-á**   ɲaɲ́   bʊ́ʊ́   venvɛnɔ́-ɔ   tɔɲ́   fɛ́   bɛ   sɪ
    3PL.CI.IMPV   fear   then   monster-SG.CIV   tell.FAC   give   3PL.CI   COMP
    í   kɔnɪ   ma   tá-a   kʊ́   ŋɛ   bɔ́ɔ
    2PL   come.INF   1SG   NEG.IMPV   kill   2PL   NEG
    'They were afraid, then the monster told them 'come'. I will not kill you.'

80. ɲ́   ɖɪ   tɔkɔ́   kʊ́d͡ʒɔ-ɔ́   ko-d͡ʒé   **ɖɪ-í**   váŋ
    if   1PL   eat.FAC   yam-SG.CIV   SG.CVI.AGR-DEM   1PL.IMPV   be sick
    'If we eat this yam, we will be sick.'

81. jele   má   ɖɔ́kʊ́   ásíj-a   ma   **tá-a**   ɲaɲ́   ró   bɔ́ɔ
    let.INF   1SG   hold.INF   cat-SG.CII   1SG   NEG-IMPV   fear   again   NEG
    'Let me hold the cat. I will not be afraid again.'

These examples show the meanings of imperfective with these exceptional statives. In (78)&(79), the described states hold throughout the topic time, whereas the topic time in (80)&(81) is located in the time prior to the described states. Therefore, although the non-progressive imperfective structure with these marked verbs gives rise to a future reading in exactly the same way as in sentences with dynamic verbs and unmarked stative verbs, it can additionally be used to talk about a state that continues to hold before, during and after the topic time.

Note that this temporal relation in which the topic time is fully included within the situation time is the same as the one that holds in the non-progressive imperfective structure with a dynamic event expressing habituality. The distinction between the two hinges on the cardinality of the event, in the sense of Arche (2006) and Ferreira (2005). While the imperfective aspect with stative eventualities involves a singular eventuality, with dynamic eventualities it involves a plural eventuality.

As noted earlier, marked stative verbs in the language differ from the majority of stative verbs in terms of temporal ordering. In the imperfective, the ordering component of a sentence that describes stative eventuality by a marked stative verb allows the topic time to be either within or before situation time. However, the ordering component in sentences describing a stative eventuality by unmarked stative verbs allows only a relation of precedence, to give rise to a future reading. The table below summarizes the different readings associated with the general imperfective structure based on the temporal ordering relation and the cardinality of the described eventuality. In the next section, the discussion moves to the structure that the language dedicates to indicate that a singular dynamic event is in progress.

Table 9.2: The ordering and the event cardinal components of the imperfective aspect

Types of Predicates	Temporal ordering	Event cardinality	Examples
Unmarked Stative verbs	TT < TSit	SG eventuality	$\overline{gb}\varepsilon t\imath$ 'be black', *sɔɔlı* 'to love', *bɔsɔ* 'be rotten' *gɔ* 'be tired'
Marked stative verbs	TT < TSit TT ⊆ TSit	SG eventuality SG eventuality	*ɲaŋ* 'to fear', *vaŋ́* 'be sick', *ɖɔŋɔ* 'to pain'
Dynamic verbs	TT < TSit TT ⊆ TSit	SG eventuality PL eventuality	*vala* 'to walk' *kala* 'to read', *la* 'to go', *má* 'to build'

9.5.2 Progressive

A dynamic eventuality description in the progressive structure conveys that the event is ongoing at a given time. According to Verkuyl (1999), Ferreira (2005), and Arche (2006), the semantics of the progressive expresses a singular eventuality and highlights a subpart of the time interval at which the described eventuality is expected to be fully realized. No assertion is made about the culmination of the event, and thus the presence of a conjoined clause, for instance, to cancel the implication of culmination does not cause contradiction, as shown in (82).

82. ɖɛ   ílímo ma   wɛ   ma-á   mɔrɔsí tákárará fɛ́   d͡ʒoó-na
    yesterday night 1SG COP.FAC 1SG-IMPV write   letter   give chief-SG.CI
    amá   ma   tá   tɛlɪ   kɛ́   bɔ́ɔ
    but   1SG NEG finish.INF 3SG.CII NEG
    'Last night, I was writing a letter to the chief, but I did not finish it.'

A sentence in the progressive structure merely asserts that there is reference to a sub-interval within the runtime of a singular event. This means that the temporal ordering component locates the topic time within the situation time, and the value of the event cardinality is a singular occasion. As shown in (82), the progressive construction in Bago involves a copular verb and a main verb, which results in a double subject marking. While the subject of the copular verb can be a pronoun or a

full DP, the subject of the main verb is a pronoun that is always coindexed with the subject of the

copular verb in the number and class features. Consider the following examples:

83. g͡bɪ   n   ḍesí   wɛ   ɔ-ɔ́   fɔ́sɪ   ɪsɔ́ɔ
    be quiet.INF 2SG.POSS   sister   COP.FAC   3SG.CI-IMPV greet   God
    'Be quiet, your sister is praying.'

84. sáa   kaá   ma kɔní-ja   zakaríjá   wɛ   ɔ-ɔ́   ɲɪŋ́ ḍág͡bará
    time   REL.3SG.CII 1SG come.FAC-FOC   Zakariya   COP.FAC 3SG.CI-IMPV set   trap
    'When I came Zakariya was setting up a trap.'

85. ba   ná   d͡ʒad͡ʒɔ́-ɔ   kʊ   wɛ   kʊ-ʊ́   ɲɔ́
    3PL.CI see.FAC elephant-SG.CIV 3SG.CIV COP.FAC 3SG.CIV-IMPV drink
    límɔ   viíle   mɛ
    water   river   LOC
    'They saw the elephant. It was drinking water from the river.'

86. atá-a   nemí-se   wɛ   sɪ-í   tɔkɔ́   barafó
    father-SG.CI goat-PL.CII COP.FAC 3PL.CII-IMPV eat   maize
    'Father, the goats are eating the maize.'

It can be observed from these examples that the subject of the main verb is always lengthened to

realize the imperfective aspect. Moreover, a progressive construction with the copular verb *wɛ* can

have a present time reference as in (83)&(84) or a past time reference as in (85)&(86). For a future

time reference, the copular verb *jé* is used instead, and its subject is marked for imperfectivety, as

shown in (87).

87. sɛ́   ń   ɪ   kɔní   ma   fɔlɔ́-ɔ   laásarɪ   wárí   ɪ
    tomorrow if 2PL come.FAC 1SG.POSS place-SG.CIV afternoon.prayer after   2PL
    tá-a   júku mé bɔ́ɔ **ma-á**   **jɛ́** ma-á   ḍuḿ barafó fʊ̆w-a   mɛ
    NEG-IMPV find 1SG NEG 1SG-IMPV COP 1SG-IMPV sow maize   farm-SG.CII LOC
    'Tomorrow, if you come to my place after the afternoon prayer, you will not find me. I will
    be sowing maize in the farm.'

The future progressive construction in (87) differs from the present/past progressive constructions

presented in (83)-(86) in the form of the copular verb and in the fact that the subject of the copular

verb is marked for imperfectivity, in addition to the imperfective marking on the subject of the

main verb.

As was mentioned above, the copular verb *jɛ́* is used in a sentence denoting that an event will be taking place at a future time, while the copular verb *wɛ* is used in a sentence describing an event that is or was taking palace. This opposition between two copular verbs in progressive constructions is similar to what we have seen in locative clauses. I have shown in §8.1.1. that the copular verb *wɛ* is used in a locative clause that talks about the existence of an entity at a particular location at the present time or at a contextually given time in the past, whereas the copular verb *jɛ́* is used in a locative clause indicating that the existence of an entity at a particular location is expected to occur at a future time. The examples from that section are provided here again for reference:

88. a. lé-é   n   tá   wɛ
       where-FOC   2SG.POSS   father   COP.FAC
       'Where is your father?'

    b. ɔ   wɛ   fʊ́w-a   mɛ
       3SG.CI   COP.FAC   farm-SG.CII   LOC
       'He is in the farm.'

89. a. ma-á   gɛ́   má   k͡paarı   nabílá
       1SG-IMPV   want   1SG   visit INF   Nabila
       'I want to visit Nabila.'

    b. ɔ   wɛ   dókíta   mɛ   ɖɛ
       3SG.CI   COP.FAC   clinic   LOC   yesterday
       'She was in the clinic yesterday.'

90. a. lé-é   ma-á   júku   ŋɛ́
       where-FOC   1SG.IMPV   find   2PL
       'Where will I find you?'

    b. ɖɪ-í   jɛ́   d͡ʒingíri   mɛ
       1PL.IMPV   COP   mosque   LOC
       'We will be in the mosque.'

As in the progressive construction, the copula *jɛ́* requires the subject to have its final vowel lengthened, i.e., to be marked with the imperfective.

What the locative sentences show with respect to the choice of the copular verb is that *jɛ́* is selected in the imperfective, and *wɛ* is used in the factative aspect. This does not mean that *wɛ* is a factative form and *jɛ́* is an imperfective form. As was shown in §8.1.2., the copular form *wɛ* cannot be used with nominal predicates that express the semantic relations of identity (equation), role (proper inclusion), and origin of place. With these semantic relations, the copular form *jɛ́* must be used in both the factative and the imperfective aspects. Here are some examples, which are judged ungrammatical if the copula *jɛ́* is substituted for by *wɛ*.

91. ma   jɛ́   zakaríjá
    1SG   COP.FAC   Zakariya
    'I am zakariya.'

92. tení   ma   jɛ́   sukúru   vuú-na
    last year 1SG   COP.FAC   school   child-SG.CI
    'Last year, I was a student.'

93. zakaríjá-á   jɛ́   lɔlɔ   ɔ́díw-ɔ
    Zakariya-IMPV   COP   good   hunter-SG.CIV
    'Zakariya will be a good hunter.'

In contrast, both *wɛ* and *jɛ́* can be used with true adjectives and nouns that are used predicatively to express attributive concepts. Like locative clauses, the copular verb *wɛ* is used to talk about state that holds at the present time or at a contextually established time in the past.

94. zakaríjá wɛ kɔkɔlɪj-á g͡ba   dɪ tá-a   gɛ́ ɔ́ wʊlɪ ɖʊ́ bɔ́ɔ
    Zakariya COP anger-SG.CII very   1.PL NEG-IMPV want 3SG teach.INF 1PL NEG
    'Zakariya is a very angry person. We do not want him to teach us.'

95. sáa   kaá   ɲ   jɛ́-ja   vuú-na   ɲ   wɛ   ak͡pow-á
    time REL.3SG.CII 2SG COP-FOC   child-SG.CI 2SG COP.FAC shyness-SG.CII
    'When you were child, you were shy.'

96. ń dɪ má nɔnɔ́-ɔ   d͡ʒeé   bavó-re-é   jɛ́   tʊ́tʊbʊ́-ɖɛ
    if 1PL build room.SG.CIV DEM.PROX.LOC bath.room-SG.CIII-IMPV COP small-SG.CIII.AGR
    'If we build the room here, the bathroom will be small.'

The crucial point of relevance to this discussion is that the distribution of the copular verbs in progressive construction is similar to both attributive and locative copula clauses with respect to

grammatical aspect. This shows that the copula that is used for the progressive construction in Bago is not simply a locative copula as it is the case in some Niger-Congo languages, including Koromfe (a Gur language; Rennison, 1997), Rangi and Swahili (Bantu languages; Gibson et al., 2019), and Nanafwe (a dialect of Baule, a Kwa language; Bohoussou & Skopeteas 2005). In Bago, a locative proposition is expressed by a copular verb plus a postpositional phrase, as was exemplified in (88)-(90).

Given this, I conclude here that the parallel between the progressive construction (SUBJ+COP+SUBJ-IMPV+VERB) and the locative construction should not be pushed too far. The progressive construction involves not a locative copula but rather a copular verb to express that a state holds, either in the future or in a non-future time span. The copular verb behaves aspectually like a lexically unmarked stative verb with which the factative denotes a realized state at the present time or at a contextually given time in the past, and the imperfective denotes an expected state to be realized at a future time.

The copular verb is immediately followed by a pronominal subject marked for imperfectivity and a lexical verb describing a dynamic eventuality. Eventuality descriptions can be for activities, accomplishments or achievements in progress.

97. nabílá   wɛ   ɔ-ɔ́   d͡ʒɔ́
    Nabila   COP.FAC   3SG.CI-IMPV   cry
    'Nabila is/was crying.'

98. ma   wɛ   ma-á   mɔrɔsí   tákárará   fɛ́   ma   dɔ́ɔ́-na
    1SG   COP.FAC   1SG.IMPV   write   letter   give   1SG.POSS   frien-SG.CI
    'I am/was writing a letter to my friend.'

99. zakaríyá   wɛ   ɔ-ɔ́   mɔsí   n   dáɡ͡bará-sɛ́
    Zakariya   COP.FAC   3SG.CI-IMPV   take   2SG.POSS   trap-PL.CII
    'Zakariya is/was taking your traps.'

100. ŋɔ́rá-a   wɛ   ba-á   talá
    guest-PL.CI   COP.FAC   3PL.CI.IMPV   arrive
    'The guests are/were arriving.'

101. ma   wɛ   ma-á   talá   bagó
    1SG   COP.FAC   1SG-IMPV   arrive   Bago
    'I am/was arriving in Bago.'

Examples (97)&(98) show the use of the progressive construction to talk about an activity and an accomplishment, respectively. The verb *mɔsí* 'take' describes a punctual event, but it is used in (99) with a plural argument to indicate an ongoing event involving repetition. Similarly, the achievement verb *talá* 'arrive' in (100) is grammatical with a plural argument to assert that there are several arrivals of the participants ongoing. In (101), the singular argument is acceptable with the verb *talá* 'arrive' in a context where the participant is moving toward a location. Note that not every achievement verb can be coerced into a durative time interval. The verb *júkú* 'to find', for instance, is not acceptable in a progressive construction.

Stative verbs can also occur in the progressive construction, in which they have a dynamic interpretation indicating an ongoing change into the state described by the main verb. Some examples are provided here:

102. nabílá   wɛ   ɔ-ɔ́   d͡ʒɛ́ŋ
    Nabila   COP.FAC   3SG.CI-IMPV   be tall
    'Nabila is/was getting tall.'

103. n   tóko-níŋɛ   wɛ   tʊ-ʊ́   wʊlí
    2SG.POSS   shirt-PL.CIV   COP.FAC   3PL.CIV-IMPV   be dry-FAC
    'Your shirts are getting dry.

As discussed, stative verbs in the factative describe unchanging states. What is referred to in the progressive is a subpart of the time span at which the theme undergoes changes to reach such a state. In (104)&(105), it can be seen that stative verbs such as *sú* 'wear' and *sɔkɔ́* 'sit' are used in

the progressive to denote that the participant is engaged in the process of putting on his boubou and of sitting down, respectively.

104. ma   wɛ   ma-á   sú   ma   ágbádá
     1SG   COP.FAC 1SG.IMPV sit   1SG.POSS boubou
     'I am/was putting on my boubou.'

105. ma wɛ   ma-á   sɔkɔ́ gbelé lɔ́ bʊ́ʊ́ súli fɔkí gbelé lɔ́ ma fɛlɛkí   atɛ
     SG   COP.FAC 1SG-IMPV sit   chair on then Suli pull chair and 1SG fall.FAC ground
      'I was sitting down, then Suli pulled the chair, and I fell down.'

A further fact to note about the progressive in Bago is that it allows a habitual progressive reading. Like in a copular clause describing a habitual locative state, the copular verb *wɛ* is selected to talk about an ongoing eventuality that is considered habitual if embedded within a habitual predicate.

106. ma wɛ   fʊ́w-a   mɛ   báa   abééré
     1SG COP.FAC farm-SG.CII LOC every when
     'I am always on the farm.'

107. báa abééré ḿ ma lí   sukúru ka   kɔnɪ   ma-á   ná
     every when   if 1SG go out.FAC school and come.INF 1SG.IMPV see
     ma   tá   ɔ   wɛ   ɔ-ɔ́   kalá tákárará
     1SG.POSS father 3SG.CII COP.FAC 3SG.CI-IMPV read book
     'Always, if I leave school and come (home), I see my father reading a book.'

According to my consultant, the progressive sentence in (107) must be introduced by the two-place predicate *ná* 'see' or *jukú* 'find' whose object controls the interpretation of the subject in the progressive clause. Note that the object of the verb *ná* 'see' can be a full DP or a pronoun that appears in the accusative form. The subject of the copular verb in the progressive sentence is obligatory, and it is realized in the nominative form. The sentence in (108) is ungrammatical if either the accusative pronoun *mɛ* or the nominative pronoun *ma* are deleted.

108. báa abééré ḿ ma bíja   lí   sukúru ka   kɔnɪ   ba-á
     every when   if 1SG child.PL go out.FAC school and come.INF 3PLCI.IMPV
     ná   **mɛ** **ma** wɛ   ma-á   kalá tákárará
     see 1SG 1SG COP.FAC 1SG-IMPV read book
     'Always, if my children leave school and come, they see me reading a book.'

Having described the various readings of the progressive construction with different predicate types, what follows is a semi-formal analysis of the progressive where I propose that the construction contains a stative eventuality expressed by the copular verb and a dynamic eventuality expressed by the lexical verb. In this proposal, each part of the construction has its own viewpoint aspect which contributes the temporal ordering relation and the cardinal value of the described eventuality.

As mentioned earlier, the copular verb expresses that a state holds at a certain time. The copular verb in a progressive sentence can be expressed either in the factative or the imperfective. The unmarked factative aspect on the copula refers, like with any stative eventuality, to a realized state at the present time or at a particular time in the past. The imperfective aspect on the copula, on the other hand, denotes that a state is expected to hold at a future time. Like with any other unmarked stative eventualities, while the temporal ordering component in the facative locates the topic time within the situation time, it locates the topic time before the situation time in the imperfective. Recall that the imperfective aspect is marked on the subject of the copular verb *jɛ́*, whereas the factative aspect is morphologically unmarked on the copular verb *wɛ*.

109. ma   wɛ   ma-á   fɔ́sɪ   ɪsɔ́ɔ
     1SG   COP.FAC   1SG-IMPV   greet   God
     'I am/was praying.'

110. ma-á   jɛ́   ma-á   fɔ́sɪ   ɪsɔ́ɔ
     1SG-IMPV   COP   1SG-IMPV   greet   God
     'I will be praying.'

Thus, the distinction between (109)&(110) lies in the temporal ordering relation between the topic time and the situation time that the aspect of the copular verb imposes. The factative aspect in 109 orders the topic time within the runtime of the participant's state. In (110), the imperfective aspect orders the topic time before the runtime of the particpant's expected state.

Both (109)&(110) show that the subject of the lexical verb is marked for imperfectivity. The temporal ordering component of the imperfective with the lexical verb orders the topic time within the situation time to refer to a subpart of the described eventuality. Consequently, this fixed relation TT ⊆ TSit of the event described by the lexical verb can combine either with a factative copular verb expressing the relation TT ⊆ TSit as in (109), or with an imperfective copular verb expressing the relation TT < TSit (110).

Since a progressive sentence might be interpreted as referring to a singular or a plural eventuality, it is assumed here that these interpretations are captured by the cardinality of the described eventuality. In a habitual reading (i.e. X is habitually V-*ing*), the value is plural to indicate several occurrences of the participant's state of being engaged in the event. When the discourse context in which the progressive sentence is uttered does not convey reference to several occasions, the cardinality of the event is singular. In the following table, I summarize the ordering and the event cardinal components assigned to different readings of the progressive construction.

Table 9.3: The ordering and the event cardinal components of aspects in the progressive

Types	Copular verb		Lexical verb		Structures
	Temporal ordering	**Event cardinality**	**Temporal ordering**	**Event cardinality**	
Past/present Progressive	TT ⊆ TSit	SG eventuality	TT ⊆ TSit	SG eventuality	Sub wɛ.FAC Sub-IMPV Verb (see (109))
Future Progressive	TT < TSit	SG eventuality	TT ⊆ TSit	SG eventuality	Sub-IMP jɛ́ Sub-IMPV Verb (see (110))
Habitual Progressive	TT ⊆ TSit	PL eventuality	TT ⊆ TSit	PL eventuality	Sub wɛ.FAC Sub-IMPV Verb (see (108))

9.6 Meanings attributed to the particle *tíí*

As stated in the earlier discussion of unmarked stative verbs, the factative aspect is used to convey that a state holds true at the present time or at a contextually given time in the past, but without entailing termination. This raises the question of how a speaker can assert that a stative eventuality no longer holds at an established time that is simultaneous or prior to the utterance time. In Bago, the particle *tíí* is employed to implicate that a stative eventuality held true at a time interval that entirely precedes a topic time that is taken to be the utterance time, giving the meaning of "used to". For example, while the sentence in (111a) has a present time interpretation, the sentence in (111b) means that the speaker loved at some time prior to the utterance time, where the state no longer holds.

111.a. ma   sɔɔlí   ma   ɖawʊ́
      1SG   love.FAC   1SG.POSS   co-wife
    'I love my co-wife.'

  b. ma   tíí   sɔɔlí   ma   ɖawʊ́
      1SG   ANT   love.FAC   1SG.POSS   co-wife
    'I used to love my co-wife.'

Similarly, the example in (112b) indicates that the property of being tall no longer holds.

112.a. súli   tɪrí-ɪ
      Suli   be.big-FAC
    'Suli is a big person.'

  b. súli   tíí   tɪrí-ɪ
      Suli   ANT   be.big-FAC
    'Suli used to be a big person.'

It seems that since the factative aspect with a stative eventuality denotes an ongoing interpretation, the particle *tíí* is added to provide a meaning of anteriority by locating the entire time of the situation before the topic time. In both (111b)&(112b), the time being talked about is equal to the utterance time (TSit< TT = TU). In (113), on the other hand, the topic time expressed by the adverbial clause

is located prior to the utterance time, and both the topic time and the utterance time are situated after the time at which the described state of women held (TSit< TT < TU).

113. mɪnísíɪ mánɛ kɔní ḍúúníja mɛ álá-a tíí wɛ faala
before vagina come life LOC woman-PL.CI ANT COP.FAC neglected
'Before the vagina came into life, women used to be neglected.'

According to my consultant, if this sentence were uttered without *tíí*, it would mean that the described state holds before and after the topic time (TT ⊆ TSit) (i.e., women are neglected since before the vagina came to life). In order to convey that the described state does not obtain anymore after the coming of the vagina to life, the particle *tíí* must be used.

In our discussion of the factative aspect, we observed that factative denotes a past time reference of a dynamic eventuality description. In case the particle *tíí* occurs with a dynamic verb in the factative, the semantic contribution is to assert that the subject has the experience of the described eventuality at some prior time. As shown in the following example, the use of *tíí* is dispreferred in a context where the utterance simply refers to the occurrence of the event at a past moment in time.

114. a. lé-é n tá wɛ
where-FOC 2SG.POSS father COP.FAC
'Where is your father?'

b. ɔ (*tíí) lá fɔ́w-a
3SG.CI ANT go.FAC farm-SG.CII
'He went to the farm.'

In (115), the role of *tíí* is to indicate that the subject has the experience of going to Mecca at some time in the past.

115. Context: Zakariya is supervising the arrangement of a trip to Mecca. He was asked to provide a list of names of people who have not gone on a pilgrimage to Mecca. Based on the speaker's knowledge of Suli's past experience, he says:

bɔ mɔrɔsɪ súli ŋí-rɛ bɔ́ɔ ɔ tíí lá maka
NEG write.INF Suli head-CIII NEG 3SG.CI ANT go.FAC Mecca
'Do not write Suli's name [lit., head]. He has gone to Mecca.'

Note also that the addressee in (115) would infer that the referent *Suli* is not in Mecca at the utterance time. Therefore, the addressee may report the sentence, but cannot continue with the assertion that *Suli* is still in Mecca.

116. zakaríjá   tɔ́ŋ   fɛ́   mɛ   sɪ   súli   tíí   lá   maka   (# lɔ́   ɔ
     Zakariya tell.FAC give 1SG COMP Suli   ANT go.FAC Mecca   and   3SG.CI
     wɛ   bɔlɔ́ na   d͡ʒa)
     COP.FAC   there by   today
     Intended: 'Zakariya told me that Suli has gone to Mecca, and he is still there.'

Without *tíí*, however, in a context where an experiential meaning is not intended, the addition of a conjunct clause to convey that the participant has not returned yet is acceptable.

117. a. ḍoo   tení   ma   tá   na   súli   bɔ́ɔ   lé-é   ɔ   wɛ
        since last year 1SG NEG   see.INF Suli NEG   where-FOC 3SG.CI   COP.FAC
        'Since last year I have not seen Suli. Where is he?'

     b. ɔ   lá   maka lɔ́   ɔ   wɛ   bɔlɔ́ na   d͡ʒa
        3SG go.FAC Mecca and 3SG.CI COP.FAC   there by   today
        'He went to Mecca, and he is still there.'

Further examples containing the particle *tíí* show that it is used to convey that the eventuality in question, whose occurrence is not known to the hearer, has actually taken place at an earlier time.

118. Context: Zakariya had his lunch at home. Then he met his friend on his way to the market. His friend says:

     a. kɔnɪ   kaa ḍi   sɔkɔrɔ́
        come.INF to   eat.INF mashed yam
        'Come to eat mashed yam.'

     b. ḍɔɔ́nɔ ma   tíí   ḍí-i
        thanks 1SG ANT eat-FAC
        'Thanks, I have [already] eaten.'

119. Context: A group of doctors are in the village to vaccinate children. Two of the doctors arrived at Zakriya's house, and they were not aware that their colleagues had vaccinated Zakariya's children. They say to Zakariya and his wife:

a. ɖɪ-í   gɛ́   ɖí   sɔŋ   ɪ   bíja
   1PL-IMPV want 1PL vaccinate.INF 2SG.POSS child.PL
   'We want to vaccinate your childern.'

b. ba   tíí   sɔḿ   bɛ
   3PL.CI ANT vaccinate.FAC 3PL.CI
   'They have [already] vaccinated them.'

Additionally, the particle *tíí* is also used to denote that the described event is located in time prior to the time of a temporal clause indicating a past time reference, as illustrated below.

120. sáa   kaá   ɖɪ   kɔní-ja   nabílá   tíí   gáŋ   wáásɪ   fɛ́   ɖʊ
     time REL.CII 1PL   come.FAC-FOC Nabila   ANT cook.FAC beans-rice give 1PL
     'When we came, Nabila had cooked rice with beans for us.'

The event of Nabila's cooking is viewed as being completed prior to the time of the speaker's coming. According to my consultant's judgment, the absence of *tíí* entails that the coming of the speaker occurred before the time of cooking.

121. sáa   kaá   ɖɪ   kɔní-ja   nabílá   gáŋ   wáásɪ   fɛ́   ɖʊ
     time REL.CII 1PL   come.FAC-FOC Nabila   cook.FAC beans-rice give 1PL
     'When we came, Nabila cooked rice with beans for us.'

A similar contrast is obtained if the temporal clause has a future time reference. The imperfective marking in Bago denotes that a singular eventuality is predicted to be realized at a future time. (122a) indicates that the time interval of the fixing event is situated after the event of the addressee's coming takes place. Contrastingly, the speaker in (122b) asserts that fixing the motorbike will be terminated prior to the future time specified by the temporal clause.

122. a. sáa   kaá   n-ń   kɔní ma-á   ɖé-si   n   tákuku
        time REL.CII 2SG.IMV   come 1SG.IMPV be.good-CAUS 2SG.POSS motorbike
        'When you come, I will fix your motorbike.'

     b. sáa   kaá   n-ń   kɔní ma-á   tíí   ɖé-si   n   tákuku
        time REL.CII 2SG.IMV   come 1SG.IMPV ANT be.good-CAUS 2SG.POSS motorbike
        'When you come, I will have fixed your motorbike.'

250

As mentioned in §9.5.1.1., the imperfective aspect in Bago is also used to denote a habitual reading. When *tíí* occurs with the imperfective aspect in a discourse favouring a habitual interpretation, it implies that the described eventuality no longer takes place in the actual world. As shown in the following sentences, the speaker asserts that there was an extended prior time at which the described event took place on many occasions. The temporal domain of the described situation in these examples is situated prior to the time being talked about (i.e., the time of asking the question and the time of getting married).

123. a. n   d͡ʒɪ́ŋ   viíle ɖe-d͡ʒé-e
        2SG know.FAC river SG.CIII-DEM-Q
        'Do you know this river?'

   b. ɪ́ɪ ma   d͡ʒɪ́ń   ɖɛ   ɖɪ-í   tíí   lú   límɔ   ɖɪ   mɛ
      yes 1SG know.FAC 3SG.CIII 1PL-IMPV ANT fetch water 3SG.CIII LOC
      'Yes, I know it. We used to fetch water from it.'
      *'Yes, I know it. We fetch water from it.'

124. ma-á   tíí ɲɔ́   sɪgɛɛ́rɪ   mínísɪ́ɪ   ma   mɔsí   álʊ́-na
     1SG-IMPV ANT drink cigarettes before   1SG   take.FAC wife-SG.CI
     'I used to smoke cigarettes before I got married.'

It should be remembered that when the topic time is included within the time of a singular dynamic eventuality, the progressive construction is used. This construction is also compatible with the particle *tíí*. As can be seen in the following examples, *tíí* follows the subject of the copular verb, and its presence makes reference to a time interval that is part of the ongoingness of the event and precedes the topic time which is here the arrival of *Suli* while the described event is still in progress.

125. Context: Suli went to the mechanic to fix his car. The mechanic told him to come after a while because he had other work to do. When Suli came back, he saw the mechanic fixing his car. Then Suli said after the car is fixed:

a. n   tɛlí   ma   lɔ́ɔ́rɪ   ɖé-si-tɔ   sɪsaɪ
   2SG finish.FAC 1SG.POSS car   be.good-CAUS-NOM quickly
   'You finished fixing my car quickly.'

b. woowó ma   tíí   wɛ   ma-á   ɖé-si   kɛ́   mínísíɪ n   talá-a
   no   1SG ANT COP.FAC 1SG-IMPV be.good-CAUS 3SG.CII before 2SG arrive-FAC
   'No, I had been fixing it before you arrived.'

126. Context: Suli is calling the mechanic to know when he can come to take his car. Then the mechanic asked him at what time he will come. Suli said:

a. ma-á   kɔní g͡baál-aná   ŋaa-lɛ   mɛ
   1SG.IMPV come hour-PL.CIII PL.CIII.AGR-two LOC
   'I will come at two o'clock.'

b. bʊ   ɖé-e   ma-á   tíí   jɛ́   ma-á   ɖé-si   kɛ́
   3SG.CV be good-FAC 1SG-IMPV ANT COP 1SG-IMPV be.good-CAUS 3SG.CII
   mínísíɪ   ń   kɔnɪ
   before   2SG   come.INF
   'It is good, I will have been fixing it before you come.'

Sentence (125b) asserts that the duration of the interval at which the mechanic was engaged in fixing the car started before the arrival time of the hearer, and extends to that point (which here is also more or less the utterance time). Similarly, the use of *tíí* in (126b) implies that the speaker anticipates being in the process of fixing the car at some time that is prior to the time of the hearer's coming at two o'clock. My consultant points out that this leads the hearer to expect that the time of fixing the car will not extend for a long period after his coming. If the role of *tíí* in a progressive construction is to emphasize that the described event was in progress at a prior point in time before the topic time, then we would expect it to be incompatible with an adverbial that specifies that a past reference time is equal to the initial stage of the event. This turns out to be the case with *ɖoo* 'since', as exemplified in (127)-(129).

127. ḍoo sɔ́sɔ́ ma (*tíí) wɛ ma-á ḍé-si n lɔ́ɔ́rɪ
     since morning 1SG ANT COP.FAC 1SG-IMPV be.good-CAUS 2SG.POSS car
     'Since morning, I have been fixing your car.'

128. ḍoo sáa kaá ma kɔní-já bó-re mɛ ma
          since time REL.3SG.CII 1SG come-FAC.FOC house-SG.CIII LOC 1SG
     (*tíí) wɛ ma-á fɔkɔ́
     ANT COP.FAC 1SG-IMPV do.laundry
     'Since the time I came to the house, I have been doing laundry.'

129. ḍoo liisá wárí ḍɪ (*tíí) wɛ ḍɪ-í vóŋ barafó
     since night prayer after 1PL ANT COP.FAC 1PL-IMPV pound maize
     'Since after the night prayer, we are pounding maize.'

The constraint against the occurrence of *tíí* in combination with a temporal adverbial also holds in

non-progressive constructions. As shown in (130)&(131), the presence of *tíí* is not acceptable when

a factative clause contains a temporal adverbial giving the time of the described event.

130. ma (*tíí) lá gubí tení
     1SG ANT go.FAC Gubi last year
     'I went to Gubi last year.'

131. ma ŋɔ́rʊ́-na (*tíí) talá d͡ʒa
     1SG.POSS guest-SG.CI ANT arrive.FAC today
     'My guest arrived today.'

There is also a similar pattern in non-progressive imperfective sentences, as illustrated in

(132)&(133).

132. ḍoo tení ma-á (*tíí) foé láaḍɪ báa aŋkɛ́
     since last year 1SG.IMPV ANT run sunday every 3SG.CII.AGR
     'Since last year, I run every Sunday.'

133. ḍoo ḍɛ nabílá-á (*tíí) váŋ
     since yesterday Nabila-IMPV ANT be.sick
     'Since yesterday, Nabila has been sick.'

Given these examples, I conclude that *tíí* cannot be used when a durative adverbial is added to

express the interval at which an eventuality holds or at which an eventuality occurred. As was

shown in the previous examples, the presence of *tíí* without a durative adverbial is totally

acceptable, and its semantic contribution varies depending on the aspectual category and the verb of the proposition. With stative eventuality descriptions in the factative, I have shown that it is used to denote that a particular state no longer holds at a given time. I have then shown that *tíí* gives rise to an experiential interpretation when it is used with dynamic verbs in the factative. The data presented also included some examples in which the use of *tíí* does not have an experiential reading, but is rather to assert the hearer that an expected event has already taken place. Sentences in the imperfective contain *tíí* to indicate a past habitual reading or a past in the future reading. Lastly, I have shown that the presence of *tíí* in a progressive construction make refernce to a time interval that is prior to the topic time and included within the situation time.

Chapter 10

Speaker commitments and attitudes: modality and conditionals

This chapter is divided into two parts. The first part describes the means to express several modal meanings in Bago. It specifically covers ways of expressing (un)certainty, obligation, ability, permission, wishes and the imperative. The data reveals various different strategies, including fixed expressions, lexical verbs and the use of non-finite forms. The second part of the chapter provides a description of conditional sentences. It looks at the marking of conditionality and at the grammatical aspect used in the antecedent and the consequent clauses of simple and counterfactual conditional sentences.

10.1 Agent-oriented modality

10.1.1 Agent's obligation: *bʊ bisí sɪ* 'it asked that *p*'

Let us first examine a construction in which the verb of the described eventuality is preceded by the verb *bisí* 'ask' to express obligation. Consider first the typical uses of the verb *bisí*, where it does not contribute modal meaning to the utterance. As in English, two very distinct meanings are associated with *bisí*: *request*, as in (1), and *enquire*, as in (2).

1. bisi   n   tá   bíí-na   na   ń   lɛ   kɛkɛ́
   ask.INF 2SG.POSS father money-PL.CIII PURP 2SG buy.INF bicycle
   'Ask your father money to buy a bicycle.'

2. nabílá   kcní   d͡ʒa ló ɔ   bisí   n   ló
   Nabila   come.FAC today and 3SG.CI ask.FAC 2SG about
   'Nabial asked me about you.'

To express obligation, the verb *bisí* is used in its finite form and takes the expletive subject pronoun *bʊ* '3SG.CV'. The complement of the verb *bisí* expresses the imposed obligation, and it is introduced by the complementizer *sɪ*. As seen in the following examples, the verb in the complement clause surfaces in its non-finite form, and a high-toned pronoun or a lengthened full DP serves as its subject, which is a general rule that is observed with subjects of non-finite verbs.

3. ɔ   ɗɔɔ́-na   wɛ   ɔ-ɔ́   sɪwʊ́   bʊ́ʊ́ bʊ
   3SG.CI.POSS friend-SG.CI COP.FAC 3SG.CI-IMPV   die   then   3.CV
   bisí   sɪ   ɔ́   la   sɔgɔɗɛ   na   ɔ́   lɛ   fátɔ
   ask.FAC COMP   3SG.CI go.INF   Sogode   PURP   3SG.CI buy.INF medicine
   'His friend was dying. Then he had to go to Sogode to buy medicine.'

4. súli ɗi̠   suúru   ma tá   jálá   ka kɔnɪ   ɗɛ   bɔ́ɔ
   Suli eat.INF patience 1SG NEG be able.INF to   come.INF yesterday NEG
   ma   d͡ʒoóŋu   na   ŋʊ-rʊ   jó-o   bʊ́ʊ́ sɔ́ɔ́d͡ʒa-sɛ́   sám
   1SG.POSS   brother   and   SG.CI-INDF   fight-FAC   then   soldier-PL.CII arrest.FAC
   bɛ́   bʊ   bisí   sɪ   má   la   bʊlɔ́
   3PL.CI 3.CV ask   COMP   1SG go.INF   there
   'Suli, be patient [lit., eat patience]. I could not come yesterday. My brother and someone fought. Then the soldiers arrested them. I had to go there.'

5. bʊ   bisí   sɪ   má   la   bó-re   mɛ   ma   álʊ́
   3.CV ask.FAC COMP   1SG go.INF house-SG.CIII LOC 1SG.POSS wife
   tɪkí   ɔ   gará-a
   break.FAC   3SG.CI.POSS   leg-SG.CII
   'I have to go home. My wife broke her leg.'

In these examples, the occurrence of the going eventuality is evaluated by the agent as obligatory given the circumstances. In (4), for instance, the speaker states that the arresting eventuality imposed the obligation of the going eventuality, which caused the event of his coming not to be realized. The example in (6) illustrates a situation in which the father, who has authority over his son, imposes an obligation to be carried out.

6. bʊ   bisí   sɪ   ń   jasɪ   nɔnɔ́-ɔ   ko-d͡ʒé   d͡ʒa
   3.CV ask.FAC COMP   2SG clean.INF room-SG.CIV   SG.CIV-DEM.PROX today
   'You have to clean this room today.'

It should be noted that the matrix clause, which expresses obligation in (3)-(6), is uttered in the factative aspect to denote that the obligation was true at a time in the past, as in (3)&(4), or the obligation is already true at the time at which the utterance is made, as in (5)&(6). When, on the other hand, the utterance refers to an unrealized eventuality that is viewed as causing someone to be obliged to carry out an action, the subject of the matrix clause is marked for imperfectivity, as exemplified in (7).

7.
ma	tɔŋ́	sɪ	bɔ	jele	bá	mɔsɪ	ma	nso	bɔ́ɔ	ḿ	ba
1SG	say.FAC	COMP	NEG	let.INF	3PL.CI	take.INF	1SG.POSS	gun	NEG	if	3PL.CI

ba	tá	kɔna	kí	sɛ́	bʊ-ʊ́	bisí	sɪ	ń	fɛ́
3PL.CI	NEG	bring.INF	3SG.CIV	tomorrow	3.CV-IMPV	ask.FAC	COMP	2SG	give.INF

mɛ	n	nso
1SG	2SG.POSS	gun

'I said do not let them take my gun. If they do not bring it tomorrow, you will have to give me your gun.'

Having briefly outlined the way of expressing what is regarded as an obligation, it should be added that Bago has a particular construction to indicate that an imposed obligation has not been fulfilled. As the following example illustrates, the morpheme *jɛ́*[9] has its own subject and acts as a modal verb expressing the meaning 'should have/was supposed to'. It is followed by a high-toned pronominal subject of the non-finite verb referring to the described eventuality.

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[9] It is worth recalling that the morpheme *jɛ́* functions also as a copular verb and as a lexical verb (meaning 'to do/make'). See §8.1.

(i)
ma	jɛ́	d͡ʒoó-na	ŋʊ-rʊ	tá-a	jɛ́	nɪ	bʊrʊ	bɔ́ɔ
1SG	COP.FAC	chief-SG.CI	SG.CI-INDF	NEG-IMPV	do.FAC	2SG	CV-INDF	NEG

'I am the chief. No one will do anything to you.'

(ii) a.
bé-é	n	jɛ́-ɛ
what-FOC	2SG	make-FAC

'What did you make/do?'

b.
ma	jɛ́	ɖomó-o
1SG	made.FAC	sauce-SG.CIV

'I made/did sauce.'

8. Context: At an earlier time, Zakariya asked his sister to clean his room. When he entered the room with his friend, he noticed that the room is still dirty. He says to apologize to his friend:

óóó ɗí suúru nabílá jɛ́ ɔ́ jası nɔnɔ́-ɔ
oh eat.INF patience Nabila MOD.FAC 3SG.CI clean.INF room-SG.CIV
'Oh be patient [lit., eat patience]. Nabila should have cleaned the room.'

The sentence in (8) is counterfactual: *Nabila* did not clean the room. It does not state an obligation that is still to be carried out. Likewise in (9), the progressive construction is preceded by the modal verb *jɛ́* to describe a situation in which the addressees are not engaged in the task that was imposed on them.

9. Context: In the morning, Zakariya asked his children to stay all day in the farm to sow maize. In the afternoon, he sees his children at home. He scolds his children by saying:

ı jɛ́ í jɛ ı-í ɗuḿ barafó bé-é ı-í gɛ́ d͡ʒeé
2PL MOD.FAC 2PL COP.INF 2PL-IMPV sow maize what-FOC 2PL-IMPV want DEM.PROX
'You should be sowing maize. What do you want here?'

In the following sentence, the obligation is again at the present time: the father meets his son at the market during the school period of time. Then, the father may say to his son:

10. súli n jɛ́ ń jɛ sukúru mɛ bé-é n-ń gɛ́ d͡ʒeé
Suli 2SG MOD.FAC 2SG COP.INF school LOC what-FOC 2SG-IMPV want DEM.PROX.LOC
'Suli, you should be at the school. What do you want here?'

There are cases where an utterance including the modal verb *jɛ́* is not exactly about an imposed obligation. In (11b), the utterance conveys that a simple expectation was not fulfilled:

11. Context: Samadu met Suli in the market and invited him to come to his house at three o'clock for some tea. Suli did not show up. At five o'clock, Samdu's wife asks about the arrival time of Suli. Samdu replies:

a. sáa aŋ-kɛ́ mɛ-ɛ́ súli-í kɔní ɗı fɔlɔ́-ɔ
time which-SG.CI LOC-FOC Suli-IMPV come 1PL.POSS place-SG.CIV
'At what time Suli will come to our place.'

b. ɔ jɛ́ ɔ́ kɔnı ɡbaál-aná ŋa-tooro mɛ
3SG.CI MOD.FAC 3SG.CI come.INF hour-PL.CIII PL.CIII.AGR-three LOC
'He should have come at three o'clock.'

In (12), the speaker again does not refer to an obligation, but rather conveys regret for having failed to accept an offer.

12. Context: After having been offered yam and declined, the speaker utters this sentence when he realizes that he has too little food for a trip.

ɖɪ	jɛ́	ɖí	lɛ	álámí-na	ŋʊ́	kʊ́dʒɔ-ɔ́
1PL	MOD.FAC	1PL	take.INF	person-SG.CI	ANPH.SG.CI	yam-SG.CIV

'We should have taken the yam of that person.'

The speaker makes use of the modal verb *jɛ́* to state what should have been done. (13b) is a further example.

13. a.
dʒa	sɔ́sɔ́	ma	lá	kɪjá-a	mɛ	lɔ́	ma	ná	samáɖu	bʊlɔ́
today	morning	1SG	go.FAC	market-SG.CII	LOC	and	1SG	see.FAC	Samadu	there

'Today in the morning, I went to the market, and I saw Samdu there.'

b.
óóó	ɔ	jɛ́	ɔ́	jɛ	sukúru	mɛ
oh	3SG.CI	MOD.FAC	3SG.CI	COP.INF	school	LOC

'Oh, he should have been at the school.'

Based on his knowledge about his son's regular required activities, the speaker states that his son acted against what is expected of him.

As can be seen in all the previous examples, though the sense of the modal may go from strong obligation to a milder expectation, is never has an epistemic modal base. If, for instance, the speaker only wants to assert what is generally known about his son, a reply with the modal verb *jɛ́* would be infelicitous, as shown in (14b).

14. a.
lé-é	samáɖu	wɛ
where-FOC	Samadu	COP.FAC

'Where is Samadu?'

b. #
ɔ	jɛ́	ɔ́	jɛ	sukúru	mɛ
3SG.CI	MOD.FAC	3SG.CI	COP.INF	school	LOC

Intended 'He should be at the school.'

Another infelicitous attempt to give it an epistemic base is provided in (15c). In this scenario, the

speaker simply uses a declarative sentence to indicate his certainty about the truth value of the

proposition, as shown in (15b).

15. Context: Samadu met Suli in the market and invited him to come to his house at three
    o'clock for some tea. At one o'clock, Samdu's wife asks about the arrival time of Suli.

    a. sáa   aŋ-kɛ́   mɛ-ɛ́   súli-í   kɔní   dɪ   fɔlɔ́-ɔ
       time which-SG.CI LOC-FOC   Suli-IMPV   come   1PL.POSS   place-SG.CIV
       'At which time Suli will come to our place?'

    b. ɔ-ɔ́   kɔní   g͡baál-aná   ŋa-tooro   mɛ
       3SG.CI-IMPV   come   hour-PL.CIII   PL.CIII.AGR-three   LOC
       'He will come at three o'clock.'

    c. # ɔ   jɛ́   ɔ́   kɔnɪ   g͡baál-aná   ŋa-tooro   mɛ
         3SG.CI MOD.FAC 3SG.CI come.INF hour-PL.CIII PL.CIII.AGR-three LOC
       Intended 'He should come at three o'clock.;

Having shown that *jɛ́* cannot have a future epistemic reading, one might still wonder if it can be

used to convey a future deontic reading. I have shown earlier that Bago employs the verb *bisí* 'ask'

to express obligations. The unacceptability of the adverbial *sɛ́* 'tomorrow' in the clause with *jɛ́* in

(16) follows from the fact that this construction cannot be used to impose an obligation. Instead, it

only conveys that the subject did not do what he should have done, and thus it is compatible with

the adverbial *dɛ* 'yesterday'.

16. n   jɛ́   ń   voń   barafó   dɛ   / # sɛ́
    2SG MOD.FAC 2SG pound.INF maize   yesterday   tomorrow
    'You should have pounded the maize yesterday.'
    # 'You should/have to pound the maize tomorrow.'

Finally, it is worth noting that to advise a certain course of action to be carried out regularly, the

non-finite verb *jɛ* is used with a high-toned pronominal subject. As it is the case in imperative and

hortative utterances, the subject of the modal verb is not realized overtly when the addressee is a

singular second person. As shown in the following examples, the modal verb embeds a clause in

the imperfective aspect.

17. ɖókíta tɔŋ́ sɪ má jɛ ma-á tɔkɔ́ fɔ́ɔ-rɛ
    doctor say.FAC COMP 1SG MOD.INF 1SG-IMPV eat liver-SG.CIII
    'The doctor said that I should eat liver.'

18. í jɛ ɪ-í fɔ́sɪ ɪsɔ́ɔ d͡ʒingíri mɛ
    2PL MOD.INF 2PL-IMPV greet God mosque LOC
    'You should pray in the mosque.'

19. jɛ n-ń vasí n tími-ré
    MOD.INF 2SG-IMPV hide 2SG.POSS spear-SG.CIII
    'You should hide your spear.'

The construction in these examples does not give rise to a single-event reading. That is, a hearer would not understand that these propositions refer to a single instance of eating, praying, and hiding, respectively. Instead, the possible interpretation is that the subject is advised to carry out the described eventuality regularly. The example in (17) indicates, for instance, that the speaker is advised to eat liver as long as he is an anemic patient. In (19), the addressee is advised to hide his spear as long as he is not using it. If we compare the example in (19) to the example in (20), we find out that the latter is judged to be infelicitous. The infelicity results from the fact that this construction implies a recurring eventuality, which is not conceivable when we speak of selling a single item.

20. # jɛ n-ń ɲaŋ́ n tími-ré
    MOD 2SG-IMPV sell 2SG.POSS spear-SG.CIII
    Intended 'You should sell your spear.'

If the verb ɲaŋ́ 'sell', however, takes the plural non-specific noun phrase *tím-aná* 'spears', then it would be possible to speak of different situations of selling. Therefore, the sentence in (21) is totally acceptable in a context where the addressee is advised to sell spears as a business.

21. ń jɛ n-ń ɲaŋ́ tím-aná
    2SG MOD 2SG-IMPV sell spear-PL.CIII
    'You should sell spears.'

As will be discussed later in §10.1.6, if an utterance is meant to issue a command, the imperative construction in (22)&(23) is used.

22. ɲaŋ   tím-aná
    sell.INF   spear-PL.CIII
    'Sell spears.'

23. vasɪ   n   tími-ré
    hide.INF   2SG.POSS   spear-SG.CIII
    'Hide your spear.'

10.1.2 Agent's permission: *jála*, *jelé,* and *fɛ̃ g͡bɔ́ɔ* 'Agent is allowed to *p*'

Having briefly outlined the way of expressing obligation, this section focuses on the other kind of deontic modality, namely permission. In Bago, the verb *jála* 'can/be able' is employed for this end, as exemplified in (24)-(28).

24. ma-á   loŋ́ ka-d͡ʒé   ɲ-ŋ́   jála   ka   mɔsɪ   se-d͡ʒé
    1SG-IMPV use SG.CII-DEM.PROX 2SG-IMPV be able to   take.INF PL.CII-DEM.PROX
    'I will use this (trap). You can take these.'

25. jele   kalá-tɔ   ɲ-ŋ́   jála   ka   bɛ́lɛ́kí   faád͡ʒé
    let.INF read-NOM   2SG-IMPV be able to   play.INF   now
    'Stop reading. You can play now.'

26. ma   fá   tɔŋ́   sɪ   zakaríjá   na   nabílá-á   jála   ka
    1SG.POSS mother say.FAC COMP Zakariya   and   Nabila-IMPV be able to
    jasɪ   amá   súli tá-a   jála   bɔ́ɔ
    swim.INF   but   Suli NEG-IMPV   be able NEG
    'My mother said that Zakariya and Nabila are allowed to swim, but Suli is not.'

27. d̪ókíta tɔŋ́   sɪ   dɪ-í   jála   ka   na   zakaríjá   sɛ́
    doctor   say.FAC COMP 1PL-IMPV be able to   see.INF Zakariya   tomorrow
    'The doctor said that that we are allowed to see Zakariya tomorrow.'

28. ma-á   jála   ka   na   d͡ʒoó-na   d͡ʒa-a
    1SG-IMPV be able to   see.INF chief-SG.CI   today-Q
    'Can I see the chief today?'

Contextually, the verb *jála* in these examples is interpreted as permissive. It should be noted that *jála* is the finite form of the verb, and it is followed by an infinitive verb headed by the

complementizer *ka*. As can be seen, the subject of *jála* is marked for imperfectivity which in this case yields a stative interpretation. In (29) the subject is again marked for imperfectivity.

29. faád͡ʒé ak͡pitúna-á   jála   ka mɔsɪ   ak͡pitúna
    now   Ak͡pituna-IMPV be able to take.INF Ak͡pituna
    'Now, an Ak͡pituna is allowed to marry [lit., take] an Ak͡pituna.'

To denote that someone was permitted to carry out an action at a prior time, speakers use the verb *jelé* 'let', a causative of *jála* in an indirect causative reading (see §12.3. for further examples and discussion).

30. dɛ   ma   fá   jelé   zakaríjá na   nabílá jasí   viíle mɛ
    yesterday 1SG.POSS mother   let.FAC Zakariya and Nabila swim.FAC river LOC
    'Yesterday, my mother let Zakariya and Nabila swim in the river.'

31. zakaríjá jelé   ma   loŋ   ɔ   kɛkɛ́
    Zakariya let.FAC 1SG use.FAC 3SG.CI.POSS bicycle
    'Zakariya let me use his bicycle.'

In these examples, we see that the verb *jelé* takes a complement clause in the factative aspect, and is itself in the factative. According to my consultant, the resulting interpretation is that the action for which permission was given has already taken place. This is supported by the fact that a contradiction would be created if a follow up statement conveys the non-occurrence of the action described, as shown below.

32. # dɛ   ma   fá   jelé   zakaríjá na   nabílá jasí   viíle mɛ
     yesterday 1SG.POSS mother   let.FAC Zakariya and Nabila swim.FAC river LOC
     amá ba   tá   jálá   ka la   bɔ́ɔ
     but 3PL.CI   NEG   be able.INF   to go.INF NEG
     Intended: 'Yesterday, my mother let Zakariya and Nabila swim in the river, but they were not able to go.'

33. # zakaríjá jelé   ma   loŋ   ɔ   kɛkɛ́   amá ɔ   fá   vé-e
     Zakariya let.FAC 1SG use.FAC 3SG.CI.POSS bicycle but 3SG.CI.POSS mother refuse-FAC
     Intended 'Zakariya let me use his bicycle, but his mother refused.'

It should be noted that the verb *jelé* is not only restricted to indicate indirect causation, in which a permission is given to an agent to carry out the action described, but can also express direct

causation. As such, the examples in (30)&(31) are ambiguous between encoding permission and direct causation..

To avoid this ambiguity, the verb *fɛ́* 'give' may be used in the factative aspect with the complement *g͡bɔ́ɔ* 'way', unambiguously indicating permission rather than causation. For instance, the utterance in (34) is felicitous whether the event of selling has occurred, is in progress, or is planned to occur. Additionally, we see in (35)&(36) that it is not contradictory to add that the action did not take place.

34. d͡ʒoó-na   fɛ́   mɛ   g͡bɔ́ɔ sɪ   má   ɲaŋ   ma   fʊ́w-a
    chief-SG.CI give.FAC 1SG   way   COMP 1SG   sell.INF 1SG.POSS   farm-SG.CII
    'The chief gave me permission to sell my farm.'

35. dɛ   ma   fá   fɛ́   zakaríjá   na   nabílá g͡bɔ́ɔ sɪ   bá
    yesterday 1SG.POSS   mother give.FAC Zakariya   and   Nabila way   COMP 3PL.CI
    jasɪ   viíle me (amá   ba   tá   jálá   ka   la   bɔ́ɔ)
    swim.INF   river LOC but   3PL.CI   NEG   be able.INF to   go.INF NEG
    'Yesterday, my mother gave Zakariya and Nabila permission to swim in the river (but they were not able to go).'

36. zakaríjá fɛ́   mɛ   g͡bɔ́ɔ sɪ   má   loŋ   ɔ   kɛkɛ́
    Zakariya give.FAC 1SG   way   COMP 1SG   use.INF   3SG.CI.POSS bicycle
    (amá   ɔ   fá   vé-e)
    but   3SG.CI.POSS   mother refuse-FAC
    'Zakariya gave me permission to use his bicycle (but his mother refused).'

10.1.3 Agent's ability: abilitative *jála* 'Agent is able to *p*'

As we have just seen, various nuances of permission are expressed by means of *jála* 'can/be able', *fɛ́ g͡bɔ́ɔ* 'give way', and *jelé* 'let/make. The verb *jála* may in addition also encode ability. Similar to when it encodes permission, a sentence that has an ability reading is constructed by means of the verb *jála* in combination with the complementizer *ka*, which embeds the verb expressing the described eventuality in its non-finite form. For instance, the sentence in (37) can have a permissive reading as well as an ability reading, depending on the context.

37. zakaríjá   na   nabílá-á   jála   ka   jasɪ
    Zakariya   and   Nabila-IMPV   be able   to   swim.INF
    'Zakariya and Nabila are allowed to swim.' *(said by a father to give permission)*
    'Zakariya and Nabila are able to swim.'   *(said to describe physical ability)*

In (38), the speaker uses the verb *jála* to refer to possessed intellectual ability. Also, in (39), the

speaker asks if the addressee is welling or has the intellectual ability to carry out the reading

activity.

38. ma-á   jála   ka   wʊlɪ   ní   bagó
    1SG-IMPV   be able   to   teach.INF   2SG   Bago
    'I am able to teach you Bago.'

39. n-ń   jála   ka   kala   tákárará   ka-d͡ʒe   fɛ́   mɛ-ɛ
    2SG-IMPV   be able   to   read.INF   letter   SG.CII-DEM.PROX   give   1SG-Q
    'Will you be able to read this letter for me?'

The proposition in (40) makes reference to what the speaker presupposes his wife will be able to

do, based upon evidence (e.g., that she is at home, that she has time, and that she has the ingredients

to cook). It is not the capability of knowing how to cook that is asserted, but rather the capability

to bring about the event.

40. ma   álʊ́   wɛ   bó-re   mɛ   ɔ-ɔ́   jála
    1SG.POSS   wife-IMPV   COP.FAC   house-SG.CIII   LOC   3SG.CI-IMPV   be able
    ka   gaŋ́   kʊ́d͡ʒɔ-ɔ́   fɛ́   ɖʊ
    to   cook.INF   yam-SG.CIV   give   1PL
    'My wife is in the house. She will be able to cook yam for us.'

In the context offered for (41), where a child is asking his father to carry him, the verb *jála* is used

to refer to the addressee's physical ability to walk.

41. ma   tá-a   k͡péri   ní   bɔ́ɔ   n-ń   jála   ka   vala
    1SG   NEG-IMPV   carry   2SG   NEG   2SG-IMPV   be able   to   walk.INF
    'I will not carry you. You are able to walk.'

The sentence in (42), consistently with the two interpretations of the imperfective, may refer to a generic ability of snakes or to a particular situation with a future time reference.

42. dómi-ná-á   jála   ka   kɔ́   gúúní
    snake-SG.CI-IMPV be able to   kill.INF lion
    'A snake is able to kill a lion.'
    'The snake will be able to kill the lion.'

Examination of a sentence with the verb *jála* in the factative aspect, which is morphologically unmarked, shows that it conveys an ability that led to complete an event at a specific point in the past. (43), for instance, refers to a past event in which the agent *zakariya* managed to open the door. Similarly, the sentence in (44) does not describe a possessed intellectual ability of the agent, but rather reports that the agent, who is newly introduced to the language, managed to speak it.

43. zakaríjá jála   ka   k͡pálá   boró-o   na   sírá-a
    Zakariya be able.FAC to   open.INF   door-SG.CIV   INSTR knife-SG.CII
    'Zakariya was able to open the door with a knife.'

44. dɛ   dɪ   k͡paarí d͡ʒoó-na   samádu jála   ka   tɔŋ   bagó
    yesterday 1PL   visit.INF chief-SG.CI Samadu be able to   speak.INF Bago
    'Yesterday, we visited the chief. Samadu was able to speak Bago.'

Given that an ability sentence in the factative aspect entails the occurrence of the action described, adding what asserts that the action did not take place leads to a contradiction, as exemplified in (45).

45. d͡ʒa   ma   jála   ka   kɔ́   mów-a   lɔ́-ɔ   mɛ
    today 1SG   be able.FAC to   kill.INF deer-SG.CII forest-SG.CIV LOC
    (# amá ma   jelé   ka   lá-a)
       but   1SG   let.FAC   3SG.CII go-FAC
    'Today, I was able to kill a deer in the forest, (# but I let it go).'

Another piece of evidence that confirms the observation that an ability sentence in the factative entails the occurrence of the described event, comes from the fact that when the example we saw in (42) is uttered in the factative aspect, it lacks a generic or a future interpretation. As exemplified

in (46), the sentence cannot be interpreted generically, but rather it refers to a particular event about a specific snake.

46. dómi-ná   jála   ka   kɔ́   gúúní
    snake-SG.CI be able to   kill.INF lion
    'The snake was able to kill the lion.'

Recall that imperfectivity marking on the subject of the verb *jála* is also used to convey a permissive reading. However, such a reading is not obtained in a case where the clause is expressed in the factative aspect. I have shown earlier two alternative ways to denote that a permissive reading refers to an event that has taken place. According to my consultant, the verb *jála* in the factative sentence in (47) is judged to have only an ability reading.

47. nabílá jála   ka jasɪ   viíle mɛ   (# amá ɔ   tá   jasɪ   bɔ́ɔ)
    Nabila be able.FAC to swim.INF river LOC   but 3SG.CI NEG swim.INF NEG
    'Nabila was able to swim in the river, (# but she did not swim).'
    *'Nabila was allowed to swim in the river, but she did not swim.'

If a permissive reading is permitted here in the factative aspect, the utterance would not run into a contradiction by adding the conjoined clause *amá ɔ tá jasɪ bɔ́ɔ* 'but she did not swim'. This behaviour of the verb *jála* is along the lines of Bhatt's (1999) observation that ability sentences in the past perfective (but not imperfective) yield 'actuality entailments' in languages like modern Greek and Hindi. As illustrated earlier, this actuality entailment also occurs in Bago with permissive sentences when the verb *jelé* 'let' is used in the factative aspect.

10.1.4 Agent's desire: *gɛ́* 'Agent 'wants/wishes *p*'

In Bago, the expression of intention and wish is encoded by means of the transitive verb *gɛ́* 'want'. Consider first the following sentences wherein the verb *gɛ́* simply takes an argument that refers to someone or something requested by the subject.

48. ma   fá-á   gɛ́   nɪ
    1SG.POSS   mother-IMPV   want 2SG
    'My mother wants you.'

49. tɔn   fɛ́ zakaríjá sɪ   ma-á   gɛ́   ɔ   tími-ré
    1SG.POSS   give Zakariya COMP 1SG-IMPV   want 3SG.POSS.CI spear-SG.CIII
    'Tell zakariya that I want his spear.'

50. a. ŋaa-mí-í   ŋ-ŋ́   gɛ́
       3PL.CIII-how much-FOC   2SG-IMPV   want
       'How much do you want?'

    b. ma-á   gɛ́   milijɔn-sɛ́   sɪɪ-lɛ
       1SG-IMPV   want million-PL.CII SG.II.AGR-two
       'I want two million.'

To denote that an event is intended to be carried out, the verb *gɛ́* is followed by an embedded clause introduced by the complementizer *sɪ,* and the verb surfaces in its non-finite form and takes a high-toned pronoun.

51. ɖɛ   ma gɛ́   sɪ   má   fara   ábú-na   amá ɖofó tɔ́-ɔ
    yesterday 1SG want.FAC   COM 1SG plough.INF mound-PL.CIII but rain rain-FAC
    'Yesterday, I wanted to plough mounds, but it rained.'

52. bé-é   ŋ-ŋ́   gɛ́   sɪ   ń   ɖi
    what-FOC   2SG-IMPV   want COMP 2SG eat.INF
    'What do you want to eat?'

53. zakaríjá-á   gɛ́   sɪ   ɔ́   lɛ   lɔ́ɔrɪ
    Zakariya-IMPV want COMP 3SG.CI buy.INF car
    'Zakariya wants to buy a car.'

These examples illustrate cases where the subject of 'want' is the same as the subject of the complement clause, and thus the pronominal subject of the intended event is coindexed with the subject of *gɛ́* in the matrix clause. Contrary to the other modals discussed (i.e., *jɛ́, jɛ, jála*), the modal *gɛ́* allows a a complement clause with a distinct subject. This is shown in (54)&(55). The verb in the complement clause still appears in its non-finite form and takes a high-toned pronominal subject or a full DP that is lengthened with a high-toned copied segment.

54. ma   tá-á   gɛ́ sɪ ń   sara   sírá-sɛ   se-d͡ʒé
     1SG.POSS father-IMPV want COMP 2SG sharpen.INF knife-PL.CII PL.CII-DEM.PROX
     'My father wants you to sharpen these knives.'

55. ja   samáɖu ma-á   gɛ́ sɪ   ɔ́   mɔrɔsɪ tákárará fɛ́ mɛ
     call.INF Samadu 1SG-IMPV want COMP 3SG.CI write.INF letter   give 1SG
     'Call Samadu. I want him to him to write a letter for me.'

56. ma   fá-á   gɛ́ sɪ   nabíláá sa   zakaríjá
     1SG.POSS mother-IMPV want COMP Nabila   marry.INF Zakariya
     'My mother wants Nabila to marry [lit., take] Zakariya.'

Let us turn now to utterances that express wishes. The data shows that the verb *gɛ́* 'want' is also used, and there appears to be no intonational or morphosyntactic distinction in the matrix clause between sentences expressing wishes and those expressing intentions. In wishes, however, the verb *gɛ́* embeds a clause in the factative aspect with a lengthened low-toned pronominal subject or a full DP that is lengthened by a low tone segment. For instance, while the example in (57a) is uttered to report the speaker's intention to bring about the action of going to school, the example in (57b) is uttered by the speaker to express his wish to go to school.

57. Context: Said by a student to inform his friend why he cannot meet him now.

    a. ma-á   gɛ́   sɪ   **má la**   sukúru
       1SG-IMPV want COMP 1SG go.INF school
       'I want to go to school.'

    Context: A child, who is not enrolled in school, expressing his wish to his father.

    b. ma-á   gɛ́   sɪ   **maa lá**   sukúru
       1SG-IMPV want COMP 1SG   go.FAC school
       'I wish that I would go to school.'

The contrast between expressing a wish and an intention can also be seen in the following pair of sentences. My consultant points out that (58a) can be said, for instance, to a travelling agent to express the speaker's desire to travel, whereas (58b) is uttered by someone who does not have a plan for travelling, but who merely informs his friends about the place to where he wishes to go.

58. a. ma-á   gɛ́   sɪ   **má** **la**   máka
     1SG-IMPV want COMP 1SG   go.INF Mecca
     'I want to go to Mecca.'

   b. ma-á   gɛ́   sɪ   **maa** **lá**   máka
     1SG-IMPV want COMP 1SG   go.FAC   Mecca
     'I wish that I would go to Mecca.'

In (59), we see a case where the embedded eventuality clearly expresses a wish, and thus the verb takes a lengthened subject pronoun.

59. ma-á   gɛ́   sɪ   **maa** **lʊlʊ́**   ágolu-ná
    1SG-IMPV want COMP 1SG   give birth.FAC boy-SG.CI
    'I wish that I give birth to a boy.'

According to my consultant's judgment, if the high-toned subject pronoun *má* and the non-finite form of the verb *lʊlʊ́* are used in (59) instead, the sentence would be pragmatically odd, but grammatically acceptable. This is because it gives rise to an intentional reading (i.e., 'I want to give birth to a boy') on a proposition which is considered out of the speaker's control to decide. Similarly, when the embedded clause refers to raining, The subject *ɗofó* 'rain.N' of the overtly marked verb for the factative must be lengthened with a low-toned segment to express a wish, as exemplified in (60).

60. ma-á   gɛ́   sɪ   **ɗofóo** tɔ́-ɔ
    1SG-IMPV want COMP rain   rain.FAC
    'I wish that it rains.'

Once again, an intentional construction where the verb in (60) surfaces its non-finite form takes a lengthened subject with a high-toned segment results in oddity because it implies that the wanter has a choice to decide whether or not the rain falls.

Finally, it is worth noting that the wishing examples presented so far are future-oriented. In those examples, the subject of the verb *gɛ́* 'want' in the matrix clause is marked for imperfectivity. To talk about a wish that expresses a contrary-to-fact meaning, the matrix clause is uttered in the

factative aspect. As shown in the following examples, the complement clause is the same in (a) which expresses a counterfactual wish and in (b) which expresses a future wish.

61. a. **ma**   gɛ́   sɪ   maa   lʊlʊ́   ágolu-ná
    1SG   want.FAC   COMP   1SG   give birth.FAC   boy-SG.CI
    'I wish that I had given birth to a boy.'
   b. **ma-á**   gɛ́   sɪ   maa   lʊlʊ́   ágolu-ná
    1SG-IMPV   want   COMP   1SG   give birth.FAC   boy-SG.CI
    'I wish that I give birth to a boy.'

62. a. **ma**   **fá**   gɛ́   sɪ   ɔɔ   lá   máka
    1SG.POSS   mother   want.FAC   COMP   3SG.CI   go.FAC   Mecca
    'My mother wishes that she had gone to Mecca.'

   b. **ma**   **fá-á**   gɛ́   sɪ   ɔɔ   lá   máka
    1SG.POSS   mother-IMPV   want   COMP   3SG.CI   go.FAC   Mecca
    'My mother wishes that she goes to Mecca.'

The only difference between the pair of sentences in (61)&(62) is the aspect of the matrix clause. The sentence in (61a) conveys that the speaker knows the sex of the baby and regrets the fact that the baby is not a boy. In contrast, the non-counterfactual sentence in (61b) is uttered by a pregnant woman who does not know the sex of her coming baby to express her wish about a future eventuality. In (62a), the speaker makes a counterfactual statement that implies his mother did not go to Mecca.

The (in)compatibility of the past adverbial *ɗɛ* 'yesterday' in (63) shows that the matrix clause must be in the factative aspect to talk about a past counterfactual wish.

63. a. ma   gɛ́   sɪ   ɗofóo   tɔ́   ɗɛ
    1SG   want.FAC   COMP   rain   rain   yesterday
    'I wish that it had rained yesterday.'

   b. # ma-á   gɛ́   sɪ   ɗofóo   tɔ́   ɗɛ
    1SG-IMPV   want   COMP   rain   rain   yesterday
    Intended: 'I wish that it had rained yesterday.'
    Literally: ' I wish that it will rain yesterday.'

Iatridou (2000: 231), defines counterfactual situations as those which "cannot be helped anymore". In Bago, speakers use the factative aspect in the matrix clause to speak of a situation as being different from the present fact. The following sentences are uttered to convey that the situation of the subject that holds in the actual world (i.e., the present time) is contrary to the situation described in the complement clause.

64. ma   gɛ́   sɪ   maa   d͡ʒɛ́ŋ
    1SG want.FAC COMP   1SG   be tall.FAC
    'I wish that I were tall.'

65. ma   gɛ́   sɪ   maa   mí   bagó
    1SG want.FAC COMP   1SG   hear   Bago
    'I wish that I knew Bago.'

66. ma   gɛ́   sɪ   nabíláa   wɛ   d͡ʒeé
    1SG want.FAC COMP   Nabila   COP.FAC   DEM.PROX.LOC
    'I wish that Nabila were here.'

(64) says that the speaker regrets that he is not tall at the present time, and (65) conveys that the speaker regrets that he currently does not know Bago. In (66), the speaker also expresses his regret about the fact that Nabila is not at the party. These present counterfactual wishes are morpho-syntactically identical to the past counterfactual wishes in (61a)&(62a). The factative aspect is used in the matrix clause and the subject of the embedded clause is lengthened to express both a present or a past counterfactual wish, unlike in English and Modern Greek where a past counterfactual wish differs from a present one in that it uses the pluperfect in the complement clause (see Iatridou 2000).

Note that to talk about a past wish that was realized at a later time in the past, the sentence is also expressed with a matrix clause in the factative aspect and a lengthened subject in the embedded clause, as shown in (67). The clause introduced by the conjunction *bʊ́ʊ́* 'then' cancels a counterfactual interpretation to the wish-clause.

67. tení   ma   fá   gɛ́   sɪ   ɔɔ   lá   máka   bʊ́ʊ́   ma
    last year 1SG.POSS mother want.FAC COMP   3SG.CI go.FAC Mecca then 1SG.POSS
    d͡ʒoóŋu   lá-na   ɪ   bʊlɔ́
    brother   go-APPL   3SG.CI there
    'Last year my mother wished that she went to Mecca. Then my brother took her there.'

Therefore, It can be concluded that the factative aspect is used in the main clause to express both counterfactual and realized wishes. In future-oriented wishes, the subject of the main clause is marked for imperfectivity. As we will see in §10.3,4. counterfactual conditionals are distinct in that they require the subjects of the main clause and the conditional clause to be lengthened.

10.1.5 Speakers' instruction: Imperative and hortative

In Bago, an utterance that encodes a positive or a negative command is expressed by a non-finite verb. A command issued to a singular addressee is distinguished from a command given to more than one addressee in that the first is uttered without an overt pronominal subject. As shown in the following examples, the high-toned subject pronoun *í* '2PL' is obligatorily used in a command issued to a plural addressee that excludes the speaker.

68. sara   sírá-a   ka-d͡ʒé
    sharpen-INF knife-SG.CII SG.CII-DEM.PROX
    'Sharpen this knife.'

69. ma   wɛ   fʊ́w-a   mɛ   kɔná   fɛ́   mɛ   ma   lɔ́ɔ́rɪ
    1SG   COP.FAC   farm-SG.CII LOC   bring-INF give 1SG   1SG.POSS car
    'I am in the farm. Bring my car to me.'

70. í   g͡bɪ
    2PL   be quiet.INF
    'Be quiet.'

71. í   fú   mɛ
    2PL   follow.INF   1SG
    'Follow me.'

72. í   kɔnɪ   d͡ʒeé
    2PL   come.INF   DEM.PROX.LOC
    'Come here.'

273

Imperative sentences in which the addressee is asked to perform more than one action involve the morpheme *na* functioning as a linker between the expressed commands, differently from declarative and interrogative clauses, which are linked by the morpheme *ka*. The verb following *na* surfaces in its non-finite form and obligatorily occurs with a high-toned pronominal subject, which is overt regardless of whether the command is issued to a singular or to a plural referent. Here are some examples:

73. la   na   ń   kɔnɪ
    go.INF   and   2SG   come.INF
    'Go and come.'

74. sara   sírá-a   ka-d͡ʒé   na   ń   fɛ́   kɛ   zakaríjá
    sharpen-INF knife-SG.CII SG.CII-DEM.PROX and   2SG give.INF 3SG.CII Zakariya
    'Sharpen this knife and give it to Zakariya.'

75. í   g͡bɪ   na   í   fú   mɛ
    2PL   be quiet.INF and   2PL follow.INF   1SG
    'Be quiet and follow me.'

76. í   jasɪ   kak͡pá-a   na   í   k͡pɪ   kumóle-ná
    2PL   sweep.INF yard-SG.CII   and   2PL wash.INF   dish-PL.CIII
    'Sweep the yard and wash the dishes.'

Using the conjunction *ka* in an imperative sentence results in ungrammaticality whether or not it is followed by a pronominal subject.

77. a. * la   ka   (ń)   kɔnɪ
       go.INF   and   2SG   come.INF
       'Go and come.'

    b. ma-á   lá   ka   kɔnɪ
       1SG-IMPV   go   and   come.INF

78. a. * í   jasɪ   kak͡pá-a   ka   (í)   k͡pɪ   kumóle-ná
       2PL   sweep.INF   yard-SG.CII and   2PL wash.INF   dish-PL.CIII
       'Sweep the yard and wash the dishes.'

    b. ɪ   jasí   kak͡pá-a   ka   k͡pɪ   kumóle-ná-a
       2PL   sweep yard-SG.CII and   wash.INF   dish-PL.CIII-Q
       'Did you sweep the yard and wash the dishes?'

In negative imperative utterances, the non-finite form of the verb is used, and the verb takes an overt pronominal subject only when the addressee is a plural referent. As will be discussed in Chapter 11 declarative sentences in Bago require two negation markers. The marker *tá* follows the subject, while a second marker *bɔ́ɔ* occurs in a clause-final position, as shown in (79). In negative imperative constructions, the language employs the marker *bɔ* after the subject, which I will treat as a prohibitive negative marker, and the marker *bɔ́ɔ* in a clause-final position, as can be seen in (80)-(83).

79. ɖɪ   tá-a   lá   fʊ́w-a   d͡ʒa   bɔ́ɔ
    1PL NEG-IMPV go.INF farm-SG.CII today NEG
    'We will not go to the farm today.'

80. bɔ   la   bɔ́ɔ   ma   wɛ   ma-á   kɔní
    NEG go.INF   NEG   1SG COP.FAC 1SG-IMPV come
    'Do not go. I am coming.'

81. bɔ   kʊ́   n   tɪ   bɔ́ɔ
    NEG kill.INF 2SG   REFL   NEG
    'Do not kill your self.'

82. í   bɔ   tuku   nso   bɔ́ɔ
    2PL   NEG   go.INF   gun   NEG
    'Do not touch the gun.'

83. í   bɔ   lɪ   bɔ́ɔ
    2PL   NEG   go out.INF   NEG
    'Do not go.'

A negative imperative utterance might be used as a wish or a prayer. Consider the following positive and negative examples:

84. a. ɪsɔ́ɔ   jele   ma   fáá   wa
       God   let.INF 1SG.POSS   mother   be cured.INF
       'God, let my mother be cured.'

    b. ɪsɔ́ɔ   jele   má   ɖí   sáásáá
       God   let.INF 1SG   eat.INF   exam
       'God, let my pass [lit., eat] the exam.'

85. a. ɪsɔ́ɔ   bɔ   jele   sífɔ́ńɖɛɛ́   júkú   ɖʊ   bɔ́ɔ
     God   NEG   let.INF   danger   find.INF   1PL   NEG
     'God, do not let danger find us.'

   b. ɪsɔ́ɔ   bɔ   jele   ma   fáá   sɪwʊ   bɔ́ɔ
     God   NEG   let.INF   1SG.POSS   mother   die.INF   NEG
     'God, do not let my mother die.'

I turn now to utterances expressing a suggestion or a recommendation that is to be performed collectively by the speaker and the addressee, rather than a direct command to an addressee. As shown in the following pair of sentences, by using the high-toned pronoun *ɖí* '1PL' with a non-finite verb, the utterance receives a hortative interpretation, , approximately equivalent to English 'let's'. The example in (87b) shows that the verb *jele* 'to let' is used to express an addresses exclusive imperative with the purpose of obtaining a permission.

86. a. ɖɪ   fɔ́sɪ   ɪsɔ́ɔ
     1PL   greet   God
     'We prayed.'

   b. ɖí   fɔ́sí   ɪsɔ́ɔ
     1PL   greet.INF   God
     'Let's pray.'

87. a. ɖɪ   lá   fʊ́w-a
     1PL   go   farm-SG.CII
     'We went to the farm.'

   b. jele   ɖí   la   fʊ́w-a
     let.INF   1PL   go.INF   farm-SG.CII
     'Let us go to the farm.'

The use of a non-finite verb with a high-toned first person singular subject is also common in the language. In such a structure, the speaker expresses the action that he prefers or needs to do before another action. In (88b), for instance, the speaker's reply conveys that he prefers to pray before he carries out the command issued on him. The sentences in (89)&(90) clearly show that the speaker is not asking for permission but merely informing the addressee about what he prefers to do first.

88. a. ja   n   ɖesí-náa
        call.INF   2.POSS   sister-PL.CI
        'Call your sisters.'

     b. má   fɔ́sí   ɪsɔ́ɔ   na   má   ja   bɛ́
        1SG   greet.INF   God   and   1SG   call.INF 3PL.CI
        'Let me pray and I will call them.'

89. sɔkɔ   d͡ʒeé   má   k͡páárí   ma   fá   na   má   kɔnı
     stay.INF   DEM.PROX.LOC   1SG   visit.INF 1POSS mother and   1SG   come.INF
     'Stay here. Let me visit my mother and I will come.'

90. a. sáa   aŋ-kɛ́   mɛ-ɛ́   ŋ-ɳ́   kɔní
        time   which-SG.CIV   LOC-FOC   2SG-IMPV   come
        'At what time will you come.'

     b. má   sɔ́   na   má   kɔnı
        1SG   take bath.INF   and   1SG   call.INF
        'Let me take a bath and I will come.'

The presence of the verb *jele* 'let' is required for the speaker to ask permission or issue a command to the addressee to stop what distracts the speaker from performing the intended action, as shown in (91).

91. jele   má   fɔ́sí   ɪsɔ́ɔ
     let.INF   1SG   greet.INF   God
        'Let me pray.'

This structure may also be used with the same sense in the third person, as exemplified in (92b).

92. a. lé-é   zakaríjá   wɛ
        where-FOC   Zakariya   COP.FAC
        'Where is Zakariya?'

     b. ɔ́   fɔ́sí   ɪsɔ́ɔ   na   ɔ́   kɔnı
        3SG.CI   greet.INF   God   and   3SG.CI   come.INF
        'He is going to pray and he will come.'

Here, the speaker states that the referent needs to pray before he comes. In (93b), however, a similar sentence is a command issued to the non-present third person. The hearer is only responsible for delivering the command, rather than being requested to act as a causer in bringing about the event described.

93. a. zakaríjá-á   gɛ́   sɪ   ɔ́   la   bó-re   mɛ
      Zakariya-IMPV   want   COMP   3SG.CI   go.INF   house-SG.CIII   LOC
      'Zakariya wants to go to the house.'

    b. ɔ́   lú   límɔ   mɪnísíɪ   ɔ́   la
      3SG.CI   fetch.INF   water   before   3SG.CI   go.I
      'Let him fetch water before he goes.'

10.2 Epistemic modality: speaker's commitment to *P*

10.2.1 Speaker's uncertainty about p : sentences with conditional antecedent

Bago does not have a particular structure or a modal morpheme to encode a speaker's diminished commitment to or certainty about the truth of a proposition. Instead, the conventionalized expression *ń=n tá d͡ʒın* 'if you don't know' is used as a conditional antecedent to express uncertainty in Bago. As illustrated in the following examples, the conditional antecedent includes the verb *d͡ʒıŋ* 'to know' in its non-finite form following the negative particle *tá*. The subject of the conditional antecedent is always the second person singular pronoun *n*, and it makes a phonological word with the segmental form (a high-toned nasal) of the clause-initial conditional complementizer.

94. a. n-ń   lá   fʊ́-wa   sɛ́-ɛ
      2SG-IMPV   go   farm-SG.CII   tomorrow-Q
      'Will you go to the farm tomorrow?'

    b. ń=n   tá   d͡ʒın   ma-á   lá
      if-2SG   NEG   know.INF   1SG-IMPV   go
      'I might go.'

95. a. séé   ma-á   jɛ́   na   má   la   ɖókíta   d͡ʒa
      how   1SG-IMPV   do   PURP   1SG   go.INF   hospital   today
      'How will I go to the hospital today?'

    b. ń=n   tá   d͡ʒın   zakaríjá-á   kɔní   d͡ʒa   ɔ-ɔ́   lá-na   ní
      if=2SG   NEG   know.INF   Zakariya-IMPV   come   today   3SG-IMPV   go-APPL   2SG
      'Zakariya might come today. He will take you.'

96. ma-á   lá kaa na   samádu ń-n   tá   d͡ʒɪn
    1SG-IMPV   go   to   see.INF samdu   if-2SG NEG know.INF
    ɔ-ɔ́   ɲaŋ́ vɔɔ́-sɛ
    3SG-IMPV   sell rope-PL.CII
    'I will go to see Samadu. He might sell ropes.'

97. ń=n tá   d͡ʒɪn   súli lɛ́   tákuku   ɖoómi ma   ná   ɪ
    if=2SG NEG know.INF Suli buy.FAC motorbike because 1SG   see.FAC 3SG.CI
    tákuku   fɔlí-ka   lɔ́ d͡ʒa
    motorbike new-SG.CII.AGR   on   today
    'Suli might have bought a motorbike, because I saw him on a new motorbike today.'

The time reference of the main predicate ("the consequent", if these are seen as actual conditional constructions) is free, and is marked in the same way as in clauses occurring outside of a conditional construction: in (94)&(95) the subject is marked for imperfectivity to denote a future reading. In (96), imperfective marking is also used to indicate a habitual reading. The unmarked factative aspect in (97) implies a past interpretation of the assessed proposition.

Uncertainty may also be expressed in this way with non-verbal predicates, as illustrated below.

98. a. lé-é   n   fá   wɛ
       where-FOC   2SG.POSS mother   COP.FAC
       'Where is your mother?'

    b. ń=n   tá   d͡ʒɪn   ɔ   wɛ   kɪjá-a   mɛ
       if=2SG NEG   know.INF 3SG.CI   COP.FAC market-SG.CI   LOC
       'She might be in the market.'

99. d͡ʒoó-na   tɔ́ŋ   fɛ́   mɛ sɪ   ń=n   tá   d͡ʒɪn   sɛ́
    chief-SG.CI tell.FAC give 1SG COMP if=2SG   NEG   know.INF tomorrow
    ɔ-ɔ́   jɛ́   ɔ   fʊ́w-a   mɛ
    3SG.CI-IMPV COP.FAC   3SG.POSS.CI farm.SG.CII LOC
    'The chief told me that tomorrow he might be in his farm.'

100. ɪsɔ́ɔ fɔ́sɪ-tɔ   wárí   álám-a   feé lá   kaa   fɔ́sí   álámí-na
     God   pray-NOM   after   person-PL.CI all go.FAC to   greet.INF person-SG.CI
     ŋʊ-rʊ   ń=n tá d͡ʒɪŋ   ɔ   jɛ́   ba   d͡ʒoó-na
     SG.CI-INDF   if-2SG NEG know.INF 3SG.CI COP.FAC 3PL.POSS chief-SG.CI
     'After praying, all people went to greet some person. He might be their chief.'

279

The conditional antecedent conveys uncertainty or lack of commitment to the truth of an inference. In the absence of that antecedent, the speaker commits to the truth of the stated proposition: no modal meaning can be implicitly understood in an unmarked sentence. Note however that unmarked sentences do not have a specific evidential value, and are compatible with various sources of evidence: the commitment to their truth can be based on information gathered with one's own senses, or through hearsay. For instance, the speaker in (101) uses a simple declarative sentence, which implies commitment to the occurrence of the described eventuality on the basis of indirect evidence, namely the conjecture that Suli arrived.

101. Context: Samadu met Suli in the market and invited him to come to his house at three o'clock for some tea. At three o'clock, Samadu and his wife heard knocking on the door. Samdu says to his wife:

súli   talá-a
Suli   arrive-FAC
'Suli arrived.'

Similarly, the speaker in (102) asserts that the event of baking has occurred based on his knowledge about *Nabila's* regular activities and the sensory experience.

102. Context: Nabila is one of the women who sell bread in the village. On his way home, Suli passed by Nabila's house and smelled bread baking. When he arrived home, his sister told him that she wants to buy some bread. He says:

nabílá   jɛ́   k͡pɔ́nɔ́   d͡ʒa
Nabila   make.FAC   bread   today
'Nabila baked bread today.'

However, if the speaker lacks confidence in the truth value of the proposition, the conditional antecedent *ń-n tá d͡ʒɪn* is added to weaken her/his commitment. For instance, in reference to example (103), my consultant points out that in case the door was knocked on at a time that is later than the time at which *Suli* was expected to arrive, it would be natural to express uncertainty.

103. Context: Samadu met Suli in the market and invited him to come to his house at three o'clock for some tea. At five o'clock, Samdu and his wife heard knocking on the door. Samdu says to his wife:

ń=n   tá   d͡ʒɪn   súli   talá-a
if-2SG   NEG   know.INF   Suli   arrive-FAC
'Suli may have arrived.'

This conventionalized conditional antecedent is the only means we have found in our data to weaken the speaker's commitment to or certainty about the truth of the proposition.

10.3 Conditionals

10.3.1 Introduction

This section provides a description of the formation and meaning of conditional constructions in Bago. In conditionals, the antecedent/protasis clause expresses the condition that has to be realized in order for the eventuality described in the consequent/apodosis clause to hold. Comrie (1986) notes that although both orders are permitted cross-linguistically, the protasis commonly precedes the apodosis.

Several semantic classifications of conditional sentences have been proposed in the literature. Salone (1979) classified conditionals into simple, hypothetical and counterfactual. Simple conditionals are those in which an eventuality results if another one holds. Hypothetical and counterfactual are conditionals where conditions are not claimed to have occurred. While the protasis in a hypothetical conditional states a proposition that is not assumed to be false, it expresses a proposition that is regarded as false in a counterfactual conditional. Following Schachter (1971), Thompson, Longacre and Hwang (2007) distinguish between reality and unreality conditionals. According to Schachter's distinctions, unreality conditionals include both imaginative and simple future conditionals. Reality conditionals, on the other hand, include simple conditionals which refer

to present, progressive, and past situations. In Thompson et al (2007), the term predictive conditionals is used to refer to simple future conditionals, as in *if I see him, I will tell him that*.

Conditional constructions in Bago are formally identified by the high-toned morpheme *ŋ́* 'if' that occurs in the antecedent/protasis-initial position. There appears to be no restriction in the language on the order of protasis and apodosis, but the protasis tends to precede the apodosis. The apodosis clause is not introduced by conjunction whether it precedes or follows the protasis clause. In simple conditional sentences, the apodosis clause is expressed in the imperfective aspect to refer to a future or a habitual situation, whereas the factative aspect is used to refer to a past situation. Counterfactual conditional sentences are marked by lengthening the subject of the protasis and apodosis clauses with a low-toned segment that is a copy of the subject-final segment.

10.3.2 The order and marking of conditionals

All types of conditionals in Bago must contain the morpheme *ŋ́* 'if' in the protasis-initial position. Without such marking, the two clauses are interpreted as coordinated indicative sentences. As shown in (104a), the presence of *ŋ́* is obligatory to convey that the realization of the burning event is conditioned by the failure of payment. (104b) however is simply the description of a past situation and a planned future event implicated to be a consequence of the first..

104. a. ŋ́ ɔ tá fɪtɪ mɛ́ ma bíí-na bɔ́ɔ
    If   3SG.CI NEG pay.INF 1SG 1SG.POSS money-PL.CIII NEG
    ma-á   k͡pá-sɪ   ɔ   fʊ́w-a
    1SG-IMPV   burn-CAUS   3SG.CI.POSS   farm-SG.CII
    'If he does not pay me my money, I will burn his farm.'

   b. ɔ tá fɪtɪ mɛ́ ma bíí-na bɔ́ɔ
     3SG.CI NEG pay.INF 1SG   1SG.POSS money-PL.CIII NEG
    ma-á   k͡pá-sɪ   ɔ   fʊ́w-a
    1SG-IMPV   burn-CAUS.FAC   3SG.CI.POSS   farm-SG.CII
    'He did not pay me my money. I will burn his farm.'

As noted in Takougnandi (2016), conditional sentences in Bago may optionally include the expression *bʊ jɛ́*. This expression literally means 'it happened' and occurs immediately after the conditional word, as exemplified in (105)-(108), without any apparent difference in meaning. Its distribution is attested with first, second and third person as the subject of the protasis clause. The form of this optional expression does not change regardless of the type of conditional sentence it appears in. The expletive subject pronoun *bʊ* cannot be marked for imperfectivity when the protasis clause of a future conditional sentence appears in the imperfective, as shown (106). Also, its vowel is not lengthened as are the vowels of the subjects of the protasis and the apodosis clauses in a counterfactual conditional, as can be seen in (108).

105. ḿ (bʊ jɛ́) d͡ʒoó-na k͡pá-a ma-á ɲań ma atɛ
    If 3SG.CV happen.FAC chief-SG.CI agree-FAC 1SG-IMPV sell 1SG.POSS land
    'If the chief agrees I will sell my land.'

106. ḿ (bʊ jɛ́) ma-á ɖé-si n tákuku sɛ́
    if 3SG.CV happen.FAC 1SG-IMPV be good-CAUS 2SG.POSS motorbike tomorrow
    ma-á já nɪ
    1SG-IMPV call 2SG
    'If I plan to fix your motorbike tomorrow, I will call you.'

107. ma d͡ʒɪń gúúní ma tá-a doro-sí kɪ bɔ́ɔ
    1SG know.FAC lion 1SG NEG-IMPV wake up-CAUS 3SG.CIV NEG
    ḿ bʊ jɛ́ ma doro-sí kɪ kʊ-ʊ́ tɔkɔ́ mɛ
    If 3SG.CV happen.FAC 1SG wake up-CAUS.FAC 3SG.CIV 3SG.CIV-IMPV eat.FAC 1SG
    'I know the lion. I will not resurrect [lit,. wake up] it. If I resurrect it, it will eat me.'

108. ḿ bʊ jɛ́ n-n tá kɔnɪ bɔ́ɔ ɔ́díw-ɔ-ɔ kʊ́ mɛ
    If 3SG.CV happen.FAC 2SG- COUN NEG come.INF NEG hunter-SG.CIV-COUN kill.FAC 1SG
    'If you had not come, the hunter would have killed me.'

In Bago conditional sentences, the protasis clause usually surfaces before the apodosis clause, though the reverse order is acceptable, as shown in (109).

109. zakaríjá-á jɛ́ kɔkɔlɪj-á ń ɖɪ loń ɔ tákuku
    Zakariya-IMPV COP anger-CII if 1PL use.FAC 3SG.POSS motorbike
    'Zakariya will be angry if we use his motorbike.'

10.3.3 Simple conditionals

Following Schachter (1971) and Salone (1979), I use the term simple conditionals, as opposed to factual and predictive, to cover conditional sentences that refer to generic/habitual eventualities, present or past non-counterfactual eventualities and future eventualities. In simple conditionals, the construction of the protasis clause and the apodosis clause is identical to the construction of an indicative sentence. They are expressed as regular sentences in the factative or the imperfective aspect.

10.3.3.1 Present_{IMPV} condition with ongoing_{IMPV}, future_{IMPV}, or past_{FAC}

Conditional sentences in which the condition is an eventuality that is ongoing have a progressive construction in the protasis. The apodosis clause can be uttered in the imperfective aspect to describe an eventuality with a future time reference, as in (110). Imagine a context where the interlocutors are inside a house, and the speaker wants to decide whether they go to the farm according to the current weather. As shown in (110), the apodosis clause is uttered in the imperfective to express the result that will take place if the condition holds at the present time.

110. ń ɖofó wɛ kʊ-ʊ́ tɔ́ ɖɪ tá-a lá fʊ́w-a bɔ́ɔ
    If rain COP.FAC 3SG.CIV-IMPV rain 1PL NEG-IMPV go farm-SG.CI NEG
    'If it is raining, we will not go to the farm.'

In (111), the apodosis clause appears in the factative aspect to talk about an eventuality that the speaker judges likely to have occurred before the time at which Nabila is cooking.

111. ń nabílá wɛ ɔ-ɔ́ gań sɔkɔrɔ́ ma tá lɛ́ kʊ́d͡ʒɔ-ɔ́
    if Nabila COP.FAC 3SG.CI-IMPV cook mashed yam 1SG.POSS father buy.FAC yam-SG.CIV
    'If Nabila is cooking mashed yam, my father bought yam.' kʊ́d͡ʒɔ-ɔ́

In (112), the apodosis clause is expressed in the progressive construction to refer to an eventuality that is likely to be in progress based on the speaker's knowledge about Salama's regular activity during the time at which Nabila is involved in the event of cooking.

112. ń nabílá wɛ   ɔ-ɔ́   gań sɔkɔrɔ́   salámá wɛ   ɔ-ɔ́
     if Nabila COP.FAC 3SG.CI-IMPV cook mashed yam Salama COP.FAC 3SG.CI.IMPV
     jɛ́   ḍomó-o
     make sauce-SG.CIV
     'If Nabila is cooking mashed yam, Salama is making sauce.'

The example in (113), shows the use of an imperative utterance in the apodosis clause to express what will be the result if the condition expressed in the protasis is met.

113. ń zakaríjá   wɛ   ɔ-ɔ́   fɔ́sɪ   ɪsɔ́ɔ
     if Zakariya   COP.FAC   3SG.CI-IMPV greet   God
     tɔn   fɛ́   n   ḍesí-náa   sɪ   bá   g͡bɪ
     tell.INF give 2SG.POSS sister-PL.CI COMP 3PL.CI be quiet
     'If Zakariya is praying, tell your sister to be quiet.'

From the above examples, we observe that the apodosis clause in present conditionals can be in the factative, imperfective, progressive, indicating the time reference of the apodosis clause with respect to the protasis clause, and in the imperative, to indicate a conditional command.

10.3.3.2 Past_FAC condition with (un)certain_FAC/INF outcome

In conditional sentences in which reference is made to events of the past, the factative aspect is used in both the protasis and the apodosis past non-counterfactual conditional receives an epistemic reading if the apodosis does not a command or a request. When a conditional sentence refers to a past situation, the speaker does not have evidence to commit to the truth of the proposition in the apodosis clause. To further convey the speaker's lack of commitment to the truth of this clause, the apodosis is often introduced by the conventionalized expression *ń n tá d͡ʒɪn* 'if you do not know', as illustrated in (114). This expression is also used to express uncertainty in independent clauses

(see §10.2.1. on uncertainty). In case the speaker wants to imply a high degree of commitment to the proposition in the apodosis clause to be true, the apodosis clause is left unmarked. Certainty in Bago is simply unmarked.

114. ŋ́ ɔ mɔsí ɔ nso ń n tá d͡ʒɪn ɔ lá
    if 3SG.CI take.FAC 3SG.POSS.CI gun if 2SG NEG know.INF 3SG.CI go.FAC
    lɔ́-ɔ mɛ
    forest-SG.CIV LOC
    'If he took his gun, he may have gone to the forest.'

115. ń zakaríjá ɖí sáásáá ma ɖí-i
    if Zakariya eat.FAC exam 1SG eat-FAC
    'If Zakariya passed [lit., ate] the exam, I must have passed.'

116. ń zakaríjá mɔsí n nso mɔsɪ ma-ŋ́-kɔ
    if Zakariya take.FAC 2SG.POSS gun take.INF 1SG-POSS-SG.CIV
    'If Zakariya took your gun, take mine.'

In (114), the speaker indicates that the eventuality expressed in the apodosis is likely to be true at some time in the past based on what is considered to be true in the past. The apodosis in (115), however, is expressed by a simple declarative sentence to indicate certainty toward the described eventuality. According to my consultant, the sentence in (115) is uttered in a context where the speaker, who copied all the answers that Zakariya wrote, is informed that the results came out and Zakariya passed the exam. Based on the fact that Zakriya passed the exam, the speaker is certain in his conclusion that he also passed the exam. The conditional sentence in (116) has an imperative apodosis directing the addressee to carry out an action.

10.3.3.3 Possible_FAC condition with future _IMPFV/INF_ time-of-satisfaction

In a future conditional, the apodosis can be either an imperfective clause or an imperative utterance. Although a future conditional sentence refers to a future situation, the protasis clause appears in the factative aspect, which is typically used in a non-conditional sentence to convey a past time reference. The use of the factative aspect in the protasis clause reflects the temporal sequence

between the protasis and the apodosis clauses. The protasis clause which expresses the condition is viewed as past in relation to apodosis clauses which is expected to be realized at some time after the eventuality described in the protasis is met. For instance, the conditional sentence in (117) comes from a story in which the child warns the lion about what is predicted to take place at a future time if the event described in the protasis is true.

117. ḿ   ma   fá   ná   nɪ   ɔ   tá-a   jelé   nɪ   bɔ́ɔ
     If   1SG.POSS mother see.FAC 2SG 3SG.CI NEG-IMPV let   2SG   NEG
     ɔ-ɔ́   kʊ́   nɪ
     3SG.CI-IMPV   kill   2SG
     'If my mother sees you, she will not let you (go). She will kill you.'

118. ḿ   ma jelé nɪ lɔ́ n   lá-a   bé-é   ma-á   júku ka ɖí
     If   1SG let.FAC 2SG and 2SG go-FAC what-FOC 1SG-IMPV find   to eat.INF
     'If I let you (go), what will I find to eat?'

119. ń   ɖɪ má   nɔnɔ́-ɔ   d͡ʒeé   bavó-re-é   jɛ́   tʊ́tʊbʊ́-ɖɛ
     if 1PL build.FAC room.SG.CIV DEM.PROX.LOC bathroom-SG.CIII-IMPV COP small-SG.CIII.AGR
     'If we build the room here, the bathroom will be small.'

120. ḿ   ma ɖé-si   n   tákuku   ma-á   já nɪ
     if   1SG be good-CAUS.FAC 2SG.POSS motorbike 1SG-IMPV   call 2SG
     'If I fix your motorbike, I will call you.'

121. ŋ́   ɪ   lá   kíjá-a   mɛ   lɛ   fɛ́   mɛ   kʊ́d͡ʒɔ-ɔ́
     If   2PL go.FAC market-SG.CII   LOC buy.INF give 1SG   yam-SG.CIV
     'If you go to the market, buy yam for me.'

122. ŋ́   nabílá kɔní-ɪ   fɛ́   ɪ   sááfɪ ka-d͡ʒé
     If   Nabila come-FAC give.INF 3SG.CI key   SG.CII-DEM.PROX
     'If Nabila comes, Give her this key.'

It is important to note that the protasis clause in future conditionals is not always expressed in the factative aspect. The subject of the protasis clause can be marked for imperfectivity to denote uncertainty about the occurrence of the event described in the protasis. Contrast the following examples:

123. a. ḿ ma-á ḑé-si   n   tákuku ma-á   já nɪ
   if 1SG be good-CAUS.FAC 2SG.POSS motorbike 1SG-IMPV call 2SG
   'If I decide/plan to fix your motorbike, I will call you.'

 b. ḿ ma ḑé-si   n   tákuku ma-á   já nɪ
   if 1SG be good-CAUS.FAC 2SG.POSS motorbike 1SG-IMPV call 2SG
   'If I fix your motorbike, I will call you.'

The speaker in (123a) uses the imperfective aspect in the protasis to imply that there is a possibility that he will not fix the motorbike. The speaker will call when he decides, not when he fixes the motorbike. The sentence in (123b) can be classified as a neutral future conditional. The speaker presupposes that the event of fixing the car is likely to occur at some time in the future, and thus the calling event can only be interpreted as future in relation to the fixing event. Similarly, the sentence in (124a) is uttered in a situation where the speaker is not certain about going to the farm at some time in the future. The eventuality described in the apodosis clause is understood to be initiated before the action described in the protasis (e.g., the speaker will leave the money on a table at home). In (124b), the apodosis clause refers to an eventuality resulting from the eventuality described in the protasis clause (e.g., the speaker will leave the money on a table at the farm).

124. a. ḿ ma-á lá fʊ́w-a ma-á sísɪ fɛ́ nɪ bíí-na   téburu lɔ́
   if 1SG-IMPV go farm-SG.CII 1SG.IMPV keep give.INF 2SG money-PL.CIII table LOC
   'If I decide/plan to go to the farm, I will leave the money for you on the table.'

 b. ḿ ma lá fʊ́w-a ma-á sísɪ fɛ́ nɪ bíí-na   téburu lɔ́
   if 1SG go.FAC farm-SG.CII 1SG.IMPV keep give.INF 2SG money-PL.CIII table LOC
   'If I go to the farm, I will leave the money for you on the table.'

The use of the imperfective aspect in the protasis clause is also observed in a situation where the speaker intends to know whether an eventuality will be possibly realized at a future time, as shown in (125). The use of the factative aspect in the protasis of (126) denotes that the speaker knows that going to the market is likely to be fulfilled on the basis of shared knowledge.

125. ŋ́   ɪ-í   lá kíjá-a   mɛ   lɛ   fɛ́   mɛ   kʊ́d͡ʒɔ-ɔ́
     If   2PL-IMPV go market-SG.CII   LOC buy.INF give 1SG   yam-SG.CIV
     'If you decide/plan to go to the market, buy yam for me.'

126. ŋ́   ɪ   lá   kíjá-a   mɛ   lɛ   fɛ́   mɛ   kʊ́d͡ʒɔ-ɔ́
     If   2PL   go.FAC market-SG.CII   LOC buy.INF give 1SG   yam-SG.CIV
     'If you go to the market, buy yam for me.'

Thus, in future conditional sentences one finds both imperfective and factative in the protasis, with factative used to refer to what is expected to happen, and imperfective used to imply uncertainty.

10.3.3.4 Habitual~FAC~ condition with habitualI~MPFV~ outcome

In Bago, conditional sentences that express generic/habitual eventualities use the factative aspect in the protasis and the imperfective aspect in the apodosis. In a conditional sentence describing a generic or a habitual eventuality, the eventuality described in the apodosis is viewed as temporally following the initiation of the eventuality described in the protasis. Here are some examples:

127. ŋ́ ágámá   ná   álámí-na   ka-á   bɪrɪsí ákú-na límɔ ndɪndɪ
     If chameleon see.FAC person-SG.CI 3SG.CII-IMPV change cloth-PL water different
     'If a chameleon sees a person, it changes its colour.'

128. máŋ́go-ó   fóe   ḿ   mbú-re   wɛ
     mango-IMPV be ripe if   heat-SG.CI   COP.FAC
     'Mangoes get ripe if the weather is hot.'

129. ŋ́ ad͡ʒakp̄á   ná   álámí-na   ka-á   d͡ʒʊ-sí   ka
     If tortoise   see.FAC person-SG.CI 3SG.CII-IMPV enter-CAUS 3SG.CII.POSS
     ŋí-rɛ   bɔkɔrɔ́-ɔ   mɛ
     head-SG.CI   shell-SG.CIV   LOC
     'If a tortoise sees a person, it inserts its head inside its shell.'

130. ḿ ma   ɖí   sɔkɔrɔ́   ma   lóto-ó   mɪlí   mɛ
     If 1SG   eat.FAC mashed yam 1SG.POSS   stomach-IMPV pain   1SG
     'If I eat mashed yam, I have a stomach ache.'

The use of the imperfective in the apodosis of the conditional construction is consistent with the imperfective's usual meaning of future or habitual. The factative aspect in the protasis might seem

more surprising, but is used here to refer to a completed situation. Here, as the apodosis clause expresses a habitual eventuality, it is uttered in the imperfective aspect. The protasis clause appears in the factative as a result of being viewed as a completed eventuality located in the past of each occurrence of the habit described in the apodosis.

10.3.4 Counterfactual conditionals

10.3.4.1 Counterfactual condition with past time-of-satisfaction

Counterfactual conditionals in Bago are morphologically distinct from simple conditionals. The pattern that we observed in the formation of a simple conditional is that the protasis and the apodosis clauses are constructed as regular sentences, even if aspect in the protasis is not interpreted in the regular way. In counterfactual conditionals, however, the subject constituent in both the protasis and the apodosis is marked by a low tone attached to its right edge which further results in the lengthening of its final segment. Additionally, the protasis and the apodosis clauses always appear in the factative aspect. The final lengthening that occurs on the subject seems to be marking that is specific to the expression of counterfactuality in the language.[10] No examples were found in non-conditional sentences where the final segment of the subject is lengthened with a low-toned segment. As illustrated in (131c), lengthening the subject final segment with low tone in a non-conditional sentence results in ungrammaticality.

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[10] This lengthening is also found in complement clauses of the verb *gé* 'want'. Note that in this case the lengthening is obligatory, being found both to express a counterfactual or a non-counterfactual wish (see §10.1.5). As was seen above, the distinction between a counterfactual and a non-counterfactual wish is marked in the aspect associated with the verb *gé* in the matrix clause. While the matrix clause appears in the factative to convey a counterfactual wish, it appears in the imperfective to convey a non-counterfactual wish. Note that other verbs that take complement clauses (e.g., *tɔn* 'tell/say', *bisi* 'ask' , *mɪ* 'hear', etc) do not exhibit such lengthening the subject-final segment in the complement clause.

131. a. ḿ ma-a   dɨ́   sáásáá ma   tá-a   lɛ́   fɛ́   mɛ kɛkɛ́
    If 1SG-COUN eat.FAC exam   1SG.POSS father-COUN buy.FAC give 1SG bicycle
    'If I had passed the exam, my father would have bought a bicycle for me.'

   b. ma   dɨ́   sáásáá
    1SG   eat.FAC   exam
    'I passed the exam.'

   c. * ma-a   dɨ́   sáásáá

The only superficial exceptions to factative marking in counterfactual conditionals are sentences containing negation. In (132), the verb in the apodosis is overtly marked with the factative aspect, but the protasis is not marked. Recall that an imperfective clause is distinguished from a factative clause in a negative utterance by the form of the verb and the preverbal negative particle. In an imperfective negative clause, the finite form of the verb is used and imperfectivity is marked by a low tone that results in lengthening the preverbal negative particle *tá*. In the absence of these exponents, one can consider the protasis clause in (132) to be in the factative aspect.

132. ń dofó-o   tá   tɔ́   bɔ́ɔ ma-a   kɔní-ɪ
    if rain-COUN NEG rain.INF NEG 1SG-COUN   come-FAC
    'If it had not rained, I would have come.'

133. ń d͡ʒoó-na-a   k͡pá-a   ma   fá-a   ɲań ɔ   ɔtɛ
    If chief-SG.CI-COUN agree-FAC 1SG-POSS mother-COUN sell.FAC 3SG.CI.POSS land
    'If the chief had agreed, my mother would have sold her land.'

The lengthening of the subject of the protasis and the apodosis is what is responsible for the fact that these sentences express counterfactuality. The absence of this lengthening in (133), for instance, would yield a past non-counterfactual reading which states that if the chief, in fact, agreed at some time in the past and the mother sold her land. By uttering (132)&(133), the hearer understands that the proposition expressed in the protasis clause was not true at a past time in the actual world (i.e., it actually rained and the chief did not agree). The apodosis clause is interpreted as expressing an unrealized eventuality that arises from the fact that the event expressed in the condition did not hold. Note that the apodosis clause may have a past or present time reference.

For instance, the time of coming in (132) is interpreted according to whether the sentence is uttered prior to or after the planned time of the speaker's coming. In the first reading, the sentence is uttered at 4pm to provide the reason that caused the failure of coming at the planned time of the visit 3pm (i.e., it actually rained at 1pm, and the speaker actually did not come at 3pm). In the second reading, the sentence is uttered at 2pm to inform the hearer that the planned event of coming at 3pm will not be brought about (i.e., it actually rained at 1pm, and the speaker will not come at 3pm). Similarly, the described event in the apodosis clause in (133) can be modified either by the past-time adverbial *dɛ* 'yesterday' in a situation where the event of selling was supposed to take place yesterday (i.e., the condition and the consequence did not hold in the past), or by the future adverbial *sɛ́* 'tomorrow' in a situation where the king did not agree earlier today and the event of selling is supposed to take place tomorrow (the condition did not hold at a past time and the consequence will not hold at a future time).

As noted in our discussion of the factative aspect in § 9.4, the factative aspect is used in Bago to talk about a state that holds at the present time or at a contextually established time in the past. Therefore, marking the subject of the stative verb *d͡ʒɪ́n* 'know' for counterfactuality in (104) can yield a present or a past interpretation. For instance, the speaker may utter this sentence while he is passing by the village, where his friend lives, to express his desire at the present time. Also, it can be uttered with a past time reference to talk about the speaker's desire when he was passing by the village, whether or not what was contrary to fact still holds at the utterance time.

104. ḿ ma-a   d͡ʒɪ́n   nabílá fɔlɔ́-ɔ   dɪ-ɪ   lá   kaa ná   ɪ
     if 1SG-COUN know.FAC Nabila place-SG.CIV 1PL-COUN go-FAC to see.INF 3SG.CI
     'If I knew Nabila's place, we would go to to see her.'
     'If I had known Nabila's place, we would have gone to see her.'

It is worth noting that in a case where the verb d͡ʒɪ́ŋ has a clausal complement, the grammatical aspect of this clause is chosen according to the the temporal sequence between the time of knowing and the time of the described event in the complement clause. The following examples illustrate this point:

105. a. ḿ ma-a d͡ʒɪ́ŋ sɪ nabílá kɔní-ɪ ma-a tá kɔnɪ bɔ́ɔ
      if 1SG-COUN know.FAC COMP Nabila come-FAC 1SG-COUN NEG come.INF NEG
      'If I had known that Nabila came, I would not have come.'

    b. ḿ ma-a d͡ʒɪ́ŋ sɪ nabílá-á kɔní ma-a tá kɔnɪ bɔ́ɔ
      if 1SG-COUN know.FAC COMP Nabila -IMPV come 1SG-COUN NEG come.INF NEG
      'If I had known that Nabila would come, I would not have come.'

Suppose that these sentences are uttered at a party after the speaker noticed the presence of Nabila. Both sentences refer to what the speaker did not know at some time in the past. In (105a), the complement clause appears in the factative aspect to locate the occurrence of Nabila's coming to the party prior to the time of knowing. In (105b), the imperfective aspect is used to locate the time of knowing prior to the occurrence of Nabila's coming to the party. This is exactly what happens in non-conditional sentences where the factative aspect is used to talk about what occurred and the imperfective aspect is used to talk about what will occur at a future time, as shown in (106).

106. a. ma d͡ʒɪ́ŋ sɪ nabílá kɔní-ɪ
      1SG know.FAC COMP Nabila come-FAC
      'I know that Nabila came.'

    b. ma d͡ʒɪ́ŋ sɪ nabílá-á kɔní
      1SG know.FAC COMP Nabila -IMPV come
      'I know that Nabila will come.'

10.3.4.2 Counterfactual condition with future time-of-satisfaction

Future counterfactuals also pattern in the same way as past counterfactuals. The subject in both the protasis and the apodosis clauses is lengthened by a low-toned segment to indicate

counterfactuality. A past or a future reading of a counterfactual conditional is determined by the use of a temporal adverbial.

104. a. ń ɖɪ-ɪ kɔní sɛ́ ɖɪ-ɪ fɪtí lɔ́ɔ́rɪ bíí-na
       If 1PL-COUN come.FAC tomorrow 1PL-COUN   pay.FAC   car   money-PL.CIII
       'If we had come tomorrow, we would have paid money for the car.'

    b. ń ɖɪ-ɪ kɔní ɖɛ ɖɪ-ɪ fɪtí lɔ́ɔ́rɪ bíí-na
       If   1PL-COUN come.FAC yesterday 1PL-COUN   pay.FAC   car   money-PL.CIII
       'If we had come yesterday, we would have paid money for the car.'

To illustrate the future reading in (104a), imagine a situation where the speaker and the hearer are actually in Bago at the utterance time (Sunday). Their coming to Bago had been planned to be tomorrow (Monday), but because they incidentally met a friend of them yesterday (Saturday), who has a car and was going to Bago, they decided to change their plan and go to Bago on Saturday instead of Monday. As a result of going to Bago with their friend, they did not spend the money that they had planned to use for taking a taxi on Monday. In other words, they planned to arrive at Bago on Monday and use some money for the taxi, but they actually arrived on Saturday and did not spend their money. The presence of the negative particle *tá*, which is used in a non-conditional factative clause, rather than *tá-a* 'NEG-IMPV' indicates that the apodosis clause is uttered in the factative aspect, as exemplified in (105).

105. ń ɖɪ-ɪ kɔní sɛ́ ɖɪ-ɪ tá fɪtí lɔ́ɔ́rɪ bíí-na bɔ́ɔ
      If 1PL-COUN come.FAC tomorrow 1PL-COUN NEG pay.INF car   money-PL.CIII NEG
      'If we had come tomorrow, we would not have paid money for the car.'

The protasis clause in a future counterfactual is in the factative aspect. This is seen in the fact that the factative aspect is in fact overt if the verb *kɔní* occurs finally in the protasis clause. As can be seen in (106), focalizing the adverb *sɛ́* 'tomorrow' leads to the presence of the verb in clause-final position. In such a structure, the verb's final vowel is lengthened, lengthened, indicating factative aspect.

106. ń   sɛ́-ɛ́   ɖɪ-ɪ   konɪ́-ɪ   ɖɪ-ɪ   fɪtɪ́   lɔ́ɔ́rɪ   bɪ́ɪ́-na
    If   tomorrow-FOC 1PL-COUN   come.FAC 1PL-COUN   pay.FAC   car   money-PL.CIII
    'If it is tomorrow that we had come, we would have paid money for the car.'

10.3.4.3 Counterfactual condition with present time-of-satisfaction

The progressive construction must be used in the protasis to obtain a progressive counterfactual interpretation. Recall from §9.5.2, that a past/present progressive construction and a future progressive construction differ in that while the former is constructed with the copular verb *wɛ* in the factative aspect, the latter is constructed with the copular verb *jɛ́* in the imperfective aspect. In a progressive counterfactual, the copular verb *wɛ* is used. Note that the copular verb *wɛ* and the negative particle *tá* are in complementary distribution (see §11.3, on negation for details and examples). The following examples of non-conditional present/past and future progressive sentences are presented here for the sake of convenience.

107. a. ma   wɛ   ma-á   ɖé-si   n   tákuku
       1SG COP.FAC   1SG.IMPV be.good-CAUS   2SG.POSS   motorbike
       'I am/was fixing your motorbike.'

    b. ma   tá   ma-á   ɖé-si   n   tákuku   bɔ́ɔ
       1SG NEG   1SG.IMPV be.good-CAUS   2SG.POSS   motorbike NEG
       'I am/was not fixing your motorbike.'

108. a. ma-á   jɛ́   ma-á   ɖuḿ   barafó
       1SG-IMPV   COP   1SG-IMPV   sow   maize
       'I will be sowing maize.'

    b. ma   tá-a   jɛ́   ma-á   ɖuḿ   barafó   bɔ́ɔ
       1SG NEG-IMPV   COP   1SG-IMPV   sow   maize   NEG
       'I will not be sowing maize.'

A progressive counterfactual is constructed with a single imperfective marker on the subject of the lexical verb, as shown in (109a).

109. a. ń ɖofó-o tá kʋ-ʋ́ tɔ́ bɔ́ɔ ma-a kɔní-ɪ
      if rain-COUN NEG 3SG.CIV-IMPV rain NEG 1SG-COUN come-FAC
      'If it was not raining, I would come.'
      'If it had not been raining, I would have come.'

    b. ɖofó tá kʋ-ʋ́ tɔ́ bɔ́ɔ
      rain NEG 3SG.CIV-IMPV rain.INF NEG
      'It is/was not raining.'

Depending on the context, a progressive counterfactual can have either a present or a past reference time. Therefore, the counterfactual in (109a) can be uttered to convey that: (i) due to the fact that it is raining now, I cannot come, (ii) due to the fact it was raining at some time in the past, I could not come. The examples in (110) illustrate a progressive counterfactual sentence in which both the protasis and the apodosais convey positive statements. While (110a) is uttered to convey what the speaker considers to be contrary to the fact at the present time, the speaker in (110b) refers to contrary to fact eventuality at a given time in the past.

110. a. ma wɛ viíle mɛ ń nabílá-a wɛ ɔ-ɔ́ fɔkɔ́
      1SG COP.FAC river LOC if Nabila-COUN COP.FAC 3SG.CI-IMPV do.laundry
      d͡ʒeé ma-a ná ɪ
      DEM.PROX.LOC 1SG-COUN see-FAC 3SG.CI
      'I am at the river, if Nabila was doing laundry here, I would see her.'

    b. ma wɛ viíle mɛ ń nabílá-a wɛ ɔ-ɔ́ fɔkɔ́
      1SG COP.FAC river at if Nabila-COUN COP.FAC 3SG.CI-IMPV do.laundry
      bɔlɔ́ ma-a ná ɪ
      there 1SG-COUN see-FAC 3SG.CI
      'I was at the river, if Nabila had been doing laundry there, I would have seen her.'

As compared to the past counterfactual in (111), the progressive counterfactual in (110) differs in that it contains the copular verb *wɛ* as it is the case in progressive non-conditional constructions.

111. ń nabílá-a fɔkɔ́ viíle mɛ ɖɪɪ júku límɔ ka ɡań kʋ́d͡ʒɔ-ɔ́
    If Nabila-COUN do.launry.FAC river LOC 1PL-COUN find.FAC water to cook yam-SG.CIV
    'If Nabila had done laundry at the river, we would have found water to cook yam.'

To summarize, conditional constructions are marked by the high-toned morpheme *ý* 'if', which occurs initially in the protasis. It assimilates to the place feature of the following consonant. The apodosis is linked directly to the protasis without an overt marker. Counterfactual conditionals are distinguished by a low-toned segment that is is a copy of the subject-final segment. In simple conditionals, however, the protasis and the apodosis clauses are constructed in the same way as any non-conditional sentence in the factative or the imperfective aspect. It was shown that a simple generic/habitual conditional is constructed with a protasis clause in the factative aspect and an apodosis in the imperfective. With respect to simple past conditionals, the examples illustrated that both clauses appear in the factative aspect, and the lack of the speaker's commitment to the occurrence of the consequence is indicated by the expression *ń n tá d͡ʒɪn* 'if you do not know = may' to convey uncertainty. Present conditionals are expressed with a progressive construction in the protasis to refer to an ongoing eventuality. The aspect of the apodosis is selected according to how its time reference is temporally ordered with respect to the time of the event described in the protasis. The description of future conditionals reveals that while the protasis clause appears in the factative aspect, the apodosis clause appears in the imperfective. The use of the factative in a future conditional reflects the temporal ordering relation between the condition and the result. It was also pointed out that the protasis of a future conditional appears in the imperfective to convey uncertainty about the occurrence of the described eventuality. Finally, the protasis and the apodosis clauses in past, present and future counterfactual conditionals always appear in the factative aspect. To verify this, I looked at the form of the preverbal negative particle and whether the verb's final vowel is lengthened. The following table summarizes the clauses of the simple and counterfactual conditionals.

Simple Conditionals

PROTASIS				APODOSIS	
a. PRESENT					
[CP CH	[AspP SBJ COP FAC	[AspP SBJ-HIMPV V]]]		[CP [AspP SBJ-HIMPV	V …]
[CP CH	[AspP SBJ COP FAC	[AspP SBJ-HIMPV V]]]		[CP [AspP SBJ	VFAC …]]
[CP CH	[AspP SBJ COP FAC	[AspP SBJ-HIMPV V]]]		[CP [AspP pro	VINF …]]
b. PAST					
[CP CH	[AspP SBJ	VFAC …]]	ń n tá dʒɪn	[CP [AspP SBJ	VFAC …]]
[CP CH	[AspP SBJ	VFAC …]]		[CP [AspP SBJ	VFAC …]]
[CP CH	[AspP SBJ	VFAC …]]		[CP [AspP pro	VINF …]]
c. FUTURE					
[CP CH	[AspP SBJ	VFAC …]]		[CP [AspP SBJ-HIMPV	V …]
[CP CH	[AspP SBJ-HIMPV	V …]]		[CP [AspP SBJ-HIMPV	V …]
[CP CH	[AspP SBJ	VFAC …]]		[CP [AspP pro	VINF …]]
d. GENERIC/HABITUAL					
[CP CH	[AspP SBJ	VFAC …]]		[CP [AspP SBJ-HIMPF	V…]]

Counterfactual Conditionals

PROTASIS				APODOSIS	
a. PAST					
[CP CH	[AspP SBJ-L	VFAC …]]		[CP [AspP SBJ-L	VFAC …]]
b. PROGRESSIVE					
[CP CH	[AspP SBJ-L COPFAC	[AspP SBJ-HIMPV V]]]		[CP [AspP SBJ-L	VFAC …]]
c. FUTURE					
[CP CH)	[AspP SBJ-L	VFAC …]	(ADV)]	[CP [AspP SBJ-L	VFAC …]]

Chapter 11

Negation

11.1 Introduction

This section This chapter presents a description of clausal and constituent negation in Bago. Negation is a morphosyntactic means to invert the truth-value of a proposition (Dahl, 1979) (Dahl, 1979). Negation is believed to be a universal property of human language, yet languages vary widely in how they express it. In Dahl's 240-language sample, the distinction is made between morphological and syntactic negation. Morphological negation is realized, for instance, by a prefix or a suffix, whereas a syntactic negation is expressed by an uninflected particle. The literature focuses on cross-linguistic variation with regard to the number of negative markers used to express negation (Kahrel, 1996). In Dryer's sample (2005), 66 languages out of 1011 languages use a discontinuous negative (or bipartite) strategy in which at least two negative markers are employed to deny the truth-value of a proposition.

Like the two negative markers in French *ne...pas*, and in many Niger-Congo languages such as Ewe *mé...o* (Ameka, 1991), Ngomba *ká...pɔ́* (Satre, 2002), Fwe *k/ta-...-i* (Gunnink, 2018), negation in Bago involves the preverbal marker *tá* along with the clause final particle *bɔ́ɔ*. As will be seen below, both negative markers are obligatory in independent declarative clauses with verbal or non-verbal predicates. The data shows that there is no restriction on the distribution of both negative markers, as is the case in Logba (Niger-Congo, Kwa) where the preverbal negative marker cannot not be used with the first person pronoun (Dorvlo 2008, p.147). In this chapter, the focus is exclusively on declarative negation. As was already mentioned in §10.1.6. prohibitive utterances

in Bago differ from declarative ones. The former uses *bɔ* as a preverbal negative marker and *bɔ́ɔ*

as a clause final negative marker. In both prohibitive and declarative utterances, the negative

marker *bɔ́ɔ* occurs at the end of the clause following internal complements and adverbial phrases.

11.2 Negation in non-verbal clauses

We have seen in §8.1 that Bago employs a copula to relate a subject to a non-verbal predicate.

There are two copulas in the language, namely *wɛ* and *jɛ́*. Their distribution was shown to be

determined aspectually and according to the semantic relationship that holds between the subject

and the non-verbal predicate. Consider first the use of adverbial and postpositional phrases to

predicate the location of an entity. As shown in the following examples, while the copula *wɛ* is

used in the factative aspect, the copula *jɛ́* is used in the imperfective aspect.

1. a. zakaríjá   wɛ   fɵ́w-a   mɛ
      Zakariya   COP.FAC   farm-SG.CII   LOC
      'Zakariya is/was in the farm.'

   b. zakaríjá   tá   fɵ́w-a   mɛ   bɔ́ɔ
      Zakariya   NEG   farm-SG.CII LOC   NEG
      'Zakariya is/was not in the farm.'

2. a. ɖɪ-í   jɛ́   d͡ʒeé
      1PL-IMPV   COP DEM.PROX.LOC
      'We will be here.'

   b. ɖɪ   tá-a   jɛ́   d͡ʒeé   bɔ́ɔ
      1PL   NEG-IMPV   COP DEM.PROX.LOC   NEG
      'We will not be here.'

Note that the presence of the copulas *wɛ* and *jɛ́* is obligatory in affirmative locative clauses. In

negative clauses, however, the negative marker *tá* (Neg1) is in complementary distribution with

the copula *wɛ*. The combination of *wɛ* and Neg1 is not acceptable, as illustrated in (3b). This fact

is not restricted to locative clauses, but it is observed in all verbal and non-verbal clauses with *wɛ*.

The copula *jɛ́*, on the other hand, obligatorily follows the Neg1. As shown in (4b), the sentence is

judged ungrammatical in the absence of *jɛ́*. Imperfective marking is realized by a low tone that results in lengthening the Neg1. In non-negative clauses, this lengthening affects the subject constituent instead.

3.　a. * zakaríjá　fʊ́w-a　　mɛ
　　　　　　Zakariya　farm-SG.CII　LOC
　　　　　Intended: 'Zakariya is/was in the farm.'

　　　b. * zakaríjá　tá　　wɛ　　　fʊ́w-a　　mɛ　　bɔ́ɔ
　　　　　　Zakariya　NEG　COP.FAC　farm-SG.CII　LOC　　NEG
　　　　　Intended: 'Zakariya is/was not in the farm.'

4.　a. * ɖɪ-í　　d͡ʒeé
　　　　　　1PL-IMPV　DEM.PROX.LOC
　　　　　Intended: 'We will be here.'

　　　b. * ɖɪ　tá-a　　　d͡ʒeé　　　bɔ́ɔ
　　　　　　1PL　NEG-IMPV　DEM.PROX.LOC　NEG
　　　　　Intended: 'We will not be here.'

In our discussion of nouns such as *ak͡pow-á* 'shyness' *ɖɪkɔ́-rɛ* 'laziness', and *kɔkɔlɪj-á* 'anger', we have seen that they co-occur with the copula *wɛ* in the factative to predicate a typical/individual-level property of the subject. They are also used with the copula *jɛ́* to refer to a past transient state in the factative and to future transient state in the imperfective. As with locative predicates, the copula *wɛ* is absent when these nominal predicates are negated. Here are some examples:

5.　a. nabílá　　wɛ　　　ak͡pow-á
　　　　　Nabila　　COP.FAC　shyness-CII
　　　　　'Nabila is/was a shy person.'

　　　b. nabílá　tá　　ak͡pow-á　　bɔ́ɔ
　　　　　Nabila　　NEG　shyness-CII　NEG
　　　　　'Nabila is/was not a shy person.'

6.　a. zakaríjá-á　　jɛ́　kɔkɔlɪj-á　ń　ɖɪ　loŋ　　ɔ　　　　tákuku
　　　　　Zakariya-IMPV　COP　anger-CII　if　1PL　use.FAC　3SG.POSS　motorbike
　　　　　'Zakariya will be angry if we use his motorbike.'

　　　b. zakaríjá　tá-a　jɛ́　kɔkɔlɪj-á　bɔ́ɔ　n　ɖɪ　loŋ　　ɔ　　　　tákuku
　　　　　Zakariya　NEG　COP　anger-CII　NEG　if　1PL　use.FAC　3SG.POSS　motorbike
　　　　　'Zakariya will not be angry if we use his motorbike.'

If a nominal predicate is used to express the semantic relation of identity (equation), role (proper inclusion), ownership, or origin of place, the copula *jé* must be used in all cases; no aspectual nuances may be encoded by changing to the copula *wɛ*. As shown in (10b), imperfectivity is also marked on Neg1 to express a future time reference.

7. a. ma   d͡ʒoóŋu   jɛ́   ɔ́díw-ɔ
    1SG.POSS   brother   COP.FAC   hunter-SG.CIV
    'My brother is/was a hunter.'

    b. ma   d͡ʒoóŋu   tá   jɛ   ɔ́díw-ɔ   bɔ́ɔ
    1SG.POSS   brother   NEG   COP.INF   hunter-SG.CIV   NEG
    'My brother is/was not a hunter.'

8. a. samádu   jɛ́   bagó-ŋ́-ŋɔ
    Samadu   COP.FAC   Bago-POSS-SG.CI.AGR
    'Samadu is Bago.'

    b. samádu   tá   jɛ   bagó-ŋ́-ŋɔ   bɔ́ɔ
    Samadu   NEG   COP.INF   Bago-POSS-SG.CI.AGR   NEG
    'Samadu is not Bago.'

9. a. ɔ   jɛ́   ma   ḍesí
    3SG.CI   COP.FAC   1SG.POSS   sister
    'She is my sister.'

    b. ɔ   tá   jɛ   ma   ḍesí   bɔ́ɔ
    3SG.CI   NEG   COP.INF   1SG.POSS   sister   NEG
    'She is not my sister.'

10. a. ma-á   jɛ́   oguw-ó   nsɪ   ma   tá
    1SG-IMPV   COP   blacksmith-SG.CIV   like   1SG.POSS   father
    'I will be a blacksmith like my father.'

    b. ma   tá-a   jɛ́   oguw-ó   nsɪ   ma   tá   bɔ́ɔ
    1SG   NEG-IMPV   COP   blacksmith-SG.CIV   like   1SG.POSS   father   NEG
    'I will not be a blacksmith like my father.'

Note that the copula *jé* appears with low tone in the (9b) examples. This is its non-finite form (see § 9.2). An essential fact about negation on verbs is that it requires the non-finite form in the factative aspect. The copula *jé*, given its origin as a grammaticalized form of the verb *jé* 'to make/do', has a distinct infinitival form. As a copular verb, it behaves like other verbs in the language in that it surfaces in its non-finite form after Neg1 in the factative aspect. Its realization

with a low tone is not a result of being adjacent to the high tone of Neg1. As will be shown in the following section, Neg1 is always followed by a non-finite verb regardless of its tonal pattern.

11.3 Negation in verbal-predicate clauses

This section provides a description of negated verbal-predicates in the factative and the progressive and non-progressive imperfective aspects. Recall that the factative aspect in Bago is overtly marked by lengthening the verb-final segment only when it has a high tone and occurs at the end of the clause. In a negated factative clause, the verb never occurs in clause final position because that is the place of the Neg2. Also, the presence of Neg1 requires the verb to surface in its non-finite form, as illustrated below.

11. a. ma   jɛ́   ḍomó-o   d͡ʒa
    1SG   do.FAC   sauce-SG.CIV   today
    'I made sauce today.'

    b. ma   tá   jɛ   ḍomó-o   d͡ʒa   bɔ́ɔ
    1SG   NEG   do.INF   sauce-SG.CIV   today   NEG
    'I did not make sauce today.'

12. a. zakaríjá   ró   lá   fʊ́w-a
    Zakariya   also   go.FAC   farm-SG.CII
    'Zakariya also went to the farm.'

    b. zakaríjá   ró   tá   la   fʊ́w-a   bɔ́ɔ
    Zakariya   also   NEG   go.INF   farm-SG.CII   NEG
    'Zakariya did not go to the farm either.'

13. a. ma   júku   ma   nso
    1SG   find.FAC   1SG.POSS   gun
    'I found my gun.'

    b. ma   tá   júkú   ma   nso   bɔ́ɔ
    1SG   NEG   find.INF   1SG.POSS   gun   NEG
    'I did not find my gun.'

These examples show that the finite form of the verb in the affirmative sentences is replaced by the non-finite form in their negative counterparts. Additionally, the example in (11b) shows that Neg2 is clause-final, following both the internal complement of the verb and the adverbial *d͡ʒa* 'today'.

(12b) shows that Neg1 is placed to the right of the subject and the adverbial *ró* 'also'. This is a

rigid ordering, and hence the reverse order is judged ungrammatical, as below.

14. * ma   tá   jɛ   ḍomó-o   bɔ́ɔ   d͡ʒa
      1SG   NEG   do.INF   sauce-SG.CIV   NEG   today
    Intended: 'I did not make sauce today.'

15. * zakaríjá   tá   ró   la   fʊ́w-a   bɔ́ɔ
      Zakariya   NEG   also   go.INF   farm-SG.CII   NEG
    Intended: 'Zakariya did not go to the farm either.'

A negative proposition in the imperfective aspect, however, is uttered with the finite form of the

verb. Imperfectivity is marked by lengthening Neg1 with a low-toned segment instead of the

subject. The following sentences provide exemplification:

16. ma   tá-a   lá   bʊló   ró   bɔ́ɔ
    1SG   NEG-IMV   go   there   again   NEG
    'I will not go there again.'

17. í   kɔnɪ   ma   tá-a   kʊ́   ŋɛ   bɔ́ɔ
    2.PL   come.INF   1SG   NEG-IMV   kill   2PL   NEG
    'Come. I will not kill you.'

18. jele   ŋ   kʊ́d͡ʒɔ-ɔ́   d͡ʒeé   ŋʊ-rʊ   tá-a   tɔkɔ́ kɪ   bɔ́ɔ
    leave.INF   2SG.POSS   yam.SG.CIV   DEM.PROX.LOC   SG.CI-INDF   NEG-IMPV   eat   3SG.CIV   NEG
    'Leave your yam here. No one will eat them.'

In a progressive construction where reference is made to a sub-interval within the runtime of a

singular event, the copula *wɛ* and Neg1 are in complementary distribution. As seen in (19b), the

copula in the affirmative utterance is replaced by Neg1. Note that placing Neg1 immediately after

the subject of the lexical verb is considered ungrammatical.

19. a. ma   wɛ   ma-á   ḍé-si   n   tákuku
      1SG   COP.FAC   1SG.IMPV   be.good-CAUS   2SG.POSS   motorbike
     'I am/was fixing your motorbike.'

    b. ma   tá   ma-á   ḍé-si   n   tákuku   bɔ́ɔ
      1SG   NEG   1SG.IMPV   be.good-CAUS   2SG.POSS   motorbike   NEG
     'I am/was not fixing your motorbike.'

We have §9.5.2 that the copula *jέ* takes a subject that is marked for imperfectivity to talk about an ongoing dynamic eventuality at a future time. The copula is followed by a clause expressing the ongoing eventuality. As illustrated in (20b), Neg1 is marked for imperfectivity and precedes the copula, whereas Neg2 is clause-final, following the complement of the lexical verb.

20. a. ma-á   jέ   ma-á   ɖuḿ   barafó
      1SG-IMPV   COP   1SG-IMPV   sow   maize
      'I will be sowing maize.'

    b. ma   tá-a   jέ   ma-á   ɖuḿ   barafó   bɔ́ɔ
      1SG   NEG-IMPV   COP   1SG-IMPV   sow   maize   NEG
      'I will not be sowing maize.'

Also in (20b), one cannot place Neg1 before the lexical verb *ɖuḿ* 'sow' whether or not the copula is also preceded by Neg1.

11.4 Negation in complex sentences

This section provides a description of negation in complex sentences. Just as we saw with sentences including a single predicate, a negated proposition in a complex sentence requires the occurrence of Neg1 and Neg2. A general fact to note about negation in complex sentences is that there is only a single Neg2 regardless of the number of Neg1, which occurs before each negated eventuality. Consider the following instances where only the verb in the matrix clause is preceded by Neg1.

21. ɡúúní   **tá**   k͡pá   sɪ   kʊ́   d͡ʒʊ   tɔ́tɔ   mɛ   **bɔ́ɔ**
     lion   NEG   accept   COMP   3SG.CIV   enter.INF   village   LOC   NEG
     'The lion did not accept to enter into the village.'

22. ma   **tá**   tɔn   sɪ   ma-á   kɔní   **bɔ́ɔ**
     1SG   NEG   say.INF   COMP   1SG.IMPV   come   NEG
     'I did not say that I would come.'

23. ma **tá** d͡ʒɪŋ lé-é ba lá **bɔ́ɔ**
   1SG NEG know.INF where-FOC 3PL go.FAC NEG
   'I do not know where they went.'

24. sísa **tá-a** gɛ́ sɪ sukúru bíja-á bɪrɪ **bɔ́ɔ**
   teacher NEG-IMPV want COMP school child.PL- be late NEG
   'The teacher does not want the students to be late.'

25. ma **tá** ɖí bʊ-rʊ mɪnísíɪ ma lá sukúru **bɔ́ɔ**
   1SG NEG eat.INF CV-INDF before 1SG go.FAC school NEG
   'I did not eat anything before I went to school.'

26. ma **tá** fɛ́ nɪ bíí-na na ń lɛ sɪgɛɛ́rɪ **bɔ́ɔ**
   1SG NEG give.INF 2SG money-PL.CIII PURP 2SG buy.INF cigarettes NEG
   'I did not give you money to buy cigarettes.' **(The matrix clause is negated)**

As shown in these examples, it is compulsory that Neg2 is linearly positioned at the end of the embedded clause. This behaviour of Neg2 is also attested by Carlson (1990) in Supyire (Niger-Congo, Gur), Ameka (1991) in Ewe (Niger-Congo, Kwa) and Hagemeijer (2007) in Santome (Portuguese-based creole language). Note that by replacing the surface position of Neg2 in (26) to immediately follow the matrix clause is not permissible. Unlike the case in Santome, where the surface position of Neg2 determines the scope of negation, Bago requires the use of the complementizer *sɪ* to solve ambiguity, as shown in (27).

27. ma tá fɛ́ nɪ bíí-na sɪ ń lɛ sɪgɛɛ́rɪ bɔ́ɔ
   1SG NEG give.INF 2SG money-PL.CIII COMP 2SG buy.INF cigarettes NEG
   ' I did not give you money to buy cigarettes (but to buy milk).'

Complex sentences with causal and Conditional clauses exhibit a slightly more nuanced distribution of Neg2 than the previous types of complex sentences. In a case where only the event described in the consequent (or apodosis) is negated, Neg2 is placed at the end of the consequent regardless of its order in the sentence, as shown in (28) & (29).

28. ma **tá-a** lá fʊ́w-a **bɔ́ɔ** ń ɖofó tɔ́-ɔ
   1SG NEG-IMPV go farm-SG.CI NEG if rain rain-FAC
   'I will not go to the farm if it rains.'

306

29. ḿ   ma   fá   ná   nɪ   ɔ   tá-a   jelé   nɪ   bɔ́ɔ
    If   1SG.POSS mother see.FAC 2SG 3SG.CI NEG-IMPV let   2SG   NEG
    'If my mother sees you, she will not let you go.'

30. ma   **tá**   **la**   fʊ́w-a   **bɔ́ɔ**   ɖoómi   ma   fá   k͡paarí   mɛ
    1SG NEG go.INF farm-SG.CI NEG   because 1SG.POSS mother visit.FAC 1SG
    'I did not go to the farm because my mother visited me.'

The following example also shows that Neg2 precedes the matrix clause. The sentences is
unacceptable if Negs follows the causal clause.

31. ma   **tá**   la   fʊ́w-a   **bɔ́ɔ**   ɖoómi   ma   fá   k͡paarí   mɛ
    1SG   NEG   go.INF farm-SG.CI NEG   because 1SG.POSS mother visit.FAC 1SG
    'I did not go to the farm, because my mother visited me.' **(The matrix clause is negated)**

Bago employs *ɖoómi* to introduce clauses. It cannot be used to introduce an adjunct DP. Instead
the postposition *lɔ́* 'on' is used, and its surface position indicates the scope of negation, as the
following examples illustrate.

32. ma   **tá**   **la**   fʊ́w-a   ma   fá   k͡paarí-tɔ lɔ́   **bɔ́ɔ**
    1SG   NEG go.INF farm-SG.CI 1SG.POSS mother visit-NOM on   NEG
    I did not go to the farm because of my mother's visit (but for another reason).'

33. a. ma   **tá**   **la**   fʊ́w-a   ma   fá   lɔ́   **bɔ́ɔ**
      1SG   NEG go.INF farm-SG.CI 1SG.POSS mother on   NEG
    'I did not go to the farm because of my mother (but for another reason).'

    b. ma   **tá**   **la**   fʊ́w-a   **bɔ́ɔ**   ma   fá   lɔ́
      1SG   NEG go.INF farm-SG.CI NEG   1SG.POSS mother on
    'I did not go to the farm because of my mother.'

Now, if we consider instances where only the event in the depended clause is negated, we see that
Neg2 obligatorily follows the dependent clause.

34. ma   tɔń   sɪ   ma tá-a   kɔní   bɔ́ɔ
    1SG say.FAC   COMP 1SG   NEG-IMPV   come   NEG
    'I said that I would not come.'

35. sísa-á   gɛ́   sɪ   sukúru bíja-á   **bɔ**   bɪrɪ   **bɔ́ɔ**
    teacher-IMPV   want   COMP school child.PL- NEG.PROH be late.INF   NEG
    'The teacher wants the students to be late.'

307

36. lɔ́ɔ́rɪ-sɛ́   kɔní   sɪsaɪ   ɖoómi   sɔ́ɔ́d͡ʒa-sɛ́   tá   sáń   sɪ   bɔ́ɔ
    car-PL.CII   come.FAC quickly   because   soldier-PL.CII NEG stop   3PL.CII NEG
    'The cars came quickly because the soldiers did not stop them.'

37. ma   fɛ́   nɪ   bíí-na   sɪ   lósumó-ó   **bɔ**   *kʊ́*   nɪ   bɔ́ɔ
    1SG   give 2SG money-PL.CIII   COMP   hunger-   NEG.PROH   kill.INF 2SG   NEG
    'I gave you money for you not to go hungry.'

Negation in Bago behaves like Supyire, Ewe, and Santome in that when both the matrix clause and the embedded clause are negated, each predicate is preceded by Neg1, and a single Neg2 occurs at the end of the sentence.

38. ma   tá   tɔn   sɪ   ma   tá-a   kɔní   bɔ́ɔ
    1SG   NEG   say.INF   COMP   1SG   1SG.IMPV   come   NEG
    'I did not say that I would not come.'

39. ma   fá   tá   d͡ʒɪŋ   sɪ   ma   tá   la   sukúru   d͡ʒa bɔ́ɔ
    1SG.POSS   mother NEG know.INF COMP   1SG   NEG go.INF school   today NEG
    'My mother does not know that I did not go to school today.'

40. sísa   tá-a   gɛ́   sɪ   sukúru bíja-á   **bɔ**   ɖí   sáásáá   **bɔ́ɔ**
    teacher   NEG-IMPV   want.INF COMP   school child.PL-   NEG.PROH   eat.INF exam   NEG
    'The teacher does not want the students to not to pass [lit., eat] the exam.'

41. sukúru bíja   tá   la   sukúru ɖoómi   sísa   tá   kɔnɪ   **bɔ́ɔ**
    school child.PL NEG go.INF   school   because teacher   NEG come.INF NEG
    'The students did not go to school because the teacher did not come,'

42. ma   tá-a   gɛ́   sɪ   má   la   sɔgɔɖɛ   ɖoómi   ma   tá
    1SG   NEG-IMPV   want   COMP   1SG   go.INF Sogode   because 1SG   NEG
    d͡ʒɪŋ   ŋʊ-rʊ   bʊlɔ́   bɔ́ɔ
    know.INF 3SG.CI-INDF   there   NEG
    'I do not want to go to Sogode because I do not know anyone there.'

43. ma   tá   fɛ́   nɪ   bíí-na   sɪ   ń   **bɔ**   la   sukúru bɔ́ɔ
    1SG   NEG give.INF 2SG money-PL.CIII   COMP   2SG NEG.PROH   go.INF   school   NEG
    'I did not give you money for you to not attend school.'

44. ń   ɖofó   tá   tɔ́   bɔ́ɔ   ma   tá-a   lá   fʊ́w-a   bɔ́ɔ
    if   rain   NEG rain.INF   NEG   1SG   NEG-IMPV   go   farm-SG.CI   NEG
    'If it does not rain, I will not go to the farm.'

These examples are totally unacceptable if the verb in the matrix clause is immediately followed by Neg2, or if there are two Neg2 at the end of the sentence. The data also shows that Neg2 occurs at the end of the whole complex sentence when the infinitive-governing complementizer *ka* is used to introduce an embedded clause with an unexpressed subject.

45. sɛ́   kad͡ʒaŋá   ma   tá-a   jalá   ka kɔnɪ   bɔ́ɔ
    tomorrow   sun   1SG NEG-IMPV   be.able to come.INF   NEG
    'Tomorrow at noon, I will not be able to come.'

In coordinated sentences, however, the data shows that negation must contain Neg1 and Neg2 in each negated conjunct. In Bago, noun phrases are conjoined by *na*, verb phrases are conjoined by *ka* and clauses are conjoined by *lɔ*. The language does not allow VP-coordination in negative constructions. The negative counterpart of a positive sentence that involves VP-coordination is uttered with two clauses conjoined by *lɔ*. Consider the following examples:

46. a. súli   k͡pí   kumóle-ná   ka   jasɪ   kak͡pá-a
       Suli   wash.INF   dish-PL.CIIIIMPV   and   sweep.INF   yard-SG.CII
       'Suli washed the dishes and swept the yard.'

    b. * súli tá   k͡pɪ   kumóle-ná   ka   jasɪ   kak͡pá-a   bɔ́ɔ
         Suli   NEG wash.INF   dish-PL.CIIIIMPV   and   sweep.INF yard-SG.CII NEG
         Intended 'Suli did not wash the dishes nor sweep the yard.'

    c. súli   k͡pí   kumóle-ná   lɔ   ɔ   jasí   kak͡pá-a
       Suli   wash.FAC   dish-PL.CIIIIMPV   and   3SG.CI sweep.FAC   yard-SG.CII
       'Suli washed the dishes, and he swept the yard.'

    d. súli tá   k͡pɪ   kumóle-ná   *(bɔ́ɔ) lɔ   ɔ   tá   jasɪ   kak͡pá-a   bɔ́ɔ
       Suli   NEG wash.INF   dish-PL.CIIIIMPV   NEG   and 3SG.CI NEG sweep.INF   yard-SG.CII NEG
       'Suli did not wash the dishes, and he did not sweep the yard.'

In (46b), we see that the use of the conjunction *ka* to conjoin the verb phrases is unacceptable. Note that (46b) remains ungrammatical whether Neg1 is placed between the verb phrases or before each verb phrase. In order to reverse the truth value of the sentence in (46a), the described eventualities are expressed in conjoined clauses by means of *lɔ*, and every conjunct obligatorily

contains both Neg1 and Neg2. This is illustrated in (46d) where the absence of Neg2 in the first conjunct results in ungrammaticality.

Finally, when a single conjunct expresses a negated eventuality, Neg2 follows the negated clause as shown in (47)& (48). The second conjunct is introduced by the conjunction *amá* 'but'.

47. ma   sɔɔlí   nabílá   amá   ɔ   fǎ   tá-a   gɛ́
    1SG   love.FAC Nabila   but   3SG.POSS.CI   mother NEG-IMPV   want
    sɪ   má   mɔsɪ   í   bɔ́ɔ
    COMP 1SG   take.INF 3SG.CI NEG
    'I love Nabila but her mother does not want me to marry [lit., take] her.'

48. ma   tá   sɔɔlɪ   nabílá   amá   ɔ   sɔɔlí   mɛ   bɔ́ɔ
    1SG   NEG   love.INF Nabila   but   3SG.CI love.FAC 1SG NEG
    'I do not love Nabila but she does love me.'

11.5 Constituent negation

Constituent negation combines clausal negation with contrastive emphasis on one constituent (see, for example, Vasishth 2000, Borschev et al. 2006 and Jasinskaja 2010). As in many Niger-Congo languages, constituent negation in Bago is expressed through a form of focalization which resembles a cleft construction (see, for similar observations, Ameka (1991) on Ewe, Tanda and Tabah (2006) on Nfaw and Bobuafor (2013) on Tafi). In this cleft-like construction, the expletive pronoun *bʊ* '3.CV' functions as the subject of the copular verb *jɛ*. The first negative marker *tá* precedes the copular verb, and the second negative marker *bɔ́ɔ* surfaces in the sentence-final position.

We begin with negation of the subject constituent. As can be seen in (49b), the subject constituent follows the copular verb, and the lexical verb is suffixed by *-já* to indicate the subject focalization. It is not possible to negate a subject constituent without this cleft-like construction, and thus the sentence in (49c) where Neg1 is placed before the subject is judged ungrammatical. The

ungrammaticality of (49d) is not due to the presence of Neg2 at the end of the sentence: whether Neg2 is absent or placed immediately after the subject, the sentence remains unacceptable. (49e) shows that Neg1 must occur before the copular verb.

49. a. zakaríjá   mɛlí   ŋ   kɛkɛ́
      Zakariya   steal.FAC 2SG.POSS   bicycle
      'Zakariya stole your bicycle.'

   b. zakaríjá   mɛlí-ja   ŋ   kɛkɛ́   bɔ́ɔ
      Zakariya   steal.FAC-FOC 2SG.POSS   bicycle   NEG
      'It is Zakariya who stole your bicycle.'

   c. bʊ   tá   jɛ   zakaríjá   mɛlí-ja   ŋ   kɛkɛ́   bɔ́ɔ
      3.CV   NEG   COP.INF   Zakariya   steal.FAC-FOC 2SG.POSS   bicycle   NEG
      'It was not Zakariya who stole your bicycle.'

   d. * tá   zakaríjá mɛlí-ja   ŋ   kɛkɛ́   bɔ́ɔ
       NEG   Zakariya   steal.FAC-FOC 2SG.POSS   bicycle   NEG
      Intended 'Not Zakariya who stole your bicycle.'

   e. * bʊ   jɛ́   tá   zakaríjá mɛlí-ja   ŋ   kɛkɛ́   bɔ́ɔ
       3.CV   COP.FAC NEG   Zakariya   steal.FAC-FOC 2SG.POSS   bicycle   NEG
      Intended 'It was not Zakariya who stole your bicycle.'

   f. * bʊ   jɛ́   zakaríjá   mɛlí-ja   ŋ   kɛkɛ́
       3.CV   COP.FAC   Zakariya   steal.FAC-FOC 2SG.POSS   bicycle
      Intended 'It was Zakariya who stole your bicycle.'

Moreover, (49f) shows that it is not possible to use the cleft construction in affirmative sentences with focus. The suffix -já is used by itself in a subject focus construction, as illustrated in (49b). It is important to note that a subject constituent in Bago is focalized differently from a non-subject constituent. While the verb is suffixed by -já in a subject focus construction, the focused element in a non-subject focus construction is located in the left periphery of the clause, and its final segment is lengthened. For negation of an object constituent, the copular verb is followed by the object constituent whose final vowel is lengthened to mark focalization.

50. a. zakaríjá mɛlí   ŋ   kɛkɛ́
     Zakariya steal.FAC 2SG.POSS   bicycle
     'Zakariya stole your bicycle.'

    b. ŋ   kɛkɛ́-ɛ́   zakaríjá   mɛlí-ı
       2SG.POSS bicycle-FOC Zakariya   steal-FAC
       'It was your bicycle that Zakariya stole.'

    c. bʊ   tá   jɛ   ŋ   kɛkɛ́-ɛ́   zakaríjá   mɛlí   bɔ́ɔ
       3.CV NEG   COP.INF 2SG.POSS   bicycle-FOC Zakariya   steal.FAC NEG
       'It was not your bicycle that Zakariya stole.'

    d. * zakaríjá   mɛlí   tá   ŋ   kɛkɛ́-(ɛ́)   bɔ́ɔ
        Zakariya   steal.FAC NEG   2SG.POSS   bicycle-FOC NEG
       Intended 'Zakariya stole not your bicycle.'

The focused object in both (50b) and (50c) cannot occur in its canonical postverbal position. As shown in (50d), Neg1 is not permitted to immediately precede the object in order to have a narrow scope reading whether or not the object is marked for focus.

The same pattern also holds in case the focalized element in the cleft construction is an adverb. As shown in (51c), the focused adverb *ɖɛ* 'yesterday' is lengthened and follows Neg1 and the copular verb *jɛ*.

51. a. ma   lá   fʊ́w-a   ɖɛ
     1SG   go.FAC   farm-SG.CII yesterday
     'I went to the farm yesterday.'

    b. ɖɛ-ɛ́   ma   lá   fʊ́w-a
       yesterday-FOC 1SG   go.FAC   farm-SG.CII
       'It was yesterday that I went to the farm.'

    c. bʊ   tá   jɛ   ɖɛ-ɛ́   ma   lá   fʊ́w-a   bɔ́ɔ
       3.CV NEG   COP.INF yesterday-FOC 1SG   go.FAC   farm-SG.CII NEG
       'It was not yesterday that I went to the farm.'

As in other cases discussed above, in negation of a subject or object constituent, the copular verb *jɛ* and its expletive subject are required; simply negating a focalized constituent with *tá* results in ungrammaticality. The following sentences show this ungrammaticality:

52. a. * tá   ɖɛ-(ɛ́)   ma lá   fʊ́w-a   bɔ́ɔ
       NEG yesterday-FOC 1SG go.FAC farm-SG.CII NEG
       Intended: 'It was not yesterday that I went to the farm.'

    b. * tá   ɖɛ-(ɛ́)   bɔ́ɔ ma lá   fʊ́w-a
       NEG yesterday-FOC NEG 1SG go.FAC farm-SG.CII
       Intended: 'It was not yesterday that I went to the farm.'

    c. * ma lá   fʊ́w-a   tá   ɖɛ-(ɛ́)   bɔ́ɔ
       1SG go.FAC farm-SG.CII NEG yesterday-FOC NEG
       Intended: 'I went to the farm not yesterday.'

The ungrammaticality of these sentences clearly shows that constituent negation is achieved through the cleft-like construction in which the copular verb *jɛ* follows Neg1.

Neg2 must always surface in the sentence-final position. This is similar to what was observed in complex sentences with an embedded clause. Also, only a single Neg2 is permitted in this construction. For instance, the double negation in the following examples, which gives a positive reading, can only be constructed with a single Neg2. Neither the presence of a double Neg2 at the end of the sentence nor the presence of another Neg2 somewhere within the sentence is possible.

53. bʊ   tá   jɛ   sɛ́-ɛ́   ma   tá-a   lá fʊ́w-a   bɔ́ɔ
    3.CV NEG COP.INF yesterday-FOC 1SG NEG-IMPV   go farm-SG.CII NEG
    'It is not tomorrow that I do/will not go to the farm.'

54. bʊ   tá   jɛ   m   barafó-ó   ma   tá   voń   bɔ́ɔ
    3.CV NEG COP.INF 2SG.POSS maize-FOC   1SG NEG pound.INF NEG
    'It was not your maize that I did not pound.'

One could wonder whether this cleft-like construction is restricted to full utterances, or whether direct negation via Neg1 is possible on smaller structures, e.g., in fragment answers. This is not possible, as shown in (55b)&(56b). Neg1 must precede the copular verb *jɛ*, and Neg2 must follow the negated constituent.

55. a.
bʊ	tá	jɛ	nabílá	bɔ́ɔ
3.CV	NEG	COP.INF	Nabila	NEG

'It is not Nabila.'

b. *
tá	nabílá	bɔ́ɔ
NEG	Nabila	NEG

Intended: 'It is not Nabila.'

56. a.
bʊ	tá	jɛ	mʊ́	bɔ́ɔ
3.CV	NEG	COP.INF	1SG.EMP	NEG

'It is not me.'

b. *
tá	mʊ́	bɔ́ɔ
NEG	1SG.EMP	NEG

Intended: 'It is not me.'

11.6 Polarity-sensitive indefinites

Bago does not have negative pronouns such as *nobody* and *no one*, nor negative polarity items like *anybody* or *anything*. Indefinite pronouns are used in all of the contexts where those various items are used in English. As illustrated in the following pair of sentences, the indefinite pronoun *ŋʊ-rʊ* is used in the affirmative sentence to express that an unidentifiable referent performed the described action, whereas it is equivalent to English *no-one* in the negative sentence.

57. a.
ŋʊ-rʊ	d͡ʒʊ́	n	nɔnɔ́-ɔ	mɛ
3SG.CI-INDF	enter.FAC	2SG.POSS	room-SG.CIV	LOC

'Someone entered your room.'

b.
ŋʊ-rʊ	tá	d͡ʒʊ	n	nɔnɔ́-ɔ	mɛ	bɔ́ɔ
3SG.CI-INDF	NEG	enter.INF	2SG.POSS	room-SG.CIV	LOC	NEG

'No-one entered your room.'
* 'Someone did not enter your room.'

58. a.
ŋʊ-rʊ	tá	kɔnɪ	bɔ́ɔ
3SG.CI-INDF	NEG	come.INF	NEG

'Someone came.'

b.
ŋʊ-rʊ	tá	kɔnɪ	bɔ́ɔ
3SG.CI-INDF	NEG	come.INF	NEG

'No-one came.'
* 'Someone did not come.'

314

(57b), for instance, cannot be uttered to describe a situation in which there was an unidentifiable referent who did not enter the room. Such specific indefinite readings are only possible if *ŋʊ-rʊ* is used as a determiner, accompanying some noun, as in (59c) below. My consultant points out that both the affirmative sentence in (59b) and the negative sentence in (59c) can be uttered to convey that an individual within the group of students did not take his bag.

59. a. ŋʊ-rʊ   tá   mɔsɪ   ɔ   fúró-o   bɔ́ɔ
     3SG.CI-INDF   NEG   take.INF   3SG.CI.POSS   bag-SG.CIV   NEG
     'No-one took his bag.'
   * 'Someone did not take his bag.'

     b. ŋʊ-rʊ   jelé   ɔ   fúró-o
       3SG.CI-INDF   leave.FAC   3SG.CI.POSS   bag-SG.CIV
       'Someone left his bag.'

     c. vuú-na   ŋʊ-rʊ   tá   mɔsɪ   ɔ   fúró-o   bɔ́ɔ
       child-SG.CI   3SG.CI-INDF   NEG   take.INF   3SG.CI.POSS   bag-SG.CIV   NEG
       'Some child did not take his bag.'

The use of *ŋʊ-rʊ* in (59a) does not display scope ambiguity. It can only appear in the scope of negation when used as a subject pronoun. In (59c), on the other hand, *ŋʊ-rʊ* acts as an indefinite determiner scoping above the clausal negation. Other strategies that speakers use in order for *ŋʊ-rʊ* to have high scope is adding a postpositional phrase with which *ŋʊ-rʊ* conveys a partitive reading, as shown in (60b), or adding the expression *k͡pák͡pá* 'just/only', used with only with an indefinite determiner to imply counting, as shown in (61).

60. a. ma   tá   mɔsí   álá-a   ba-tooro   ŋʊ-rʊ   tá   lʊlʊ   bɔ́ɔ
     1SG.POSS   father   take.FAC   wife-PL.CI   PL.CI.AGR-three   3SG.CI-INDF   NEG   give birth.INF   NEG
     'My father married three wives. No-one gave birth.'

     b. ma   tá   mɔsí   álá-a   ba-tooro   ŋʊ-rʊ   ba   mɛ
       1SG.POSS   father   take.FAC   wife-PL.CI   PL.CI.AGR-three   3SG.CI-INDF   3PL.CI   LOC
       tá   lʊlʊ   bɔ́ɔ
       NEG   give birth.INF   NEG
       'My father married three wives. One of them did not give birth.

61. a. ŋʊ-rʊ   tá   kɔnɪ   bɔ́ɔ
        3SG.CI-INDF   NEG   come.INF   NEG
        'No-one came.'

     b. ŋʊ-rʊ   k͡pák͡pá   tá   kɔnɪ   bɔ́ɔ
        3SG.CI-INDF   only   NEG   come.INF   NEG
        'Only one did not come.'

Similarly, when *ŋʊ-rʊ* by itself occurs in the object position of a negated clause, it is only

interpreted as a negative indefinite pronoun. As shown in (62b), the specific indefinite reading is

not available.

62. a. ma   ná   ŋʊ-rʊ   bʊlɔ́
        1SG   see.FAC   3SG.CI-INDF   there
        'I saw someone there.'

     b. ma   tá   na   ŋʊ-rʊ   bʊlɔ́   bɔ́ɔ
        1SG   NEG   see.INF   3SG.CI-INDF   there   NEG
        'I did not see anyone there.'
        *'There is someone that I didn't see there.'

(63) and (64) show that when *ŋʊ-rʊ or ka-rɪ* co-occurs with a noun, they have low scope with

respect to the sentential negation. This is in contrast to what happens when they occur in subject

position.

63. ma   tá   na   álʊ́-na   ŋʊ-rʊ   kɪjá-a   mɛ   bɔ́ɔ
     1SG   NEG   see.INF   woman-SG.CI   3SG.CI-INDF   market-SG.CI   LOC   NEG
     'I di d not see any woman in the market.'
     * 'There is some woman that I didn't see in the market.'

64. ba   tá   mɛlɪ   kɛkɛ́   ka-rɪ   bɔ́ɔ
     3PL   NEG   steal.INF   bicycle   3SG.CII-INDF   NEG
     'They did not steal the bicycle.'
     * 'There is a bicycle that they did not steal.'

For *ŋʊ-rʊ* and *ka-rɪ* to have a specific referent, they must be used with a postpositional phrase

expressing a partitive meaning or the delimiting counting expression *k͡pák͡pá*, as the sentences here

illustrate:

65. ma   tá   na   (álʊ́-na)   ŋʊ-rʊ   ba   mɛ   bɔ́ɔ
    1SG   NEG   see.INF   woman-SG.CI   3SG.CI-INDF   3PL.CI   LOC   NEG
    'There is some woman that I did not see in the market.'

66. ba   tá   mɛlɪ   kɛkɛ́   ka-rɪ   k͡pák͡pá   bɔ́ɔ
    3PL   NEG   steal.INF   bicycle   3SG.CII-INDF   only   NEG
    'They did not steal only ine bicycle.'

It is worth mentioning that Bago uses *bʊ-rʊ* like the indefinite pronoun *something* in English. As shown in (67b), it can only be interpreted as a negative indefinite pronoun, rather than a specific indefinite pronoun with scope over negation.

67. a. ma   lɛ́   bʊ-rʊ
      1SG   buy.FAC   3SG.CV-INDF
      'I bought something.'

    b. ma   tá   lɛ   bʊ-rʊ   bɔ́ɔ
      1SG   NEG   buy.INF   3SG.CV-INDF   NEG
      'I did not buy anything.'

Note that neither Neg1 nor Neg2 can be directly combined with *bʊrʊ* or *ŋʊ-rʊ* to produce a fragment negative answer in the same way *nobody* and *nothing* are used in English. Instead, a full answer is required with both Neg1 and Neg2, as shown below. The ungrammaticality of negative fragment answers is not only observed with the indefinite pronouns *ŋʊ-rʊ* and *bʊ-rʊ*. It was shown earlier that the same result is obtained with a personal pronoun or a full DP. In (70c), for instance, the noun *fɔlɔ́-ɔ* 'place' cannot be used with a negative marker to mean something like *nowhere*.

68. a. bé-é   ŋ   gáŋ
      what-FOC   2.SG   cook.FAC
      'What did you cook?'

    b. ma   tá   gaŋ́   bʊrʊ   bɔ́ɔ
      1SG   NEG   cook.INF   3SG.CV-INDF   NEG
      'I did not cook anything.'

    c. * tá bʊrʊ / * bʊrʊ bɔ́ɔ / * ta bʊrʊ bɔ́ɔ
      Intended: 'Nothing.'

317

69. a. aní-í   n   ná-a
         who-FOC   2.SG   see.FAC
        'Who did you see?'

     b. ma   tá   na   ŋʊ-rʊ   bɔ́ɔ
        1SG   NEG   see.INF 3SG.CI-INDF   NEG
        'I did not see anyone.'

     c. * tá ŋʊ-rʊ / * ŋʊ-rʊ bɔ́ɔ / * ta ŋʊ-rʊ bɔ́ɔ
        Intended: 'Nobody.'

70. a. lé-é   n   lá   d͡ʒa
         where-FOC   2.SG   go.FAC   today
        'Where did you go today?'

     b. ma   tá   la   fɔlɔ́-ɔ   kʊ-rʊ   bɔ́ɔ
        1SG   NEG   see.INF place-SG.CIV   3SG.CIV-INDF   NEG
        'I did not go anywhere.'

     c. * tá fɔlɔ́-ɔ kʊ-rʊ / * fɔlɔ́-ɔ kʊ-rʊ bɔ́ɔ / * ta fɔlɔ́-ɔ kʊ-rʊ bɔ́ɔ / * tá fɔlɔ́-ɔ bɔ́ɔ
        Intended: 'Nowhere.'

Therefore, based on the distribution of Neg1 and Neg2, I conclude that they are only used to negate predicates, whether lexical or copular, but not nouns and adverbs. The examples presented reveal that constituent negation is constructed in Bago by the copular verb *jɛ* which is preceded by Neg1 and the expletive subject pronoun *bʊ* and followed by the constituent (i.e., it+NEG+be+X+NEG). It was also shown that a single instance of Neg2 is allowed in complex sentences that involve more than one negated predicate. Only in coordinated sentences does Neg2 appear more than once: in such cases, each conjunct occurs with its own Neg1 and Neg2.

Chapter 12

Causative constructions

12.1 Introduction

In this chapter, the aim is to describe the syntax and semantics of causative constructions in Bago. A causative construction is regularly defined as consisting of two events related via a semantic relation that occurs between a causing event and a caused event (Nedjalkov & Silnitsky 1973). There is a dependency relation between the causing event and the caused event in that the listener would recognize that the occurrence of the caused event is the result of the causing event (Shibatani 1976; Frawley 1992). Similarly, Comrie (1981) proposes that a causative construction is a complex macro-situation consisting of two components: the cause and the result.

Typological studies classify causative constructions according to their morphological expression into lexical causatives, morphological causatives, and periphrastic/syntactic causatives. A periphrastic causative consists of two separate predicates to encode the causing event and the result event. In the case of lexical causatives, the relation between the result and the cause is expressed lexically (Comrie 1981). This means that distinct lexical items exist to encode causative and non-causative variants of a predicate with similar semantics, as illustrated below:

1. Bago lexical causative
   a. Non-causative verb.   b. Causative verb.
      sɪwʊ   kɔ́
      'to die'   'to kill'

2. Russian lexical causative
   a. Non-causative verb.   b. Causative verb.
      umeret   ubit
      'to die'   'to kill'   (Song 1996: 27)

The transitive verb *kɔ́* 'to kill' expresses a causative meaning, and it carries a semantic relation with its intransitive counterpart *sɪwʊ* 'to die'. A lexical causative is not necessarily a suppletive form of an intransitive verb. Languages may have alternating verbs in the sense that they can be used either transitively or intransitively (e.g. open, close, break, etc.). When such verbs are used transitively, they are said to be causatives, as in *John broke the window*. The intransitive version does not hold a causative meaning, but it only denotes a change of a state, as in *the door broke.* Note that the object in the transitive sentence is assigned the same theta role of the subject in the intransitive sentence (Levin & Rappaport, 1995; Blanco, 2010).

With respect to directness of causation, the distinction is based on the spatio-temporal configuration of the causing and the caused events (Comrie, 1981). In prototypical direct causation, the situation involves a causing event, which immediately brings about a caused event. For instance, the lexical causative construction in the phrase '*I broke the stick'* conveys that the result of the stick being broken has occurred at the same time that the causer performs the causing event. The causer is in control of the causing event and intentionally and physically brings about the caused.

The distinction between direct and indirect causation might be formally indicated in some languages (Haiman 1985; Song 1996; Shibatani & Pardeshi 2002). For instance, in Buru, an Austronesian language, while the prefix *-pe* expresses direct causation, indirect causation is expressed analytically by the verb *puna* 'cause' (Dixon, 2000, p. 69).

12.2 Lexical causatives and the causative morpheme –sI

12.2.1 Lexical causatives

In Bag, a small number of verbs express causativity lexically. I treat lexical causatives as mono-clausal in the sense that both the cause and the result are expressed in a single verb. The language has two causative/inchoative pairs whose causative forms are not morphologically related to the inchoative forms, as can be seen in (3).

3. Suppletive lexical causative

    a. Non-causative verb.   B. Causative verb.
       sɪwʊ   'to die'   kʊ́   'to kill'
       ɗí   'to eat'   su   'to feed'

4. ɔ   kóro   afá-a   lobíj-a   lɔ́   ɔ   sɪwʊ́-ʊ
    3SG.CI   cut.FAC   mother-SG.CI   throat-SG.CII and   3SG.CI   die-FAC
    'He cut the mother's throat and she died.'

5. * súli   sɪwʊ́   nemíj-a
    Suli   die   goat-SG.CII
    'Suli killed the goat.'

6. ma   tɔ́tɔ   bíja   kʊ́   ma   dɔɔ́-na
    1SG   village   child.PL   kill   1SG.POSS   friend-SG.CI
    'My people killed my friend.'

The inchoative verb *sɪwʊ́-ʊ* 'die-FAC' in (4) is used to denote a new state of the patient. It differs from the causal form *kʊ́* 'kill' in that it is only used intransitively, and thus the presence of the agentive causer in (5) is not acceptable. In (6), *kʊ́* 'kill' is a change-of-state verb expressing a causitive meaning initiated by the agentive subject.

The language also express causation lexically by labile verbs which are used transitively and intransitively with identical phonological realization. The transitive use of a labile verb encodes a causative situation because of the presence of a causer in the subject position.

The following list includes all the labile verbs that I have so far identified in the Bag language.

7. Labile verbs in Bag

k͡pálá	'to open'		bara	'to close'
sálá	'to break'		dara	'to cut '
fʊrʊ	'to puncture'		k͡pɔkɔ	'to split'
ŋɛ́ní	'to melt'		sárí	'to tear'
bɛntɪ	'change'		d͡ʒʊńtí	'crease'
gɔɔrɪ	'get dirty'			

8. a. Non-causative use of *open*
    boró-o   k͡pála
    door-SG.CIV open.FAC
    'The door opened.'

    b. Causative use of *open*
    samádu   k͡pála   boró-o
    samádu   open.FAC door-SG.CIV
    'Samadu opened the door.'

The list presented in (7) demonstrates that zero-derived causatives may only be formed with verbs that are unaccusative when used intransitively (i.e., one-place predicates with an patientive argument). As exemplified in (8b), the causative situation here is direct in the sense that the causer acted physically to change the state of the door. On the other hand, no unergative verbs (i.e., one-place predictions with an agentive argument) exhibit the causative-inchoative alternation, as shown in (9b).

9. a. samádu   d͡ʒɔ́-ɔ
    Samadu   cry-FAC
    'Samadu cried.'

    b. * samádu   d͡ʒɔ́   súli
    samádu   cry.FAC Suli
    Intended: 'Samdu made Suli cry.'

The verbal root *d͡ʒɔ́* 'cry' by itself cannot be used transitively to express causation. It is also important to note that not all unaccusative verbs are alternating verbs in Bago. There exist unaccusative verbs that can only express a causative situation when inflected with the causativizing suffix -*sI* or when they occur in an analytic causative construction. The following section illustrates that the unaccusative verb *fɛlɛkɪ* 'to fall' can only be causativized in an analytic causative construction.

12.2.2 The causative morpheme –sI

We turn now to the causativizing suffix -sI. It signifies an intentional action done by a causer to bring about an activity or a change of a state, and as such I consider it to be a direct causative. The causative morpheme -sI is not fully productive in the language. The data shows that it is limited to a number of verbs. For instance, it cannot be attached to any of the labile verbs that participate in the causative-inchoative alternation (e.g. k͡pálá 'to open', sálá 'to break'). Furthermore, most unergative and transitive verbs, such as d͡ʒɔ́ 'to cry' and k͡pí 'to clean', cannot be causativized by -sI. In (**Error! Reference source not found.**), I present all the verbs that have been identified in my data as possible hosts for the causativizing suffix -sI.

10. **Causativized verbs via -sI**

Activity predicates		Stative predicates	
Non-causatives	Causatives	Non-causatives	Causatives
d͡ʒʊ 'y enter'	d͡ʒʊ-sɪ 'x insert y'	d͡ʒɛŋ́ 'y be long'	d͡ʒɛń-sí 'x lengthen y'
d͡ʒʊ 'y enter'	d͡ʒʊ-sɪ 'x insert y'	doro 'y is awake'	doro-si 'x wake up y'
lɪ 'y go out'	lɪ-sɪ 'x take out y'	ɖɪŋ 'y be extinguished'	ɖɪŋ-sí 'x put out y'
lʊlʊ 'y give birth'	lʊlʊ-sɪ 'x help y give birth'	ɲaŋ 'y be scared'	ɲan-sɪ 'x scare y'
d͡ʒɪŋ́ 'y be on s.t.'	d͡ʒɪń-sí 'x help y to be on s.t.'	wʊlɪ 'y be dry'	wʊlɪ-sɪ 'x dry y'
málá 'y hide'	málá-sí 'x hide s.o.'	wá 'y be cured'	wá-sɪ 'x cure y'
		fʊ 'y be soft'	fʊ-sɪ 'x soften y'
		tɪrɪ 'y be big'	tɪrɪ-sɪ 'x enlarge y'
		g͡bɪ 'y be quiet'	g͡bɪ-sɪ 'x quieten y'
		lala 'y be boiled'	lala-sɪ 'x boil y'
		k͡pá 'y be burned'	k͡pá-sí 'x burn y'
		wʊlí 'y be dry'	wʊlí-sí 'x dry y'

The list includes unaccusative verbs (e.g., *lala* 'to boil', *wʊlí* 'to be dry') and unergative verbs (e.g., *lí* 'go out', *málá* 'to hide') as well as the transitive verbs (e.g., $\widehat{dʒ}$ʊ 'to enter', $\widehat{dʒ}$ɪ́ŋ́ 'to get on'). By adding the causative morpheme *-sI* to an intransitive verb, the valency of the verb is increased to include an agentive argument as the causer of the caused event. In a case where an unaccusative verb is morphologically causativized by *-sI*, its internal argument functions as the direct object of the clause. The causative morpheme *-sI* always expresses direct causation involving one agentive argument. Therefore, when unergative and transitive verbs are causativized by *-sI*, the clause includes only the causer as an external argument that is conceived of as being in control of the described eventuality, and the causee is treated as an undergoer of the event executed by the causer. Consider the following examples:

11. a. kumó-o   ɖɪŋ́-ŋ
    fire-SG.CIV   go off-FAC
    'The fire went off.'

    b. ma   ɖɪŋ-sí   kumó-o
    1SG   go off-CAUS.FAC   fire-SG.CIV
    'I put out the fire.'

12. a. ma   mála   nɔnɔ́-ɔ   mɛ
    1SG   hide.FAC   room-SG.CIV LOC
    'I hid in the room.'

    b. súli   málá-sɪ   mɛ   nɔnɔ́-ɔ   mɛ
    Suli   hide-CAUS.FAC 1SG   room-SG.CIV   LOC
    'Suli hid me in the room.'

13. a. ma   ɖesí   lʊlɔ́-ʊ
    1SG.POSS   sister   give birth-FAC
    'My sister gave birth.'

    b. salámá   lʊlʊ-sí   ma   ɖesí
    Salama   give birth-CAUS.FAC 1SG.POSS   sister
    'Salama helped my sister in gaving birth.'

As the English translation indicates, the presence of the morphological causative *-sI* conveys a situation where the causer is responsible for the execution of the caused event. Interpreting the

causee as the agent of the caused event is not an option in these examples. The verb *ɖɪ́ŋ́* 'go off' in (11a) is a 1-place predicate which combines with the argument *kumó-o* 'fire' that undergoes a change of state. The presence of the causativizing suffix in (11b) increases the valency of the verb to include an agentive causer. Similarly, the intransitive verb *mala* 'to hide oneself' in (12a) is a change of state predicate which combines with an argument that is conceptualized as the entity that undergoes a change of state. When the suffix *-sí* is added to the verb, the change of the state is brought about by the agentive causer *Suli*. I also treat the verb *lʊlʊ* 'to give birth' in (13) as a change of state predicate that occurs with a non-agentive argument. The complex verb *lʊlʊ-sí* 'help to give birth' indicates that there is agentive causer who is involved physically in bringing about a new state to the causee. The causative situation is direct in the sense that the causee *ma ɖesí* 'my sister' does not participate independently in bringing about the caused event, and thus it is an internal argument licensed by the verb *lʊlʊ-sí*.

Note also when the iterative expression *k͡pína ro* 'again' is added, an interpretation in which the causer is only responsible for bringing about a single event is not possible. The sentence in (14), for instance, is not ambiguous. It does not describe a situation in which *Suli* had woken up in the morning, but then fell asleep again. Then the speaker woke *Suli* up. The fact that *k͡pína ro* 'again' denotes only the iteration of the speaker acting to wake up *Suli,* supports analyzing morphological causatives as expressing direct causation. Additionally, the example in (15) shows that the phrase *bʊ tá jɛ na ma sɔɔlí-tɔ-ɔ́* 'accidentally/not by my choice' does not have an accedant manner reading. My consultant states this sentence is flecitouse only if the speaker is threatened to carry out the described action.

14. ma doro-sí   súli (k͡pína ro)
   1SG wake up.FAC-CAUS Suli add.INF also
   'I woke Suli up (again).'

15. bʊ   tá   jɛ   na   ma   sɔɔlí-tɔ-ɔ́   ma   doro-sí   súli   bɔ́ɔ
      3SG.CV NEG COP.INF COM 1SG.POSS love-NOM-FOC 1SG wake up-CAUS.FAC Suli NEG
      'I was obliged to wake Suli up.'   (lit. It is not by my love, I woke Suli up.')
      #'I accidently woke up Suli.'

If now we consider the verbs *lɪ* 'to go out', *tiŋ* 'to go down', *d͡ʒʊ* 'to enter', and *d͡ʒɪŋ́* 'to get on',

we find out that the suffixation of *-sI* to the verb results in a change on the lower subject's thematic

role. These predicates express a change of location and have an agentive subject in a non-causative

construction. When a change of location predicate is morphologically causativized by *-sI*, the

causer is assigned the agent thematic role, and the causee is interpreted as theme. This means that

the subject's original thematic role is changed when a change of location predicate is causativized,

because the causer is directly involved in the process of changing the location of the causee. For

instance, while the verb *lɪ* means 'to go out' in a non-causative construction, the complex verb *lɪ-*

sɪ clearly means 'to take out', as shown in (16).

16.   a. súli lí-ɪ
          Suli   go out-FAC
          'Suli went out.'

      b. súli lɪ-sí   nántɔ   ɖomó-o   mɛ
          Suli   go out-CAUS   meat   sauce-SG.CIV LOC
          'Suli took the meat out of the sauce.'

      c. súli lɪ-sí   vuú-na   bó-re   mɛ
          Suli go out-CAUS   child-SG.CI   house-SG.CIII LOC
          'Suli took the child out of the house.'

The causee in (16b) is understood to be non-agentive because it is the causer who is responsible

for bringing about the caused event. A reading in which the causer forces or permits the causee to

go outside the house on his own is not possible for the sentence in (16c). Instead, the sentence

conveys, for instance, a situation in which the causer helps the child to get out of the house by

pulling him out through a window. Similarly, when the transitive verb *d͡ʒʊ* 'to enter' is causativized

by *-sI*, the causative situation does not involve an agentive argument other than the causer. The

complex verb *d͡ʒʊ-sí* 'insert, put in' expresses a direct causative situation involving an inanimate causee. In order to construct a causative situation with an agentive causee, speakers use an analytic causative construction (see § 12.3 below).

17.   a. súli   d͡ʒʊ́   nɔnɔ́-ɔ   mɛ
       Suli   enter.FAC   room-SG.CIV LOC
   'Suli entered the room.'

     b. súli   d͡ʒʊ-sí   ɗá-ŋɛ   bɔ́-ɔ   mɛ
       suli   enter-CAUS.FAC   stick-SG.CII   hole-SG.CIV   LOC
     'Suli inserted the stick inside the hole.'

The transitive verb *d͡ʒɪɲ́* 'to get on' also involves an agentive argument whose thematic role changes when the verb is morphologically causativized. As shown in (18b), the causee is conceived of as the undergoer of the causer's action.

18.   a. ma   tá   jala   ka   d͡ʒɪɲ́   tákuku   lɔ
      1SG NEG   be able.INF   to   get one.INF motorbike   on
     'I could not get on the motorbike.'

     b. ma   d͡ʒoóŋu   d͡ʒɪɲ́-sɪ   mɛ   tákuku   lɔ
      1SG.POSS   brother   get on-CAUS.FAC 1SG motorbike on
     'My brother helped me to get on the motorbike (by carrying).'
     * 'My father made me get on the motorbike.'

The causative construction in (18b) does not depict a situation where the causee is an agent who acts independently in carrying out the caused event, but it encodes that the causer does an action that leads the causee to be in a new location, namely, to be on the motorbike. Note also that the sentence does not have a reading in which the causer's assistance, such as holding his hand, is provided while the causee is performing the action. Therefore, I conclude that the causativizing suffix *-sI* behaves in the same way as zero-derived causatives to express a direct causative situation. Direct causation encodes a single event expressed in a mono-clausal structure that involves only one agentive argument. The causee is interpreted as an undergoer of the described eventuality.

Harley (2008) uses VP-modifying adverbials and agent-oriented adverbials as a diagnostic to ensure that lexical causatives are mono-clausal and involve a patientive causee. In Bago, morphological and lexical causatives do not exhibit ambiguity regarding the association of agent-oriented adverbials and VP-modifying adverbials. They are always interpreted as taking scope over the causing event. Consider the following examples:

19. zakaríja   lɪ-sí   súli nɔnɔ́-ɔ   mɛ   na   ɔ   sɔɔlí-tɔ
    Zakariya go out-CAUS   Suli   room-SG.CIV   LOC   COM   3SG.CI.POSS love-NOM
    '**Zakariya willingly** took Suli out of the room.'
    * 'Zakariya made **Suli** go out of the room **willingly**.'

20. salámá   lʊlʊ-sí   ma   ɖesí   sɪsaɪ
    Salama give birth-CAUS   1SG.POSS   sister   quickly
    'Salama **quickly helped** my sister giving birth.'
    *'Salama made my sister **give birth quickly**.'

Example (19) shows that the agent-oriented adverbial must be associated with the causer. Also, in (20), it is not possible for the adverb *sɪsaɪ* 'quickly' to be interpreted as a modifier of the action performed by the causee. The adverb can modify only the causer's action, which means that there is no intermediate inchoative predicate accessible to a modifier. Finally, if in the lexical causative construction the causing event is inseparable from the caused event, negation is expected to scope over the causing event. This diagnosis turns out to be correct, as shown in (21)&(22).

21. zakaríjá   tá   lɪ-sɪ   súli   nɔnɔ́-ɔ   mɛ   bɔ́ɔ
    Zakariya   NEG   go out-CAUS   Suli   room-SG.CIV   LOC   NEG
    'Zakariya did not take Suli out of the room.'
    * 'Zakariya made Suli not to go out of the room.'

22. salámá   tá   lʊlʊ-sɪ   ma   ɖesí   sɪsaɪ   bɔ́ɔ
    Salama   NEG   give birth-CAUS 1SG.POSS   sister   quickly NEG
    'Salama did not help my sister giving birth.'
    *'Salama made my sister not to give birth.'

The example in (21) shows that a reading in which negation does not scope over the causing event is not possible. In the following section, I will examine analytic causative constructions, and show by the same diagnostics how they are bi-clausal and express indirect causation.

328

12.3 Analytic causatives

In analytic causative constructions, causation is expressed via two separate predicates. In Bago, the verb expressing the causing event is *jele*. First, it should be noted that *jele* may also be used on its own in non-causative constructions as a main verb meaning 'to leave' or 'to let go', as shown in (23) and (24). The example in (25) shows how *jele* is similar to other verbs in that it used imperatively without an overt subject. Additionally, it is used in (26) as a hortative verb (see §10.6.1).

23. ma   jelé   fakórj-a   fʊ́w-a   mɛ
    1SG   leave.FAC   hoe-SG.CII   farm-SG.CII   LOC
    'I left the hoe in the farm.'

24. ḿ   ma   jelé   nɪ   bé-é   ma-á   ɖí
    if   1SG   let.FAC 2SG   what-FOC   1SG-IMPV   eat
    'What will I eat if I let you go?'

25. jele   sírá-a
    let.INF knife-SG.CII
    'Let go of the knife.'

26. jele   ɖí   la   fʊ́w-a   d͡ʒa
    let.INF 1PL   go.INF   farm-SG.CII   today
    'Let us go to farm today.'

In causative constructions, the predicate *jele* precedes the predicate of the caused event and the causee, as shown below:

27. a. samádu   d͡ʒɔ́-ɔ
       Samadu   cry-FAC
      'Samadu cried.'

    b. ma   jelé   samádu   d͡ʒɔ́-ɔ
       1SG make.FAC   samádu   cry-FAC
       'I made Samdu cry.'

28. a. ma   k͡pí   nɔnɔ́-ɔ
       1SG   clean.FAC   room-SG.CIV
        'I cleaned the room.'

    b. ɔ   jelé   ma   k͡pí   nɔnɔ́-ɔ
       3SG.CI   make.FAC   1SG   clean.FAC   room-SG.CIV
        'S/he made me clean the room.'

The analytic causative construction is fully productive in the language. It can expresses both direct and indirect causation depending on the status of the lexical verbs expressing the caused event. The causer in (27) & (28) is intterpreted as being in controll of the carried out eventuality although s/he does not acts indirectly in bringing about the caused event. For instance, the sentence in (27b) represents a two-event situation in which the causer has done something that made the causee cry. The example in (28b) also describe aa situation where the causer does not participate in the execution of the caused event but rather commands an agentive causee. The infelicitous readings in (29a) & (30a), wherein the causer is interpreted to act accidentally, show that the causer does not lack controll over the caused event. The only available interpration for such sentences is with an unwilling causer who is under the authority of another person.

29. a. bʊ   tá   jɛ   na   ma   sɔɔlí-tɔ-ɔ́   ma jelé   samádu d͡ʒɔ́-ɔ
     3SG.CV NEG COP.INF COM 1SG.POSS love-NOM-FOC 1SG make.FAC Samadu cry-FAC
     'I was obliged (by someone) to make Samadu cry.'
     #'I accidentally made Samdu cry.'

   b. (na   ma   sɔɔlí-tɔ-ɔ́)   ma   jelé   samádu d͡ʒɔ́-ɔ
      COM 1SG.POSS love-NOM-FOC   1SG   make.FAC   samádu cry-FAC
     'I deliberately made Samdu cry.'

30. a. bʊ   tá   jɛ   na   ɔ   sɔɔlí-tɔ-ɔ́   ɔ   jelé
      3SG.CV NEG COP.INF COM 3SG.CI.POSS love-NOM-FOC 3SG.CI make.FAC
      ma   k͡pí   nɔnɔ́-ɔ
     1SG   clean.FAC   room-SG.CIV
     'S/he was obliged (by someone) to make me clean the room.'
     # 'S/he accidentally made me clean the room.'

   b. (na   ɔ   sɔɔlí-tɔ-ɔ́)   ma   jelé   samádu d͡ʒɔ́-ɔ
      COM 3SG.CI.POSS love-NOM-FOC 1SG   make.FAC   samádu cry-FAC
     'I deliberately made Samdu clean the room.'

In (29b), the analytic construction involves a patientive causee. The verb *fɛlɛkɪ* 'to fall' differs from the other unaccusative verbs discussed earlier in §12.2 in that it does not exhibit causative-inchoative alternation nor allows the attachment of the non-productive causative morpheme *-sɪ*.

31. a. ma   fɛlɛkí-ɪ
      1SG   fall-FAC
      'I fell.'

     b. samádu   jelé   ma   fɛlɛkí-ɪ
        Samadu   make.FAC   1SG   fall-FAC
        'Samadu made me fall.'

An analytic causative construction with the verb *fɛlɛkɪ* can express both direct and indirect causation. The example in (32a) may describe a situation in which the causer physically and unwillingly participates in the execution of the causing event. It may also describe a situation in which the causer accidentally caused the falling.

32. a. bʊ   tá   jɛ   na   ɔ   sɔɔlí-tɔ-ɔ́   súli jelé   ma   fɛlɛkí-ɪ
        3SG.CV   NEG   COP.INF COM   1SG.CI.POSS   love-NOM-FOC   Suli make.FAC   1SG   fall-FAC
        'Suli was obliged (by someone) to make me fall.'
        'Suli accidentally made me fall.'

     b. (na   ɔ   sɔɔlí-tɔ-ɔ́)   súli jelé   ma   fɛlɛkí-ɪ
        COM   3SG.CI.POSS   love-NOM-FOC   Suli make.FAC   1SG   fall-FAC
        'Suli deliberately made me fall.'

With regard to unaccusative verbs that can be causativized lexically, we find that analytic causative constructions yield only indirect causation in the sense that the causer does not act physically in bringing about the caused event. when used with such verbs. The following examples illustrate this contrast:

33. a. ma   ɗɪŋ-sí   kumó-o
        1SG   go off-CAUS   fire-SG.CIV
        'I put out the fire.'

     b. ma   jelé   kumó-o   ɗɪŋ́-ŋ
        1SG   let   fire-SG.CIV   go out-FAC
        'I let the fire go out.'

34. a. súli dará   vɔɔ́-ŋɛ
        Suli   cut.FAC   rope-SG.CII
        'Suli cut the rope.'

     b. súli jelé   vɔɔ́-ŋɛ   dará-a
        Suli   let.FAC   rope-SG.CII   cut-FACT
        'Suli let the rope to get cut.'

These examples show that when a causative meaning is expressed analytically by the predicate *jelé*, it indicates that the causer is not involved physically in the execution of the caused event. For instance, the example in (33b) encodes a situation in which the fire went out on its own because the causer did not do any action to prevent the fire from going out. Note also that this distinction between direct and indirect causation also applies to unergative verbs that can be morphologically causativized by the suffix *-sI*. The following examples show that only in the analytical construction is the causee conceived of as an agentive argument who acts independently to bring about the caused event.

35. a. súli lí-sɪ   samádu   nɔnɔ́-ɔ   mɛ
    Suli   go out-CAUS.FAC   Samadu   room-SG.CIV   LOC
    'Suli took Samdu out of the room.'

    b. súli jelé   samádu   lí   nɔnɔ́-ɔ   mɛ
    Suli   let.FAC   Samadu   go out.FAC   room-SG.CIV LOC
    'Suli let/made Samadu go out of the room.'

Finally, an analytical causative construction differs from lexical and morphological causatives in that the causative verb embeds more structure. The data presented so far has shown that both the causer and the causee are realized in the nominative case which is visible if they are pronouns, as was shown in (28b). This means that the causee is the subject of a clausal structure embedded by the causative verb. Unlike what happens in lexical and morphological causative constructions, an agent-oriented adverb may take scope over the caused event in an analytical causative construction.

36. a. ma   jelé   ma   ḍesí lalí   barafó   na   ma   sɔɔlí-tɔ
    1SG   let.FAC   1SG.POSS   sister crush.FAC   maize   COM   1SG.CI.POSS   love-NOM
    'I willingly made my sister crush the maize.'

    b. ma   jelé   ma   ḍesí lalí   barafó bʊ   ḍé   fɛ́   ɪ
    1SG   let.FAC   1SG.POSS   sister crush.FAC   maize   3SG.CV   be good.FAC   give   3SG.CI
    'I made my sister happily crush the maize.'

If analytical causative constructions did not consist of two predicates that are responsible for introducing external arguments, the association of the agent-oriented adverb in (36) with the causee would not be possible. This provides evidence that *jelé* embeds a predicate which is responsible for introducing an external argument. Additionally, negation in an analytical causative construction may take scope over the caused event to the exclusion of the causing event. As illustrated in (37), the negative particle *tá* can precede the causing event or the caused event.

37. a. ma   fá   tá   jele   ma   lá   fʊ́w-a   bɔ́ɔ
     1SG.POSS   mother NEG let.INF 1SG   go.FAC farm-SG.CII NEG
    'My mother did not let me go to farm.'

    b. ma   fá   jelé   ma   tá   la   fʊ́w-a   bɔ́ɔ
     1SG.POSS   mother let.FAC 1SG   NEG go.INF farm-SG.CII NEG
    'My mother made me not to go to farm.'

These examples show that scope of the negation is determined by the place of the negative particle *tá*. In (37b), the negative particle *tá* is part of the structure embedded by the caustive, and thus the causing event is not in the scope of negation. When *tá* follows the causer, it negates the causing event. Note that if the negator *tá* precedes the causing event predicate, it does not scope over both the causing event and the caused event. What this shows is that analytic causative construction in Bago is not a serial verb constructions. This claim is also supported by the fact that Bago does not allow a construction in which more than one predicate share a single subject, as it is the case in language Ewe, Akan and other Western African languages.

In conclusion, the presented description has shown that Bago distinguishes between lexical, morphological and syntactic causatives in terms of directness. Lexical and morphological causatives express direct situations in the sense that the clause involves an agentive causer and a patientive causee. Apart from the two causatives/inchoative pairs found in the language, the data includes 11 labile verbs. These verbs are unaccusative when used intransitively. The causative

morpheme *-sI* is not productive in the language. It increases the valency of intransitive verbs and transitive verbs that take a locational argument. As has been demonstrated, the suffixation of the causative morpheme to unergative verbs changes the subject's thematic role to theme. Therefore, when an agent-oriented adverbial is added to the sentence, it cannot be associated with the causee. On the other hand, the syntactic causative construction is fully productive and expresses direct and indirect causation. It involves two separate predicates. The predicate *jelé* takes the causer as its external argument, and its complement may contain an agentive causee allowing an agent-oriented adverbial to be associated with the causee.

Conclusion

This thesis investigated a selection of topics in the phonology, nominal morphosyntax, and verbal morphosyntax of Bago.

The focus in the description of the phonology was the distribution of the phonemic inventory, vowel harmony, syllable structure, and tone system. There are twenty consonant phonemes and nine vowels divided into [+ATR] and [-ATR]. It was shown that the language has a root-controlled harmony system. The attested syllable structures are V, N, VN, CV(V), and CVN, and the syllables V, N, and VN occur only in word-initial position. Regarding tone, Bago has two level tones: high and low, along with a contour tone that is found only in a heavy syllable. The tonal patterns of finite and non-finite verbs were examined. The description further identified the tone patterns in nouns and looked at the tonal realizations in singular and plural suffixes.

The second part of this thesis examined the noun class system, pronouns, (in)definiteness, demonstratives, and noun *modification* constructions. The language has five classes that can be identified based on the nine pronominal forms and agreement on associated words, such as adjectives, demonstratives, and numerals. The discussion of the classes identified the phonological shape of the singular and plural suffixes in addition to showing that they are alternatively added to a bound nominal root.

The description of personal pronouns showed that there is a single set that is used for subject and possessive pronouns. It was also found that the reflexive morpheme *tɪ* must be preceded by a pronoun that bears the same person, number, and class features as its antecedent. The pronoun is selected from the same set of subject and possessive pronouns. Object pronouns are realized by a separate set and surface with a high tone except when they are adjacent to a verb whose final segment is high-toned. In addition, the language has a set of emphatic pronouns that can occur in both subject and object positions. The description also looked at the morpheme *ɖɔ́ŋɔ́*, which functions as a pronoun to express reciprocity. It was found that reciprocity is expressed through a unary structure.

The study of (in)definiteness showed that Bago lacks a definite determiner. A bare noun may receive a definite or indefinite interpretation. A definite reading is obtained when reference is made to an inherently unique referent or when the intended referent is assumed to be uniquely identifiable based on shared knowledge from the discourse context or in the deictic space. The data showed that an anaphoric determiner is used to encode a contrastive reading. An indefinite determiner is used to signal a partitive meaning and to override a default definite interpretation that is expected to be associated with the noun in question. Finally, it is required in order to give an indefinite interpretation to the subject of an intransitive sentence and a locative copular clause.

In the discussion of demonstratives, the data that was examined revealed that morphologically distinct roots are used for distal and proximal demonstratives. The deictic center is the speaker's location. Demonstrative identifiers differ morphologically and syntactically from demonstrative modifiers, since they are not marked for agreement and do not co-occur with a copular verb. It was also observed that while the distal demonstrative modifier and adverb are identical in form, the ones of the proximal type are distinct.

With regard to nominal modification, there are four adjectival roots in the language, which occur in post-nominal position and must be marked for agreement. Other adjectival concepts are expressed in Bago through predicative nominals and intransitive verbs.

The third part of the thesis was dedicated to describe topics in the verbal morphosyntax of the language. The description began by identifying the distribution of the copulas *wɛ* and *jɛ́*. The examined data suggest that the selection of the copulas is conditioned by temporal interpretation and the semantics of the lexical predicate. Beyond the copulas, verbal predicates were classified into three types based on the temporal interpretations that they receive in the factative and the imperfective aspects. It was shown that the majority of stative verbs differ from dynamic verbs in that they are used with the factitive aspect to convey ongoing states. A small number of stative verbs were classified as being lexically marked with a terminal endpoint because they are used with the factative aspect to talk about a state in the past.

By examining the realization of finite verbs with different tonal patterns, it was shown that overt marking of the factative aspect occurs if the verb-final segment is high-toned and in clause-final position. Imperfective marking is always realized by lengthening the subject-final segment. While

the ordering component of the factative aspect locates the situation time within the topic time in the context of unmarked stative verbs, it locates the situation time entirely or partially within the topic time by using dynamic and marked stative verbs. The imperfective aspect with all types of verbs allows reference to future eventualities. The ordering component of the imperfective may also have the inclusion relation (TT ⊆ TSit). In such a case, the imperfective is compatible with marked stative verbs and plural dynamic verbs to express a continuous reading with the former and a habitual reading with the latter. The inclusion relation of the imperfective can combine with a singular dynamic verb only in the context of a copular verb. Finally, the analysis of aspects pointed out that the morpheme *tíí* contributes a meaning of anteriority when added to sentences in the factative and imperfective aspects.

The discussion of modality covered various modal meanings, including uncertainty, obligation, ability, permission, wishes, and the imperative. They are encoded through a combination of an expression or lexical verb (e.g., *fέ g͡bɔ́ɔ* 'give way', *bisí* 'ask') and the verb expressing the described eventuality. An imperative reading is simply encoded by the use of the non-finite form of the verb. The description of conditionals showed that conditionality is marked by the high-toned morpheme *ɲ́* 'if' in the protasis-initial position. The apodosis is not marked by any means and tends to follows the protasis. The presence of a low-toned copy of the subject-final segment in the protasis and apodosis marks counterfactual conditionals. Simple conditionals are expressed as regular sentences in the factative or imperfective aspect. The factative aspect was attested in the protasis of habitual and future simple conditionals, in which case it conveyed the temporal sequence between the condition and the consequent.

The study of clausal and constituent negation showed that Bago uses a discontinuous negative strategy, *tá…bɔ́ɔ*. The negative particle *tá* occurs in preverbal position, but it is in complementary distribution with the copula *wɛ*. The negative particle *bɔ́ɔ* occurs in clause-final position. Unlike the preverbal negative particle, a single instance of *bɔ́ɔ* is permitted when a negated matrix clause is accompanied by a negated complement or adjunct clause. Constituent negation is expressed by a cleft-like construction in which *tá* precedes the copula *jέ*, and *bɔ́ɔ* surfaces in the sentence-final position.

The final chapter investigated the expression of causation in lexical, morphological, and syntactic constructions. It was found that lexical causation is encoded by labile verbs with the exception of two causative/inchoative pairs. The language expresses causation morphologically via the unproductive suffix –*sI*. Syntactic causatives are expressed in a bi-clausal structure involving the causing event verb *jele* 'make/let' and a predicate expressing the caused event with either an agentive or a patientive causee.

The goal of the present work is limited to a focus on a selection of topics in the grammar of Bago, and thus there remain undescribed areas to be explored in future research. In the hope of revealing more insights about the language, future research is required to investigate valency, voice, coordination, complementation, subordination, relativization, and focalization. This work highlights several syntactic and semantic issues that deserve formal explanations in future research. It was pointed out in §6.2, for instance, that the presence of a possessive pronoun is obligatory in order for a noun to be related to an antecedent in a bridging construction expressing a part-whole relation. This might be explained by assuming that a partitive meaning does not stem from the linguistic context of the discourse, but instead is inferred from the semantic content of the possessive pronoun occupying the head of the DP. A nominal domain that consists of a null phonological determiner specified with the feature [+definite] is blocked in a bridging construction because its semantic content only contributes identifiability. Another issue is the distribution of the clause-final negative particle *bɔɔ*. It was shown that the surface position of *bɔɔ* varies according to the type of the adjunct added to a negated matrix clause. For instance, while a purpose clause must be linearly ordered after the matrix clause and before the negative particle, a because-clause must follow the negative particle. Whether the surface orders can be accounted for by proposing a higher syntactic position for because-clauses and a lower syntactic position for purpose clauses is left open for further research. It will be interesting to conduct a comparative study of a number of Gurunsi languages to examine the behaviour of stative verbs in terms of their interaction with tense and aspect. Finally, formal and acoustic-based studies are also needed to back up and shed more light on the presented phonological aspects related to vowel lengthening, vowel harmony, and tones.

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Appendix 1: List of non-finate and finite verbs

	Syllable shape	Non-finite	Finite	Gloss
(i) **Monosyllabic** **verbs**	CV (n=51)	ba	bá	dig
		bɔ́	bɔ́	pick a leaf
		bu	bú	stir
		d͡ʒɔ	d͡ʒɔ́	cry
		d͡ʒʊ	d͡ʒʊ́	enter
		ɗa	ɗá	wait
		ɗé	ɗé	be good, be beautiful
		ɗí	ɗí	eat, spend
		ɗo	ɗó	sleep
		ɗʊ́	ɗʊ́	put
		fɛ́	fɛ́	give
		fi	fí	scoop out water
		fɪ	fí	skin an animal
		fɔ́	fɔ́	be alive after being very sick, pop
		fú	fú	follow
		fʊ	fʊ	be soft
		ga	gá	cloud formation
		g͡bɪ	g͡bɪ́	be quite
		gɛ	gɛ́	want, need, look
		gɔ	gɔ́	be tired
		ja	já	call
		jɛ	jɛ́	be, do, make
		jo	jó	fight
		ki	kí	deny
		kɪ	kí	surpass
		k͡pá	k͡pá	pick a fruit, respond, be on fire
		k͡pe	k͡pé	sing
		k͡pɪ	k͡pí	wash up

		ku	kú	pick up small thing like grains from the ground
		kɔ́	kɔ́	kill
		la	lá	go
		lɛ	lɛ́	buy, take
		lɪ	lí	go out
		lɔ́	lɔ́	throw
		lú	lú	draw water
		má	má	build, create
		mɪ	mí	hear/understand
		mʊ	mʊ́	resemble
		ná	ná	see
		ɲɔ	ɲɔ́	drink
		sa	sá	prepare paste, marry
		sɔ́	sɔ́	take bath, dance
		su	sú	wear, feed, pour into a bottle
		sʊ	sʊ́	accompany, see off
		ta	tá	rub ointment
		ti	tí	regenerate (tree's leaves)
		tɔ́	tɔ́	shoot, rain
		tʊ	tʊ́	insult
		ve	vé	refuse
		vʊ	vʊ́	judge
		wá	wá	be cured
CVV (*n*=1)		fóé	fóé	run
CVN (n=48)		báŋ́	báŋ	lay on eggs
		ḍeŋ́	ḍéŋ	meet
		dɔŋ́	dɔ́ŋ	block, cork
		dʊŋ	ḍʊŋ́	jump
		d͡ʒɛŋ́	d͡ʒɛ́ŋ	be long, be tall
		d͡ʒɪŋ	d͡ʒɪŋ́	know
		d͡ʒɪŋ́	d͡ʒíŋ	get on s.th.
		ḍáŋ́	ḍáŋ	get lost

348

		ɗɪŋ	ɗɪŋ́	to go off
		ɗuŋ	ɗuŋ́	sow
		fɛŋ	fɛŋ́	listen with attention, grill
		fɔŋ	fɔŋ́	move to share the place with s.o.
		fʊŋ	fʊŋ́	cut someone's hair
		gaŋ́	gáŋ	cook
		g͡beŋ́	g͡béŋ	fart
		g͡biŋ́	g͡bíŋ	catch
		g͡boŋ	g͡boŋ́	doze off
		goŋ́	góŋ	lie
		jéŋ́	jéŋ	be clear
		kaŋ	kaŋ́	nail
		kɪŋ	kɪŋ́	borrow
		koŋ	koŋ́	be smart
		kóŋ́	kóŋ	defecate
		leŋ	leŋ́	to take s.o. down
		loŋ	loŋ́	use
		luŋ	luŋ́	forge
		lʊŋ	lʊŋ́	weave
		mɔŋ	mɔŋ́	hit
		ɲaŋ	ɲaŋ́	sell, fear
		ɲɛŋ	ɲɛŋ́	sting, bite
		ɲéŋ́	ɲéŋ	be fermented
		ɲɪŋ	ɲɪŋ́	set up a trap
		ŋɔŋ	ŋɔŋ́	cook s.th. directly on fire
		ŋuŋ	ŋuŋ́	bury
		saŋ	saŋ́	wash a body part
		sáŋ́	Sáŋ	catch s.th. thrown at you
		sɛŋ	sɛŋ́	forgive
		sɔŋ	sɔŋ́	wear pant
		soŋ	soŋ́	dislike s.th.
		suŋ	suŋ́	squat
		tɛŋ	tɛŋ́	bend down
		tɪŋ	tɪŋ́	tell
		tɔŋ	tɔŋ́	say, tell

349

		túŋ́	túŋ	clear the grass
		vaŋ́	váŋ	be sick
		voŋ́	vóŋ	pound
		vɔŋ	vɔŋ́	tie
(ii) Disyllabic verbs	CV.CV (*n*=166)	bara	bará	close
		bili	bilí	roll
		bisi	bisí	request/enquire
		bɪlɪ	bɪlí	grow
		bɪrɪ	bɪrí	pour
		bɔkɔ	bɔkɔ́	announce in public
		bɔ́lí	bɔ́lɪ	roughcast
		bɔsɔ	bɔsɔ́	be rotten
		búlé	búle	dilute
		buti	butí	pour out of a bottle
		bútí	búti	return
		dara	dará	cut
		doli	dolí	learn
		doro	doró	stand up, wake up
		dɔsí	ɖɔ́sɪ	patch
		ɖuŋʊ́	ɖuŋʊ́	have pain
		dʊrʊ́	dʊ́rʊ	push
		d͡ʒɪrɪ	d͡ʒɪrí	wrinkle
		ɖíŋí	ɖíŋɪ	taste
		ɖɔ́kʊ́	ɖɔ́kʊ	hold
		fara	fará	plough
		fasɪ	fásí	peel
		fɛkɪ	fɛkí	wait for revenge
		fɛlɛ	fɛlɛ́	winnow
		fɛŋɪ	fɛŋí	breath
		fɛsɪ	fɛsí	take rest
		fili	filí	make a sticky sauce
		fɪlɪ	fɪlí	whistle
		físá	físa	lie down

		fĭsí	fĭsɪ	clean, erase
		fɪtɪ	fɪtí	pay
		fóló	fólo	burp
		fosi	fosí	blow one's nose, blow up
		fɔkɪ	fɔkí	pull
		fɔkɔ	fɔkɔ́	do laundry
		fɔlɔ	fɔló	flow
		fɔrɔ	fɔrɔ́	mix s,th. by water to be liquid
		fɔ́sí	fɔ́sɪ	greet
		furu	furú	spit up
		fúrú	fúru	hurry
		fúsí	fúsi	cover
		fʊnɪ	fʊní	pluck
		fʊrʊ	fʊrʊ́	make a hole
		g͡bakí	g͡bákɪ	hang
		g͡balɪ	g͡balí	last
		g͡biki	g͡bikí	vomit
		g͡boló	g͡bólo	gather
		g͡bosí	g͡bósi	bark
		goro	goró	seduce
		gɔlɔ́	gɔ́lɔ	kneel, invite
		gulú	gúlu	root up, pull out
		hájá	hája	rent
		jálá	jála	be able/be allowed
		jari	jarí	threaten
		jasɪ	jasí	sweep
		jɛ́rí	jɛ́rɪ	waste
		jɔkɔ	jɔkɔ́	bunch, kick, throw at
		júkú	júku	find
		kala	kálá	read/count
		kárá	kára	do a fence
		keli	kelí	draw water from the surface
		kɛ́rɛ́	kɛ́rɛ	sexual intercourse
		kóró	kóro	cut by s.th.

		kɔná	kɔ́na	bring
		kɔnɪ	kɔní	come
		kɔrɔ	kɔró	take a sip
		k͡pálá	K͡pála	open
		k͡pasa	k͡pasá	have a headache
		k͡pésí	k͡pési	cough
		k͡pɛ́kí	k͡pɛ́kɪ	get closer
		k͡pɛrɛ	k͡pɛrɛ́	divide
		k͡pili	k͡pilí	wrap
		k͡pína	k͡pína	add/help
		k͡píkí	k͡pɪkí	blink
		k͡pɪrɪ	k͡pɪrí	undress
		k͡pɔkɔ	k͡pɔkɔ́	split
		kulu	kulú	crawl
		kúsí	kúsi	shout loudly
		kʊsɪ	kʊsí	parcel out/cut up
		lalɪ	lalí	crush
		lɛkɪ	lɛkí	imitate
		lɪlɪ	lɪlí	pour out
		mala	malá	get used to
		málá	mála	hide out of sigh
		marɪ	marí	load, move out
		márí	márɪ	show off
		mɛlɪ	mɛlí	steal
		mɛsɪ	mɛsí	weigh
		mɪlɪ	mɪlí	have a stomach ache
		mílí	mílɪ	pick off (grain of maize)
		mɪsɪ	mɪsí	urinate, water
		mɔsɪ	mɔsí	take
		mʊkɪ	mʊkí	laugh
		narɪ	narí	straighten
		nɛsɪ	nɛsí	think
		ɲesi	ɲesí	lick
		ɲíkí	ɲíkɪ	press
		ɲɔkɔ	ɲɔkɔ́	be burn
		ɲɔsɪ	ɲɔsí	suck the breast
		ŋala	ŋalá	fry

		ŋara	ŋará	sew
		ŋɛ́ní	ŋɛ́nɪ	melt
		ŋɛŋɪ	ŋɛŋí	rejoice
		ŋɔrɔ	ŋɔró	swell
		ŋʊsɪ	ŋʊsí	strike by a cutlass
		ŋʊ́sí	ŋʊ́sɪ	moan
		sálá	sála	break
		sara	sará	sharpen
		sárí	sárɪ	tear s.th.
		sasɪ	sasí	congratulate
		sele	selé	shiver
		sélí	séli	criticize
		siki	sikí	pinch
		siri	sírí	dislike s.o. , s.th.
		síŋí	síŋɪ	stand
		sɪwʊ	sɪwʊ́	die
		sóló	sólo	remove a cooking pot from fire
		sosi	sosí	forget
		sɔkɔ	sɔkɔ́	sit, stay
		sɔlɪ	sɔlí	advise
		sɔ́lí	sɔ́lɪ	offensive sound
		sɔrɔ	sɔró	party for new food
		súrú	súru	add
		sʊkʊ	sʊkʊ́	carry on head
		sʊlʊ	sʊlʊ́	pray, borrow
		sʊ́rʊ́	sʊ́rʊ	disturb
		tala	talá	arrive
		tanɪ	taní	dip into s.th.
		tásí	tásɪ	spread
		télí	téli	lean against s.th.
		tésí	tési	sieve
		tɛ́sí	tɛ́sɪ	pass
		tili	tilí	rumble
		tiri	tirí	send
		tɪrɪ	tɪrí	be big/fat
		tɔkɔ	tɔkɔ́	chew

353

		tɔ́rí	tɔ́rɪ	slaughter
		tɔ́sí	tɔ́sɪ	be out of its place
		tuku	tukú	touch
		tula	tulá	collect the remaining after harvest
		túlú	túlu	stub
		tʊlʊ	tɔ́lɔ́	light up
		tɔ́lɔ́	tɔ́lʊ	husk
		tʊsɪ	tɔ́sí	line up
		vala	valá	walk
		valɪ	valí	plait hair
		varí	várɪ	raise
		vasɪ	vasí	hide s.th.
		veri	verí	do incantations
		viri	virí	miss
		virí	víri	carry
		volí	vóli	untie
		vɔkɔ	vɔkɔ́	feel full
		vusí	vúsi	throw
		warɪ	warí	scratch
		wasɪ	wasí	make furrow
		wili	wilí	burn the hair of an animal's skin
		wósí	wósi	yawn
		wuli	wulí	feel pain
		wʊlɪ	wʊlí	be dry, teach, show
	CV.red (n=6)	lala	lalá	be boiled
		lili	lilí	swallow
		lulu	lulú	sink
		lʊlʊ	lʊlɔ́	give birth
		sísí	sísɪ	put s.th. down
	CV.CVN (n=2)	mɛlɛŋ	mɛlɛ́ŋ	be crazy
		mʊrʊŋ	mʊrʊ́ŋ	dive
	CVV.CV (n=15)	d͡ʒéérí	d͡ʒééri	trust

354

		fɔ́ɔsɪ́	fɔ́ɔsɪ	serve
		gɔɔrɪ	gɔɔrí	make s.th. dirty
		jɔɔrɪ	jɔɔrí	convince
		kaarɪ	kaarí	trace
		k͡paarɪ	k͡paarí	visit
		k͡páárí	k͡páárɪ	equalize
		k͡pɛɛrɪ	k͡pɛɛrí	massage
		k͡piiri	k͡piirí	pile up
		k͡pooro	K͡pooró	remind s.o. about good deeds done to him
		ɲɛ́ɛ́rí	ɲɛ́ɛ́rɪ	denounce
		sɛɛrɪ	sɛɛrí	dig up yam
		soori	soorí	peck
		sɔɔlɪ	sɔɔlí	love/like
		sʊʊrɪ	sʊʊrí	take breath after being burned by pepper
	CVN.CV (n=26)	bɛntɪ	bɛntí	change
		bonsi	bonsí	infect
		d͡ʒʊ́ntí	d͡ʒʊ́ntɪ	crease
		ḓansɪ	ḓansí	aggravate
		ḓɛnsɪ	ḓɛnsí	be drunk
		fɔntɪ	fɔntí	have hemorrhoid
		gantɪ	gantí	cross
		g͡bonti	g͡bontí	prevent
		gʊ́ntí	gʊ́ntɪ	bend
		kɛ́ntí	kɛ́ntɪ	cut a piece from s.th. by the teeth
		kóntí	kónti	prepare things to do s.th.
		kɔ́ntí	kɔ́ntɪ	knock
		k͡pantɪ	k͡pantí	search through sm.th
		láŋgí	láŋgɪ	resew
		nɪnsɪ	nɪnsí	warm
		ɲáŋkí	ɲáŋkɪ	hurry
		ŋɔ́nsí	ŋɔ́nsɪ	decrease

		sansɪ	sansí	shine
		sáńsí	sáńsɪ	scatter
		sóŋí	sóŋɪ	sniff
		táńsí	táńsɪ	separate, enlarge
		vańtí	vańtɪ	Snatch
(iii) Trisyllabic verbs	CV.CV.CV (n=46)	beleŋi	beleŋí	complain
		bɛlɛkɪ	bɛlɛkí	encourage
		bélékí	bélékɪ	play
		bɛrɛsɪ	bɛrɛsí	begin
		bíláŋí	bíláŋɪ	roll on the ground
		birisi	birisí	do a mistake
		bɪrɪsɪ	bɪrɪsí	turn
		d͡ʒekétí	d͡ʒekéti	shake
		ḑɛkɛtɪ	ḑɛkɛtí	the way a woman walk when she is dressed up
		fɛlɛkɪ	fɛlɛkí	fall
		fɛlɛná	fɛléna	disrespect
		fɛŋɛlɪ	fɛŋɛlí	whisper
		fólókí	fólóki	shout at
		fɔkɔtí	fɔkɔ́tɪ	play by hand with things that should be played with
		jákátí	jákátɪ	spread over "e.g., corn for chicken"
		jélékí	jéléki	entrust s.o.
		jɛlɛŋɪ	jɛlɛŋí	suffer
		karasɪ	karasí	spit up phlegm
		kɛ́kɛ́tí	kɛ́kɛ́tɪ	the crying of hens when laying eggs
		kilisi	kilisí	go out for a walk
		korosi	korosí	shave
		kɔkɔsɪ	kɔkɔsí	crunch
		kɔrɔsɪ	kɔrɔsí	economize
		k͡palasɪ	k͡palasí	weed

		k͡pɔkɔsí	k͡pɔkɔ́sí	give way
		kʊlasɪ	kʊlasí	denigrate
		leŋeri	leŋerí	carry on shoulder
		líkítí	líkíti	tickle
		mákátí	mákátɪ	eat in an exaggerated way
		meŋeri	meŋerí	look up at s.th. that you cannot see by raising your head
		mɛlɛsɪ	mɛlɛsí	deceive
		mɪlɪsɪ	mɪlɪsí	turn s.th., drive
		mɔrɔsɪ	mɔrɔsí	write
		ɲákásí	ɲákásɪ	yell because of pain
		ɲúkútí	ɲúkúti	rub s.th.
		ɲáláɲí	ɲáláɲɪ	moan
		ŋʊrʊŋɪ	ŋʊrʊŋí	murmur
		sákátí	sákátɪ	search for s.th.
		síŋína	síŋɪna	confide in God
		sɔ́kɔ́sí	sɔ́kɔ́sɪ	start
		sukuti	sukutí	rinse mouth or s.th. (not clothes)
		tikisi	tikisí	gather people or things
		tirisi	tirisí	slip
		tɔ́kɔ́sí	tɔ́kɔ́sɪ	remind, emember
		walasɪ	walasí	rinse clothes
		wɛrɛkɪ	wɛrɛkí	be broken/break down
	CV.CVN.CV (n=1)	karantɪ	karantí	tight a child on your back
(iv) **Causative -sI verbs**	CV-sI (n=7)	d͡ʒʊ-sɪ	d͡ʒʊ-sí	to insert s.th.
		ɖé-sí	ɖé-si	make s.th. good (fix)
		fʊ-sɪ	fʊsí	to soften
		g͡bɪ-sɪ	g͡bɪ-sí	cause to be quiet
		k͡pá-sí	k͡pá-sɪ	burn
		lɪ-sɪ	lɪs-í	to take out
		wá-sí	wá-sɪ	casue to be cured

	CVN-sI (n=5)	d͡ʒɪ́n-sí	d͡ʒɪ́n-sɪ	help to get on s.th.
		ɖáń-sí	ɖáń-sɪ	cause to get lost
		ɖɪn-sɪ	ɖɪn-sí	to put out fire
		jéń-sí	jéń-si	clarify
		ɲaŋ-sɪ	ɲaŋ-sí	scare
	CV.CV-sI (n=6)	doró-sí	doró-si	make s.o stand up, waken up
		lala-sɪ	lala-sí	boil s.th
		lʊlʊ-sɪ	lʊlʊ-sí	help to give birth
		málá-sí	málá-sɪ	hide s.o.
		tɪrɪ-sɪ	tɪrɪ-sí	cause to be big/fat
		wʊlɪ-sɪ	wʊlɪ-sí	cause to be dry

Appendix 2:List of nouns

CLASSES	SUB-CLASSES	SG	PL	GLOSS
CI	-na/-ba (n=16)	abɔbɔrɪ-ná	abɔbɔrɪ-bá	bed bug
		ád͡ʒamɪ-ná	ád͡ʒam-bá	louse
		áḍetú-na	áḍetú-ba	girl
		ágolu-ná	ágolu-bá	boy
		ág͡bʊrʊ́g͡bʊrʊ́-na	ag͡bʊrʊ́g͡bʊrʊ́-ba	black mouse
		ak͡pántálʊ́-ná	ak͡pántálʊ́-ba	intestinal worms in dog
		amúŋgulú-na	amúŋgulú-ba	warms in water
		ásárʊ́-ná	ásárʊ́-ba	frog
		ásɔ́mí-ná	ásɔ́ń-ba	breastfeeding woman
		asʊ́kʊ́-na	asʊ́kʊ́-ba	mouse
		átálʊ́-ná	átálʊ́-ba	earth-worm
		d͡ʒoó-na	d͡ʒoó-ba	king
		ḍómí-na	ḍóm̃-ba	snake
		ḍɔɔ́-na	ḍɔɔ́ba	male friend
		jʊ́lʊ́-ná	jʊ́lʊ́-ba	sorcerer
		sukúru-na	sukúrú-ba	abscess
	-a/-na (n=2)	afá-a	afá-na	mother
		atá-a	atá-na	father
	-Ø/-náa (n=12)	atád͡ʒanʊ́	atád͡ʒanʊ́-náa	grandfather
		ḍawʊ́	ḍawʊ́-náa	co-wife
		ḍesí	ḍesí-náa	senior sister

		ḓevú	ḓevú-náa	younger brother
		ḓɪgbend͡ʒo	ḓɪgbend͡ʒo-náa	lord
		ḓogó	ḓogó-náa	female friend
		d͡ʒanʊ́	d͡ʒanʊ́-náa	wife's older female siblings
		d͡ʒoóŋu	d͡ʒoóŋu-náa	older brother
		mɛtí	mɛtí-náa	wife's family male siblings
		nantʊ́na	nantʊ́ba	neighbor
		mbéna	mbéláa	man
		sɔkɪnɪ	sɔkɪnɪ-náa	spouse's youger siblings
	-ó/-náa (n=1)	d͡ʒid͡ʒo-ó	d͡ʒid͡ʒo-náa	uncle
	-na/-a (n=4)	álámí-na	álám-a	person
		álʊ́-na	álá-a	woman
		bálʊ́-na	balá-a	man
		ŋɔ́rʊ-na	ŋɔ́rá-a	guest, stranger
CII	-Ø/-sɛ́ (n=241)	abaawá	abaawá-sɛ́	service
		abantɛtɛ	abantɛtɛ-sɛ́	veranda
		abilid͡ʒó	abilid͡ʒó-sɛ́	pineapple
		abɪlɪbá	abɪlɪbá-sɛ́	pawpaw
		adig͡bébí	adig͡bébí-sɛ́	hunter assistance
		ad͡ʒakád͡ʒaká	ajakájaká-sɛ́	spider
		ad͡ʒakp͡á	ad͡ʒkp͡á-sɛ́	tortoise
		ad͡ʒikóró	ad͡ʒikóró-sɛ́	bitter leaf use for sauce
		ad͡ʒo	ad͡ʒo-sɛ́	tribulation
		aḓííku	aḓííku-sɛ́	package
		aḓimá	aḓimá-sɛ́	sandals
		afud͡ʒéńd͡ʒé	afujéńjé-sɛ́	type of small fish

		ágámá	ágámá-sɛ	chameleon
		agaroro	agaroro-sɛ	rock
		ág͡bádá	ág͡bádá-sɛ	large boubou
		ag͡banʊ́	ag͡banʊ́-sɛ	belt
		ag͡báŋ͡mg͡ba	ag͡báŋ͡mg͡ba-sɛ	plantain
		ág͡bóke	ág͡bóke-sɛ	tobacco
		ájíja	ájíja-sɛ	universe
		ájɔ́jɔ́	ájɔ́jɔ́-sɛ	leaves used for sauce
		akaŋaná	akaŋaná-sɛ	cleaned field
		akaŋkaŋalá	akaŋkaŋalá-sɛ	unready palm nuts
		akasa	akasa-sɛ	ladder
		ákoí	ákoí-sɛ	parrot
		akóí	akóí-sɛ	calabash
		akɔɖʊ́	akɔɖʊ́-sɛ	banana
		ak͡pa	ak͡pa-sɛ	tire
		ák͡páákʊ́	ák͡páákʊ́-sɛ	sheet-metal
		ak͡petesi	ak͡petesi-sɛ	alcohol
		akúlélé	akúlélé-sɛ	hernia
		akutú	akutú-sɛ	orange
		akúwá	akúwá-sɛ	peanut
		alaamísɪ	alaamísɪ-sɛ	Thursday
		alígóŋ́go	alígóŋ́go-sɛ	swinging
		alihééri	alihééri-sɛ	goodness
		alíkíridí	alíkíridí-sɛ	ewer
		alíkuku	alíkuku-sɛ	pigeon
		alíkútuútuú	alíkútuútuú-sɛ	name of a bird
		alɪjáásí	alɪjáásí-sɛ	sin
		alʊwalá	alʊwalá-sɛ	ablution
		amangoróo	amangoróo-sɛ	kapok tree flower
		amuro	amuro-sɛ	transmitter of oral tradition

		aɲíngiri	aɲíngiri-sɛ́	soursop
		áŋ͡mɡ͡bɛ́ɛsɪ	áŋ͡mɡ͡bɛ́ɛsɪ-sɛ́	makeup black pencil
		aresúma	aresúma-sɛ́	friday
		ására	ására-sɛ́	tobacco in powder
		ásáráwʊ́	ásáráwʊ́-sɛ́	damage
		ásɛ́nsí	ásɛ́nsí-sɛ́	thought
		asɛ́ŋ	asɛ́ŋ-sɛ́	chat
		asíírí	asíírí-sɛ́	secret
		atagɔŋgɔ	atagɔŋgɔ-sɛ́	curved line
		atalááta	atalááta-sɛ́	tuesday
		atɛ	atɛ-sɛ́	land
		atɛnɛ́ɛ	atɛnɛ́ɛ-sɛ́	monday
		atimpaní	atimpaní-sɛ́	drum
		atiɱfu	atiɱfu-sɛ́	pillow
		atɔkɔmaká	atɔkɔmaká-sɛ́	cartoon
		báání	báání-sɛ́	evening
		bansi	bansi-sɛ́	manioc
		bíríkila	bíríkila-sɛ́	brick
		bítí	bítí-sɛ́	surprise
		bɪjɛ́ɛrɪ	bɪjɛ́ɛrɪ-sɛ́	beer
		bíŋá	bíń-sɛ	year
		boroboro	boroboro-sɛ́	bread
		borofuɗé	borofuɗé-sɛ́	pawpaw
		bɔmbɔrɔ	bɔmbɔrɔ-sɛ́	porridge made of the rest of fufu
		bɔɔbí	bɔɔbí-sɛ́	bra
		bɔ́ɔlúkʊ	bɔ́ɔlúkʊ-sɛ́	sand for roughcasting
		d͡ʒaawɔ́	d͡ʒaawɔ́-sɛ́	shrimp
		d͡ʒába	d͡ʒába-sɛ́	thawb
		d͡ʒak͡pata	d͡ʒak͡pata-sɛ́	viper

		d͡ʒeńle	d͡ʒeńle-sɛ́	onion
		d͡ʒíba	d͡ʒíba-sɛ́	pocket
		d͡ʒíga	d͡ʒíga-sɛ́	pickaxe
		d͡ʒingíri	d͡ʒingíri-sɛ́	mosque
		d͡ʒírígí	d͡ʒírígí-sɛ́	train
		d͡ʒɔŋɔlɔ́	d͡ʒɔŋɔlɔ́-sɛ́	name of a bird
		ɖabirí	ɖabirí-sɛ́	magic
		ɖaburú	ɖaburú-sɛ́	stew made of yam
		ɖáɡ͡bará	ɖáɡ͡bará-sɛ́	trap
		ɖaɡʊnɖɛ	ɖaɡʊnɖɛ-sɛ́	club 'weapon'
		ɖalam	ɖalan-sɛ́	firebreak
		ɖanɪsɛ́	ɖanɪsɛ́-sɛ́	cooking pot
		ɖańsá	ɖańsá-sɛ́	pepper
		ɖáńsíki	ɖáńsíki-sɛ́	middle dress
		ɖigonde	ɖigonde-sɛ́	land prepared for cultivation
		ɖíléńde	ɖíléńde-sɛ́	lung
		ɖókíta	ɖókíta-sɛ́	hospital, doctor
		ɛɡ͡bɪrɛ́	ɛɡ͡bɪrɛ́-sɛ́	mashed yam
		fátáka	fátáka-sɛ́	wallet
		fɛlɛfɛ́lɛkʊ́	fɛlɛfɛ́lɛkʊ́-sɛ́	waste of grains
		fʊkʊfʊkʊ	fʊkʊfʊkʊ-sɛ́	liver
		gaarí	gaarí-sɛ́	food made of cassava
		gangá	gangá-sɛ́	drum that has two faces
		ɡ͡baná	ɡ͡baná-sɛ́	boyfriend, girfriend
		ɡ͡bómá	ɡ͡bómá-sɛ́	herb used for sauce
		gesééré	gesééré-sɛ́	pygmy
		gɔŋɔsɔ	gɔŋɔsɔ-sɛ́	sieve
		háma	háma-sɛ́	hammer
		hiije	hiije-sɛ́	wedding ceremony

		íko	íko-sɛ́	means
		ɪbɔsɔ	ɪbɔsɔ-sɛ́	socks
		íd͡ʒá	íd͡ʒá-sɛ́	truth
		ɪfɔ	ɪfɔ-sɛ́	destiny
		ɪk͡páara	ɪk͡páara-sɛ́	tireless work
		ɪk͡pɛ́k͡pɛ́	ɪk͡pɛ́k͡pɛ́-sɛ́	dried fufu
		ɪsɔ́ɔ	ɪsɔ́ɔ-sɛ́	god
		jílɛ	jíla-ná	melody instrument made of horn
		kad͡ʒaŋá	kad͡ʒaŋá-sɛ́	sun
		kad͡ʒɪŋa	kad͡ʒɪŋa-sɛ́	spirit
		káfaŋgáɲá	káfaŋgáɲá-sɛ́	food made of maize
		kafĩnta	kafĩnta-sɛ́	carpenter
		kakísá	kakísá-sɛ́	rag
		kálaŋ	kalaɲ́-sɛ́	pen
		kámɪnáɲá	kámɪnáɲá-sɛ́	deer
		kaɲ́kalá	kaɲ́kalá-sɛ́	part of broken calabash
		kárá	kárá-sɛ́	sugarcane
		karakara	karakara-sɛ́	saw
		kárákárá	kárákárá-sɛ́	sause made for mashed yam
		karákɪ	karákɪ-sɛ́	employer
		káráwʊ́	káráwʊ́-sɛ́	drinking glass
		kasaŋ͡mg͡bɛɛná	kasaŋ͡mg͡bɛɛná-sɛ́	porcupine
		káséí	káséí-sɛ́	cowpea
		kataŋ͡mk͡para	kataŋ͡mk͡para-sɛ́	thumb
		katapííla	katapííla-sɛ́	tractor
		kɛkɛ́	kɛkɛ́-sɛ́	bicycle
		kɛkɛnté	kɛkɛnté-sɛ́	scarf
		kínso	kínso-sɛ́	neem

		kirikiri	kirikiri-sɛ́	violence
		kókó	kókó-sɛ́	porridge made of millet
		kokobáta	kokobáta-sɛ́	pipe
		kolokólo	kolokólo-sɛ́	baby
		kóósé	kóósé-sɛ́	doughnut made of bean
		kóotu	kóotú-sɛ	coat
		kórokóto	kórokóto-sɛ́	name of a bird
		korowé	korowé-sɛ́	broken bowl from the bottom
		Kosók͡pó	kosók͡pó-sɛ́	herb used for sauce
		kɔ́ɔ́ta	kɔ́ɔ́ta-sɛ́	drainage pit
		k͡paad͡ʒá	k͡paajá-sɛ́	albino person
		k͡páanʊ	k͡páanʊ-sɛ́	bowl
		k͡pálábá	k͡pálábásɛ́	bottle
		k͡pálóŋ́gó	k͡pálóŋ́gó-sɛ́	embroidery
		k͡párá	k͡párá-sɛ́	branch of palm tree
		k͡peloó	k͡peloó-sɛ́	name of a bird
		k͡pɛk͡pɛsíŋe	k͡pɛk͡pɛsíŋe-sɛ́	crossroads
		k͡poŋ̂mk͡póŋ́	k͡poŋ̂mk͡póŋ́-sɛ́	box
		k͡pɔk͡pɔwʊ́	k͡pɔk͡pɔwʊ́-sɛ́	caiman
		kubé	kubé-sɛ́	coconut
		kʊd͡ʒɔkʊ	kʊd͡ʒɔkʊsé	gift
		kʊraánɪ	kʊraánɪ-sɛ́	quran
		kʊsá	kʊsá-sɛ́	sponge
		láábúle	láábúlé-sɛ́	curtain
		láaɖɪ	láaɖɪ-sɛ́	Sunday
		laásarɪ	laásarɪ-sɛ́	afternoon prayer
		laɖáánɪ	laɖáánɪ-sɛ́	prayer crier
		lakásɪ	lakásɪ-sɛ́	character
		lámba	lámba-sɛ́	vaccination

		leéma	leéma-sɛ́	umbrella
		liíliiti	liíliiti-sɛ́	insecticide
		liisá	liisá-sɛ́	night prayer
		lípolípo	lípolípo-sɛ́	lipstick
		lɔkɔ	lɔkɔ-sɛ́	water well
		lɔkʊ́	lɔkʊ́-sɛ́	arc's string
		lɔ́ɔrɪ	lɔ́ɔrɪ-sɛ́	car
		maamáási	maamáási-sɛ́	miracle
		máasa	máaasa-sɛ́	doughnut made of corn
		mád͡ʒigi	mád͡ʒigi-sɛ́	magic
		maŋgaríbi	maŋgaríbi-sɛ́	evening prayer
		mawa	mawa-sɛ́	middle dress
		motí	motí-sɛ́	lemon
		mɔmɔní	mɔmɔní-sɛ́	salted dried fish
		mʊ́tʊ́ka	mʊ́tʊ́ka-sɛ́	lantern
		nááfʊ́la	nááfʊ́la-sɛ́	complementary prayer
		naánaásʊʊna	naánaásʊʊna-sɛ́	riddle
		nd͡ʒɔŋ	nd͡ʒɔn-sɛ́	blind person
		nsáŋ́	nsáŋ́-sɛ́	ceiling
		ofĭ	ofĭ-sɛ́	law
		ogʊ́rʊ́guru	ogʊ́rʊ́guru-sɛ́	flood
		okútú	okútú-sɛ́	small clay pot
		ólópiré	ólópiré-sɛ́	airplane
		olúlú	olúlú-sɛ́	dry okra
		oníní	oníní-sɛ́	bouton
		osumare	osumare-sɛ́	rainbow
		ɔfa	ɔfa-sɛ́	pig
		ɔjɔ́ɔrí	ɔjɔ́ɔrí-sɛ́	locust
		ɔlɛlɛ	ɔlɛlɛ-sɛ́	food made of beans

		ɔmʊnʊmʊ́nʊ	ɔmʊnʊmʊnʊ́-sɛ́	brain
		ɔtɔŋkɔ	ɔtɔŋkɔ-sɛ́	toad
		papawʊ́	papawʊ́-sɛ́	towel
		pátáka	pátáka-sɛ́	cigarette box
		pɛrɛ́tɪ	pɛrɛ́tɪ-sɛ́	plate
		píítɔ	píítɔ́-sɛ́	underpants
		rííba	rííba-sɛ́	profit
		sááfɪ	sááfɪ-sɛ́	key
		saarɪ	saarɪ-sɛ́	meal before fasting
		sáásáá	sáásá-sɛ́	exam
		sakúlú	sakúlú-sɛ́	rat
		salafɔ́ńɖɔ́	salafɔ́ńɖɔ́-sɛ́	purse
		sálálámɛ́mɛm	sálálámɛ́mɛn-sɛ́	eclipse
		sanɪga	sanɪga-sɛ́	leper
		sáráka	sáráka-sɛ́	jail
		sɛ́kɪtɪ	sɛ́kɪtɪ-sɛ́	scissors
		sɛnɛsɛ́nɛ́	sɛnɛsɛ́nɛ́-sɛ́	firefly
		siká	siká-sɛ́	gold
		síka	síka-sɛ́	doubt, worry
		sílíba	sílíba-sɛ́	pan
		síńtírí	síńtírí-sɛ́	punishment
		síro	síro-sɛ́	alcohol
		síjakótó	síjakótó-sɛ́	pangolin
		sɪkɛ́ɛ́tɪ	sɪkɛ́ɛ́tɪ-sɛ́	skirt
		síńdɪlɪ	síńdɪlɪ-sɛ́	candle
		sɔkɔrɔ́	sɔkɔrɔ́-sɛ́	mashed yam
		sɔntɔ́	sɔntɔ́-sɛ́	breakfast
		sɔ́ɔ́d͡ʒa	sɔ́ɔ́d͡ʒa-sɛ́	soldier
		sɔ́sɔ́	sɔ́sɔ́-sɛ́	morning
		sʊ́ʊ́ná	sʊ́ʊ́ná-sɛ́	naming ceremony
		táákí	táákí-sɛ́	honor
		tába	tába-sɛ́	tobacco

367

		táɪ	táɪ-sɛ́	rubber
		tákárará	tákáradá-sɛ́	book, letter
		tak͡pék͡pé	tak͡pék͡pé-sɛ́	meeting
		tákuku	tákuku-sɛ́	motorbike
		táŋgaráfʋ	táŋgaráfʋ-sɛ́	phone
		taŋgele	taŋgele-sɛ́	bench
		taŋkámá	taŋkámá-sɛ́	stake of enchantment
		tasɔ́	tasɔ́-sɛ́	double-edged knife
		tatá	tatá-sɛ́	elder
		tebí	tebí-sɛ́	skirt
		timáti	timáti-sɛ́	tomato
		tiŋkú	tiŋkú-sɛ́	sea, ocean
		tíra	tíra-sɛ́	wedding ceremony
		tók͡póró	tók͡póró-sɛ́	window
		tolótoló	tolótoló-sɛ́	turkey
		tóńtóró	tóńtóró-sɛ́	bottle
		tulaarí	tulaarí-sɛ́	perfume
		túúbá	túúbá-sɛ́	repentance
		waágaasɪ	waágaasɪ-sɛ́	cheese
		wɪɪtáʋ́	wɪɪtáʋ́-sɛ́	bride
		wolúna	wolúna-sɛ́	antelope
		dɪɲíŋ͡mɡ͡baarɛ́	dɪɲíŋ͡mɡ͡baarɛ́-sɛ́	herb used for cooking
		wondó	wondó-sɛ́	long skirt
	health-related nouns (n=6)	d͡ʒigid͡ʒigi		ambience
		fíba		fever
		ɡ͡benetí		scabies
		koókoó		hemorrhoid
		kunukúnú		chickenpox
		sasaká		syphilis

abstract nouns (n=12)	d͡ʒa		today
	g͡barág͡bará		equality
	kaɲalá		wickedness
	karasíŋ		gasoline
	kɔkɔ́		dysentery
	kuleleku		steam
	laákaarɪ		wisdom
	okúnu		innocence
	rɔ́ɔba		plastic
	sáárá		equality
	suúru		patience
	wahála		sufferance
-a/-sɛ́ (n=129)	ábélíj-a	ábélí-se	fox
	áderíj-a	áderí-se	scarf
	aɖáka-á	aɖáka-sɛ́	coffin, dresser
	aɖɛ́ɖɛj-á	aɖɛ́ɖɛ-sɛ́	thug
	áɖuw-á	áɖu-sé	burden
	ag͡balakukuw-á	ag͡balakukú-sɛ	shadow
	ág͡béj-a	ág͡bé-sɛ	group of people
	agúlumbíj-a	agúlumbí-se	vulture
	áɡúw-a	áɡú-se	heritage
	akáráŋka-á	akáráŋka-sɛ́	rope used by women as belt
	ak͡pand͡ʒá-a	ak͡pãnd͡ʒá-sɛ	mushroom
	ak͡pereketíj-a	ak͡pereketí-se	a type of hen with few feathers
	ak͡pow-á	ak͡po-sɛ́	shyness
	akukuw-á	akuku-sɛ́	darkness
	alewá-a	alewá-sɛ	prostitute

		álíj-a	álí-se	name for a female if she is the only female in the family
		alʊɡ͡ba-á	alʊɡ͡ba-sɛ	unmarried person
		álʊ́k͡pák͡párá-a	álʊ́k͡pák͡párá-sɛ	elder
		ámúw-a	ámú-sɛ	pincers
		ásíj-a	ásí-se	cat
		asúsúw-a	asúsú-se	dizziness
		asʊbá-a	asʊbá-sɛ	dawn
		átúw-a	átú-se	deer
		bá-a	bá-sɛ	palm tree
		batá-a	batá-sɛ	tom-tom
		biliɡońɡúw-a	biliɡońɡú-se	thighbone
		bɔbɔrá-a	bɔbɔrá-sɛ	door made of ronier leaves
		bɔlá-a	bɔlá-sɛ	spoon
		búńbúlíj-a	búńbúlí-se	small rounded stone used for crushing
		d͡ʒamá-a	d͡ʒamá-sɛ	group of people
		d͡ʒawá-a	d͡ʒawá-sɛ	sore, wound
		d͡ʒéńd͡ʒélá-a	d͡ʒéńd͡ʒélá-sɛ́	guitar
		d͡ʒɛŋmgbéj-a	d͡ʒɛŋmgbé-sɛ	small gourde
		d͡ʒińd͡ʒíj-a	d͡ʒińd͡ʒí-se	stem of a tree
		d͡ʒɪíj-a	d͡ʒɪí-sɛ	crab
		ɖaɡulumíj-a	ɖaɡulumí-se	shrub
		ɖeɖíj-a	ɖeɖí-se	scar
		ɖoow-á	ɖoo-sɛ́	basket
		ɖʊŋá-a	ɖʊŋá-sɛ	pain
		fakóríj-a	fakórí-se	hoe
		faraká-a	faraká-sɛ́	remaining part of a used hoe

		fĩɱfilá-a	fĩɱfilá-sɛ	the rest of burned grass
		fonsá-a	fonsá-sɛ	cranial vault
		fúw-a	fú-se	pregnancy
		fʊbíj-a	fʊbí-sɛ	large spoon
		gá-a	gáá-sɛ	arrow
		gadabúńbúŋá-a	gadabúńbúŋá-sɛ	leg calf
		gadak͡pák͡párá-a	gadak͡pák͡párá-sɛ	tibia
		gadaɲímí-já	gadaɲímí-sé	toe
		gańgamá-a	gańgamá-sɛ	female izard
		gańgasólá-a	gańgasólá-sɛ	piece of clay pot
		gańgɪj-á	gańgɪ-sé	obstruction
		garaɲúńkúrá-a	garaɲúńkúrá-sɛ	whirlwind
		garatúńtúmá-a	garatúńtúmá-sɛ	heel
		g͡beéj-a	g͡beé-sɛ	slave
		g͡bená-a	g͡bená-sɛ	entrance
		guúguw-á	guúgú-se	flower of parkia biglobosa
		jíbíj-a	jíbí-se	dowry
		kááríj-a	káárí-sɛ	luggage rack
		kabúbúw-a	kabúbú-se	crying to call people
		kádirá-a	kádirá-	youngest in the family
		kad͡ʒɪj-á	kad͡ʒɪj-sɛ	barn
		kád͡ʒíj-a	kád͡ʒí-sɛ	attic, garret
		kád͡ʒɪnambíj-a	kád͡ʒɪnambí-sɛ	ants in hen' s houses
		kád̪elíj-a	kád̪elí-se	small fish (tilapia)
		kad̪íj-a	kad̪í-sɛ	urinary bladder
		kafʊŋkakʊ́rʊ́rá-a	kafʊŋkakʊ́rʊ́rá-sɛ	cricket
		kalabá-a	kalabá-sɛ	kaolin

		kalalá-a	kalalá-sɛ	shroud
		kamílí-já	kamílí-sɛ́	ant
		kárá-a	kárá-sɛ	fence
		kasíŋgɛlíj-a	kasíŋgɛlí-sɛ	scorpion
		kasúŋgúw-a	kasúŋgú-se	hole inside a room for draining
		kasʊ́ŋásʊ́ŋá-a	kasʊ́ŋásʊ́ŋá-sɛ	herb used as medicine
		kasʊ́rá-a	kasʊ́rá-sɛ	red tsetse fly
		kasʊ́w-a	kasʊ́-sɛ	fly
		katíntíŋá-a	katíntíŋá-sɛ	black tsetse fly
		katíŋ͡mɡ͡bɛlíj-a	katíŋ͡mɡ͡bɛlí-sɛ	swallow
		kéfíj-a	kéfí-se	small calabash
		kélíj-a	kélí-se	parcel
		kéríj-a	kérí-se	treaty
		kesúw-a	kesú-se	rainy season
		kétúw-a	kétú-se	nest, den
		kíjá-a	kíjá-sɛ	market
		komá-a	komá-sɛ	kapok tree leaf
		korá-a	korá-sɛ	fish hook
		k͡pak͡palá-a	k͡pak͡palá-sɛ	name of a tree
		k͡pálá-a	k͡pálá-sɛ	gourd used to drwa water
		k͡patíj-a	k͡patí-sɛ	goods
		k͡peéla-á	k͡peéla-sɛ́	sparrow hawk
		k͡péŋ͡mk͡pélá-a	k͡péŋ͡mk͡pélá-sɛ	baobab leaf
		K͡pɛ́k͡pɛ́j-a	K͡pɛ́k͡pɛ́-sɛ	peel of baobab fruit
		k͡pók͡pów-a	k͡pók͡pó-sɛ	quiver
		kulá-a	kulá-sɛ	trace
		kunsá-a	kunsá-sɛ	owls
		lénsá-a	lénsá-sɛ	sprit
		liɡ͡bokómíj-a	liɡ͡bokómí-se	hunchback

		líj-a	lí-se	partridge
		lobíj-a	lobí-sɛ	neck
		lóŋga-á	lóŋga-sɛ́	musical instrument
		mʊ́w-a	mú-sɛ	deer
		ḿverá-a	ḿverá-sɛ	cooking pot
		nemíj-a	nemí-se	she-goat
		ɲíŋkíj-a	ɲíŋkí-se	ax
		ɲíŋgɪlá-a	ɲíŋgɪlá-sɛ	tweak
		ɲúŋkúrá-a	ɲúŋkúrá-sɛ	spatula
		sákárá-a	sákárá-sɛ	comb
		sasá-a	sasá-sɛ	adze
		sasaba-á	sasaba-sɛ́	mat made of palm branch
		seríj-a	serí-se	testimony
		simá-a	simá-sɛ	cement
		sírá-a	sírá-sɛ	knife
		soŋa-á	soŋa-sɛ́	hare
		soŋ͡mk͡pák͡pá-a	soŋ͡mk͡pák͡pá-sɛ	locust
		sumíj-a	sumí-se	shea seed
		susubá-a	susubá-sɛ	chaplet
		tamá-a	tamá-sɛ	chin
		taḿfʊ́w-a	taḿfʊ̆-sɛ	beard
		teeríj-a	teerí-sɛ	palm leaf
		tíkɪrá-a	tíkɪrá-sɛ	echis
		tíŋá-a	tíŋá-sɛ	hip
		tomíj-a	tomí-se	skin
		tuká-a	tuká-sɛ	superficially closed hole by rodent
		vá-a	váá-sɛ	dog
		vansúkumá-a	vansúkumá-sɛ	elbow
		vaɲímíj-a	vaɲímí-sewɪlítɔ	finger

		vaŋ͡mkp͡ákálá-a	vaŋ͡mkp͡ákálá-sɛ	wrist
		walá-a	walá-sɛ	wooden tablet
		wólíj-á	wólí-sɛ́	star
	health-related nouns (n=2)	alaafíj-a		health
		kaɲíŋ͡mɡbalá-a		measles
	abstract nouns (n=2)	ɖúúníj-a		life
		kɔkɔlɪj-á		anger
	-o/-sɛ́ (n=1)	abóbo-ó	abóbo-sɛ́	toad
	-ɔ/sɛ́ (n=3)	akíríkɔ-ɔ́	akíríkɔ-sɛ́	vertebra
		aŋɔ-ɔ́	aŋɔ-sɛ́	donkey
		nɔ́-ɔ	nɔ́-sɛ	mouth
	-ŋɛ/-sɛ́ (n=8)	ɖá-ŋɛ	ɖá-sɛ	stick
		k͡pírá-ŋɛ	k͡pírá-sɛ	wasp
		sɪná-ŋɛ	sɪná-sɛ	rib cage
		sɔrá-ŋɛ	sɔrá-sɛ	pestle
		jíla-ŋɛ́	jíla-sɛ́	horn
		tɔrá-ŋɛ	tɔrá-sɛ	toothpick
		vanɖá-ŋɛ	vanɖá-sɛ	forearm
		vɔɔ́-ŋɛ	vɔɔ́-sɛ	Rope
CIII	-re/na (n=26)	aɲɪŋ͡mɡbobí-re	aɲɪŋ͡mɡbobí-na	tadpole
		beé-re	beé-ná	palm-nut
		bi-re	bií-na	pearl, money
		bisí-re	bisí-na	buttock
		bó-re	bóó-na	house
		dig͡bég͡be-ré	ag͡bég͡be-ná	head of yam used to grow

		digeŋgé-re	ageŋgé-na	type of sesame
		ḍebí-re	ḍebí-na	stake
		ḍíbú-re	ábú-na	mound
		ḍídugu-ré	áḍugu-ná	proverb
		ḍíḍee-ré	áḍee-ná	breast
		ḍifú-re	áfúre-ná	fallow land
		ḍigéŋgemí-re	agéŋgemí-na	centipede
		ḍigó-re	agó-na	tent
		ḍikoko-ré	akoko-ná	noise
		ḍisoo-ré	asoo-ná	type of beans
		ḍúkú-re	ákú-na	cloth
		garabéé-ré	garabéé-ná	ankle
		goó-re	goó-na	place
		í-re	í-na	day
		kád͡ʒimbí-re	kád͡ʒimbí-na	chicken
		kólómi-re	kólóma-ná	cotton capsules
		ledúdú-re	ledúdú-na	gizzard
		lékí-re	léka-ná	chest
		lɪɡ͡bobí-re	lɪɡ͡bobí-na	spine
		memí-re	memí-na	clitoris
		mií-re	mií-na	sorghum
		ɲandó-re	ɲandó-na	pottery dish
		ɲiŋkibí-re	ɲiŋkibí-na	iron ax
		ɲúú-re	ɲúú-na	thigh
		símí-re	símí-na	eye
		sombó-re	sombó-na	shea
		sondími-re	sondím-ná	eatable cricket
		tímí-ré	tím-aná	spear
		tóó-re	tóó-na	knot
		vavó-re	vavó-na	shower
	-rɛ́/-ná (n=13)	bɛɛ́-rɛ	bɛɛ́-na	monkey

		bʊ́-rɛ	bʊ́ʊ́-na	stone
		ɖímɔ́ɔ-rɛ́	ámɔ́ɔ-ná	straw
		fɔ́ɔ́-rɛ	fɔ́ɔ́-na	liver
		g͡balafɔ́ɔ́-rɛ	g͡balafɔ́ɔ́-na	pancreas
		k͡pɛ́ɛ́-rɛ	k͡pɛ́ɛ́-na	deer
		lʊŋʊ́-rɛ	lʊŋʊ́-na	dry season
		mɪsí-rɛ	mɪsí-na	urine
		nɔtɔmí-rɛ	nɔtɔmí-na	speech
		ŋí-rɛ	ŋíí-na	head
		salangɔ́ɔ́-rɛ	salangɔ́ɔ́-na	shrub
		tɛ́fʊ́-rɛ	tɛ́fʊ́-na	the beginning of the rainy season
		vamɛ́-rɛ	vamɛ́ɛ́-na	left hand
	-Ø/-na (n=16)	bíre	bíre-ná	ernel
		ɖidimbilé	adimbilé-ná	road
		ɖid͡ʒóle	ad͡ʒóle-ná	okra
		féɱféle	féɱféle-ná	leaf
		fóle	fóle-ná	nerve
		garafóle	garafóle-ná	sinew of ankle
		g͡belé	g͡belé-ná	chair
		kéle	kéle-ná	side
		kumóle	kumóle-ná	plate
		liíle	liíle-ná	root
		ŋ͡mk͡péle	ŋ͡mk͡péle-ná	tongue
		tíle	tíle-ná	forehead
		vaŋkéle	vaŋkéle-ná	shoulder
		viíle	viíle-ná	river
		wére	wére-ná	helping father in law at the harvest time
		wúle	wúle-ná	navel

(n=2)	buselé		childhood
	mbú-re		heat
-re/a-na (n=18	básákɪ-rɛ́	básáka-ná	wild duck
	d͡ʒamí-rɛ	d͡ʒaáma-ná	wound
	ḍahʊ́mʊ-rɛ́	ḍahʊ́ma-ná	cicada
	ḍíḍɛgɪ-rɛ́	áḍɛga-ná	pond
	ḍɪgá-rɛ	agá-na	fork
	ḍɪmʊ-rɛ́	amʊra-ná	tale
	fɔ́ŋí-rɛ	fɔ́ŋa-ná	neck
	garakʊ́mʊ-rɛ́	garakʊ́ma-ná	knee
	garakʊ́mʊ-rɛ́	garakʊ́ma-ná	knee
	kímí-rɛ	kíma-ná	debt
	k͡pák͡pákɪ-rɛ́	k͡pák͡páka-ná	duck
	k͡pásí-rɛ	k͡pása-ná	testicle
	námí-rɛ	námá-ná	grindstone
	ɲímí-rɛ	ɲíma-ná	nail "tool"
	ŋɔ́mí-rɛ	ŋɔ́ma-ná	bone
	sámí-rɛ	sáma-ná	porcupine
	sɔ́bí-rɛ	sɔ́ba-ná	mortar
	tʊ́mʊ́-rɛ	tʊ́ma-ná	work
Ø/a-na (n=20)	átálɛ	átála-ná	ginger
	ḍaálɛ	daála-ná	kidney bean
	ḍígantálɛ	ágantála-ná	flute
	fárɛ	fára-ná	board of a trap
	fárɛ	fára-ná	daba
	fɪŋfʊ́nɛ	fɪŋfʊ́na-ná	men's hair on the penis
	fĩnɛ	fĩna-ná	penis

		ɡ͡baálɛ	ɡ͡baála-ná	bell, hour
		jálɛ	jála-ná	egg
		kílɛ	kíla-ná	tooth
		lílɛ	líla-ná	ear
		maɱfʊ́nɛ	maɱfʊ́na-ná	girls' hair on the pubis
		mánɛ	mána-ná	vagina
		ɲíŋɡílɛ	ɲíŋɡíla-ná	ring
		tálɛ	tála-ná	bamboo
		tɔ́nɛ	tɔ́na-ná	dried animal skin
		tʊ́lɛ	tʊ́la-ná	he-got
		vandíre	vandíra-ná	arm
		vantátálɛ	vantátála-ná	hand palm
		wálɛ	wála-ná	coal
	(n=4)	lʊ́lɛ		birth
		mɪlílɛ		nasal mucus
		ɖɪkɔ́-rɛ		laziness
		ɡɔɔ́-rɛ		difficulty
CIV	-ɔ́/-ŋɛ (n=30)	bɔkɔrɔ́-ɔ	bɔkɔrí-ŋɛ	body of s.th.
		d͡ʒad͡ʒɔ́-ɔ	d͡ʒad͡ʒí-ŋɛ	elephant
		d͡ʒaɱfɔ́-ɔ	d͡ʒaɱfʊ́-ŋɛ	scar
		d͡ʒɛlɔ́-ɔ	d͡ʒɛlí-ŋɛ	eagle
		fɛrɔ́-ɔ	fɛrí-ŋɛ	shallows
		fɪbɔ́-ɔ	fɪbʊ́-ŋɛ	storage of yam
		fɪɖɔ́-ɔ	fɪɖʊ́-ŋɛ	yam field
		fʊ́tɔ́-ɔ	fʊ́tʊ́-ŋɛ	sticky herb used for sauce
		garaɲíɡɪlɔ́-ɔ	gadaɲíɡɪlí-ŋɛ	toenail
		ɡɪsɔ́-ɔ	ɡɪsí-ŋɛ	horse
		jalɔ́-ɔ	jalí-ŋɛ	trench

		kádʒiŋmgbɔ́-ɔ	kádʒiŋmgbʊ́-ŋɛ	cock
		k͡pak͡padʒɪmɔ́-ɔ	k͡pak͡padʒɪmʊ́-ŋɛ	bat
		kuɖambʊrɔ́-ɔ	kuɖambʊrɔ́-ŋɛ	termite, termitary
		kʊŋkʊmɔ́-ɔ	kʊŋkʊmʊ́-ŋɛ	sickle
		kʊŋ͡mk͡palɔ́-ɔ	kʊŋ͡mk͡pálí-ŋɛ	matches
		kʊsɔlɔ́-ɔ	kʊsɔlí-ŋɛ	quackgrass
		kʊsʊbɔ́-ɔ	kʊsʊbʊ́-ŋɛ	fireplace
		lɪɡ͡bɔ́-ɔ	lɪɡ͡bʊ́-ŋɛ	back
		mɪŋgɔ́-ɔ	mɪŋgʊ́-ŋɛ	crest
		ɲíŋgɪlɔ́-ɔ	ɲíŋgɪlí-ŋɛ	nail
		ɔ́ɖíw-ɔ	ɔ́ɖí-ŋɛ	hunter
		sʊ́lɔ́-ɔ	sʊ́lʊ́-ŋɛ	parkia biglobosa
		talɔ́-ɔ	talí-ŋɛ	trace
		tʊmɔ́-ɔ	tʊmʊ́-ŋɛ	bee, honey
		vaɱfɔkɔ́-ɔ	vaɱfʊ́kʊ́-ŋɛ	armpit
		vanɔ́-ɔ	vaní-ŋɛ	hand
		vaɲíŋgɪlɔ́-ɔ	vaɲígɪ̃lí-ŋɛ	fingernail
		vɛɱvɛnɔ́-ɔ	vɛɱvɛní-ŋɛ	monster
		vɛnɔ́-ɔ	vɛní-ŋɛ	fetish
	-ó/-ŋɛ (n=23)	besó-o	besú-ŋɛ	clay pot
		besó-o	besú-ŋɛ	clay pot
		ɖomó-o	ɖomú-ŋɛ	sauce
		fúró-o	fúrú-ŋɛ	bag
		gaŋ́gasík͡pó-o	gaŋ́gasík͡pú-ŋɛ	male of lizard
		gogó-o	gogú-ŋɛ	chicken/dock house
		kokotó-o	kokotì-ŋɛ	large round gourd
		kolobó-o	kolobú-ŋɛ	deep hole
		koŋ́koromó-o	koŋ́koromú-ŋɛ	small sickle
		k͡péló-o	K͡pélú-ŋɛ	baobab
		kulúló-o	kulúlú-ŋɛ	cockroach

		lofó-o	lofú-ŋɛ	goiter
		lóló-o	lólí-ŋɛ	song
		mboló-o	mbolí-ŋɛ	abandoned house
		ɲiŋkó-o	ɲiŋkú-ŋɛ	back side of the head
		ódíw-o	ódí-ŋɛ	deaf person
		saaló-o	Saalú-ŋɛ	boubou for woman
		síw-o	sí-ŋɛ	guineafowl
		sómó-o	sómú-ŋɛ	shea tree
		tik͡pó-o	tik͡pú-ŋɛ	forest
		vandíw-o	vandí-ŋɛ	right hand
		vindíró-o	vindirí-ŋɛ	glans
		wosó-o	wosí-ŋɛ	soul
	-ʊ/-ŋɛ (n=3)	ɖaáw-ʊ	ɖaá-ŋɛ	furrow
		ɖaáw-ʊ	ɖaá-ŋɛ	bark
		saáw-ʊ	saá-ŋɛ	grasshopper
	-ɔ́/-níŋɛ (n=10)	asántɔ-ɔ́	asántɔ-níŋɛ	mashed corn and cassava
		kɔlɔ-ɔ́	kɔlɔ-níŋɛ	herbal water wash a sick person
		kʊ́d͡ʒɔ-ɔ́	kʊ́d͡ʒɔ-níŋɛ	yam
		lɔ́-ɔ	lɔ́-nɪŋɛ́	forest
		sasɔ-ɔ́	sanɔ-níŋɛ	pickaxe
		sɔŋɔ-ɔ́	sɔŋɔ-níŋɛ	name of an animal
		sɔrɔ-ɔ́	sɔrɔ-níŋɛ	moon, month
		tíw-ɔ	tí-nɪŋɛ́	tree
		tɔ́-ɔ	tɔ́-nɪŋɛ́	bow
		wɔrɔ-ɔ́	wɔrɔ-níŋɛ	golden chain
	(n=5)	k͡pésó-o		cough

		ɖofó		rain
		kumó-o		fire
		kutufúró-o		dust
		ɲıntɔ́		grass
	(n=10)	awúto	awúto-níŋɛ	cotton
		bɛ́ńtɔ	bɛ́ńtɔ-níŋɛ	placenta
		bíńto		dirt
		bırítɔ	bırítɔ-níŋɛ	sperm
		fátɔ	fátɔ-níŋɛ	medicine
		fɔɔkɔ́	fɔɔkɔ́-níŋɛ	soap
		garafátɔ		undersurface of foot
		náńtɔ	náńtɔ-níŋɛ	meat
		sóto	sóto-níŋɛ	mustard
		sɔ́tɔ	sɔ́tɔ-níŋɛ	poison
CV	-Ø/-níŋɛ (18)	ɖóŋe		strength
		fʊrʊfʊrʊ		nausea
		lalímɔ		saliva
		límɔ		water
		límɔ		water
		lósumó		hunger
		mɪlímɔ		flour
		mísɪmɔ́		fart
		mɔ́sɪŋɛ́		bad smell from body
		nsémo		palm oil
		ɲɛ́mɔ		sand
		ɲɛ́mʊŋɛ́		tiredness
		ɲímo		oil
		ɲúŋe		heaviness

		ŋálɪmɔ́		gun powder
		sálɪmɔ́		blood
		sílɪmɔ		tear
		tɔkɔlímɔ		ash

Appendix 3: Sample Text – the tortoise and the squirrel- by Ibrahim Osseyi (†)[11].

1.
ma	*ɖɪmʊ-rɛ́*	*lá*	*kaa*	*júkú*	*ad͡ʒakp͡á*	*na*	*sawéle*
1SG.POSS	story-SG.CIII	take.FAC	and	find.INF	tortoise	and	squirrel

My story and found a tortoise and squirrel.'

2.
ba	*ɖí*	*ɖɔɔ́-tɔ*
3PL.CI	eat	friend-NOM

'They were friends.'

3.
bá	*aní*	*wɛ-ná*	*ɔ*	*ɖigó-re*
every	who	COP-COM	3SG.CI.POSS	room-SG.CIII

'Everyone has a room.'

4
sawéle-é	*lí*	*dɪ-í*	*já*	*ad͡ʒakp͡á*
squirrel-IMPV	go.out	3SG.CIII.IMPV	call	tortoise

sɪ	*álámɪ́-na*	*lɔ́-ɔ́*	*wɛ*	*ɖóŋe*
COMP	person-SG.CI	because-FOC	COP.FAC	strength

'The squirrel goes out and say to the tortoise "it is because of a person; a person is strong (you need a another person in your linf to be strong".'

5.
ad͡ʒakp͡á-á	*kp͡á*	*fɛ̌*	*dɛ*	*sɪ*	*ká*	*tá*	*ɖóŋe*	*ŋʊ-rʊ*	*lɔ́*	*bɔ́ɔ*
tortoise-IMPV	response	give	3SG.CIII	COMP	3SG.EMPH	NEG	strength	3SG.CI-INDE	because	NEG

'The tortoise responds to the squirrel by saying he is not strong because of someone'

6.
ká	*wɛ*	*ɖoŋe*	*fɛ̌*	*ká*	*tí*
SG.CII.EMPH	COP.FAC	strength	give	3SG.CII.EMPH	REF

'He is strong on his own and for himself.'

7.
ká	*na*	*ká*	*bɔkɔrɔ́-ɔ*	*k͡pɔk͡pɔrɔk͡pɔɔ*
3SG.CII.EMPH	COM	3SG.CII.EMPH.POSS	Body-SG.CIV	hard

bʊ́ɔ́	*ká*	*wɛ*	*ɖóŋe*	*ŋʊrʊ*	*lɔ́-ɔ?*	*aajó*
then	3SG.CII.EMPH	COP.FAC	strength	3SG.CI-INDE	because-Q	no

'With his hard bodyshell, then he is strong because of someone? No.'

---

[11] May your soul rest in peace.

8. | íre | darı | | sawélé | lı | ka | ja |
   |---|---|---|---|---|---|---|
   | one | 3SG.CIII-INDE | | squirrel | go out | and | call.INF |

sı	álámí-na		lɔ́-ɔ́	wɛ	ɖóŋe
COMP	person-SG.CI		because-FOC	COP.FAC	strength

   'One day, the squirrel went out and called It is because of another person a person is strong.'

9. | ad͡ʒakpá | tɔŋ fɛ́ | ı | sı | aajó ká | tá | ɖóŋe | ŋʊ-rʊ | lɔ́ | bɔ́ɔ |
   |---|---|---|---|---|---|---|---|---|---|
   | tortoise | tell give | 3SG.CI | COMP | no | 3SG.CII.EMPH | NEG | strength | 3SG.CI-INDE | because | NEG |

   'The tortoise told him no. He is not strong because of someone.'

10. | bʊ́ʊ́ | íre | darı | | ɔɖíw-ɔ | | ŋʊrʊ | | lá | lalc |
    |---|---|---|---|---|---|---|---|---|---|
    | then | One | 3SG.CIII-INDE | | hunter-SG.CIV | | 3SG.CI-INDE | | go | hunting |

    'Then, one day, a hunter went to hunt'

11. | ɔ | tá | ná | bʊrʊ | | ka | kɔ́ | bɔ́ɔ |
    |---|---|---|---|---|---|---|---|
    | 3SG.CI | NEG | see.INF | 3CV.CIII-INDE | | to | kill.INF | NEG |

    'He did not see anything to kill.'

12. | bʊ́ʊ́ | ɔ | | júku | ad͡ʒakpá |
    |---|---|---|---|---|
    | then | 3SG.CI | | find.FAC | tortoise |

    'Then, he found the tortoise.'

13. | sı | m | ma | tá | ná | bʊrʊ | bɔ́ɔ | má | ná-ja | ad͡ʒakpá |
    |---|---|---|---|---|---|---|---|---|---|
    | COMP | if | 1SG | NEG | see.INF | 3CV.CIII-INDE | NEG | 1SG | See- | tortoise |

    '(He said) since I did not see anything (and now) I see a tortoise.'

má	sasí	ısɔ́ɔ
1SG	thank.INF	God

    'I thank God.'

14. | ma-á | jɛ́ | ɖomó-o |
    |---|---|---|
    | 1SG-IMPV | do | sauce-SGCIV |

    'I will make sauce.'

15. | ad͡ʒakpá | tá | jala | ka | fóé | bɔ́ɔ |
    |---|---|---|---|---|---|
    | tortoise | NEG | be able.INF | to | run.INF | NEG |

    'The tortoise could not run.'

16. | bʊ́ʊ́ | ɔ | | mɔsí | kɛ | | ka | leŋ | fúró-o | | mɛ |
    |---|---|---|---|---|---|---|---|---|---|---|
    | then | 3SG.CI | | take | 3SG.CII | | and | throw | bag-SG.CIV | | LOC |

    'Then, the hunter took the tortoise and threw him inside the bag.'

17 | bʊ́ʊ́ | ɔ | wɛ | ɔ-ɔ́ | | lá | ɔ | wɛ | ɔ-ɔ́ | | lá |
   |---|---|---|---|---|---|---|---|---|---|---|
   | then | 3SG.CI | COP.FAC | 3SG.CI-IMPV | | go | 3SG.CI | COP.FAC | 3SG.CI-IMPV | | go |

   'Then, the hunter was going. He was going.'

18. sawéle   lɪ   goóre   kaa   ba-á   já-já   ɖɔ́ŋɔ́
     squirrel   go out.FAC   place   REL   3PL.CI   call-   each other
     'The squirrel went out to the place where they say to each other.'

19. sɪ   álámí-na   lɔ́-ɔ́   wɛ   ɖóŋe
     COMP   person-SG.CI   because-FOC   COP.FAC   strength

     'it is because of a person, a person is strong.'

20. bʊ   g͡bí-ɪ   álámí-na   lɔ́ɔ́   álamí-ná   wɛ   ɖóŋe   bʊ   g͡bíɪ
     3SG.CV   quiet-FAC   person-SG.CI   on-FOC   person-SG.CI   COP   strength   3SG.CV   quiet-FAC

     'It was quiet. it is because of a person, a person is strong. It was quiet.'

21. bʊ́ʊ́   ɖɪ   ná   ɔ́ɖíwɔ   gaɖá-sɛ   ɖɪ   ɖigó-re   lɔ́
     then   3SG.CIII   see.FAC   hunter-SG.CIV   foot-PL.CII   3SG.CIII.POSS   house-SG.CIII   LOC
     'Then, the squirrel saw the hunter's foot prints on its house.'

22. ma   tíí   tɔ́ŋ́
     1SG   ANT   say.FACl
     'I had said (that will happen).

23. bʊ́ʊ́   sawéle   fóe   ka   la   g͡bɔ́ɔ   lɔ́
     Then   squirrel   run.FAC   and   go.INF   road-SG.CIV   LOC
     'Then, the squirrel ran and went to the road.'

24 ɖɪ   ná   ɔ́ɖíw-ɔ   wɛ   ɔ-ɔ́   lá
     3SG.CIII   See.FAC   hunter-SG.CIV   COP   3SG.CI-IMPV   go
     'it saw the hunter going.'

25. bʊ́ʊ́   ɖɪ   fú   ɔ́ɖíwɔ   warí
     then   3SG.CIII   follow.FAC   hunter-SG.CIV   behind
     'Then, he followed the hunter.'

26. ɖí   k͡pɛ́kɪ-ja   ɔ́ɖíw-ɔ   ɖɪ   d͡ʒɔ́   ɲíítɔ   mɛ   ka   sɛŋ
     3SG.CIII   be close-   hunter-SG.CIV   3SG.CIII   enter.FAC   bush   LOC   and   cross.INF

     ɔ́ɖíw-ɔ   símí-na   mɛ   ka   lɪ   ka   kóŋ́   g͡bɔ́ɔ   lɔ́
     hunter-SG.CIV   eye-PL.CIII   LOC   and   go out.INF   and   set.INF   road-SG.CIV   on
     'When the squirrel got closer to the hunter, it entered inside the bush and passed the hunter to be in
     front of him and and sat on the road.'

27. ɔ́ɖíw-ɔ   wɛ   ɔ-ɔ́   kɔní   ɔ   wɛ   ɔ-ɔ́   kɔní
     hunter-SG.CIV   COP   3SG.CI-IMPV   come   3SG.CI   COP   3SG.CI-IMPV   come
     'The hunter was coming. He was coming.'

28. ɔ   tá   ná   bʊrʊ   ka   kʊ́   bɔ́ɔ
     3SG.CI   NEG   see.INF   3CV.CIII-INDE   to   kill.INF   NEG
     'He did not see anything to kill.'

29.
ɔ	ná	sawéle	g͡bɔ́-ɔ	lɔ́		bʊ́ʊ́	ɔ	tɔ́ŋ
3SG.CI	see.INF	squirrel	way-SG.CIV	LOC		then	3SG.CI	say.FAC

sɪ	ma-a	kʊ́	sawéle	ɖe-je	ka	k͡pina	ad͡ʒak͡pá
COMP	1SG-IMPV	kill	squirrel	3SG.CIII-DEM	and	add	tortoise

lɔ́	na	ma	ɖomó-o	jɛ́	ɲúŋe
LOC	purp	1SG.POSS	sauce-IMPV	COP	heavy

'He saw the squirrel. Then, he said I will kill this squirrel and add it to the tortoise for my sauce to be thick.'

30.
saa	kaa	mɛ́ɛ́	ɔ́ɖíwɔ-ɔ́	gé-ja	ɔ́	sáŋ	sawéle
time	REL	in	hunter-SG.CIV	want-	3SG.CI	catch.INF	squirrel

ɖɪ-í	fójé	ka	la	símí-na	mɛ
3SG.CIII-IMPV	run	and	go	eye-PL.CIII	LOC

'When the hunter wants to catch the squirrel, it rans and goes away.'

31.
ŋ́	ɔ	k͡pékɪ	sawéle	lɔ́	ɔ-ɔ́	gé	ɔ́	sáŋ	ɖɛ
If	3SG.CI	be near.FAC	squirrel	and	3SG.CI-IMPV	want-	3SG.CI	catch.INF	3SG.CIII

ɖɪ-í	fójé	ka	la	símí-na	mɛ	ro
3SG.CIII -IMPV	run	and	Go.INF	eye-PL.CIII	LOC	again

'If hunter gets closer to the squirrel and he wants to catch it, the squirrel rans again.'

32.
ɔ́	k͡pékɪ-ja	sawéle	ro	ɖɪ	tá	fójé	ro	bɔ́ɔ
3SG.CI	be near-	squirrel	again	3SG.CIII	NEG	Run-INF	again	NEG

'When he got closer to the squirrel, it did not run again.'

33.
ɖɪ	we	ɖɪ-í	valá	fɛtɛrɛ	fɛtɛrɛ
3SG.CIII	COP	3SG.CIII	walk	slow	slow

'The squirrel was walking slowly.'

34.
bʊ́ʊ́	ɔ́ɖíwɔ	tɔŋ́	sɪ	ŋ́ n	tá	d͡ʒɪŋ	bʊ́	gɔ́	ɖɛ
then	hunter-SG.CIV	Say.FAC	COMP	if 2SG	NEG	Know.INF	3SG.CV	be tired.FAC	3SG.CIII

'Then, the hunter said maybe it is tired.'

35.
ma-á	lɪ-sí	ma	nso	fúró-o	na	má tɔ́	ɖɛ
3SG.CI-IMPV	go.out.CAUS.FAC	1SG.POSS	gun	bag-SG.CIV	PURP	1SG Shoot.INF	3SG.CIII

'I will take out my gun to shoot it.'

36.
bʊ́ʊ́	ɔ́ɖíwɔ	sɪsí	ɔ	fúró-o	átɛ	ka lɪ-sɪ	nso
then	hunter-SG.CIV	put down.FAC	3SG.CI.POSS	bag-SG.CIV	ground	and go.out.CAUS .INF	gun

'Then the hunter put down his bag on the ground and took out the gun.'

37. ɔ́　　l̩-sí-ja　　　　nso　ɔ　　tá　　k͡pérí　　　　ɔ　　　　　　　furóo　　　ro　bɔ́ɔ
　　3SG.CI　go out-CAUS-　　gun　3SG.CI　NEG　pick up.INF　3SG.CI.POSS　bag.SG.CIV　again　NEG

　　'When he took out his gun he did not his bag again.'

38. ɔ　　jelé　　　　ɔ　　　　furó-o　　　　ka　　fú　　　　　sawéle
　　3SG.CI　Let.FAC　　3SG.CI　bag.SG.CIV　　and　follow.INF　squirrel

　　ba　　lá　　　bʋ　　　　taŋ́-ŋ
　　3PL.CI　go　　3SG.CV　be far-FAC

　　'He left his bag and followed the squirrel. they went far away.'

39. sawéle-é　　　d͡ʒɪŋ-ŋa　　sɪ　　　　ba　　　lá　　　　bʋ　　　　taŋ́-ŋ
　　squirrel-　　　know-　　　COMP　　3PL.CI　Go.FAC　3SG.CV　be far-FAC

　　dɪ　　　　foe　　ka　　　d͡ʒʊ́　　ɲíítɔ　　mɛ
　　3SG.CIII　run　　and　　enter　bush　　LOC

　　'When the squirrel knew that they went far away. It ran and entered inside the bush.'

40. ɔ́ɖíwɔ　wɛ　ɔ-ɔ́　　　　da　　sawéle　sɪ　　　dí　　　lɪ　　　　g͡bɔ́-ɔ　　　lɔ́
　　hunter　COP　3SG.CI-IMPV　wait　squirrel　COMP　3SG.CIII　go out.INF　Way-SG.CIV　LOC

　　'The hunter was waiting for the squirrel to go out on the road.'

41. sawéle　　tá　　　lɪ　　　　　ro　　　　bɔ́ɔ　ɔ́ɖíw-ɔ　　　　búti
　　squirrel　NEG　go out.FAC　again　　NEG　Hunter-SG.CIV　return.FAC

　　ɔ́　　kaa　mɔsí　　ɔ　　　　furó-o
　　3SG.CI　to　Take.INF　3SG.CI.POSS　bag.SG.CIV.

　　'The squirrel did not go out again. The hunter returned to take his bag.'

42. ɔ́　　talál-ja　ɔ　　　　　tá　　na　　ad͡ʒak͡pá　furó-o　　　mɛ　bɔ́ɔ
　　3SG.CI　arrive-　3SG.CI.POSS　NEG　See.INF　tortoise　bag-SG.CIV　LOC　NEG

　　'When the hunter arrived, he did not see the tortoise inside the bag.'

43. ad͡ʒak͡pá　lí　　　　ka　　fóé　　　ka　la　　ka　　　fɔlɔ́-ɔ
　　tortoise　go out.FAC　and　run.INF　and　Go.INF　3SG.CI.POSS　place-SG.CIV

　　sawéle　lá-a　　　ad͡ʒak͡pá　lá-a
　　squirrel　go-FAC　tortoise　go-FAC

　　'The tortoise went out and run to go to his place. The squirrel went and the tortoise went.'

44. ad͡ʒak͡pá　wɛ　　　　ɔ　　fɔlɔ́-ɔ　　　　búʊ́ sawéle lá　　goore kaa ba　　ja-ja dɔŋɔ
　　tortoise　COP.FAC　3SG.CI　place.SG.CIV　then　squirrel　go.FAC　place　REL 3PL.CI　call-　Each other

　　sɪ　　　álámí-na　　　lɔ́-ɔ́　　　　wɛ　　　ɖóŋe
　　COMP　person-SG.CI　because-FOC　COP.FAC　strength

　　'The tortoise was in his place. Then, it went to the place where they say to each other. It is because of another person a person is strong.'

45.
bʊ́ʊ́	*sawéle*	*sɪ*	*álámí-na*	*lɔ́ɔ́*	*álamí-ná*	*wɛ*	*ɖóŋe*
then	squirrel	COMP	person-SG.CI	on-FOC	person-SG.CI	COP	strength

'Then the squirrel (said) it is because of a person, a person is strong.'

46.
bʊ́ʊ́	*ad͡ʒakpá*	*k͡pá*	*sɪ*	*aaaa*	*ma*	*ɖɔɔ́-ná*	*íd͡ʒa-á*	*n*	*tɔŋ́-ŋ*
then	tortoise	respond-FAC	COMP		1SG.POSS	friend-SG.CI	truth	2SG	say-FAC

'Then, the tortoise responded my friend what you said is the truth.'

47.
álámí-na	*lɔ́-ɔ́*	*wɛ*	*ɖóŋe*	*álámí-na*
person-SG.CI	because-FOC	COP.FAC	strength	person-SG.CI

'it is because of another person a person is strong.'

48.
bʊ́ʊ́	*sawéle*	*bisí*	*ad͡ʒakpá*	*sɪ*	*béé*	*n*	*ná-a*
then	squirrel	ask.FAC	tortoise	COMP	what-FOC	2SG	see-Q

'Then, the squirrel asked the tortoise what do you think?'

49.
ad͡ʒakpá	*sɪ*	*m bʊ-ʊ*	*tá*	*jɛ́*	*n*	*lɔ́*	*ɔ́ɖíwɔ-ɔ*	*kʊ́*	*mɛ*
tortoise	COMP	if 3SG.CV-COUNT	NEG	COP	2SG	because	hunter-COUNT	kill	1SG

'The tortoise said that if it had not been because of you, the hunter would have killed me.'

50.
ɖımʊ-ŕɛ́	*ɖe-d͡ʒe-é*	*wʊlí*	*sɪ*	*nɛsɪ-ŕɛ́*	*ɖa-rɪ*	*k͡pak͡pa*
story-SG.CIII	3SG.CIII-DEM-IMPV	show	COM	idea-SG	3PL.CII-INDE	only

tá-a	*jɛ́*	*tʊ́mʊ́-rɛ*	*bɔ́ɔ*
NEG-IMPV	do	work-SG.CIII	NEG

'This story shows that one idea is not good enough.'

51.
ŋ́	*ŋa*	*wɛ*	*ŋaa-lɛ*	*abee*	*ŋa-tooro*	*bʊ́ʊ́*	*ŋa-á*	*jɛ́*	*tʊ́mʊ́-rɛ*
if	3PL.CII	COP.FAC	3PL.CII-tow	or	3PL.CII-three	then	3PL.CII-IMPV	do	work-SG.CIII

'If they are two or three ideas then they will work.'

52.
ma	*ɖımʊ-ŕɛ́*	*tıŋé-ɛ́*	*d͡ʒé*
1SG.POSS	Story-SG.CIII	end-	DEM.IDEN

'This is the end of my story.'