INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

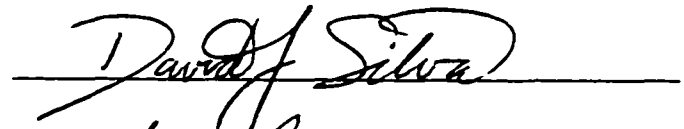
UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

ASPECTS OF GBARI GRAMMAR

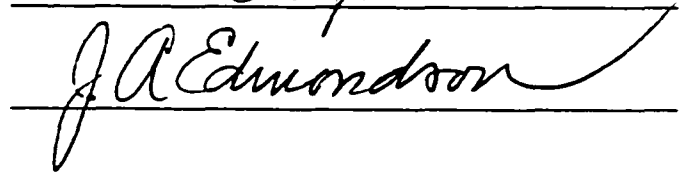
The members of the Committee approve the masters thesis of Elias Patrick Rosendall

David J. Silva
Supervising Professor



Donald A. Burquest

Jerold A. Edmondson



ASPECTS OF GBARI GRAMMAR

by

ELIAS PATRICK ROSENDALL

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

MASTER OF ARTS IN LINGUISTICS

THE UNIVERSITY OF TEXAS AT ARLINGTON

May 1998

ACKNOWLEDGMENTS

I would like to express my thanks to a number of people for their help in the writing of this thesis.

I am especially grateful to Rev. Etsu Kwali and his family who provided a home for us in Kwali and for their help in our beginning stages of language learning. Thanks goes to Rev. Etsu (Baba), and his children Haruna, Enoch, Theophilus, Cyrus, Johnathan, Grace, Naomi, Rebecca, Priscilla, and Ruth. A special thanks goes to Rev. Etsu's eldest son John, our primary language assistant, for his patience and willingness to help in any way he could.

Thanks also goes to Andy Nesta Philip and to Numa Sheshi for their help in providing language data. I am also grateful to Dr. John Adive and Donald Frantz for their help in analyzing Gbari during our field work phase, as well as to Roger Blench for his help in proofreading the introductory chapter. Additionally, I would like to thank my committee members David Silva, Donald Burquest, and Jerold Edmondson for their helpful insights and suggestions.

My wife Heidi deserves special thanks for her patience and support, and for her invaluable help in typing and formatting the thesis.

Most importantly I thank God for giving me the encouragement, guidance, and strength I needed to complete this work.

March 27, 1998

ABSTRACT

ASPECTS OF GBARI GRAMMAR

Publication No. _____

Elias Patrick Rosendall, M.A.

The University of Texas at Arlington, 1998

Supervising Professor: David J. Silva

Gbari is a Niger-Congo language spoken in central Nigeria. This thesis provides an overview of certain aspects of the language, including the phonological system, the noun phrase, the verb phrase, and certain subordinate constructions. The thesis also treats the typological aspects of Gbari.

The phonological analysis is presented in an autosegmental framework and focuses in particular on how the pervasive features of nasalization, palatalization, and labialization enter into the process of syllabification. Also of interest is the behavior of the singular noun prefix, which tends to harmonize with the vowel contained in the following syllable.

Interesting features of the grammar include verb serialization, as well as the frequent use of stative, inchoative, and locative verbs in the language. Typologically, Gbari is analyzed as having an SVO word order, which may be realized as SOV in a number of environments.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION

The goal of this thesis is to provide the first comprehensive linguistic study of Gbari, a language of central Nigeria. As Gbari is an unwritten, little-researched language, the opportunity afforded by this goal is both challenging and compelling. The Gbari community has expressed a desire to develop Gbari into a written language. It is therefore hoped that this thesis may contribute to the linguistic understanding prerequisite to successful language development. With the above goal in mind, this thesis surveys basic aspects of Gbari phonology and grammar. The phonology of Gbari is treated here for the first time using an autosegmental framework. The grammatical analysis in chapters 3 to 6 treats basic aspects of the noun phrase, verb phrase, and subordinate constructions, thereby setting the stage for more extensive subsequent research.

1.1 The Gbari people and their language

The Gbari people live in scattered villages in central Nigeria throughout southern Niger state and the Federal Capital Territory. Their settlement area forms a crescent shape--extending from the western half of the Federal Capital Territory to Zungeru in southern Niger state (see figure 1). Gbari villages are also found in Kaduna state in Kachia LGA[1] and

[1] LGA is an abbreviation for Local Government Area.

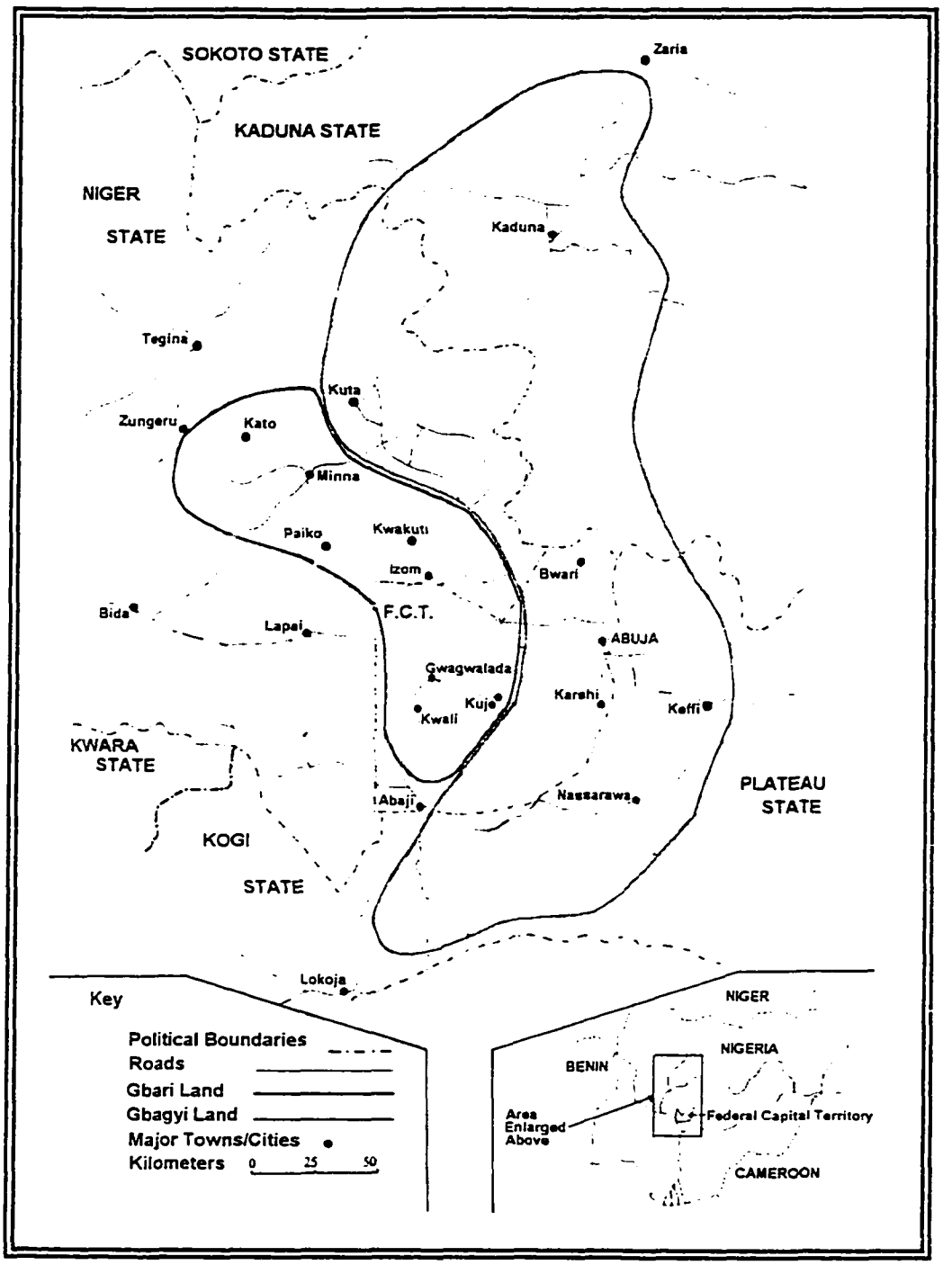


Figure 1. Map of the Gbari and Gbagyi Areas.[2]

[2] Taken with permission from Rosendall (1992:5). Slight changes have been made to reflect changes in political boundaries, roads, and so forth.

in Plateau state in Nassarawa LGA. The estimated population of the Gbari (including the neighboring Gbagyi group) was put at 200,000 in 1952 (Crozier and Blench 1992:42). Important Gbari towns include Minna, Paiko, Kwakuti, and Kwali.

The Gbari are principally farmers, and find a large part of their cultural identity in this occupation. Daily activity centers upon the cycle of preparing the fields, planting, tending, and harvesting. The importance of farming is reflected in the Gbari proverb, "A man is not a man unless he is a farmer." Produce from the farms serves as food for the family units as well as a source of cash. The crops grown in the area include guinea corn (sorghum), millet, fonio, maize, rice, peanuts, and yams. For a time, probably during the 19th century, the Gbari people moved their villages into the mountains, apparently to seek protection from slave raiders. Now, however, all the villages have moved down into the plains where farming is much easier. Extended family units commonly live together in compounds, formed of huts or long rectangular buildings which enclose a central courtyard. Many of the activities of daily life take place in this courtyard: here grains are processed and dried, food is prepared, and guests are received.

Three religious traditions are found among the Gbari--Islam, Christianity, and African Traditional Religion. Numerically, Islam is dominant in the north, and Christianity in the south, while those who follow the traditional religion can be found throughout the area. Christianity came to Gbariland through missionaries from the Sudan Interior Mission (SIM) in the early 1900s. The principal denomination is the ECWA church (Evangelical Churches of West Africa), founded by SIM.

Historically, the Gbari have been seen as part of a larger cultural community often referred to by the Hausa name of Gwari. The language situation within the Gwari group may be analyzed as that of one people with two languages, now commonly referred to as Gbari and Gbagyi. The existence of these two language communities is recognized by the Gwari themselves, and reflected in the results of a language survey by H. Rosendall (1992:110).[3] Within Nigeria, the Gbari are often known as Gwari Yamma ('Yamma' being Hausa for 'western'), but they themselves prefer the name Gbari Nkwa. Gbagyi is often called Gwari Matayi or Gwari Ngenge.

The two languages are quite similar phonologically, but the unity begins to break down in regard to lexicon and grammar. Although the Gbari often claim that they can understand Gbagyi, the reverse is not true, and I have observed that both the Gbari and Gbagyi will use Hausa or English when speaking with one another, another indication of a lack of intelligibility between the languages.[4]

H. Rosendall (1992) has shown that there exist two major regional variants for Gbari as well as for Gbagyi. These were named as Northern and Southern Gbari and Northern and Southern Gbagyi. The Gbari themselves, while recognizing a general north/south distinction, often refer to the varieties of Gbari as Shigwokpma, Zubakpma, Sumwakpma, Bwokpma, and Fwakpma, named for rivers which divide different sections of Gbariland (*ekpma*

[3] Lexicostatistics using word lists put the intelligibility between Gbari and Gbagyi at 66-78%. These figures are on the borderline (normally put at 75%) for distinguishing between dialect and language. However, recorded text testing resulted in lower figures (42-51%) for intelligibility between the two groups.

[4] A report from the Committee on Gbagyi Language (April, 1980) said "It was observed that the Gbaris were of two distinct dialects: the 'Niges' and the 'Nkwas'. It was therefore agreed that each dialect should be developed by its speakers since the difference was inevitable and unfortunate" (Sheshi 1993:25).

meaning 'side'). These varieties are all mutually intelligible, although there is a great deal of variation in lexical tone. As such, the treatment of tone will be a challenging issue in the development of a standard orthography.

The data presented and analyzed in this thesis are based primarily on the Southern Gbari variety know as Shigwokpma, spoken in the Federal Capital Territory. For the most part, the patterns present in these data are representative of Gbari as a whole. Occasional references to Northern Gbari will be made, however, when differences are seen as significant enough to pose difficulties for the development of orthography and literature in Gbari as a whole. Northern Gbari is represented by the variety spoken in Kwakuti, in southern Niger State.

1.2 Language classification

Gbari is a part of the Niger-Congo language family. Greenberg classifies Gbari under the Kwa subgroup, as shown in figure 2 (H. Rosendall 1992:2).

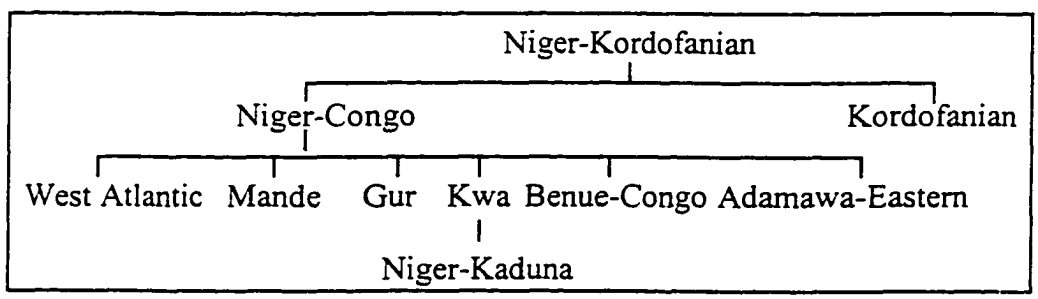


Figure 2. Greenberg's Classification

Controversy has especially surrounded the makeup of the Kwa and Benue-Congo groups. Bennett and Sterk (1977) proposed a fairly radical reorganization of Niger-Congo, based largely on lexicostatistic data, in which Gbari would fall under South Central Niger-Congo. A Benue-Kwa working group then re-examined Bennett and Sterk's data and proposed a new classification (Williamson 1989b:17). The new classification effectively merges Greenberg's Eastern Kwa group with his Benue-Congo to form New Benue-Congo, while Western Kwa remains as 'Kwa' (Williamson 1989a:248). The new classification is shown in figure 3 (H. Rosendall 1992:3), where Gbari is classified as Nupoid, New Benue-Congo, Volta-Congo, Atlantic-Congo, Niger-Congo.

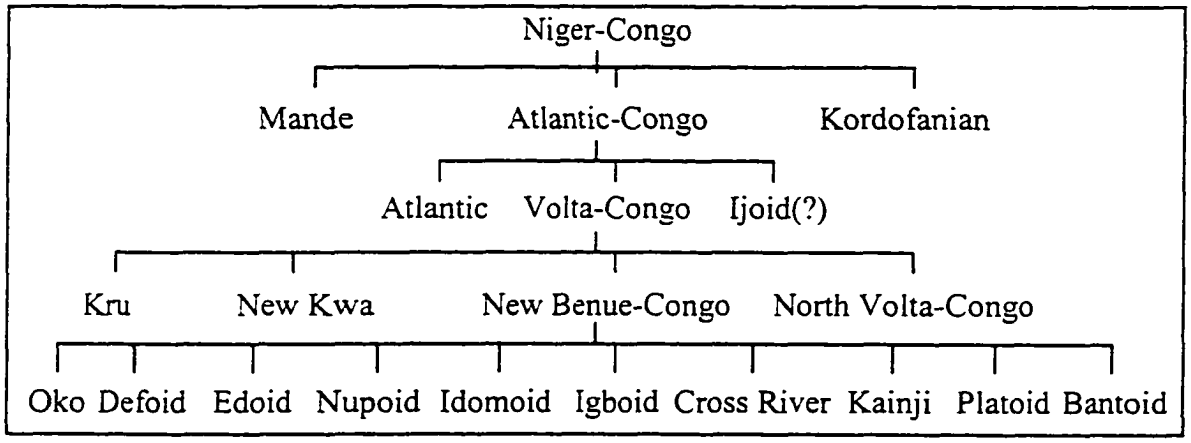


Figure 3. Williamson's Classification

Figure 4 shows the makeup of the Nupoid subgroup (Blench 1989:307) where Gbari is classified under Gwari.

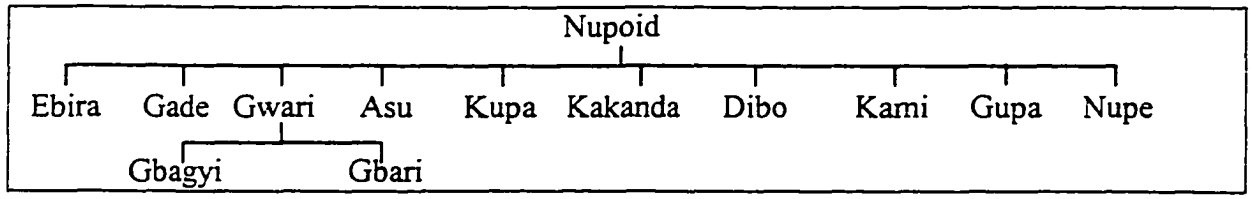


Figure 4. The Nupoid Subgroup

Much of the literature cited in this thesis was written before the 1989 re-classification. Hence, the literature often makes reference to 'Kwa languages' when referring to genetic language features. In this thesis the term 'Kwa' will be used when referencing the literature's comments, in order to reflect the use of the term at the time of writing. Any literature referring to New Benue-Congo will be referenced similarly.

1.3 Previous linguistic work

Early work was done on Gbari by missionaries of the Sudan Interior Mission in the 1920s. The Gospel of John was published in 1926,[5] using the dialect spoken in Paiko (corresponding to Northern Gbari). Written evidence regarding the immediate impact of this early work cannot be found, and it is now only remembered by some of the elder members of the community. Not until the late 1980s was serious work on Gbari resumed. Language survey work done among the entire Gwari group in the summers of 1989 and 1990 resulted in a phonological study, and provided statistical evidence for considering Gbari and Gbagyi as separate languages (published in H. Rosendall 1992). In 1993, Blench and Doma

[5] I was able to obtain a copy of this, minus the first two chapters, from one of the men who assisted the early missionaries.

produced a draft dictionary of Gbari (as yet unpublished), which contains only brief notes on Gbari phonology and grammar.

Gbagyi, in contrast to Gbari, has received extensive language development. Early grammatical descriptions of Gbagyi were produced by Low (1908) and Edgar (1909). Missionaries from SIM helped to oversee the translation of the Gbagyi New Testament in 1956. A Gbagyi hymnbook and instructional materials for use in primary schools have also been published. In 1970, Hyman and Magaji produced an extensive grammatical description of Gbagyi.[6] Hyman's work describes the Gbagyi dialect spoken in Kuta. Currently, a new translation of the New Testament in Gbagyi is being produced through Living Bibles International.

1.4 Field work and data

Data for this thesis were collected during field work in Nigeria from September 1993 through August 1996. Much of this time, I and my family lived in Kwali, an important town in the Southern Gbari area. We lived in a traditional Gbari compound, the home of Rev. Etsu Kwali and his extended family. Our stay in Kwali was for the purpose of language and culture learning, and lasted from September 1993 through December 1995.

The last eight months of our stay in Nigeria was spent in the city of Jos, and was given to concentrated study of Gbari. To assist in this work, our primary language assistant, John Etsu Kwali, was able to come to Jos several times for periods of two to three weeks. John Etsu Kwali is the son of Rev. Etsu Kwali, and lived with us on the same compound

[6] I am indebted to this work, as it proved to be a great aid in my own analysis of Gbari.

during our stay in Kwali. His patience in language work and his insights into the structure of his language made him a valuable help to our analysis of Gbari. He is a farmer by trade, but has had some post-secondary education.

Periodic work was also done in Northern Gbari, mainly with a view to identifying important differences between the two dialects. The language assistant for Northern Gbari was Andy Nesta Philip, from the town of Kwakuti. Philip received a B.A. from Jos Evangelical Theological Seminary and is currently enrolled in a Masters program at the Theological College of Northern Nigeria.

The data for this thesis consist mainly of elicited sentences and texts. This material was gathered during our language learning phase in Kwali, as well as the period of more intense study in Jos. A total of 11 texts were collected in Southern Gbari, primarily from members of Rev. Etsu's family. John Etsu Kwali provided transcriptions and glosses for most of these.

Five of these texts (three narrative and three procedural discourses) are used as a particular focus of study in this thesis, and serve as a source for many of the examples. The narrative texts are entitled "Cat and Rat," "My Morning at the Farm," and the "Founding of Kwali." "Cat and Rat" is a Gbari folktale which gives a traditional basis for the historical animosity between cats and rats. It was written by Haruna Etsu and was subsequently retold for recording purposes by his brother John. (The text of "Cat and Rat" is included in the appendix.) "My Morning at the Farm" is an account by John Etsu Kwali describing a typical morning spent in farm work. "The Founding of Kwali" is a historical narrative elicited from

Joseph Shazin. Shazin has worked for the Nigerian Ministry of Education in the Kwali area and is now retired. His narrative recounts how Kwali was founded by a man named Ali.

The three procedural texts under study are entitled "How to Make Guinea Corn Tuwo," "How We Greet Guests," and "How to Make a Fish Trap." The first text (included in the appendix) was elicited from Grace Etsu Kwali, and describes the process of making the grain porridge which is consumed along with a vegetable sauce in a typical evening meal. "How to Make a Fish Trap" was elicited from Tswadu Kwali, an older man. It describes how a traditional fish trap is made. "How We Greet Guests" was elicited from John Etsu Kwali. It describes the various courtesies which are extended when guests arrive at a Gbari household, including the greeting, giving of water and a chair to sit in, and preparation of an evening meal and a place to sleep.

In addition to the collected sentences and texts, a lexical database was maintained during the course of fieldwork which totals roughly 1,800 items. Before leaving Nigeria, the entire database was recorded on audio tapes, which served as an invaluable resource for the phonological analysis presented in chapter 2. They enabled the precise phonetic form of a word to be verified, and served as a resource for acoustic studies of lexical items.

One limitation inherent in the methodology presented above has to do with the small number of speakers which provided the language data. Although texts were elicited from a variety of people, the bulk of the elicited material (as well as the tape recordings which were the focus of the phonological analysis), represents the speech of only one man, John Etsu Kwali. Additionally, while two texts were elicited from older men, the speech habits of older speakers was never a serious object of study. During elicitation sessions my language

assistant would occasionally point out differences between the speech preferences of older and younger speakers. A more detailed study of such difference must be left for future research.

1.5 Overview of thesis

Chapter 2 presents an overview of the phonological system in Gbari, making use of current theory in feature geometry. Particular attention is given to syllable structure, especially to the ways in which the features of nasalization, labialization, and palatalization enter into the process of syllabification. The analysis also seeks to account for the presence of [- ATR] vowels in certain environments. The chapter closes with a brief look at tonal issues, as well as certain issues which will be relevant in the development of a standard Gbari orthography.

Chapter 3 treats some of the typological aspects of Gbari. Although Gbari has a basic SVO word order, SOV tendencies may be seen in various areas of the grammar. This chapter documents the different typological tendencies as they are found in the language

Chapter 4 describes aspects of the Gbari noun phrase. Pronouns are first considered, followed by a treatment of the structural characteristics of nouns, verbal nouns, adjectives, and determiners.

Chapter 5 treats various aspects of the Gbari verb phrase. The chapter opens with a discussion of stative, inchoative, and auxiliary verb types. Of particular interest is the extensive set of locative verbs in Gbari which is complemented by a parallel set of removing verbs. This section is followed by a discussion of tense, aspect, and modality. Particular

attention is given to the *á* construction, which is used to bring into focus the effects of a verb in relation to its direct object noun. The chapter closes with a discussion of the different serial verb constructions as they are found in Gbari.

Chapter 6 considers the characteristics of the three main types of subordinate constructions: relative clauses, adverbial clauses, and complement clauses. Relative clauses are of interest because of the presence of a clause-final determiner and its role in marking definite nouns. The section on adverbial clauses focuses on the clauses which are commonly found in narrative and procedural discourse which are used in marking temporal sequence and temporal overlap. A survey of complement clauses, which proposes a classification of the possible complement types in Gbari, appears at the end of the chapter.

The grammatical study in this thesis is intended to give a general descriptive overview of the topics covered. The theoretical framework is basically a functional-typological approach, which seeks to explain language phenomena by how language is used in meeting communication needs. This approach also uses cross-linguistic comparison as a way to understand the common strategies which languages employ to meet these needs. As such, the reader will find many references to phenomena found in related languages, as well as languages worldwide.

It should be noted that much of the analysis presented here was done subsequent to the time of fieldwork in Nigeria. This made it impossible to test certain hypotheses or elicit native speaker reactions to many of the conclusions which have been reached. However tentative the conclusions, it is hoped that this study will give the reader a basic

understanding of Gbari grammar, as well as some of the theoretical challenges which it presents.

CHAPTER 2

PHONOLOGY

This chapter provides an overview of Gbari phonology. It draws on the analysis proposed by H. Rosendall (1992), with some revision based on data collected in subsequent field work. An autosegmental approach is used throughout. In relation to the distinctive features of vowels, this analysis makes use of the proposals of Clements (1990),[7] who uses the features [coronal] for front vowels, [dorsal] for back vowels, and [labial] for rounded vowels. This approach has been particularly useful in the analysis of the labialized and palatalized consonants, which are prevalent in Gbari. The phonemes of Gbari are presented first in sections 2.1 and 2.2. Syllable structure with a focus on syllabification is treated in section 2.3, with particular attention being paid to how nasalization, labialization, and palatalization participate in this process. Phonological processes that affect vowel quality are presented in sections 2.4 and 2.5. Of particular interest in section 2.5 is the behavior of the singular prefix vowel <e> which tends to harmonize with the vowel appearing in the following syllable. The distribution of the phonemes /d/ and /l/ is treated in section 2.6. This is followed by a discussion of tone in section 2.7, and the orthography in section 2.8

[7] As cited in Kestowicz (1994:Chapter 9).

2.1 Vowel phonemes

The vowel phonemes of Gbari are presented in table 1. Gbari is different from certain other Nupoid languages which may have two to four additional phonemic [- ATR] vowels. (Those with a seven vowel system have [ɛ] and [ɔ], while nine vowel systems have the addition of [ɪ] and [ʊ].)

Table 1. Gbari Vowel Phonemes

	Front (Coronal)	Central	Back (Dorsal)
High	i		u
Mid	e		o
Low		a	

In addition to the five vowel phonemes presented in table 1, there are a small number of words in Gbari such as [pɪ̄ˡ] 'to cross' and [ʔɛ̄bɛ̀] 'knife', which may imply that [ɪ] and [ɛ] need to be considered phonemic vowels. Their status depends on the analysis of how palatalization operates in Gbari, as discussed in section 2.3.1.3.

Contrastive vowel length is not found in Gbari, and has never been documented for Nupoid languages (Blench 1989:313). Lengthened vowels are, however, found in a number of environments. At times vowels are lengthened for pragmatic effect as in [ɓʷāːɳɋ̄] 'sorry!' or [ŋ̀kʷāː] 'general greeting'. In addition, lengthened vowels are often heard in adjectives, especially those which take the adjectival suffix [ɾí], such as [kᵑāːɾí] 'red' or [bmʲāːɾí] 'good', but these can also appear without lengthening. Lengthened vowels are frequently found co-occurring with contour tones such as in [sɛ̌ːnā] 'pride' or [gwâːgwā] 'guinea yam'

Finally, a lengthened /a/ is heard in some words without a contour tone, such as in [g͡bā:fʷū] 'young man'. In no case does a long vowel provide phonemic contrast between words (there is no word *[g͡bāfʷū], for example, to contrast with [g͡bā:fʷū]).

The nasalized vowels [ī], [ū], and [ā] regularly occur in Gbari, where they contrast with oral vowels in such forms [sĩ] 'to buy' verses [sí] 'to drink'. In spite of this surface contrast, nasalized vowels are not considered phonemic; as discussed in section 2.3.1.1, they are seen as arising by phonological rule.

The vowel phonemes shown in table 1 occasionally have [- ATR] allophones (as in [bèbē] 'whistle'). The environments in which such allophones occur are considered in section 2.4. Vowels may also assimilate the features of the consonant or vowel in the syllable which follows them; [ɲígʷō] 'wife', for example, is sometimes heard as [ɲúgʷō]. This phenomenon is discussed in section 2.5.

2.2 Consonant phonemes

The 21 consonant phonemes of Gbari are presented in table 2.

Table 2. Gbari Consonant Phonemes

		Labial	Labio-Dental	Alveolar	Palatal	Velar	Labio-Velar	Glottal
Plosive	vl.	**p**		**t, ts**		**k**	**kp**	
	vd.	**b**		**d**		**g**	**gb**	
Ejective	vl.					**ƙ**		
Implosive	vd.	**ɓ**		**ɗ**				
Fricative	vl.		**f**	**s**				**h**
	vd.		**v**	**z**				
Nasal		**m**		**n**				
Approximant				**l**	**y**		**w**	

Gbari (along with Gbagyi) are unique among the Nupoid languages in that plosive consonants may be modified with a postnasal release, appearing as [p^m b^m t^n d^n $k^ŋ$ $g^ŋ$ $\widehat{kp}^m$ $\widehat{gb}^m$]. These are found when a nasal feature is present in the syllable, as is further discussed in section 2.3.1.1.

An extensive set of consonants may also take labialized and palatalized forms, appearing as [p^w b^w f^w v^w k^w g^w m^w] and [p^j b^j f^j v^j k^j g^j $ɟ^j$ $ɲ$ $ɾ$]. Palatal forms of /t d s z/ are realized as [$\widehat{tʃ}$ $\widehat{dʒ}$ $ʃ$ $ʒ$] and represented orthographically as <ch j sh zh>. The processes of labialization and palatalization are treated in section 2.3.1.2 and 2.3.1.3.

Gbari also differs from other Nupoid languages by having a full set of glottalized consonants-- the implosives /ɓ/ and /ɗ/ and the ejective /ƙ/. While /ɓ/ is also found in

Gbagyi, /ɗ/ is apparently unique to Gbari within the Nupoid group.[8] (/ɗ/ as a phoneme is further discussed in section 2.6). /ƙ/ is a voiceless velar ejective, possibly introduced from Hausa. The distribution of /ƙ/ is limited to a few words, such as [k'ə̄ɾí] 'fishing net', most of which are clear borrowings from Hausa.

In contrast with /ɓ/ and /ɗ/, the plosives /b/ and /d/ have a slightly fricated release. Their frication is minimal, however, and does not appear when these plosives are postnasalized.[9]

/h/ has a very limited distribution, appearing in only three (very common) words: [hə̄] 2nd singular, [hɪ̀] 'this', and [hʲæ̂] 'that'.

2.3 Syllable structure

Gbari has been analyzed as a language with a complex syliable structure, owing to the complex syllable onsets which are possible. Rosendall, for example, gives { (O) (N) (G) V (N) } as the template which includes all possible syllable types, where O = obstruent, N = nasal, G = glide, and V = vowel (H. Rosendall 1992:65). According to her analysis, [bᵐʲā] 'to be beautiful' is an example of a syllable which includes O, N, G, and V.

The current analysis posits only four basic surface syllable patterns: CV, CVX (where X can be either a nasal or vowel), N, and NN. Examples are shown in table 3.

---

[8] Hyman (1972:190) notes that "the one Niger-Kaduna language that has instances of [ɗ] occurring on the surface is Gnawu Gwari, where [ɗí] means 'to eat'." The "Gnawu Gwari", to which Hyman refers is a reference to Gbari.

[9] Acoustic analysis of [b] (E. Rosendall 1997) showed that the release frication increases in the palatalized form [bʲ].

Table 3. Gbari Syllable Patterns

CV	[pá] 'to scrape'
N	[ŋ̀kʷā:] 'general greeting'
NN	[m̩̄:bā:] 'welcome!'
CVN	[kàmbā] 'maize'
CVV	[g͡bā:fʷū] 'young man'

The order in which the surface syllable patterns appear in table 3 reflects their relative frequency in the language. CV is by far the most pervasive pattern. Syllabic nasals are fairly frequent, and CVX appears only in a small number of words.

What appear at first to be syllables composed only of V actually follow the CV pattern. These are the small number of words where a glottal stop functions as the onset consonant, such as the third person pronouns [ʔā] and [ʔē], which are orthographically written as <a> and <e>.

While five surface syllable types are posited for Gbari, different patterns emerge when considering the morphemic structure of many words. Three phonemic features are often present in the morphemic structure--nasalization, palatalization, and labialization. As detailed in the following sections, these features become syllabified in various ways, yielding such forms as [tⁿā] 'to lack', [bʲā] 'to sprout', and [ɓʷā] 'to get'. Table 4 lists the possible morphemic patterns along with their resulting syllable patterns. Symbols for these three underlying phonemic features are underlined. "N" represents a nasal feature, and "G" (glide) represents the features of palatalization or labialization.

Table 4. Possible Morphemic Patterns and Corresponding Syllable Patterns

Morphemic Pattern	Resulting Syllable Pattern	Example
CNV	CV	[kⁿā] 'to fry'
CNVN	CVN	[kⁿāndō] 'locust bean'
CNGV	CV	[bᵐʲā] 'to be beautiful'
CNVV	CVV	[kⁿā:rí] 'red'
CGV	CV	[kʰʲā] 'to chop'
CGGV	CV	[t͡ʃʷāʃē] 'God'
CGGNV	CV	[t͡ʃʷā̃qī] 'few'

When both nasal and glide features appear together in a morphemic structure, there is no clear evidence to regard the features as sequentially ordered. Thus, the ordering of N and G in table 4 makes no claim about their ordering. This issue is further discussed in section 2.3.1.4.

The following sections describe the processes by which the phonemic features of nasalization, palatalization, and labialization enter into the general process of syllabification. Section 2.3.1 focuses on syllable onsets, while section 2.3.2 considers the syllable coda. These processes may also affect vowel quality, which is considered as well.

2.3.1 Syllable onsets

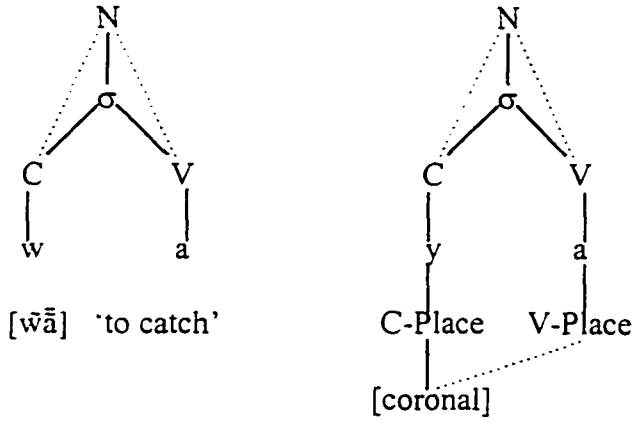
2.3.1.1 Nasalized onsets

When a nasal feature is present in the morphemic structure, it may affect both the onset consonant and the following vowel. As such, nasalization in Gbari is treated as a syllable-based autosegment. Given the presence of an autosegmental nasal ("N"), vowels

may become nasalized and the nasal feature may link to the initial consonant, depending on its features. Three sets of consonants are distinguished by how they interact with the nasal feature: the approximants /y w/, the plosives /p b t d k g kp gb/, and the fricatives /s z f v h/.

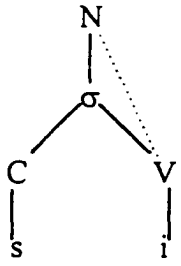
When the onset consonant is from the [+ sonorant, + continuant] set /y w/, both the onset consonant and its following vowel become nasalized. Derivations for [w̃ã] 'to catch' and [j̃æ̃] 'to dance', which illustrate the linkage of the nasal feature to both the consonant and vowel, are shown in (1). In the case of [j̃æ̃] the presence of the nasal feature results in the linkage of the [coronal] feature of /y/ to /a/, giving rise to [æ]. When no nasal is present, no such linkage takes place, as with [jā] 'to release'.

(1)

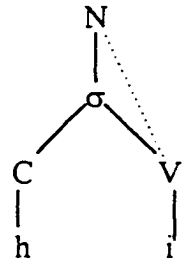


When the onset consonant is from the [- sonorant, + continuant] set /s z f v h/, the nasal links only with the vowel segment. The syllabification of [sĩ] 'to drink' and [hĩ] 'this' are shown in (2).

(2)



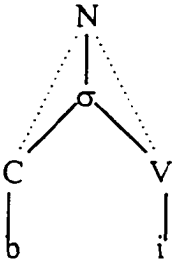
[sí] 'to drink'



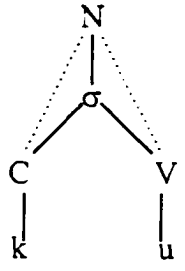
[hì] 'this'

Postnasalized plosives occur when the onset consonant is one of the [- sonorant, - continuant] plosives /p b t d g k kp gb/, yielding [p^m b^m t^n d^n $g^ŋ$ $k^ŋ$ $\widehat{kp}^m$ $\widehat{gb}^m$].[10] In these cases only the high vowels /i/ and /u/ become nasalized. The syllabification of [$b^m\bar{i}$] 'to become red' and [$k^ŋ\acute{u}$] 'to sell' is shown in (3). The nasal feature links to the onset consonant as a secondary articulation as well as to the following vowel.

(3)



[$b^m\bar{i}$] 'to redden'



[$k^ŋ\acute{u}$] 'to sell'

When postnasalized plosives appear before /i/ and /u/, as in the examples in (3), vowels are fully nasalized. However, nasalization is quite minimal when such plosives

[10] Such postnasalized plosives are rare in Niger-Congo, the norm being prenasalized plosives (Welmers 1973:64). Note, however that postnasalized implosive consonants (*[6^m] and *[d^n]) are not found in the data. Hyman (1972:191) suggests a possible explanation for this with the following comments: "...an implosive /m/ or /n/ is apparently a phonetic impossibility because what is involved in the production of an implosive is the rarefaction of the air pressure inside the mouth by a downward movement of the whole glottis (Mona Lindau [personal communication]). The rarefaction or lowering of the air pressure would be impossible if the nasal passage were coupled to the oral passage. Furthermore, a nasally released implosive would be phonetically impossible because since the air pressure is lower within the mouth, it is not possible for air to be released through the nose. Instead, air rushes into the mouth after the implosive has been released."

appear with /a/, as in [kᵑā] 'to fry'. (The vowels /e/ and /o/ do not appear in the context of nasals, as is further discussed at the end of this section.) Hyman has also noted the minimal nasalization at /a/ after postnasalized plosives in Gbagyi (Hyman 1972:175). This pattern of nasalization is also seen in syllables where a nasal functions as the onset consonant, as in the words [mī] 'to swallow', [mʷū] 'to borrow', and [mā] 'to be sour'. Here the [ī] and [ū] are distinctly nasalized, while [a] receives minimal (if any) nasalization. The fact that the vowels in the above cases carry different degrees of nasalization might be explained by proposing that the nasal release in [kᵑā] 'to fry' carries the phonemic load of indicating the presence of the nasal feature. The strength of nasalization on the vowel would then be of secondary importance, and might be seen as a phonetic reflex of proximity to a nasal segment.[11]

The linkage of the nasal feature to the three sets of onset consonants appears to be motivated by their compatibility with regard to the features [sonorant] and [continuant]. The feature values of the onset consonants are compared to those of nasals in table 5.

[11] One explanation for the minimal nasalization of /a/ might lie in the fact that the mouth is more open with /a/ than with /i/ and /u/, perhaps decreasing the nasal airflow.

Table 5. Features Affecting the Linkage of Nasals to Syllable Onset Consonants

		Onset Consonant	Nasal Feature
Unaffected Onsets /s z f v h/	[sonorant]	-	+
	[continuant]	+	-
Nasalized Onsets /y w/	[sonorant]	+	+
	[continuant]	+	-
Postnasalized Onsets /p b t d g k kp gb/	[sonorant]	-	+
	[continuant]	-	-

Table 5 shows that nasalized onsets occur when the consonant and nasal share a [+ sonorant] feature, and that postnasalized onsets occur when the consonant and nasal share a [- continuant] feature. The unaffected onsets, however, have the opposite feature specifications from nasals for both [sonorant] and [continuant]. This offers an explanation as to why they are unaffected by nasality. The following filter is therefore proposed, which blocks a nasal from linking to a segment which is [- sonorant, + continuant]:

(4)

[- sonorant] [+ nasal]
[+ continuant]

There is a tendency in Kwa languages as a whole for nasals to occur only with /i/, /u/, and /a/. This tendency is reflected in Gbari, where /n/ and /m/ never occur as onset consonants with /e/ or /o/ (*/ne/ and */no/ are not found). This restriction applies to the nasal

feature as well, which is never present in syllables with /e/ or /o/. Thus, nasalized *[ẽ] and *[õ] are not found in surface forms.[12]

The origin of the nasalized vowels in Kwa languages has been the subject of some debate. The question has centered around whether they arose historically from CNV or CVN sequences. Hyman (1972) and Williamson (1973) provide substantial evidence for CNV sequences as the historical source of these vowels. The facts noted above for Gbari show that the nasal tends to affect every part of the syllable, except when prevented by the filter in (4). This seems most compatible with an original CNV sequence, where the nasal seems well positioned to affect both the consonant and vowel segments.

2.3.1.2 Labialized onsets

Labialized onsets are frequent in Gbari. In many cases, labialization is a phonemic feature. This is always true before /a/, as seen in [bā] 'to read' versus [bʷá] 'to play'. Labialized onsets also occur when certain sets of consonants are followed by the back vowels /u/ and /o/. These consonants include the labials /p b 6 m/, the labio-dentals /f v/, and the velars /k g/. Examples of labialized forms are shown in table 6. This table is designed to show the distribution of both labialization and palatalization with regard to vowel quality. For each phoneme, example forms are listed in the order of the vowels /i e a o u/, reflecting the order front, central, and back. Blank spaces indicate that no tokens occurring with the indicated vowel have been found. It should be noted, however, that some of the blank spaces might be filled in as a result of future research.

[12] An exception is seen when the suffix /-i/, meaning 'with', is attached to a noun which ends in /a/. When this suffix, for example, is attached to [núwā] 'water' the resulting form is [nūwē:] 'with water.'

Table 6. Palatalization and Labialization of Gbari Consonants

(see text for a full explanation of this table)

Consonant		Palatalized	No Modification	Labialized
Labial				
/p/	i	[ʔēpʰʲí] 'house'	[pí˥] 'to cross'	[ʔāpʷí] 'weevil'
	e	[pʰʲè] 'to winnow'	[pɛ́ᵉ] 'to surpass'	
	a	[ʔēpʰʲá] 'moon'	[pá] 'to scrape'	[ʔāpʷá] 'tigernut'
	o			[pʷō] 'to launder'
	u			[ʔāpʷū] 'group'
/b/	i	[bʲī] 'to dig'	[bīdā] 'meat'	[bʷī] 'to stir'
	e	[ʔēbʲè] 'joke'	[ʔēbè] 'knife'	[ʔābʷé] 'calabash'
	a	[bʲā] 'to sprout'	[bā] 'to read'	[bʷá] 'to play'
	o			[bʷò] 'to rot'
	u			[bʷū] 'to mix'
/m/	i	[mʲī] 'to push over'	[mī˥] 'to build'	[mʷí] 'to lend'
	e			
	a	[ʔēmʲá] 'string'	[mà] 'to give birth'	[mʷā] 'to be large'
	o			
	u			[mʷǔ] 'to borrow'
/ɓ/	i		[ɓí] 'to ask'	[ɓʷí] 'to disappear'
	e		[ɓé] 'to come'	
	a		[ɓā] 'to beg'	[ɓʷā] 'to get'
	o			[ɓʷó] 'to ingest'
	u			[ɓʷū] 'to incubate'
Labio-dental				
/f/	i	[fʰʲī] 'to be in (pl.)'		
	e	[ʔēfʰʲé] 'day'		
	a	[fʰʲā] 'to go softly'		[fʷā] 'to desist'
	o			
	u			[fʷū] 'to skin'
/v/	i	[vʲī] 'to follow'		
	e			
	a	[vʲāvʲā] 'hot'		
	o			
	u			[vʷūgāvʷūgē] 'dizzy'
Alveolar				
/t/	i	[t͡ʃī] 'to lie'	[tí] 'to drip'	
	e	[t͡ʃē] 'to throw'	[tè] 'to surpass'	
	a	[t͡ʃā] 'to lay eggs'	[tá] 'to stretch'	
	o	[dⁿāt͡ʃò] 'river valley'	[tō] 'to fetch water'	
	u	[t͡ʃū] 'to die'	[tū] 'to be on(sg.)'	

Table 6--*Continued.*

Consonant		Palatalized	No-Modification	Labialized
/d/	i	[d͡ʒi] 'to uproot'	[dī] 'to sharpen'	
	e	[ʔēd͡ʒē] 'porridge'	[dé] 'to repeat'	
	a	[d͡ʒàg͡bà] 'pepper'	[dá] 'to be sweet'	
	o		[dō] 'to shock'	
	u	[d͡ʒú] 'to tighten'	[dū] 'to pass'	
/s/	i	[ʃī] 'to sit (sg.)'	[sī] 'to buy'	
	e	[ʃēgʷò] 'rain'	[sē] 'you (pl.)'	
	a	[ʔēʃá] 'bamboo cane'	[sā] 'to tear'	
	o		[sōrí] 'type of tree'	
	u		[ʔəsū] 'bee'	
/z/	i	[ʒī] 'to sit (pl.)'	[ʔēzī́] 'oil palm'	
	e		[zē] 'to pour'	
	a	[ʒá] 'to drag'	[ʔēzā] 'person'	
	o		[zō] 'to finish'	
	u		[ʔəzù] 'guinea fowl'	
/ɗ/	i	[ɲʲí] 'to eat'		
	e	[ɲʲē] 'to see'		
	a	[ʔējʲà] 'blood'	[ɗārí] 'tamarind'	
	o		[ɗō] 'to enter'	
	u		[ɗú] 'to show'	
/l/	i	[ʔērī] 'habit'		
	e	[ʔērè] 'deceit'		
	a		[lá] 'to take'	
	o		[lō] 'to go'	
	u		[lù] 'to weave'	
/n/	i	[ɲī] 'to lick'		
	e			
	a		[ʔēná] 'fire'	
	o			
	u		[nù] 'to cultivate'	
Velar				
/k/	i	[kʰʲí] 'to sew'		
	e	[kʰʲē] 'to remain'	[kē] 'to remain'	
	a	[kʰʲā] 'to chop'	[ká] 'to wait'	[ʔākʷā] 'spear'
	o			[ʔākʷó] 'old age'
	u			[kʷū] 'to remove(pl.)'
/g/	i	[gʲī] 'to give'		
	e	[gʲérí] 'stranger'	[gēzù] 'evening'	
	a	[gʲādē] 'catfish'	[gā] SEQ	[gʷâːgʷā] 'guinea yam'
	o			[gʷó] 'to grind'
	u			[ʔəgʷù] 'drum'

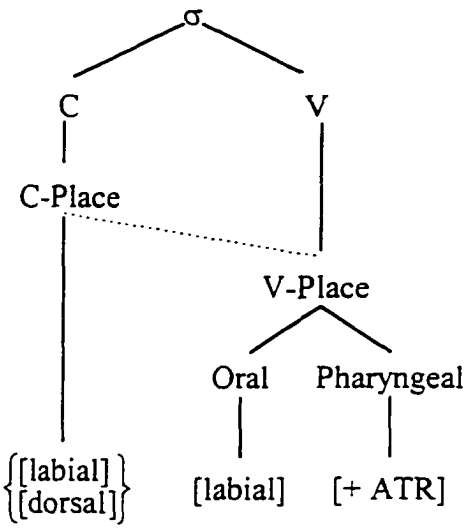
Table 6--*Continued.*

Consonant Labio-velar		Palatalized	No-Modification	Labialized
/k͡p/	i		[k͡pík͡pí] 'short'	
	e		[k͡pé] 'to know'	
	a		[ʔɛ̀k͡pā] 'distance'	
	o			
	u		[kātāk͡pūk͡pū] 'group of people'	
/g͡b/	i		[g͡bī] 'to be common'	
	e		[ʔɛ̄g͡bē] 'math'	
	a		[g͡bā] 'to pay'	
	o		[g͡bāg͡bō] 'unintentionally'	
	u			
/w/	i	[qī] 'to seal'		
	e	[ʔeɥé] 'eye'		
	a		[ʔəwā] 'snake'	
	o	[qōqō] 'cold'	[wó] 'to feel'	
	u		[wū] 'to show'	

Note from the transcriptions in table 6 that labialization occurs in the context of the [+ ATR] vowels [u] and [o]. However, when words have one of the [- ATR] allophones [ʊ] and [ɔ], labialization is not seen, as in [t͡ʃítāpūlū] 'alligator pepper' (not shown in table 6).

An explanation for the automatic labialization of labial and velar consonants is proposed in (5):

(5)



The process in (5) is modeled after the account of labialization proposed by Clements (1991).[13] Here, labial modifications are seen as resulting from the linkage of the following vowel's place node to the place node of the initial consonant. It should be noted that the [ATR] specification shown in (5) is a requirement of Gbari phonology and does not play a role in the model proposed by Clements.

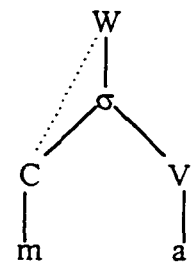
In contrast to the automatic labialization considered above, labialization which occurs before /a/ and the front vowels /i e/ is always phonemic. It is interesting to note that labialization before the front vowels /i e/ only occurs when the onset consonant is itself a labial (/p b 6 m/). Examples from table 6 are reproduced here:

(6)	[6^{w}ā]	'to get'	[6ā]	'to beg'
	[ʔəp^{w}í]	'weevil'	[ʔēp^{hj}í]	'house'
	[b^{w}ì]	'to stir'	[b^{j}ì]	'to dig'
	[m^{w}í]	'to lend'	[m^{j}ì]	'to push over'
	[6^{w}í]	'to disappear'	[6í]	'to ask'

[13] As cited in Kenstowicz (1994:466).

Phonemic labialization is analyzed as the presence of an autosegmental labial feature which becomes syllabified as a secondary articulation on the initial consonant. This is illustrated in the derivation of [m^{w}ā] 'to be large' in (7):

(7)



[m^{w}ā] 'to be large'

2.3.1.3 Palatalized onsets

Palatalized onsets are also frequent in Gbari. In many cases palatalization is a distinctly phonemic feature. This is particularly true before /a/, as seen in the contrasting forms [bā] 'to read' and [b^{j}ā] 'to sprout'. In addition, certain consonants are palatalized before the front vowels /i/ and /e/, normally resulting in a secondary palatal articulation on the onset consonant, as with [f^{hj}ī] 'to be in (pl.)' and [p^{hj}è] 'to winnow'.[14] The issue of whether palatalization in the environment of front vowels should be understood as a phonemic feature or as an automatic process will be discussed later in this section. As a preliminary, the evidence regarding how palatalization operates with different groups of Gbari phonemes will be considered.

The labio-dental consonants /f v/ in table 6 show that these consonants always have palatal modifications before front vowels. The labio-velar approximant /w/ is also

[14] The palatal modifications on the voiceless consonants [p], [f], and [k] are accompanied by marked aspiration. Thus, the palatalized forms are transcribed as [p^{hj}], [f^{hj}], and [k^{hj}].

palatalized before /i/ and /e/ and yields the labial-palatal approximant [ɥ]. The labio-velar plosives /kp/ and /gb/, however, never receive palatal (nor labial) modification.

The alveolar consonants in table 6 fall into three groups with respect to palatalization:

(a) For the plosives /t/ and /d/, there is complete contrast between palatalized and non-palatalized forms before all five phonemic vowels.

(b) The continuants /s/ and /z/ form a set where palatalization is contrastive only before /i/, /e/, and /a/. Only /s/ and /z/, however, appear before the back vowels /u/ and /o/.

(c) /ɗ/, /l/, and /n/ form a set which is always palatalized before front vowels, such that /ɗ l n/ --> [ʄ ɾ ɲ].[15]

The data concerning the palatalization of the velar consonants /k g/ are somewhat inconsistent. While palatalization is evident before /i/ for both /k/ and /g/, as in [k^{hj}í] 'to sew' and [g^{j}ī] 'to give', the evidence concerning /e/ is inconclusive. When /k/ appears before /e/, palatalization tends to be somewhat variable. The word for 'to remain,' for example, as shown in table 6, may vary between [k^{hj}ē] and [kē]. Additionally, the data for /g/ and /e/ are limited to only two words: [g^{j}éɾí] 'stranger' and [gēzǔ] 'evening'. This pair might imply that palatalization is phonemic after /g/. However, more examples would be needed to verify this possibility.

---

[15] It is interesting to note that /ɗ/, /l/ and /n/ function as a group, as there is some evidence that all three are historically related in Kwa (such that /ɗ/ gave rise to /l/, which in turn gave rise to /n/) (Hyman 1972:185-194). As a group, /ɗ/, /l/ and /n/ might be analyzed as sharing a [+ sonorant] feature. Although /ɗ/ is not usually classified as [+ sonorant], other researchers have hinted at such an analysis. Kaye (1981:78), for instance, presents evidence that implosives function as liquids in Kru languages, and Welmers (1973:48) notes that /ɓ/ functions in a class of resonants in Kpelle.

To summarize the evidence thus far, it has been shown that /f v d l n w/ are palatalized before front vowels, with palatalization of /k g/ limited to tokens occurring before /i/.

For the labial consonants /p b m/, somewhat unexpected evidence is seen regarding palatalization in the environment of front vowels. A number of words have been found in which the onset consonant is not palatalized, and in which the following vowel is from the [- ATR] set [ɪ] and [ɛ]. Some examples, with contrasting palatalized forms, are shown in (8):

(8)	a.	[pɪ̄ˈ]	'to cross'	[ʔēpʰʲíˈ]	'house'
	b.	[pɛ̄ᵉ]	'to surpass'	[pʰʲè]	'to winnow'
	c.	[ʔɛ̄bɛ̀]	'knife'	[ʔèbʲè]	'joke'
	d.	[mɪ̄ˈ]	1st Singular	[mʲī]	'to push over'

Note that in (8), the vowels in the citation forms [pɪ̄ˈ], [pɛ̄ᵉ], and [mɪ̄ˈ] may have a slightly diphthongized quality. In connected speech, however, these vowels are clearly [- ATR] and are heard as [ɪ] and [ɛ] with no modification. In addition, the onset consonant in these forms is clearly unpalatalized. An acoustic study by E. Rosendall (1997) showed that the onset consonant in [pɪ̄ˈ] and [pɛ̄ᵉ] patterns as an unpalatalized consonant in regard to aspiration length. Aspiration measurements for palatalized and non-palatalized forms are shown in table 7.[16] Note that aspiration length is markedly higher in the palatalized forms.

[16] As I did not have any token of [pʰʲe] in my recorded word list from John Etsu Kwali, the token for [pʰʲe] shown in table 7 was taken from a recorded text by his sister Grace Etsu Kwali. The amount of aspiration in this token, however, fits quite well into the overall pattern of aspiration length.

Table 7. Aspiration lengths for palatalized and non-palatalized [p]

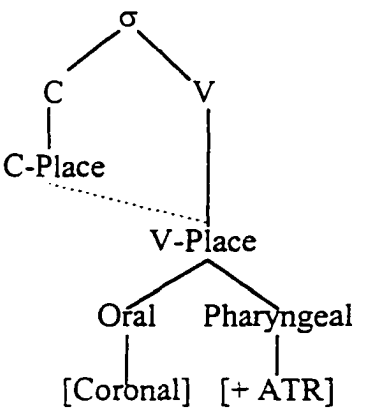
Non-Palatalized		Palatalized	
[pɪˈ]	33 ms.	[p^{hj}i]	84 ms.
[pɛᵉ]	29 ms.	[p^{hj}e]	75 ms.
[pa]	10 ms.	[p^{hj}a]	64 ms.

This palatal contrast in the labial consonants is not limited to Southern Gbari alone. It is also found in Northern Gbari as well as in Gbagyi. Although Hyman and Magaji (1970:13) do not provide phonetic transcriptions, they are apparently referring to the same phenomenon when noting that in Gbagyi "y is distinctive after p(m) and b(m) before i and e: ōbê 'knife', ōbvê 'seedling'; pmī 'to wait for', pmyí 'to twist'. Elsewhere, y is obtained as an automatic palatal offglide before i and e."

The evidence concerning the palatalization of /p b m/ as presented above raises questions as to how the general phenomenon of palatalization should be viewed in Gbari. Should palatalization be seen as a phonemic feature, or as an automatic phonological process? The alternatives are discussed below under (a), (b), and (c):

(a) An analysis which sees palatalization as an automatic process would follow the same model as was proposed for automatic labialization in section 2.3.1.2. The same model, now with reference to palatalization, is shown in (9).

(9)



Where C = /p b m f v ɗ l n w/

In this model, the palatalization of the indicated consonants is seen as resulting from the linkage of the following vowel's place node to the place node of the initial consonant. The [+ ATR] specification is needed because only front vowels which also [+ ATR] appear with palatalized consonants. While this analysis might account for the palatalization of the consonants in question, it would also imply that the [- ATR] vowels in [pī^{i}] 'to cross' and [pɛ̄^{e}] 'to surpass' are fundamentally different vowels from the [+ ATR] vowels which are the source of automatic palatalization. This view, then, suggests that [ɪ] and [ɛ] should be classified as phonemic vowels.

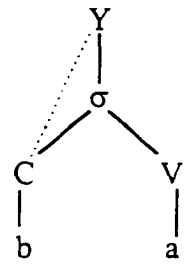
(b) In an alternative analysis, the palatal modifications which appear with /p b m f v ɗ l n w/ might be seen as phonemic in nature. In this view, the contrast between [pɛ̄^{e}] 'to surpass' and [p^{hj}è] 'to winnow' would result from the presence of a phonemic palatal glide in [p^{hj}ɛ̄]. Also in this view, the front vowels /i e/ might be seen as inherently underspecified for [ATR]. In this analysis, the [- ATR] vowel [ɛ] in the second syllable of [ʔɛ̄bè] 'knife' only becomes the [+ ATR] vowel [e] when preceded by a palatal glide, as in [ʔèb^{j}è] 'joke'.

(c) A third alternative is to posit that the labial consonants /p b m/ need to be treated separately from the remaining consonants /f v ɗ l n w/. This analysis might posit that the [ATR] specification for front vowels becomes loosened when the onset consonant is labial. Some support might be given to this analysis by the behavior of /e/ when it occurs with the glottal consonants /h/ and [ʔ]. The second person singular pronoun, orthographically <he>, is actually pronounced [hə]. The singular noun prefix, orthographically spelled with <e>, is actually an underspecified front vowel which tends to harmonize with the vowel in the following syllable as [ʔe], [ʔɛ], or [ʔə] (see the analysis in section 2.5). Phonetically, the prefix vowel follows a glottal plosive consonant. Thus, the evidence points to the generalization that glottal consonants are associated with underspecified vowels. The relationship of glottals to labial consonants is that they might both be considered peripheral segments, being produced on opposite ends of the oral cavity. The final generalization, then, is one which associates peripheral consonants (labials and glottals) with underspecified vowels.

Of these analyses, the first is clearly not preferred, as it ascribes phonemic status to [ɪ] and [ɛ]. The second analysis, which sees all palatal modifications as phonemic is also suspect; as the automatic nature of labialization suggests that palatalization, in a parallel manner, is a largely automatic process. Thus, the third alternative, which gives a unique status to the labial consonants, is probably the most preferred of the three. Further research is clearly needed on this topic, especially regarding the nature of phonetic underspecification in Gbari.

In cases where palatalization is clearly a phonemic feature, two processes of syllabification are distinguished. The first applies to the alveolars /t d s z/, where the palatal feature gives rise to alveopalatal and palatal fricatives, such that [t], [d], [s], and [z] become [t͡ʃ], [d͡ʒ], [ʃ], and [ʒ]. In the second process, the palatal feature becomes syllabified as a secondary articulation on the initial consonant. This second process is illustrated in the derivation of [bʲā] 'to sprout' shown in (10):

(10)



[bʲā] 'to sprout'

2.3.1.4 Mutiply linked onsets

Syllables often appear with onset consonants which are linked to more than one of the palatal, labial, or nasal autosegments. Examples are listed in (11).

(11) [kʰāːɾí] 'red'
[d͡ʒæ̀] 'to wash'
[bᵐʲā] 'to be beautiful'
[t͡ʃʷáɰ̃ī] 'few'

The first three examples in (11) contain the palatal and nasal feature, while the first syllable in [t͡ʃʷáɰ̃ī] 'few' contains all three features. In these cases, the same general principles of syllabification apply as presented in the preceding sections. Some ordering, however, may be given to the syllabification of the autosegmental features based on the

features of the onset consonant. In the first syllable of [t͡ʃʷáɳī], for instance, the palatal feature first links with [t], giving rise to [t͡ʃ]. Since the [ʃ] in [t͡ʃ] now has [- sonorant, + continuant] features, the nasal segment can no longer postnasalize to the original [t] (according to the analysis in 2.3.1.1), and the vowel alone is nasalized. The priority given to the palatalization might be explained by a rule which states that palatalization occurs first when the palatal feature shares a [+ coronal] specification with the onset consonant (as does [t] in the above case). Thus, although the autosegmental features are linked to the syllable simultaneously, some order may be introduced in how these features become syllabified.

2.3.2 The syllable coda

Nasals are the only consonants found in the coda position of CVC syllables. Only one monosyllabic word has been found in Southern Gbari which follows a CVC pattern: [pám] 'all'.[17] The remaining CVC syllables are found word-medially such as in (12):

(12) [bɛ̄.zɛ̀m.bā] 'grasshopper'
[kᵑān.dō] 'locust bean'.
[d͡ʒūŋ.gʷó] 'rainy season'

Although there are many examples of words which might appear orthographically to contain CVC syllables, as with <katémpá> 'wall' and <kombwa> 'shea fruit', the nasals in these examples however, are not analyzed as syllable codas. Their status is difficult to interpret, as they may sound as if they may be interpreted as syllabic nasals or, possibly, prenasal modifications to the following consonant. In (13) they are interpreted as syllabic:

(13) [kā.té.m̩.pá] 'wall'
[kʷō.m̩.bʷā] 'shea fruit'

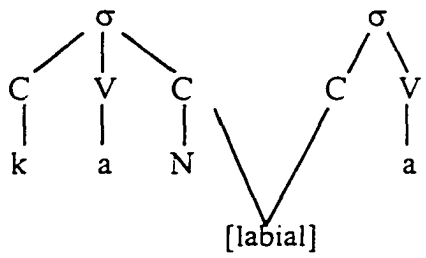
[17] Two monosyllabic CVC words have been found for Northern Gbari, [bīm] 'big' and [bᵐām] 'biggest'.

Nasals in syllable coda position, as shown in (12), as well as the nasals illustrated in (13) are invariably homorganic with the following consonant. To explain why only homorganic nasals are found in these positions, the filter in (14) is proposed:

(14) *C]σ
|
[PLACE]

This filter is modeled after the one proposed by Itô (1989:224) to explain similar phenomena in a number of languages, including Japanese. The filter places a constraint against a syllable coda which does not share its place specification with another consonant. Application of this filter is seen in the derivation of [kàmbā] 'maize' in (15). Here, the coda of the first syllable is linked with the [labial] place feature of the following syllable onset.

(15)



[kàmbā] 'maize'

There is one example in the data which illustrates the morphophonemic creation of a nasal coda. This is found with the word [sīmb^{w}é] 'metal pot' which is derived from [ʔēsī́] 'metal' and [ʔəb^{w}é] 'pot'. The conjunction of these words has given rise to a homorganic nasal coda [m]. Further research is needed to identify other words in which nasal codas can be seen to have resulted from this process.

Note that vowels in CVC syllables such as [kàmbā] in (15) are not nasalized unless the nasal autosegment is present, as in [d͡ʒũŋgʷó] 'rainy season'. Accordingly, the mid vowel /e/ (which does not appear as nasalized in Gbari) is sometimes present in these syllables, as in [t͡sént͡sí] 'tail' and [bēzémbā] 'grasshopper' (no token with /o/ has yet been found).

2.4 [- ATR] vowels

Although only five phonemic vowels are posited in Gbari, the [- ATR] vowels [ɪ ɛ ə ɨ ʊ] may surface in certain environments. Three such environments have been distinguished, which are illustrated by the examples in (16).

(16) a. [t͡sént͡sí] 'tail'
b. [k'ɨk'ɨrí] 'all'
c. [t͡ʃɨtāpūlū] 'alligator pepper'

The first environment, illustrated by [t͡sént͡sí] 'tail', is that of a CVC syllable. Vowels regularly have [- ATR] allophones in closed syllables. Additional examples are shown in (17):

(17) [sɨ̄mbʷé] 'metal pot'
[g͡bēnt͡sí] 'plantain'
[bēzèmbā] 'grasshopper'

In the second environment, as illustrated by [k'ɨk'ɨrí] 'all', [- ATR] central vowels follow the voiceless velar ejective [k']. Other examples are [k'ərɨ́] 'fishing net' and [k'ərē] 'adze'. It is unclear from the current data whether the [ə] in these words should be seen as an allophone of /e/ or /a/.

The third environment, as illustrated by [t͡ʃītāpūlū] 'alligator pepper', is the least understood. In this environment, [- ATR] vowels may appear in word-medial syllables in various positions within the word. Further examples are shown in (18):

(18) [t͡ʃītāpūlū] 'alligator pepper
[t͡ʃīk͡pārēgēdē] 'phlegm'
[tātāngīrí] 'kind of plant'
[fūtūrí] 'fresh'
[wāʒīgēgē] 'mouse'

It is difficult to state a general rule about when this vowel laxing might take place. There are other lexical items of similar phonological shape in which vowel laxing does not occur, as in:

(19) [bēdámì] 'innocent person'
[būdīrī] 'spine'
[būt͡ʃūgʷó] 'hunchback'

The data suggest that stress, tone, and consonant type may all have involved in producing these [- ATR] vowels. The following observations apply: (a) In this environment, [- ATR] vowels never appear in stressed or high tone syllables. (b) Such [- ATR] vowels have never been seen to follow alveolar consonants, or the approximants /y/ or /w/. (c) Labio-dental and velar consonants, which are normally palatalized before front vowels, are never palatalized when appearing with [ɪ] and [ɛ].

2.5 Vowel assimilation

There are some examples in Gbari where vowels assimilate to the features of the consonant or vowel in the following syllable.

One type of assimilation is seen in the singular noun prefix which appears in nouns such as [ʔèɲī] 'flying ant' and [ʔə̄t͡ʃù] 'cobra'. The behavior of the noun prefix plays a role in the vowel harmony systems of many Niger-Congo languages. Examples from Yoruba (taken from Stewart 1971:204) are shown in (20):

(20) [ɛta] 'three'
[eji] 'two'
[ɔkɔ] 'husband'
[oko] 'farm'

In the Yoruba system the prefix is a mid vowel which harmonizes in its place specification as well as in [ATR] with the following vowel. In contrast with Yoruba, Gbari might be described a having a rudimentary harmony system in its singular noun prefix. In Gbari, the prefix may appear as either [e], [ɛ], or [ə], as seen in:

(21) [ʔējǽ] 'thing'
[ʔèdá] 'cutlass'
[ʔə̄kʷō] 'fist'

The rules which govern the quality of the prefix vowel are difficult to state in precise terms. This is because there may be variation in its quality within the same lexical item, as seen in (22):[18]

(22) [ʔədū] ~ [ʔɛ̄dū] 'river hole'
[ʔèfʲā] ~ [ʔɛ̀fʲā] 'amaranthus'
[ʔēd͡ʒū̄] ~ [ʔəd͡ʒū̄] 'cleared land'

[18] These variations were heard in a recorded tape of the Gbari lexicon where each noun was repeated three times.

Certain tendencies in the quality of the prefix vowel, however, can be identified. As in Yoruba, its quality appears to be motivated by the place specification of the following vowel. The following general tendencies can be noted:

(a) The prefix vowel tends to be realized as [ə] when the following syllable contains one of the back vowels ([u o]) (as in (23a) and (23b)), or the labial autosegment (as in (23c) and (23d)):

(23) a. [ʔə̄pʷū] 'group'
b. [ʔə̀dō] 'electric fish'
c. [ʔə̄fᵛā] 'farm'
d. [ʔə̀mʷī] 'dog'

(b) The prefix vowel tends to be realized as [ɛ] when the following syllable contains the central vowel ([a]) or the nasal autosegment, as in (24):

(24) a. [ʔɛ̄dā] 'father'
b. [ʔɛ̀kⁿ̄ī] 'ground'

(c) The prefix vowel tends to be realized as [e] when the following syllable contains one of the front vowels ([i e]), as in (25):

(25) a. [ʔēpʰʲí] 'house'
b. [ʔēgʲí] 'elephant grass'
c. [ʔèɲī] 'flying ant'

The above tendencies illustrate a relationship between the prefix vowel to the place specification of the vowel in the following syllable by associating [ə] with the back vowels, [ɛ] with the central vowel [a], and [e] with the front vowels. There seems to be a slight ordering of the above, with back vowels and the labial autosegment having the strongest influence and front vowels and palatal autosegment the least influence on the prefix vowel.

This can be seen in (23c) and (23d) in which the labial autosegment appears to overrule the mid and front vowel in causing the prefix vowel to become [ə]. Similarly, the nasal autosegment can overrule front vowels also, producing the result found in (24b). These data suggest that the prefix vowel should be interpreted as an underspecified mid vowel.

The vowel in the verb [k͡pé] 'to know' behaves in a similar way to the prefix vowel, as seen in (26a) and (26b). In (26c), however, it is realized as [o]. This is probably due to its assimilation to the [dorsal] feature from the surrounding segments, each of which has a [dorsal] feature.

(26) a. [k͡pé jǽ] 'know thing'
b. [k͡pə́ snū] 'know doing'
c. [k͡pó kʷō] 'know fist'

A further example of vowel assimilation is shown in (27):

(27) [t͡ʃē] [jā] ---> [t͡ʃī já]
throw release
'throw away'

This example shows the influence of the palatal glide in [jā] on the height of the preceding vowel. Speakers insist that the first verb is identical to [t͡ʃē] 'to throw'. However, when [t͡ʃē] appears with [jā] 'release' (yielding 'to throw away') the vowel in [t͡ʃē] assimilates to the height feature of [j], resulting in [t͡ʃī].

2.6 The phonemes /ɗ/ and /l/

A major difference between the phonological systems of Northern and Southern Gbari is the distribution of /ɗ/ and /l/. Table 8 illustrates the distribution of /ɗ/ and /l/ in each variety.

Table 8. Distribution of /ɗ/ and /l/ in Gbari

Southern Gbari					
/l/	/li/	-->	[ɾi]	[kʷārí]	'Kwali'
	/le/	-->	[ɾe]	[ʔērē]	'sleep'
	/la/	-->	[la]	[lá]	'to take'
	/lo/	-->	[lo]	[lō]	'to go'
	/lu/	-->	[lu]	[lù]	'to weave'
/ɗ/	/ɗi/	-->	[ʲi]	[ʲí]	'to eat'
	/ɗe/	-->	[ʲe]	[ʲē]	'to see'
	/ɗa/	-->	[ɗa]	[ɗārí]	'tamarind'
	/ɗo/	-->	[ɗo]	[ɗò]	'to enter'
	/ɗu/	-->	[ɗu]	[ɗú]	'to beat'
Northern Gbari					
/l/	/li/	-->	[lʲi]	[lʲí]	'still'
	/le/	-->	[lʲe]	[ʔɛlʲē]	'sleep'
				[lʲē]	'to see'
	/la/	-->	[la]	[lá]	'to take'
	/lo/	-->	[lo]	[lō]	'to go'
				[lō]	'to enter'
	/lu/	-->	[lu]	[lū]	'to beat'
/ɗ/	/ɗi/	-->	[ʲi]	[ʲí]	'to eat'

As shown in table 8, in Southern Gbari both /ɗ/ and /l/ contrast before all five phonemic vowels. In Northern Gbari, however, /ɗ/ and /l/ contrast only before /i/. This contrast is provided by [ʲí] 'to eat', which is the only token beginning with [ʲ] found in the current data from Northern Gbari.[19] The examples in table 8 also illustrate how lexical items

[19] Further research may yield more tokens of /ɗ/ in the Kwakuti form of Northern Gbari which is under study here. Words containing /ɗ/ were never a subject of elicitation, and [ʲí] 'to eat' is the only example which appears in my current data. The language assistant from Kwakuti also reported that [ʔeʲe] (phonologically /eɗe/) is used as the relativizer in Paiko (also Northern Gbari). The distribution of [ɗ] in Northern Gbari clearly merits further research.

with /ɗ/ and /l/ in the South are collapsed into the set beginning with /l/ in the North. The words [lō] 'to go' and [ɗō] 'to enter' in Southern Gbari, for example, are both realized as [lō] in Northern Gbari.

The explanation for this appears to lie in a historical sound change from /ɗ/ to /l/. Hyman (1972:189) presents evidence that Proto-Kwa had [ɗ],[20] and that [ɗ] changed to [l] in many Kwa languages. The data in table 8, especially those from Northern Gbari, seem to support such a change. For Southern Gbari, however, it is interesting to note that both /ɗ/ and /l/ exist together as fully contrastive phonemes. If Hyman is correct, then Southern Gbari has fully retained the original /ɗ/ while developing a parallel set for /l/.[21]

The distribution of /ɗ/ and /l/ in Gbari is an issue which has implications for a unified Gbari orthography, especially in literature intended for the whole group. Southern Gbari readers will need orthographic <ɗ> and <l>. Ideally, Northern Gbari readers will accept the Southern Gbari spellings and consistently recognize /l/ when reading orthographic <ɗ>.

2.7 Tone

Gbari is a discrete level tone language with three phonemic tones: High, Mid, and Low. The forms in (28) illustrate the three-way tonal contrast:

(28) [dá] 'to be sweet' [kᵍú] 'to sell'
[dā] 'to say' [kᵍū] 'to be sufficient'
[dà] 'to walk' [kᵍù] 'to shake'

[20] Hyman gives examples of three reconstructed Proto-Kwa forms: *ɗī 'to eat', *ɗe 'to see', and *ɗɛ̂ 'blood'. Note that the Southern Gbari forms for these words, [ʲíˀ] 'to eat', [ʲēˀ] 'to see', and [ʔɛʲàˀ] 'blood' closely parallel the proposed Proto-Kwa forms.

[21] Hyman (1972:170) reports that the Kuta dialect of Gbagyi has only the one set [ʲi], [ʲe], [la], [lo], and [lu], which he interprets as beginning with the phoneme /l/.

Syllabic nasals can bear phonemic tone. Examples showing Mid and Low tones are shown in (29):

(29) [m̩̄bā:] 'welcome'
[ǹ̩tⁿù] 'five (cardinal number)'

Rising and falling contour tones are also found, as shown in (30). As discussed in the following section, these contour tones should probably be analyzed as combinations of level tones.

(30) [sě:nā] 'pride'
[nû̌wǔ] 'son'

The tone patterns of two syllable nouns are considered in section 2.7.1. Contour tones as created by grammatical particles are then considered in section 2.7.2.

2.7.1 Tone patterns in two syllable nouns

The tonal behavior of two syllable nouns, such as [ʔēná] 'fire', is of interest because of the tonal perturbations which take place in certain phonemic tone patterns. Such two syllable nouns have been a focus of study in Gbagyi (Hyman and Magaji 1970:15), Yoruba (Welmers 1973:108), and Nupe (George 1970). The observations to be presented about Gbari basically accord with Hyman and Magaji's observations for Gbagyi.

The possible combinations of phonemic tones in two syllable nouns are illustrated in table 9. The Low-High, High-Low, and High-High combinations are rare: only one token of Low-High is found in the data ([ʔèdá] 'cutlass'), only one token of High-Low ([tⁿútⁿû] 'work'), and only three tokens of High-High, ([ʔétsǎ] 'laughter', [ʔásnú] 'breath', and [ʔété] 'grass').

Table 9. Two Syllable Noun Tone Patterns

		Second Syllable		
		High	Mid	Low
First Syllable	High	[ʔétsā́] 'laughter'		[tⁿútⁿû] 'work'
	Mid	[ʔēsī́] 'metal'	[bāgā] 'rib'	[ʔəpʷô] 'twin'
	Low	[ʔɛ̀dá] 'cutlass'	[ʔɛ̀de] 'cloth'	[ʔəd͡ʒù] 'maggot'

Tonal perturbations are seen in the High-Low, Mid-Low, and Low-Mid combinations. As seen in [tⁿútⁿû] 'work' and [ʔəpʷô] 'twin', falling tones are derived on the second syllable when Low follows High or Mid. (The fall is from high to low for the High-Low pattern, and mid to low for the Mid-Low pattern.) The Low-Mid pattern, seen in [ʔɛ̀de] 'cloth', derives a phonetic lower-mid tone (left unmarked for tone in the example). Yoruba as well as Gbagyi also exhibit the lower-mid phenomenon in this environment (Hyman and Schuh 1974:89). Acoustic measurements of two syllable nouns using data from one male speaker showed Low tone to be at around 101 Hz, Mid tone at 125 Hz, and High tone at around 155 Hz.[22]

[22] These values are taken from a study using a random sample of 30 two-syllable nouns (ten from the Mid-High pattern, ten from the Mid-Mid pattern, and ten from the Low-Mid pattern) in which the following results were obtained. For the Mid-High pattern, the mean for Mid tone was found to be 125.9 Hz., and the mean for High, 155.1 Hz.. For the Mid-Mid pattern, the mean for the first syllable was 125.2 Hz, and for the second syllable, 125.5 Hz.. In the Low-Mid pattern, the mean for Low was 101 Hz., and the mean for Mid (realized as the Lower-mid allophone of Mid which occurs when Mid follows Low) was 118.1 Hz.. These results put the average distance between Mid and High in the sample at 29.2 Hz., and the average distance between Mid and Low at the slightly lower distance of 24.2 Hz.. Combining these figures yields a distance from High to Low of 53.4 Hz.. Lower-mid averaged 7.4 Hz. lower than Mid tone. This represents a drop in tone of 29% when compared to the difference of 29.2 Hz. between Low and Mid as noted above. These traces were obtained using a test version of Wincecil, an acoustic analysis program from the Summer Institute of Linguistics.

Tone traces which illustrate High, Mid, and Low tones in two syllable nouns are shown in figure 5. The tone trace on the left side of figure 5 shows Low and High tones as found in [ʔèdá] 'cutlass', followed by the trace for [ʔēfʲē] 'tsetse fly' on the right showing two Mid tones.

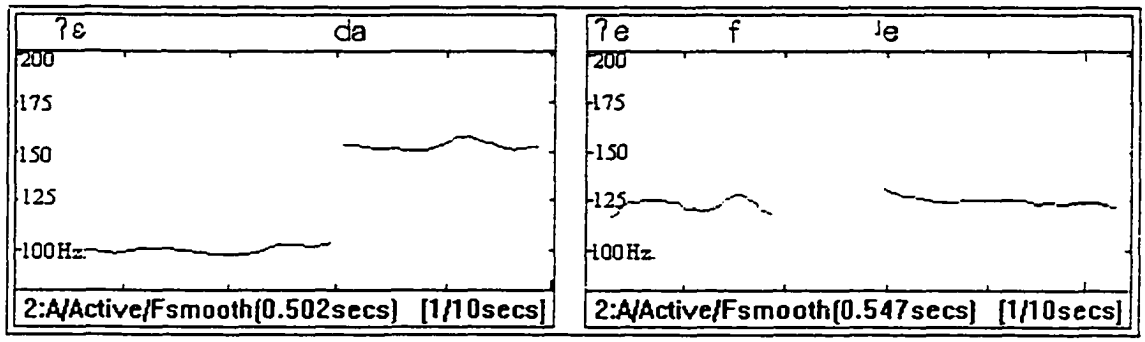


Figure 5. Level Tone Traces

Contour tones derived from the Mid-Low and High-Low patterns are shown in figure 6.

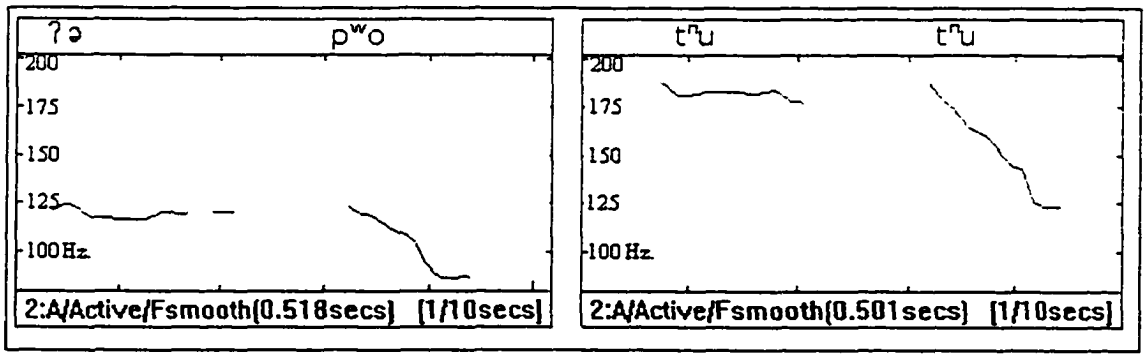


Figure 6. Contour Tone Traces

The trace on the left side of figure 6 shows the falling tone which occurs on the second syllable of [ʔəpʷô] 'twin' (phonemically Mid-Low). The trace on the right side of figure 6 shows the falling tone on the second syllable of [tⁿútⁿû] 'work' (phonemically High-Low). The tone on the first syllable of [tⁿútⁿû] 182 Hz in figure 6 at begins at a higher register than was normally seen in two syllable nouns (around 155 Hz). The fall in tone on the second syllable of [tⁿútⁿû] can be interpreted as falling from High to Low as the falling tone is around 55 Hz, equivalent to the difference in tone which is normally found between High and Low tone.

In addition to the above examples, where contour tones are found on the second syllable, a number of two syllable nouns have also been found which have contour tones on the first syllable, as illustrated in (31):

(31) [nû̀wù̀] 'son'
[gʷâgʷā] 'guinea yam'
[tûŋgù] 'ashes'
[sě:nā] 'pride'

It is not always possible to recover the tonal history of words such as those in (31). However, Sterk's (1978:8) observation concerning contour tones in Gade that "the few lexical items that have underlying glide tones should probably be analyzed as cases where word-internal vowel clusters have contracted" probably applies in these cases. Further detailed analysis of tone, which extends beyond the scope of this grammatical sketch, is left for future research.

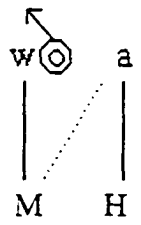
2.7.2 Contour tones in the grammar

Rising tones are often created by the presence of high tone grammatical particles. These are the completive aspect particle <á>, and the locative preposition <é>. A rising tone is created by the presence of <á> when this particle follows a pronoun. In such cases, <á> replaces the pronoun vowel altogether. The tone from the original pronoun vowel, however, remains as a floating tone, and combines with the high tone of <á> to yield a rising tone. This process is illustrated in example (32), where the mid tone of [wō] 'she' and the high tone of <á> combine to yield [wă].

(32) wo-á kàmba gwó
she-PAST/PFOC maize grind
[wă kàmba g^{w}ó]
'She has ground the maize.'

The derivation of this contour tone on [wă] is illustrated in (33):

(33)



[wō] + [á] --> [wă]

Rising tones created by the locative preposition <é> are derived in similar fashion. In (34), the vowel in the locative preposition <é> is deleted, leaving a floating high tone. This tone then links with the vowel in the locative verb [d^{n}ā] 'to be in (sg.)', yielding [d^{n}ă].

(34) wo dna é katé-lo
she be.in(sg.) at room-LOC
[wō dnă kātēō]
'She is in the room.'

2.8 Orthography

No standard orthography is currently in use in the Gbari speaking areas; while an orthography which was developed and used in the 1920s by missionaries, it is largely unknown. A Gbari language committee was formed in 1997, and has reportedly begun work on developing an orthography.

The most controversial issue in the orthography will undoubtedly center on the method for writing words that contain the nasal autosegment. In the 1926 orthography, for example, the nasal feature was written in syllable initial, syllable medial, and syllable final positions: [j̃ǽ] 'something' was written as <nyá>, [g^{n}ā] 'to say' was written as <gna>, and [sĩ́] 'to drink' was written as <sin>.[23] (The decision of how to indicate nasality apparently varied in accordance with the initial consonant type.) This thesis adopts the method proposed by Hyman and Magaji (1970) and Shekwo (1988) for writing nasals in Gbagyi whereby the nasal is written between the consonant and vowel whenever the nasal autosegment is present. Under this system, the above referenced words are then spelled as <yná> 'thing', <gna> 'to say', and <sní> 'to drink'. This method is favored because it gives consistency to the way the nasal feature (being the same phonological unit in each case) is written. Writing the nasal directly after the consonants /s z f v h/ as in <sní> 'to drink' is

[23] The phonetic transcriptions of the words listed in this sentence are based on the assumption that their pronunciation in 1926 was the same as that of today.

preferred over <sín> because <sin> uses a CVC spelling for what is actually a CV syllable and may potentially be confused with the CVC syllable which already exists in the language. As an example, the spelling of [fũŕé] 'chaff' as <funlé> might result in its being incorrectly read as *[funŕé]. The spelling of <fnuré> is therefore preferred.[24]

Another issue in the orthography centers on whether the labial and palatal consonant modifications should be written. Should [ɲ́í] 'to eat', for example, be written as <dĩ> or <dyí>? Both forms have been used in different versions of the Gbagyi orthography. In this thesis, the modifications are written, as it provides non-Gbari readers with a closer representation of the true pronunciation of the language. Palatalized forms of /t d s z/ are written as <ch j sh zh>. Speakers respond well to these spellings because of their similarity to English orthography. A potential alternative to <ch> in a standard orthography will be the Hausa <c>.

Negation in Gbari is marked by a Low-Rising intonation contour on the last vowel in the clause which is followed by a nasal segment. It is written in this thesis with a clause-final <m>.

---

[24] Hyman and Magaji (1970:13) also discuss the complications resulting from the CVC spelling of a CV syllable in a similar situation for Gbagyi: "CNV is preferred over CVN to represent nasalized vowels as well as nasal release, since it permits a practical representation of the verbal participle, which is formed by an ĺ suffix on the reduplicated verb: knú 'to sell', knúknuí 'saleable, for sale'. The alternative kúnkuní would not permit one unique phonetic interpretation and would only complicate the orthography." Their observations concerning the verbal participle apply to Gbari as well.

Following general linguistic conventions, tones are orthographically represented as <ˊ> for High tone, <ˋ> for Low, <ˇ> for Rising tone, and <ˆ> for Falling. Mid tone is left unmarked. Unless otherwise indicated, lexical tone is marked in the interlinear examples.

CHAPTER 3

LANGUAGE TYPOLOGY

This chapter presents the morphological and word order typology of Gbari. Section 3.1 provides a brief look at morphological tendencies in Gbari. The word order typology of Gbari is then treated in section 3.2.

3.1 Morphological typology

Morphologically, Gbari might be said to display aspects of both isolating and agglutinative languages. An isolating language, according to Comrie, "is one which has no morphology, i.e. at least ideally, a language where there is one-to-one correspondence between words and morphemes" (1981:39). In agglutinative languages, "words may consist of more than one morpheme, but the boundaries between morphemes in the word are always clear-cut" (1981:40).

Of these language types, Gbari has a general tendency toward isolating morphology. There is in general a one-to-one correspondence between words and morphemes, as is illustrated in (35):

(35) ɓa ga lo ga ka ɗyé ɓa ga gu ɓa
they SEQ go SEQ pluck(pl.) so.that they SEQ hide they

ɗyí byè ke ɓa lo kpé knú
eat first SEQ they go know sell
'They went and plucked it so that they could hide it and eat some of it first before selling it.'

Some agglutinative tendencies, however, are present in the nominal system, where nouns can be built through a process of compounding, such as those in (36):

(36) jeshnáwnu 'porridge pot' (eje 'porridge' + shnáwnu 'pot')
sníbwé 'metal bowl' (esní 'metal' + ebwé 'bowl')
núwnáfùbà 'bathing place' (núwná 'water' + fù 'to douse' + èbà 'place')
tnútnubà 'workplace' (tnútnù 'work' + èbà 'place')

Additionally, some affixing occurs in Gbari, as seen by the following list:

(37) e- singular noun prefix
a- plural noun prefix
-i associative/instrumental case marker suffix (on nouns)
-lo locative noun suffix
-i/lí adjectival suffix
-í agent suffix
-i proximal deictic verb suffix
-a distal deictic verb suffix

3.2 Word order typology

Gbari has a basic SVO word order, as is typical in the majority of Niger-Congo languages. There are, however, traces of SOV syntax in different areas of the grammar. Such traces of SOV word order are found in many Niger-Congo languages, and have led some analysts (including Givón, Hyman, and Williamson, as cited in Williamson 1989:28) to posit an SOV order for Proto-Niger-Congo.

The remainder of this section provides a survey of the structural tendencies in Gbari and describes its word order features by comparing them to the structural tendencies of VO and OV languages as presented in table 10 (taken from Burquest1984:11).[25] The structural

[25] While the categories in table 10 are taken from Burquest (1984:11), the order in which they appear has been altered and the (a), (b), (c) labels added to accommodate the discussion. Burquest's chart is based upon proposals found in Lehmann (1978).

tendencies of SVO and SOV languages are alternately known as head-initial and head-final tendencies, and will be so called in the following discussion.

Table 10. Structural Tendencies of VO and OV Languages

		VO (head-initial) Languages	OV (head-final) Languages
(a)	Basic Order	verb-object	object-verb
	Adpositions	prepositions	postpositions
	NP Modifiers	noun-modifier	modifier-noun
(b)	Comparisons	topic-relator-standard	topic-standard-relator
	Titles	title-name	name-title
	Names	given name-family unit	family unit-given name
	Complementation	verb-complement	complement-verb
(c)	Numerals	unit-decimal	decimal-unit
	Questions	Q-proposition	proposition-Q
	Negation	NEG-proposition	proposition-NEG

The categories in table 10 have been grouped into three sets relative to how they are realized in Gbari. Set (a) contains categories for which Gbari displays characteristics of both head-initial (SVO) and head-final (SOV) typology. Set (b) contains those in which Gbari accords with head-initial typology, and set (c) contains those for which Gbari follows a head-final typology. Each of these sets is considered below.

3.2.1 Categories which display both head-initial and head-final typology

Both head-initial and head-final typology are found in the categories of basic word order, adpositions, and NP modifiers (set (a) in table 10).

The basic SVO word order is shown in (38). The indirect object in Gbari (*Sheagyi* in example (38)) appears between the verb and the direct object.

	S		V	IO	O
(38)	Shegnada	ga	gyi	Sheágyi	pà
	Shegnada	SEQ	give	Sheagyi	book

'Shegnada will give Sheagyi a book.'

However, an SOV word order is found after the particle *á*. This particle is used to place focus on the effects of the verb in relation to the object noun, as discussed in section 5.2.4.2. An example is seen in (39).

	S		O	V	IO
(39)	Shegnada	á	pà	gyi	wo
	Shegnada	PAST/PFOC	book	give	him

'Shegnada has given him a book.'

An SOV word order is also characteristic of procedural discourse, as shown in (40):

	S		O	V			
(40)	mi	ga	eɓí	lá	dna	é	dobwí-lo
	I	SEQ	child	take(sg.)	put.in(sg.)	at	silo-LOC

	S	O	V		
ɗyé	wo-a	ewyí	kní	gyi	mi
so.that	he-SUBJ	guinea.corn	choose	give	me

'I will put a boy into the silo to fetch me some.'

In addition, an OV pattern is seen in nominalized constructions as illustrated in (41):

	O	V
(41)	etsí-si-si	
	yam-buy-REDUP	

'yam buying'

Gbari displays both head-initial and head-final tendencies in adpositional phrases. Two such phrases are found in the language, each of which uses a prepositional element as well as a postpositional suffix, as shown in (42) and (43).

(42) wo wu ná *de* *núwná-i*
he kill fire with water-with
'He is dousing the fire with water.'

(43) wo dna *é* *katé-lo*
she be.in(sg.) at room-LOC
'She is in the room.'

Both head-initial and head-final tendencies are also found with NP modifiers. Although a head-initial pattern is generally followed, as illustrated by both adjectives and relative clauses following their head noun in (44) and (45),

(44) a-za ɓélé
PL-person many
'many people'

(45) mi yé a-tsí ndye dá yna
I want PL-yam REL to.be.sweet DET
'I want the yams which are sweet.'

a head-final pattern is found when nouns are modified within the associative construction (discussed in more detail in section 4.2.2). Here the modifying noun precedes the head noun:

(46) Kwash-bwáli
Kwash-house
'Kwash's house'

3.2.2 Categories which display head-initial typology

Gbari follows head-initial typology for comparisons, titles, names, and complement clauses (shown in set (b) of table 10).

Comparisons are formed using a serial verb construction. This is interpreted as following the head-initial 'topic-relator-standard' pattern, since the comparison verb can be seen as the "relator" and intervenes between the topic and the standard. The comparison verb in (47) is *pe* 'to surpass'.

(47) katé dede hnì gnà ná-gnu *pe* yi katé
room other this be.too.much fire-climbing surpass our room
'This room is hotter than our room.'

Titles follow the head-initial 'title-name' pattern:

(48) Etsú Nyizeasna
Chief Nyizeasna (Nyizeasna is translated 'the world is painful')

(49) mallam Shegnasà
teacher Shegnasa

Names follow the head-initial 'given name-family name' pattern. It is common to include the village name after the family name, as in:

(50) Jon Etsú Kwali
John Etsu Kwali
(Etsu is the family, meaning "chief", Kwali is the village name)

Complements follow the head-initial order of 'verb-complement', as with:

(51) wo-a gna [*dye wo-á kàmba gwó*]
she-PAST say COMP she-PAST/PFOC maize grind
'She said that she ground the maize.'

3.2.3 Categories which display head-final typology

A head-final pattern is followed for numerals, questions, and negation (shown in set (c) of table 10). Numerals follow a head-final "decimal-unit" pattern, as seen in:

(52) ynâwo-tu-6í-gbmalí
ten-be.on(sg.)-child-one
'eleven'

Questions are marked by sentence final phenomena. These can be either question particles at the end of the sentence, as in (53) and (54), or the tone lowering and vowel lengthening which is present at the end of (55).

(53) he snu ynά na
you(sg.) do thing QWH
'What are you doing?'

(54) he lo Dobi bâ
you(sg.) go Dobi QYN
'Are you going to Dobi?'

(55) he-á zo ɗyí?
you(sg.)-Past/PFOC finish eating
[hă zō ʲīː]
'Have you finished eating?'
(the high tone of *ɗyí* 'to eat' is lowered and the vowel is lengthened.)

Negated sentences have a sentence-final rising tone contour, and are almost always accompanied by a sentence final nasal.

(56) wo chní snu m
she do.habitually doing NEG
[wō t͡ʃĭ sŭ m]
'She never does it.'

3.2.4 Summary

The survey presented above shows how Gbari exhibits a mixture of typological tendencies. In regard to the ordering of subject, verb, and object, Gbari uses a basic SVO word order which can be realized as SOV in certain constructions. Aside from this, the remaining typological tendencies seem to be fairly evenly divided between head-initial and head-final structures. Given the debate concerning basic word order in Proto-Niger-Congo, it is perhaps not surprising that Gbari exhibits this mixture of structural tendencies. Continued research in Niger-Congo languages as a whole may eventually answer the debate over the origins of these patterns in Gbari and related languages.

CHAPTER 4

THE NOUN PHRASE

This chapter describes the various aspects of the noun phrase in Gbari. The pronominal system is treated in section 4.1. Various aspects of the Gbari noun and noun morphology are discussed in sections 4.2 and 4.2.3. Adjectives are then considered in section 4.3.

4.1 Pronouns

The Gbari pronouns are shown in table 11.

Table 11. Gbari Pronouns

	Singular	Plural
1st person	mi	yi
2nd person	he	se
3rd person	wo	6a
3rd person (non-referential)	-	a

Aside from the non-referential pronoun *a*, the pronouns listed in table 11 take the same form for subject, object and indirect object positions. Other pronouns, which do not appear in table 11, are *e*, which is sometimes used for inanimate or abstract nouns, and *ga*, which is used when an inanimate noun appears in a sociative or instrumental role. These pronouns are treated in the following discussion.

The third person plural pronoun *a* is a non-referential pronoun used when the identity of the subjects are either uncertain or unimportant. It appears in constructions which are functionally equivalent to the English passive (sometimes called 'impersonal passives' (Givón 1990:581)):

(57) *à* snu de chnímwa-i
they make with wood-with
'This is made of wood.' (literally 'they make [this] with wood.')

(58) *à* kú tse ga-i
they wrap arrow it-with
'They wrap arrows with this.'

(59) *à* yi mi Shegnasà
they call me Shegnasa
'My name is Shegnasa.'

Possessive pronouns precede the possessed noun, as shown in (60). Example (61) contains a doubly possessed noun, where 'my husband's father' appears literally as 'my husband--his father'.

(60) *wo da*
his father
'his father'

(61) *mi ɓá wo da* gni-i
my husband his father stand(sg.)-PROX
'This is my husband's father.'

Hyman and Magaji (1970:24) analyze possessive pronouns in Gbagyi as entering into an associative relationship with the possessed noun. (The associative construction, on which this relationship is based, is discussed in section 4.2.2.) This analysis probably applies to Gbari as well, and suggests that the pronoun should be represented as attached to the possessed noun, where (60), for example, would appear as *wo-da* and (61) as *mi-ɓá-wo-da*.

However, as a stylistic preference, possessive pronouns are written as separate from the noun in this thesis.

Reflexive pronouns are formed by adding *-ḍ̀ye* to the pronoun stem:

(62) wo che *wo-ḍ̀ye* lo
he kick he-RFLX PROG
'He is kicking himself.'

The similarities of *-ḍ̀ye* to the English suffix '-self' is seen in its use as a marker which emphasizes or particularizes the meaning of the pronoun, as in (63):

(63) wo ga snu *wo-ḍ̀ye*
he SEQ do he-RFLX
'He will do it himself'

Gbari makes either a human/non-human or an animate/inanimate distinction in the third person pronouns. The exact nature of this contrast is unclear from the current data, as further research is needed into the pronominalization of plants and animals to clarify this issue. It is clear, however, that inanimate nouns are treated differently than human referents. For human referents, the use of *wo* and *ɓa* is obligatory, and must always appear in the surface structure. In contrast, inanimate nouns may be pronominalized either with *wo* and *ɓa*, with the pronoun *e*, or with zero anaphors. An example using *wo* is shown in (64), where it is used to pronominalize *dobwí* 'silo'.

(64) wo-á *wo* mi
he-PAST/PFOC it build
'He built it (the silo).'

The pronoun *e*, phonetically realized as [ə], may be used in certain situations, but the motivation for its use is not well understood. Examples are shown in (65) - (67). Note that in

(65) the pronominalized noun is the subject of a question (used as a tool in language learning), in (66) it is an abstract noun, and in (67) it functions as a resumptive pronoun.

(65) *e* yi yi nána
it be be what
'What shape is this?'

(66) *e* nù mi m
it fill me NEG
'I don't understand.' (literally, 'It didn't fill me.')

(67) wo wó dye *e* ɓwí sà le na?
his money DET it disappear time which what
'When did he lose his money?'

By far the most common method of pronominalizing inanimate nouns, in both subject and direct object positions, is by using zero anaphors.[26] A pronominalized subject (indicated by Ø in the example) is shown in (68):

(68) Ø yi málí málí
(it) is beautiful beautiful
'It is very beautiful.'

Direct objects pronominalized by zero anaphors are shown in (69). This example is taken from "How to Make Guinea Corn Tuwo," and contains three instances where the noun *ewyí* 'guinea corn' is pronominalized with zero anaphora. Since an SOV pattern is

[26] Although third person pronouns are obligatory for human referents, the use of zero anaphors for third person inanimate nouns may be an example of the iconic use of language, as suggested by Haiman (1985:4): "In a very large number of languages--but English is a conspicuous exception--there is a curious asymmetry in the expression of the third person singular in both verbal and pronominal paradigms. While the first and second persons are typically represented by some personal affix, the third person singular very frequently is represented by zero... Benveniste (1946) argued that in such cases, the formal contrast between non-null and null forms reflected a conceptual contrast between non-third persons and the third person, a conceptual contrast which the traditional terminology of the Western linguistic tradition had obscured. For the Arab grammarians, the first person was *al-mutakallimu*, "the speaker", the second person *al-muhatābu*, "the hearer", but the third person, who did not participate in the speech act, was characterized as *al-ya'ibu* "the absent one"."

characteristic of procedural discourse in Gbari, the place where *ewyí* would appear is before the verb in each clause.

(69) mi ga zhi ɓá Ø zo se mi-a Ø pyè
I SEQ come CMPL (it) finish pound I-SUBJ (it) winnow

mi-a Ø la mi-a lo inji ga-i
I-SUBJ(it) take I-SUBJgo engine it-with
'After I finish pounding it (the guinea corn), I winnow it and take it to the grinding engine.'

When a pronominalized object appears in an instrumental or sociative role, it appears as *ga-i* which is composed of the pronoun *ga* plus the instrumental or sociative suffix *-i*, and is realized phonetically as [ge]. This pronoun is always overt, presumably because *-i* needs to be suffixed to the overt pronoun. Examples are shown in (70) - (71).

(70) he-a snu yna ga-i na
you(sg.)-SUBJ do this it-with QWH
'What will you do with it?'

(71) kna núwná fyi-a zhi ga-i
takeout(pl.) water be.inside(pl.)-DIST come it-with
'Take that water out and bring it.'

4.2 Nominal morphology

The characteristics of nominal structures in Gbari are treated in the following sections. Section 4.2.1 first considers the set of two syllable nouns which carry a singular noun prefix. Nominal structures may also be derived in Gbari through a process of compounding based on the associative construction. This construction is considered in section 4.2.2. Following this, verbal nouns, along with the different kinds of nouns which may be further derived from them, are treated in section 4.2.3.

4.2.1 Two syllable nouns

As noted above, a large set of nouns in Gbari consists of two syllable nouns which are formed with the singular prefix *e-* attached to a monosyllabic noun root. Examples are shown in (72):

(72) èbyè 'pestle'
echí 'pumpkin'
èdnà 'fear'
efyé 'day'
èke 'antelope'
eti 'wound'
eya 'mother'
eye 'name'
ezna 'journey'
ezù 'guinea fowl'

Blench (1989:316) proposes that this prefix vowel, found in a number of Nupoid languages, is a remnant of a noun class system which existed at an early stage in Nupoid. [27] The prefix vowel is obligatory when words from this set are spoken in isolation, but is normally omitted in connected speech.[28] They are, however, heard when the noun is sentence initial, or in certain clause initial situations such as in the following, where the prefix is retained on *èna* 'goat':

(73) nɗye mi ga shi ɗú-ɗú-bà *èna* ga zhi
when I SEQ sit(sg.) thresh-REDUP-place goat SEQ come
mi ga yna wo
I SEQ chase him
'When I am sitting in the threshing place, if goats come, I will chase them away.'

[27] Blench (1989:315) cites the possibility that Gade, another Nupoid language, has retained much of the original Nupoid system. Gade has a fully functioning noun class system, as described in Sterk (1978).

[28] There are occasional examples where the prefix vowel is heard in a non-clause-initial context. However, possible reasons for this retention have not yet been analyzed.

The phonological behavior of the singular prefix vowel is discussed in section 2.5. The contrasting plural prefix is *a-*, as seen in *achí* 'pumpkins'. This prefix, however, is often omitted, and the indication of plurality is left to contextual factors. As example is seen in (73) above, where the singular prefix appears on *èna* even though 'goats' are in view.

Beyond the set of prefixed nouns exemplified in (72), nouns which are not derived through compounding may take a variety of structural shapes, as illustrated by the forms in (74):

(74)	gbusu	CV.CV	'hyena'
	myiwnu	CV.CV	'hunger'
	kàmba	CVN.CV	'maize'
	nagágbá	CV.CV.CV	'crocodile'

4.2.2 The associative construction

A frequently occurring nominal construction in Gbari is the associative construction. According to Welmers (1973:275), some form of the associative construction may be found in a variety of Niger-Kordofanian languages. The associative construction is described by Hyman and Magaji (1970:24) as one in which "one noun is associated with another, thereby providing a limited number of semantic relationships between them." Examples from Gbari are shown in (75) - (78):

(75) Sheágyi-ɓaɓá
sheagyi-father
'Sheagyi's father'

(76) núwná-shnáwnu
water-pot
'waterpot'

(77) wyé-núwná
eye-water
'tear'

(78) tnútnu-bà
work-place
'place for working'

The above examples are suggestive of the types of semantic relationships this construction may express in Gbari. One of its primary uses is to encode possession, as seen in (75). The relationships in the remaining examples are those of containership in (76), location in (77), and purpose in (78). A comprehensive account of the relationships which this construction encodes in Gbari is beyond the scope of this study, and will be left for future treatment. It should be noted that the associative construction is a head-final construction in Gbari, in which the modifying noun precedes the head noun. This contrasts with adjectival modification, which is head-initial, as seen in (79):

(79) èna bubú-í
goat white-ADJ
'white goat'

Welmer's (1973:281) notes that a number of Kwa languages have tonal modifications which are present in the associative construction. In Yoruba, for instance, "the nouns are joined by a morpheme consisting of mid tone" (1973:282). The tonal characteristics of the associative construction in Gbari have not been investigated as yet, and will be pursued in future research.[29] In this thesis, associative constructions are marked with their surface (phonetic) tone (not with the underlying lexical tones of the constituent nouns). Further examples of associated nouns are shown below:

[29] Hyman and Magaji (1970:27) recognize a historic mid-tone of association which may be recognized when nouns which follow certain tonal patterns are conjoined in Gbagyi. Similar phenomena is likely to be found in Gbari as well.

(80) kúsù-gwo
pig-pen
'pig pen'

(81) kàmba-6ye
maize-seed
'maize seed'(from Northern Gbari)

(82) túgwó-yí
head-hair
'hair (on the head)'

(83) Zalia-knì
Zaria-land
'Zaria land'

4.2.3 Verbal Nouns

The derivation of nominalized verbs in Gbari, along with the types of nouns which may be further derived from them, is treated in this section. The analysis presented here makes use of three terms taken from Hyman and Magaji's treatment of verbal nouns in Gbagyi (1970:29-33). These are the terms "gerund," "infinitival gerund," and "participle noun." In Gbari, the analogous structures directly parallel those in Gbagyi, allowing for a common analysis which is applicable in both languages.

As in Gbagyi, the structure of nominalized verb forms in Gbari may differ in accordance with the transitivity and syntactic position of the verb. For intransitive verbs in object position, the verb stem itself serves as the verbal noun, as seen in (84), while in subject position a reduplicated form is used in (85):

(84) wo kpé *zhi*
he knows coming
'He knows how to come.'

(85) *zhi-zhi* dna é 6é-lo
come-REDUP enter(sg.) at matter-LOC
'Coming is difficult'

For transitive verbs in object position, nominalization is effected by placing the verb behind its direct object, as shown by *kàmba-gwó* 'maize grinding' in (86):

(86) wo kpé *kàmba-gwó*
he knows maize-grinding
'He knows how to grind maize'

In subject position the transitive verbal noun appears as "object noun + reduplicated verb", as in (87):

(87) *kàmba-gwó-gwó* dna ɓé-lo
maize-grind-REDUP enter(sg.) matter-LOC
'Maize grinding is difficult.'

Additionally, the category noun *ebé* 'abstract matter' can optionally form part of the verbal noun, regardless of its transitivity. In (85) the verbal noun can optionally appear as *ʒhi-ʒhi-bé* 'coming'. In (87) *ebé* can be added to form *kàmba-gwó-gwó-bé* 'maize grinding'. Alternately in subject position, the verbal noun can take the form *kàmba-gwó-bé* where there is no reduplication of the verb stem. In this case, however, since *gwó* is not reduplicated, *ebé* is required.[30]

The base form of the transitive verbal noun, consisting of "direct object + verb" (as in *kàmba-gwó* 'maize grinding') is referred to by Hyman and Magaji (1970:29) as the "gerund." The gerund is analyzed as being formed on the basis of the associative construction where the head noun is the nominalized verb which appears in final position. Thus *gwó* 'grinding' is the head noun in *kàmba-gwó* 'maize grinding'. As seen in (87) the gerund in Gbari can include reduplication of the verb.

[30] Hyman and Magaji (1970:29-30) make no reference to the structure of transitive verbal nouns differing by syntactic position in Gbagyi. They note that the "object + verb" form as shown in (86) occurs in both subject and object positions. Additionally, they do not mention the possibility of *eɓé* forming part of verbal nouns in subject position.

Hyman and Magaji (1970:29) also distinguish an "infinitival gerund" which is used when no specific object is in view. This is formed by using the dummy object *eynά* 'thing' as the incorporated object noun. Examples from Gbari are seen in (88) which contains the infinitival gerunds *yna-ka-ka* 'writing' and *yna-ba* 'reading':

(88) wo kpé *yna-ka-ka* nû amâ wo kpé *yna-ba* m
he know thing-write-REDUP FOC but he know thing-read NEG
'He knows how to write, but he can't read.'

Hyman and Magaji (1970:30) recognize an assimilated low tone preceding the first syllable of the gerund, which results in a lowered tone on the first syllable. This type of tone lowering also appears in Gbari. Examples are seen in (88) above, where the high tone of *eynά* is lowered to mid tone in *yna-ka-ka* 'writing' and *yna-ba* 'reading'.

Gerunds may be further used in the formation of different types of nouns by entering into associative constructions with the four referential category nouns shown in (89):

(89) eɓé 'abstract matter'
eyná 'thing'
èbà 'place'
esà 'time'

When the gerund appears with *eɓé* it yields an abstract noun, with *eynά* an instrument noun, with *èbà* a place noun, and with *esà* a time noun. Agent nouns, instead of using *eza* 'person', are formed by using the suffix *-í*. Examples are shown in (91), where these forms are suffixed to the verbal noun for 'farming' shown in (90).

(90) fwa-nù
farm-cultivate
'farming'

(91) fwa-nù-bé 'farming considered as an abstract noun'
fwa-nù-ynà 'something used for farming'
fwa-nù-bà 'farming place'
fwa-nù-sà 'farming time'
fwa-nù-í 'farmer'

Additional examples are shown in (92) - (94):

(92) nuwná-fù-ynà
water-douse-thing
'loofah (sponge used for bathing)'

(93) yna-ka-ynà
thing-write-thing
'writing instrument'

(94) nuwná-fu-bà
water-douse-place
'bathing place'

Other examples illustrate that the first element in these constructions is not limited to the direct object of the nominalized verb. Locative objects, as well as the subject noun of an intransitive verb may also serve as the initial noun, as seen in (95) - (97):

(95) na-tu-ynà
fire-putting.on(sg.)-thing
'boiler'

(96) makalanta-lo-sà
school-going-time
'school going time'

(97) fye-li-sà
day-brightening-time
'dawn'

In (95) and (96), the nouns *enà* 'fire' and *makalanta* 'school' function as locative objects. In (97) the initial element is *fyé* 'day', which functions as the subject of the intransitive verb *li* 'to brighten'. Note that the construction in (97), however, bears a

similarity to constructions beginning with direct object nouns, since both direct object nouns and the subject noun in (97) function in the role of patient in relation to the verb. Although "gerund" has thus far been restricted to "direct object + verb", the constructions in (95) - (97) imply that its definition may need to be expanded to include the use of locative objects and patient nouns.

Other nouns may be derived by using a reduplicated form of the verb which Hyman and Magaji (1970:31) refer to as the "participle noun". The participle noun for *sní* 'to drink', for example, is *snísni* 'drinking', as seen in (98):

(98) yna-sní-sni
something-drink-REDUP
'something to drink'

When the verb has high tone, the second syllable of the participle noun is lowered to mid, accounting for the mid tone on the second syllable of *snísni*. Hyman and Magaji interpret the structure in (98) as one in which the participle noun *snísni* has entered into an associative relationship with *eyná* 'thing'. This construction is unique, however, because the modified noun is in head-initial position, unlike the associative constructions found in the remainder of the language, which are always head-final.

The participle noun in these constructions functions somewhat adjectivally. The examples listed below suggest that the modifying relationship provided by the participle noun differs according to the transitivity of the verb. The intransitive examples in (99) -

(101) show a relationship of description, while the transitive examples in (98) and (102) - (103) show a relationship of purpose or suitability of use.[31]

(99) bà-sna-sna
place-hurt-REDUP
'some place (on the body) that hurts'

(100) bà-shnìshni
place-descend(sg.)-REDUP
'sloping land'

(101) bà-ta-ta
place-slip-REDUP
'slippery land'

(102) katé-lye-lye
room-sleep-REDUP
'sleeping room'

(103) yna-ɗyí-ɗyi
something-eat-REDUP
'food'

4.3 Adjectives

Adjectives in Gbari follow the nouns they modify. While both verb and noun-derived adjectives may be found in the data, there are also a number of adjectives in the data whose derivation remains unclear.

Derivation from verbs is accomplished by using the participle noun (as described above in section 4.2.3) followed by the adjectival suffix *-i* or *-lí*. The relationship between *-i* and *-lí* is not well understood as they differ both tonally and segmentally. It is possible that *-i* is a reduced form of *-lí* (where the *l* becomes lost) but the tonal difference is difficult to

[31] The verb 'to sleep' is transitive in Gbari, as *le* 'to sleep' is always accompanied by its cognate object *ele* 'sleep'.

explain. Both can be suffixed to the participle noun to yield adjectival meaning as seen in (104) and (105):

(104) ebè le-le-i
knife sharpen-REDUP-ADJ
'a sharpened knife'

(105) ebè le-le-lí
knife sharpen-REDUP-ADJ
'a sharpened knife'

The question as to whether there are any semantic diferences between the forms in (104) and (105) as well as the pragmatic reasons why one form might be used over another are topics which will be pursued in future research. Further examples are shown in (106) - (108):

(106) enyì dá-da-i
soup be.sweet-REDUP-ADJ
'sweet soup'

(107) a-gbentsí 6í-6i-i
PL-plantain ripen-REDUP-ADJ
'ripe plantain'

(108) shnáwnu là-ya-lí
pot break-leave-ADJ
'broken pot'

Note that in (108) the serial verb *là ya* 'break, leave' is used in the role of a participle noun.[32] As *là ya* consists of two parts, it apparently meets the structural characteristics of a reduplicated verb. These examples show that both stative and non-stative verbs can be used in the formation of adjectives. In (106) the adjective is derived from the stative verb *dá* 'to be sweet', while (104) and (108) use the non-stative verbs *le* 'to sharpen' and *là* 'to break'.

[32] The serial verb construction which uses *ya* 'to leave' as the second noun is treated in section 5.3.1.3.

A limited number of noun-derived adjectives appear in Gbari. Some examples are shown in (109) - (112).

(109) 6í-lí
child-ADJ
'small'

(110) kwo-kwo-lí
fist-REDUP-ADJ
'globular'

(111) núwná-núwná
water-REDUP
'watery'

(112) kútá-kútá
stone-REDUP
'stony'

Note that the suffix *-lí* only appears in (109) and (110), and that reduplicated forms appear in (110) - (112). As reduplication is also characteristic of the participle noun (as illustrated by *le-le* in (104)), reduplication might be seen as a general tendency in Gbari adjectives.

Other noun-derived adjectives are seen in color words. Gbari divides the color spectrum into three sets: *jijí* 'black', *bubúí* 'white', and *knyalí* 'red'. When a color needs to be more clearly specified, the following noun compounds can be used in which the noun *núwná* 'water' appears to function with the metaphorical meaning of 'color'.

(113) pisé-zhi-núwná
chicken-egg-water
'yellow'

(114) fnùnté-núwná
leaf-water
'green'

(115) shenzhí-núwná
sky-water
'blue'

(116) èkni-núwná
ground-water
'brown'

The derivational makeup of a number of adjectives remains unclear, and will be adressed in future research. Examples are shown in (117):

(117) knyalí 'red'
jijí 'black'
bubúí 'white'
malí 'good or beautiful'
wówóí 'new'
chwnáwyí 'few'
lùgwóí 'big'
kwokwoí 'old'
kasai 'young'
kúlúlú 'round'

In certain cases Gbari does not use adjectives where they might be expected from an English translation. Three such cases may be distinguished, as shown in (118) - (120). The sentence in (118) shows the use of a stative verb (as described in section 5.1.2). Example (119) has to do with a physical state which represents a person as the experiencer of a process, while (120) makes use of *wó* 'to feel'.

(118) etsí dá
yam be.sweet
'The yam is sweet'

(119) elye shná mi lo
sleep overcome me PROG
'I am sleepy.'

(120) á wó káwú
PAST/PFOC feel dry
'It is dry.' (literally 'it has felt dry')

4.4 Determiners

Gbari has two deictic demonstratives which appear frequently in this language: *hnì* 'this' and *hnyâ* 'that', as shown in (121):

(121) èpà *hnì* yi jijí dede *hynâ* yi knya-lí nû
book this is black other that is red-ADJ FOC
'This book is black, but that one is red.'

The vowels /i/ and /a/ which appear in these demonstratives are morphologically related to (if not actual occurrences of) the deictic verb suffixes *-i* (proximal) and *-a* (distal) which are further discussed in section 5.1.3. Such use of high (close) vowels to signal closer distance and non-close vowels to signal greater distance has been observed as a general cross-linguistic tendency. This may be regarded as an example of iconicity in language, where, according to Haiman's (1985:8) proposal, "selection of a point along the linguistic dimension determines and signals a certain point along the non-linguistic dimension."

Givón (1984:418) notes that demonstratives, especially the distal form, often grammaticize as definite articles. This process may be underway in Gbari, as the distal demonstrative *hynâ* is frequently used in discourse as an anaphoric determiner to mark previously mentioned (definite) nouns. Interestingly, however, two other methods are also used to mark such nouns in discourse. These are *ɗye* (possibly derived from the verb 'to see') and the suffix *-lí* (possibly the adjectival suffix *-lí*). All three, for example, are found in the narrative "Cat and Rat" to mark the definite noun *gbentsí* 'plantain'. Excerpts from this narrative follow, where *hynâ* appears in (122), *ɗye* in (123), and *-lí* in (124):

(122) a-gbentsí *hynâ* a zhi ɓá snu ɓa-a ɗyí
PL-plantains DET PAST come CMPL do they-SUBJ eat
'When the plantain was ripe, they were to eat it.'

(123) ndɟye ɓale ɓi wo ɓé nû wo ga gna
if cat ask him matter FOC he SEQ say

ɟye gbentsí *ɟ̀ye* bmi ɓye m
that plantain DET ripen yet NEG
'Whenever the cat asked him about the plantains, he would say that they aren't ripe yet.'

(124) ètsu ga gbentsí-*lí* ɟyí knali
rat SEQ plantain-DET eat alone
'The rat ate the plantain alone.'

Further research in narrative discourse is needed to determine whether any difference can be recognized in the pragmatic uses of *hynâ*, *ɟ̀ye*, and *-lí*.

CHAPTER 5

THE VERB PHRASE

This chapter focuses on the characteristics of the Gbari verb phrase. Section 5.1 describes the different verb types found in Gbari, including verbs which take adverbial noun complements, stative verbs, inchoative verbs, and auxiliary verbs. Section 5.2 treats the tense, aspect, and modality system of Gbari. Section 5.3 considers verb serialization, and proposes a classification of serial verb types.

5.1 Verb types

5.1.1 Verbs with adverbial noun complements

A small number of transitive and intransitive verbs in Gbari appear with an adverbial noun complement which follows the direct object noun. The verb *ḍye* 'to see', for example, typically appears with the adverbial noun complement *ewyé* 'eye':

(125) mi ḍye wo *wyé*
I see him eye
'I see him.'

The nominal complement *ewyé* in (125) is virtually obligatory, even though speakers insist that *ḍye* alone means 'to see'. I occasionally heard forms in Southern Gbari which the adverbial element was omitted, as in (126). My Northern Gbari language assistant, however, insisted that *ewyé* is never optional in the north.

(126) mi-á wo dye
I-PAST/PFOC him see
'I saw him.'

Another example is seen in (127), where *eɓwá* 'hand' acts as the adverbial complement to *to* 'to touch':

(127) mi to gnínyí *ɓwá*
I touch ímortar hand
'I am touching the mortar.'

Other examples, with the verb *kpé* 'to learn' are shown in (128) - (130). Each example specifies a different type of knowledge--knowledge of facts in (128), knowledge about people and things in (129), and knowledge of (familiarity with) places in (130).

(128) mi kpé *kwo*
I know fist
'I know it.'

(129) mi kpé wo *ye*
I know him name
'I know him.'

(130) mi kpé Abuja *bà*
I know Abuja place
'I am familiar with Abuja.'

Such adverbial complements are found with certain intransitive verbs as well. Example (132) shows the difference in meaning when the noun *èkpa*, 'height' is added to the sentence in (131). The resultant meaning is something like 'he is big (in regard to) height', equivalent to the English 'he is tall'.

(131) wo mwa
he is.big
'He is big.'

(132) wo mwa *kpa*
he is.big height
'He is tall.'

A further example is shown in (133), where, the inchoative verb *jni* 'to deteriorate' appears with *egbma* 'wellness'. The resultant meaning is something like 'it has deteriorated (in regard to its) wellness'.

(133) á jni *gbma*
PAST/PFOC spoil wellness
'It is broken.'

The exact nature of these verbal constructions is still under study. The data presented here suggest that the noun complement functions in the role of instrument and manner in relation to the verb--hence the term 'adverbial noun complement.' Verbal constructions of this type have been found in Gbagyi, Idoma, Nupe, and Yoruba (Madugu 1985:295).

5.1.2 Stative verbs

Stative verbs comprise an important subgroup of Gbari verbs. These verbs are used to encode a wide range of attributes, such as size, quantity, beauty, taste, and location. Examples are listed in table 12. Note that abstract attributes are coded in words such as *ɔ̀* 'to be difficult', *gbi* 'to be common', and *gba* 'to be insufficient'.

Table 12. Gbari Stative Verbs

yi	'to be'
mwa	'to be large'
bmya	'to be beautiful'
dá	'to be sweet'
ma	'to be sour'
lu	'to be bitter'
gbi	'to be common'
zò	'to be difficult'
gnà	'to be too much'
gba	'to be insufficient'
pe	'to surpass'
tna	'to lack'
knu	'to be sufficient'
tó	'to dress well'
dna	'to be in (sg.)'

The most generic stative verb is *yi* 'to be'. Its range of use parallels the English word 'to be'. Examples are shown below, where *yi* is used to encode existence in (134), identification in (135), description in (136) and location in (137).

(134)Chwashe yi lo
God is PROG
'God exists.' or 'There is a God.'

(135)eyná hnì yi èpà
thing this is book
'This is a book.'

(136)èpà yi jijí
book is black
'The book is black.'

(137)wo yi é èbmi-lo
he is at outside-LOC
'He is outside.'

Possession is also coded using *yi*, but here, the sociative suffix *-i* 'with' is suffixed to the possessed noun, as in (138).

(138) wo yi ɓá-i
she is husband-with
'She has a husband.'

Examples showing the use of other stative verbs are shown in (139) - (141):

(139) jagba mwa
pepper much
'There is a lot of pepper (in the soup).'

(140) enyì dá
soup sweet
'The soup is sweet.'

(141) kàmba zò gwó
maize be.difficult grinding
'Maize is difficult to grind.'

Certain stative verbs can be used both as inchoative verbs (those which indicate growth in regard to a state) and as transitive verbs. The verbs *mwa* 'to be large', *bmya* 'to be beautiful', *gnà* 'to be so much', and *zò* 'to finish' can permit such usage. Examples using *bmya* 'to be beautiful' are shown in (142). As shown in (142b), inchoative meaning is obtained by adding the present progressive marker *lo*.

(142) a. stative:

wo bmya
she be.beautiful
'She is beautiful.'

b. inchoative:

wo bmya lo
she be.beautiful PROG
'She is becoming beautiful.'

c. transitive:

wo bmya wo lo
she be.beautiful she PROG
'She is making her beautiful.'

5.1.3 Locative verbs

Locative verbs form a special subset of stative verbs. An example using *dna* 'to be in (sg.)' is shown in (143), where it is followed by a locative phrase:

(143) wo *dna* é katé-lo
she be.in(sg.) at room-LOC
'She is in the room.'

Each locative verb has a corresponding "removing" verb, which is the only appropriate verb for removing an object which is thus located. Anything capable of being located with *dna* 'to be in (sg.)', for example, can only be removed by using *gbmì* 'to take out (sg.)', as seen in (144) and (145).

(144) etsí *dna* é shnáwnu-lo
yam be.inside(sg.) at pot-LOC
'The yam is in the pot.'

(145) tò, mi ga *gbmì* Ø
O.K. I SEQ take.out(sg.) (it)
'O.K., I will take it out.'

In addition, locative and their analogous removing verbs are the only verbs in Gbari which encode a singular/plural distinction. The verb *dna* 'to be in (sg.)', for example, takes *fyi* 'to be in (pl.)' as its plural. This singular/plural distinction is maintained in the corresponding removing verbs, where *gbmì* 'to take out (sg.)' has *kna* 'to take out (pl.)' as its plural. Note that for locative verbs the subject noun (that which is being located) governs plurality as in (144) above, while the plurality of removing verbs is governed by the object

noun (that which is being removed), as in (145). Thus, the patient noun is that which governs plurality in each case. The complete set of locative and removing verbs found thus far in Gbari are shown in table 13.

As seen in table 13, these verbs make a wide variety of distinctions regarding the place, position, and mode of attachment of an object. It should be noted that the orientation of sitting, lying, and standing are important only for objects at ground level. Above ground level, no such distinction is observed. Thus it makes no difference whether a person is standing or lying on a bed; the only possible verb is *tu* 'to be on(sg.)'.

Also note from table 13 that singular locative verbs display distinctions which become neutralized in the corresponding removing verbs. In the category of ground level objects, for example, three positions are distinguished in the singular form (*shi* 'to be sitting', *gni* 'to be standing', and *chì* 'to be lying'), but only one removing verb (*lá* 'to take') is used for these positions. The same pattern is seen in the major categories of 'hanging or leaning' objects, as well as objects 'inside of something else'. Also note that a few of the removing verbs appear more than once in the table. Thus, it cannot be said that each locative has a completely unique removing verb.

Table 13. Gbari Locative and Removing Verbs

	Locative Verb	Removing Verb	Gloss for Locative Usage
For objects at ground level	shi	lá	to be in a sitting position
	gni	lá	to be in an upright standing position,
	chì	lá	to be in a lying position
	zhi	ku	the plural for objects at ground level
For objects resting on top of ground-level of objects:	tu	shní	to be on top of something (such as a table)
	kpè	kpmi	the plural for objects resting on top something
For hanging or leaning objects:	ku	ka or kpe	to be hanging from; for something with a hollowed out shape (such as a dish or hat) to be placed upside down on top of something else
	6a	ka or kpe	to be leaning against
	ma	kpmi	the plural for hanging or leaning objects
For objects inside of something:	ke	gbmì	to be in an open space on a vertical surface (as with a window)
	dna	gbmì	to be inside
	fyi	kna	the plural for objects inside of something
Miscellaneous positions:	pmá	kpe	to be hanging over the shoulder
	fye	wa	to be sheathed or pocketed
	ta	shní	to be covering a dish or a hole
	pa	lu	to be tied up
	gwo	wnu ya	to be applied (as in paint to a surface)
	tsní	wnu	to be applied (as in cosmetics to the body)
	ka	gbmì ya	to be 'sandwiched' between things (as in mortar between bricks)

Each of the locative verbs shown in table 13 can be used alternately as a transitive verb. The verb *dna* 'to be in (sg.)', for example, can also mean 'to cause to be in (sg.)' (or 'to put in (sg.)'). The only difference between these two uses is therefore the addition of the feature of [cause] which is present in the transitive usage. Examples are shown in (146) and (147):

(146) mi ga dna tsí é shnáwnu-lo
I SEQ put.in(sg.) yam at pot-LOC
'I will put the yam in the pot.'

(147) mi ga fyi tága
I SEQ put.in(pl.) window
'I will put in windows.' (install windows in a building)

When used with their intransitive, locative meanings, the verbs in table 13 are often accompanied by one of the three deictic markers. These are the suffixes *-i* for object close to the speaker, *-a* for objects at a distance, and *-lo* for objects which are unseen. Examples are shown in (148) - (150):

(148) ewó tu é tébulu tu-*i*
money be.on(sg.) at table be.on-PROX
'The money is (here) on the table.'

(149) èna gni-*a*
goat be.standing(sg.)-DIST
'The goat is over there (in standing position).'

(150) sháwnu zhi-*lo*
pot be.on(pl.)-LOC
'The pots are there.' (in some place hidden from view)

In (148) the suffix *-i* appears on the verb *tu* 'to be on (sg.)' which has been repeated at the end of the clause. This structure is obtained whenever a place noun directly follows the verb, as does *tébulu* in (148).

When the speaker makes reference to his own location, then *ɓe* (equivalent to 'here') appears between the place noun and *-lo*, as in (151):

(151) yi fyi é Kwali *ɓe*-lo
we be.in(pl.) at Kwali here-LOC
'We are living in Kwali.'

Aside from simply being used to indicate the location of an object, locative verbs play an important role in identifying objects. When making initial reference to an object within sight, a Gbari speaker will use a locative verb to help specify the object to which he is referring. He will typically be pointing to or motioning toward the object as this is done. This use of locative verbs is shown in (152), where *ma* 'to hang (pl.)' is accompanied by the distal suffix *-a*.

(152) gbentsí: *ma-a* ɓí lo
plantain hang(pl.)-DIST become.ripe PROG
'The plantain (hanging over there) is becoming ripe.'

When identifying objects in motion, the verbs *lo* 'to go' and *ʒhi* 'to come' are used in place of a locative verb, as in (153).

(153) mi nyígwo *ʒhi-a*
my wife come-DIST
'That is my wife (over there, coming toward us).'

Various morphophonemic changes take place when the deictic suffixes *-i, -a,* and *-lo* attach to the verb stem. These are shown in table 14. The table shows the effect of the suffixes on verbs ending in /i e a o u/.

Table 14. Morphophonemic Changes from Deictic Suffixes

	PROXIMAL *+i*	DISTAL *+a*	UNSEEN *+lo*
shi [ʃī] 'be sitting (sg.)'	[ʃī:]	[ʃʲā]	[ʃʲō]
ke [kʲē] 'be set into (sg.)'	[kʲē]	[kʲā]	[kʲō]
ɓa [ɓā] 'be leaning (sg.)'	[ɓē:]	[ɓā:]	[ɓālō]
lo [lō] 'to go'	[lē:]	[lā:]	[lō:]
tu [tū] 'be on (sg.)'	[tʷī]	[tʷā]	[tʷō]

5.1.4 Inchoative verbs

Inchoative verbs are used to indicate a change or growth in regard to a state. The most generic verb is *ɔe* 'to become', analogous to *yi* 'to be' as it relates to the stative verbs. Inchoative examples are listed in table 15:

Table 15. Gbari Inchoative Verbs

ze	'to become'
tù	'to become blunt'
ye	'to become small'
zo	'to become finished'
chu	'to become dead' (to die)
jnu	'to become boiled' (to boil)
bmi	'to become red'
fwna	'to become white'
be	'to become black'
ɓwí	'to disappear'
pwo	'to become wet'
sà	'to mature'
pwí	'to become consumed'
li	'to brighten/become clean'
ɓí	'to become ripe'

Example sentences are shown in (154) - (156):

(154) wo ze pastor lo
he become pastor PROG
'He is becoming a pastor.'

(155) ède pwo lo
cloth become.wet PROG
'The cloth is becoming wet.'

(156) ebwé ye lo
hole become.small PROG
'The hole is becoming small.'

Although inchoative verbs are inherently progressive in meaning, they normally appear with the progressive marker *lo*, as in (154) - (156).

Inchoative verbs occur most often in 'resultative' constructions. Such constructions use the completive particle *á* (as discussed in section 5.2.4.2) to describe an object as having the resulting effects of a past process, as in (157):

(157) ewyí á zo
guinea.corn PAST/PFOC finish
'The guinea corn has finished.'

(158) ynakayna á tu
pencil PAST/PFOC blunt
'The pencil is blunt.' (literally, 'has become blunt')

(159) á fwna bubú-í
PAST/PFOC whiten white-ADJ
'It has become white.'

(160) etsú á chu
chief PAST/PFOC die
'The chief is dead.' (literally, 'The chief has died')

As with stative verbs, some inchoative verbs can be used with a transitive meaning, as in (161):

(161)a. inchoative:

ède pwo lo
cloth become.wet PROG
'The cloth is becoming wet.'

b. transitive:

mi pwo de lo
I wet cloth PROG
'I'm making the cloth wet.'

To obtain stative meaning with these inchoative verbs, the verb must appear in a construction using the *á* particle, as in (162), or take an adjectival form with the suffixes *-i* or *-lí*, as in (163).

(162) ède á pwo
cloth PAST/PFOC wet
'The cloth is wet.' (literally 'the cloth has become wet')

(163) ède yi pwo-pwo-i
cloth is wet- REDUP-ADJ
'The cloth is wet.'

A derived adjectival form, however, is not appropriate in every case. The more appropriate corresponding adjective to *ye* 'to become small', for example, is *ɓílí* 'small'. In addition, the color verbs *bmi* 'to become red', *fwna* 'to become white', and *be* 'to become black' have the corresponding adjectives *knyalí* 'red', *bubúí* 'white', and *jijí* 'black'. The set of verbs in table 15 was never systematically researched in order to verify the most appropriate adjectival form in every case. These will be pursued in future research.

5.1.5 Comparison of stative, locative, and inchoative verb types

The data concerning the use of stative, locative, and inchoative verbs as described in the preceding sections are summarized in table 16.

Table 16. Comparison of Stative, Locative, and Inchoative Verbs

	Verb Type	Example Sentence	Meaning
Process	Locative	*	*
	Stative	wo bmya lo she be.beautiful PROG	'She is becoming beautiful.'
	Inchoative	ède pwo lo cloth become.wet PROG	'The cloth is becoming wet.'
Stative Description	Locative	wo gni-a he be.standing(sg.)-DIST	'He is standing there.'
	Stative	wo bmya she be.beautiful	'She is beautiful.'
	Inchoative	ède yi pwopwo-i cloth is wet-ADJ	'The cloth is wet.'
Resultant State	Locative	*	*
	Stative	wo-á bmya she-PAST/PFOC be.beautiful	'She has become beautiful.'
	Inchoative	ède á pwo cloth PAST/PFOC become.wet	'The cloth has become wet.'

Table 16 illustrates how each verb type is used in describing a process, in providing a stative description, and in denoting a resultant state. The data concerning locative verbs in table 16 show that locatives cannot be used to encode a process nor a resultant state. Thus, locative verbs appear to be inherently stative, so much so that they cannot permit an inchoative meaning. Table 16 also shows that the key difference between stative and inchoative verbs is how each is used to encode purely stative description. For statives, the verb alone is sufficient for this, as seen in *wo bmya* 'she is beautiful.' Inchoative verbs, however, must use *yi* 'to be' with a derived adjectival form of the verb, as in *ède yi pwopwoi*

'the cloth is wet.' Another way to summarize the above distinctions is by noting the inherent differences in the verb types in terms of the features [stative] and [processive]. The data in table 17 below show that locative verbs are uncompromisingly [+ stative] and that inchoative verbs are uncompromisingly [+ processive]. Stative verbs, however, take either feature depending on how they are used. Specifically, stative verbs become [+ processive] with the addition of the progressive marker *lo*.

Table 17. Stative and Processive Features in Gbari Verb Types

	[stative]	[processive]
Locative Verbs	+	-
Inchoative Verbs	-	+
Stative Verbs	+	+ (with the addition of *lo*)

5.1.6 Auxiliary verbs

Auxiliary verbs, sometimes called pre-verbs, are found in many Niger-Congo languages. Welmers describes sentences which use these verbs as those which "contain two verb bases, one of which may be considered an auxiliary and the other the 'main' verb, though grammatically the auxiliary rather than the main verb takes primary inflectional morphemes" (1973:344). Gbari has a large set of auxiliary verbs, the majority of which encode quasi-aspectual meanings. Those found thus far in the data are listed in table 18.

Table 18. Gbari Auxiliary Verbs

chní	'to do habitually'
dé	'to repeat'
shná	'to do again better'
yá	'to begin'
lá	'to start off'
zo	'to finish'
kpmì	'to do firstly'
kpmá	'to do lastly'
kpá	'to do together'
gwo	'to do simultaneously'
bwa	'to only do'
nyi	'to do quickly'
ká	'to do in turn'

Auxiliary constructions are illustrated in (164) - (166):

	S	AUX	O	V
(164)	wo-a	*yá*	ynaɗyí-snu	
	she-PAST	begin	food-making	
	'She began to make the food.'			

	S		AUX	O	V
(165)	yi	ga	*kpá*	makalanta-lo	
	we	SEQ	do.together	school-going	
	'We are going to school together.'				

	S	AUX	O	V
(166)	wo	*chní*	ɓwí-tí	
	he	do.habitually	tears-dripping	
	'He always cries.'			

As implied by the structure of these examples, auxiliary verbs in Gbari are analyzed as taking a nominalized complement clause. In (166), for example, *ɓwí-tí* 'crying (literally tear-dripping)' is interpreted as the nominalized complement of the auxiliary verb *chní* 'to do habitually'. Note that the nominalized verb in these constructions is in clause-final position.

This verb-final ordering, which is characteristic of nominalization in Gbari, was also seen in the formation of verbal nouns in section 4.2.3.

The complement clause, as illustrated by *bwi-tí* in (166) is further analyzed as forming a unit based on the associative construction. This analysis is tentative, however, as the associative construction in Gbari is itself still under study. Noonan's description of nominalized complements as they are found cross-linguistically, however, suggests that some kind of an associative relationship is in view: "Nominalized complements are predications with the internal structure of noun phrases. The predicate becomes nominalized, assuming the form of a verbal noun, and takes over the role of head noun of the noun phrase. The arguments may assume associative (genetival) relationships with the predicate" (1985:60).

Note that the constituent order of the examples in (164) - (166) is S-AUX-O-V. Gensler (1994) states that constructions with this ordering are found in many branches of Niger-Congo, and proposes that this ordering was basic to Proto-Niger-Congo.[33] Because S-AUX-O-V has a somewhat intermediate status between SVO and SOV, Gensler further suggests that this construction may have given rise, through different routes, to the SVO and SOV syntax found throughout the language family. He also notes that the final verb in S-AUX-O-V is a transparently nominalized verb in many Niger-Congo languages and suggests that its status as a nominalized form should be traced back to the proto-language.

[33] Gensler's definition of AUX is as follows: "An AUX, by contrast, is taken as an element which is syntagmatically separate from the Main Verb (thus not an affix), which belongs to a small, closed paradigmatic class, and which conveys grammatical notions such as tense, aspect, mood, and/or negation...Thus the AUX may be a particle, a special subclass of verb (including a serial verb), or its own distinct part of speech" (1994:2). The auxiliary verbs in Gbari fit into Gensler's definition by being a special subclass of verbs concerned mainly with encoding aspectual meanings.

Further examples using auxiliaries are shown in (167) - (171):

(167) mi sní ti ke mi *gwo* znà-dà ga-i
I drink tea and I do.simultaneously walk-walking it-with
'I'm drinking tea and walking at the same time.'

(168) mi ga lo *kpmi* kèkè-tu níní hnì
I SEQ go do.firstly bicycle-be.on(sg.) today this
'I will go to ride a bike for the first time today.'

(169) mi ga *dé* sní
I SEQ repeat drinking
'I will have some more to drink.'

(170) mi ga *shná* kwó
I SEQ do.again.better singing
'I will sing it again better.'

(171) se ga ya ke yi *kpmá* zhi
you(pl.) SEQ leave so.that we do.lastly coming
'You go now and we will come afterwards.'

5.2 Tense, aspect, and modality

Gbari has a simple tense distinction between past, present, and future tenses.[34] The main distinction in aspect is between perfective and imperfective. In general, perfective aspect in Gbari looks at an event as a whole, or completed event, while imperfective aspect sees an event as progressive in nature. Table 19 shows the different structural forms used in Gbari to encode tense and aspect.

[34] Hyman and Magaji (1970:50) report that Gbagyi has a three-way distinction in the past tense for past time today, past time yesterday, and past time beyond yesterday (with an analogous division for future tense) which is not found in Gbari.

Table 19. Tense and Aspect Distinctions in Gbari

	PERFECTIVE		IMPERFECTIVE		
	COMPLETIVE	SIMPLE	PROGRESSIVE	HABITUAL	EMPHATIC PROGRESSIVE
PAST	1 *zhi bá*	2 S *a* V O		3 S *snu* PRON *ga* V O	4 S *a be* V O
PRESENT			5 S V O		6 S V O *lo*
FUTURE	7 *zhi bá*	8 S *ga* V O			

Each cell in table 19 shows the tense/aspect particles and word order (with respect to subject (S), verb (V), and direct object (O)) used to encode the various tense/aspect combinations (PRON stands for pronoun). No constituent order in terms of subject/verb/object appears under completive aspect as the word order may be different for narrative versus procedural discourse. Additionally, the table does not show the *á* construction (as described in section 5.2.4.2), as this construction does not admit to being easily classified in terms of tense. The cells in table 19 are also numbered for reference in the following discussion. Note that there are forms which span more than one aspectual category, as those in cells 2, 5, and 8. These forms are somewhat neutral with regard to aspect, as they can have multiple aspectual meanings depending on their use in context. The forms in cells 1, 3, 4, 6, and 7, however, are marked forms which are limited to one aspectual meaning. The tense/aspect combinations shown in table 19 are treated in the following sections.

In addition to tense and aspect marking, Gbari makes use of a subjunctive mode, which is used to mark events which are projected as happening subsequent to another event. The use of the subjunctive mode is considered in 5.2.6.

As a precursor to the following discussion, it should be noted that marking for tense, aspect, and modality in Gbari is often found on pronouns. This occurs when a pronoun is followed by a particle consisting of a single vowel, such as the past tense particle *a*, shown in cells 2 and 4 of table 19. In these cases the particle replaces the pronoun vowel. Thus, when the pronouns *mi*, *he*, *wo*, *yi*, *se*, and *ɓa* appear with *a*, they are realized as *ma*, *ha*, *wa*, *ya*, *sa*, and *ɓa*. The completive aspect marker *á* and the subjunctive marker *a* become marked on the pronoun in a similar fashion.

5.2.1 Past tense

As shown in table 19, the greatest number of aspectual distinctions is made in the past tense, as perfective, progressive, and habitual forms can be distinguished. As shown in cell 2 of table 19, both perfective and progressive meanings can be encoded by the structure {S *a* V O}, which is formed by adding the past tense marker *a* directly after the subject noun. The progressive use of the structure {S *a* V O} is seen in *John a ba ynά* 'John was reading something', found in the second clause of (172):

(172) sà mi-a dɔ̀ katé dye ga-i yna *John a ba ynά*
time I-PAST enter room DET it-with DET John PAST read something
'When I entered the room, John was reading.'

The perfective use of the structure {S *a* V O} appears to be limited to sentences in which the subject noun is the focused element of the sentence. Note, for example, the

contrast between (173) and (174), both of which display perfective aspect. The sentence in (173) is a response to the question "Who broke the pot?". The answer to this question has a resulting focus on the subject noun, and uses the structure {S *a* V O}:

(173) Sheágyi a là shnáwnu ya
Sheagyi PAST break pot leave
'Sheagyi broke the pot.' or
'It was Sheagyi who broke the pot.'

(174) Sheágyi á shnáwnu là ya
Sheagyi PAST/PFOC pot break leave
'Sheagyi broke the pot (which is now broken).'

In contrast, the sentence in (174) forms the answer to "What happened?". The response to this question has a resulting focus on the direct object noun, and uses the different structure {S *á* O V}, which contains the completive particle *á* and an OV word order. This construction using *á* is the more common way of encoding perfective aspect in the past tense, as is further discussed in section 5.2.4.2. As shown in (173), however, the {S *a* V O} construction may be used with perfective meaning in the context of a focused subject noun.

The emphatic progressive past takes the structure {S *a 6e* V O} (cell 3 of table 19). It is formed by adding the past tense particle *a* and the progressive marker *6e* directly after the subject noun, and is used when the progressive nature of an activity is emphasized, as in (175):

(175) wo-a *6e* snu ynaɗyí
she-PAST PROG make food
'She was cooking food.'

The habitual past uses the structure {S *snu* PRON *ga* V O}, as seen in (176):

(176) wo snu wo ga knú tsí
he do he SEQ sell yam
'He used to sell yams.'

5.2.2 Present tense

The present and habitual imperfective are both coded using the form {S V O}, which uses a simple SVO word order with no further marking.

(177) wo nù fwa
he cultivate farm
'He is working at the farm (right now).' or
'He farms for a living.' (habitual aspect)

The emphatic continuous present is formed by adding the clause-final progressive marker *lo*. It is used to emphasize the progressive nature of an activity, as in (178):[35]

(178) wo chu gni lo
she pound yam PROG
'She is pounding yam.'

5.2.3 Future tense

As shown in table 19, future tense is marked by adding the *ga* directly after the subject, forming the structure {S *ga* V O}. This structure is neutral in regard to aspect. Its meaning may be completive, continuous, or habitual, as shown in (179):

[35] As described in sections 5.1.4 and 5.1.2, *lo* is also used following inchoative verbs, and following stative verbs when an inchoative meaning is in view.

(179) wo ga pwo de
she SEQ wash cloth
'She will wash clothes.' or
'She will be washing clothes.' or
'She will be washing clothes (habitually).'

Note that *ga* is glossed as a sequence marker in future constructions. This interpretation is motivated by the use of *ga* in narrative discourse, where it is used to mark mainline events as they are sequentially ordered in time (as discussed further in 5.2.5). In the case of future tense, the function of *ga* is analogous to its narrative use as it marks an event as being subsequent to (coming after) the moment of speaking.

5.2.4 The completive aspect

As its name implies, completive aspect in Gbari places particular focus on the completion of an event. Two types of completive marking are distinguished, the completive aspect particles *zhi ɓá* and the completive aspect particle *á*.

5.2.4.1 The completive particles *zhi ɓá*

Gbari uses a special marking for completive aspect which normally appears only in subordinate clauses. This marking uses the completive particles *zhi ɓá*, as seen in (180):

(180) wo-a *zhi* *ɓá* ɗye ètsu wyé yna,
he-PAST come CMPL see rat eye DET

pushi ga gnà wo gnà-gnà
annoyance SEQ too.much him be.too.much-REDUP
'When he saw the rat, his annoyance became too much for him.'

As language assistants have regularly glossed *zhi* as 'come', this particle is most likely an instance of the verb *zhi* 'to come'. It is, however, interpreted as a particle in the context of *ɓá*.

The *zhi 6á* construction is used extensively in adverbial clauses in narrative and procedural discourse which encode temporal sequence, as further discussed in section 6.2. The *zhi 6á* marking itself appears to mark completive aspect only and be neutral with regard to tense. In (180) above, for example, it occurs with past tense, while in (181) it occurs in a future construction:

(181) he *zhi* *6á* zhi, yi ga lo
you(sg.) come CMPL come we SEQ go
'When you come, we will go.'

The use of the particles *zhi 6á* in these contexts is limited to Southern Gbari. Northern Gbari uses *zhi ga*, as seen in (182), which is the Northern Gbari version of the first clause in (180):

(182) wo-a *zhí* *ga* le gotsú wyé nyi
he-PAST come CMPL see rat eye DET
'When he (the cat) saw the rat...'

5.2.4.2 The *á* construction

A frequent past tense construction in Gbari uses the high toned particle *á*. The *á* construction commonly appears with intransitive verbs to indicate the condition of a noun as having resulted from a past action, as in (183) and (184):

(183) sháwnu á là ya
pot PAST/PFOC break leave
'The pot has broken.'

(184) Ø á bma ya
(it) PAST/PFOC fall leave
'It has fallen off.'

With transitive verbs, *á* appears with an accompanying OV word order, as shown in (185) and (186):

	S	O	V
(185)	mi-á	máto	si
	I-PAST/PFOC	car	buy

'I have bought a car.' or
'I bought a car.'

	S	O	V
(186)	mi-á	kàmba	gwó
	I-PAST/PFOC	maize	grind

'I have ground the maize.' or
'I ground the maize.'

Note that the OV word order in (185) and (186) is also characteristic of nominalized constructions. This similarity might at first lead to the analysis of (185) and (186) as containing nominalized verb phrases, where (186), for example, might be rendered as *'I have done the maize grinding.' Other examples, however, show that the *á* construction should be distinguished as a phenomenon of object-fronting. This contrasts with nominalization, which is characterized by verb-backing. Evidence for this distinction is clearly seen when an indirect object is present in the sentence, as shown in (187) - (189):

	S	V	IO	O
(187)	mi	fu	wo	núwná
	I	douse	him	water

'I am washing him.'

	S	O	V	IO
(188)	mi-á	núwná	fu	wo
	I-PAST/PFOC	water	douse	him

'I have washed him.'

	S	AUX	IO	O	V
(189)	yi	kpá	wo-	núwná-	fu
	we	do.together	his-	water-	dousing

'We are washing him together.'

The examples use *fu núwná* 'douse water', which together mean 'to wash'. In Gbari, *núwná* 'water' functions as the direct object of *fu* 'to douse', while the person being washed

is represented as the indirect object of the action. Normal present tense word order is shown in (187), where the indirect object *wo* 'him' follows the verb. Example (188) shows the use of the *á* construction in which the direct object *núwná* is fronted to initial position within the verb phrase, and the indirect object *wo* maintains its normal post-verbal position. Example (189), in contrast, shows the effects of nominalization. This sentence uses the auxiliary verb *kpá* 'to do together' which, as discussed in section 5.1.5, takes a nominalized complement. Thus *fu* 'to douse' is moved to the end of the verb phrase (now a complement clause) while the indirect and direct objects maintain their normal ordering. The OV word order in the *á* construction is therefore seen as distinct from nominalization.

The semantic analysis of the *á* construction has been a challenging area of Gbari grammar, as it is sometimes used as a simple past and sometimes with a present perfect meaning. An analogous *á* construction is found in neighboring Nupe (George 1971, Madugu 1986),[36] and appears to function similarly as in Gbari. The evidence from both languages suggest that the *á* construction brings into focus the effects of a completed event or process on the patient noun. The OV word order (or fronting of the patient noun) in these constructions is an apparent result of the focus brought on the patient noun in relation to the effects of the verb. Note that a fronted patient noun results in the order Patient - Verb. This same ordering is observed in the intransitive examples shown in (183) and (184), where the patient noun (the syntactic subject) is also in pre-verbal position.

Some evidence for interpreting *á* as a focus construction is seen in the contrast between the following two sentences in Gbari, reproduced from section 5.2.1. The first

[36] Prior to 1985, Isaac George Madugu published under the name Isaac George.

((190)) forms the answer to the question "What happened?", while the second ((191)) answers the question "Who broke the pot?".

	S		O	V	
(190)	Sheágyi	á	shnáwnu	là	ya
	Sheagyi	PAST/PFOC	pot	break	leave

'Sheagyi broke the pot.' or
'Sheagyi has broken the pot.'

	S	V	O	
(191)	Sheágyi a	là	shnáwnu	ya
	Sheagyi PAST	break	pot	leave

'Sheagyi broke the pot.' or
'It was Sheagyi who broke the pot.'

In (190) the effect of the action on the pot is in focus, and the *á* construction is used. In (191) the subject noun is in focus, and the simple past tense marker *a* (bearing mid tone) is used with normal SVO word order. George (1971:93) cites a similar contrastive pair in Nupe in arguing for *á* as a focusing device.

Additional evidence from Gbari for considering *á* as a focus construction is found in the OV word order characteristic of procedural discourse, as illustrated in (192).

	S	O	V	S	O	V
(192)	mi	ga lugu	snà	mi-a	wyichele	kpmi
	I	SEQ fine.flour	sift	I-SUBJ	coarse.flour	separate

'When I finish sifting I will separate the coarse flour from the fine.'

The explanation for the OV word order in procedural discourse appears to be that this text type, by its nature, focuses on activities--"what is done" in each step of the procedure. This focus on "what is done" appears to result in the fronting of the affected object nouns, as seen in (192). This further appears to be the same kind of focus that motivates the OV word order in (190) which uses *á* to answer the question "What happened?".

While many of the examples above might suggest that the *á* construction should be identified with the present perfect, other examples militate against this interpretation. Two examples are shown in (193) and (194), where the use of the present perfect is clearly not possible:

	S	O	V	
(193)	wo-á	kàmba	ɗyí	esugwó
	she-PAST/PFOC	maize	eat	yesterday
	'She ate maize yesterday.'			

	S	O	V		
(194)	mi-á	máto	si	eyé	cho
	I-PAST/PFOC	car	buy	year	last
	'I bought a car last year.'				

The use of *á* in (193) and (194) may be explained by the observation that the *á* construction in Gbari is the default form for coding the past tense when sentences are spoken in isolation.[37] (A different coding is used in past narrative, as described in section 5.2.5.) The default use of *á* may be explained by observing that most isolated sentences focus on the new information which is coded in the verb phrase, such that the effect of the verb on the patient noun is the default focus. Thus, the sentence in (193) focuses on the fact that maize was consumed, rather than on the event's continuing relevance on the subject noun (i.e. a present perfect translation, 'She has eaten maize - yesterday', is misleading).

The sentence in (194), however, illustrates that the focus brought on the effects of the verb in relation to the patient noun can sometimes have implications for its continued relevance for the subject noun. Since (194), for example, focuses on the car's having been

[37] Whenever I elicited a past tense sentence in isolation in Gbari, I was invariably given the *á* construction.

bought, it also implies that the subject noun is in possession of the car. In fact, (194) can only appear using *á* if the buyer still owns the car. If he no longer does, the particle *6á* must be used in place of *á*, as in (195):

	S		O	V						
(195)	mi-a	*6á*	máto	si	eyé	cho	amâ	á	jni	gbma
	I-PAST	CMPL	car	buy	year	last	but	PAST/PFOC	spoil	goodness

'I bought a car last year (such that I had one), but its broken down.' (I don't have it any more.)

Here, *6á* is tentatively analyzed as the same particle found in the completive particles *:hi 6á*, and thus glossed as "completive."

Another example using *6á* is seen in the contrast between (196) and (197), which form potential answers to the question "Where did she go?":

(196)	wo-á		lo	gnigwó
	she-PAST/PFOC		go	market

'She went to the market.' or
'She has gone to the market.'

(197)	wo-a	6á	lo	gnigwó
	she-PAST	CMPL	go	market

'She had gone to the market.'

The answer in (196) indicates that the speaker believes that the woman is probably at the market as a result of having gone there. The speaker in (197), however, knows that the woman did not arrive at the market or has some reason to doubt that the woman's trip was successful.

The analysis presented in this section suggests that *á* should be interpreted as a completive aspect marker which has an accompanying focus on the effects of an action on the patient noun. The *á* construction will remain an area of continued study, not only in

respect to tense and aspect, but also on how it may relate to the overall topic of focus in Gbari.

5.2.5 Tense and aspect in narrative discourse

Longacre (1983:14) recognizes a general distinction between event line and supportive material in narrative discourse, further noting that "field work in many languages around the world has underscored the value of this distinction" (1983:15). Longacre sees event line material as that which encodes the main (or foregrounded) events of a narrative, while supportive material comprises the remaining (the non-event line) information. This general distinction between event line and supportive information can be recognized in Gbari. Gbari marks the important events in a narrative with the sequence particle *ga*. In supportive material, the past tense particle *a* is generally found. In addition, the completive particles *zhi ɓá* are used to mark completed events in subordinate clauses. The use of these tense/aspect markings are shown in the following excerpt from "My Morning at the Farm."

(198) yi-a zhi ɓá bye wyí --ewyí a zo bye yna,
we-PAST come CMPL plant guinea.corn --guinea.corn PAST finish plant DET
'After we planted guinea corn (the guinea corn finished),

mi ga chigaba ga byi tsí
I SEQ continue SEQ bury yam
'I continued with planting yams.'

(199) yi-a byi tsí yi-a byi tsí
we-PAST bury yam we-PAST bury yam
'We kept on planting yams.'

(200) mi-a zhi ɓá zo tsí byi yna, mi ga dù ya ga lo pyí
I-PAST come CMPL finish yam bury DET I SEQ pass leave SEQ go house
'After I finished planting yams, I left for home.'

As seen in (198) and (200), *ga* is used to mark the next main event in sequence (in (198) that of continuing and planting yams, and in (200), leaving for home). The use of the past tense particle *a* for supplemental material is seen in (199), where *ya* is derived from *yi* '1st person pl.' and the past tense particle *a*. Here the repeated sentence *ya bi tsí* 'we buried yams' further develops the event referenced with *ga* in the preceding sentence. The use of the completive particles *zhi bá* in subordinate clauses is seen in the first clause of (198) and (200). In such cases these particles appear to carry the meaning of 'when the preceding event was completed'. Longacre (1983:15) sees these types of clauses as providing back-reference and cohesion within the narrative. One implication of this use of *zhi bá* in these clauses is that neither the sequence particle *ga* nor the past tense particle *a* carries any implication that an event is completed. The sequence particle *ga* simply names the next event, while the past tense particle *a* indicates that the event happened or was happening, but carries no explicit reference to its completion.

In addition, a construction which is identical in form to the present tense may sometimes appear in supplementary material. Examples from "The Founding of Kwali" are shown below. Example (201) contains the opening two sentences of the text. Note that *wo yi nagbè* 'he was a hunter' in (201b) uses present tense (SVO word order with no further marking). Example (202b) shows the use of a present tense construction, *wo tá pita* 'he stretch leg', which supplements the event coded with *ga* in (202a).

(201)a. za ndʏe a sa pyí ynà à yi wo Ali
person REL SEQ cut house thing they call him Ali
'The person that first settled was called Ali'.

b. wo yí nagbè
he is hunter
'He was a hunter.'

(202)a. wo ga làgà ga lo nakpà knuknu
he SEQ get.up SEQ go monkey mountain
'He went to monkey mountain.'

b. wo tá pita wo zhi na gbè é Kwali knuknu-lo
he stretch leg he come goat hunt at Kwali mountain-LOC
'He went as far as Kwali mountain hunting goats.'

5.2.6 Subjunctive mode

In addition to marking for tense and aspect, Gbari often marks clauses with the subjunctive particle *a*. This particle is also found in Gbagyi, and Hyman and Magaji's definition serves well for Gbari: "Subjunctive conjunction is used to conjoin two clauses, the second of which represents an action that has not been completed, but rather is projected to some point in time subsequent to the tense of the verb in the first clause" (1970:107).

Examples from Gbari are shown in (203) and (204), where the pronoun in the final clause is marked with the subjunctive particle *a*.

(203) a-gbentsí hynâ a zhi ɓá snu *ɓa-a* dʏí
PL-plantains that PAST come CMPL do they-SUBJ eat
'When the plantain was ripe, they were to eat it.'

(204) ndʏe mi ga he tsi kpé mi ga he wu *mi-a* dʏí
if I SEQ you(sg.) reach know I SEQ you(sg.) kill I-SUBJ eat
'If I should reach you I will kill you and eat you up.'

The use of subjunctive mode is a pervasive feature in procedural discourse. As shown in (205) and (206), it is used to mark the event which follows the completion of the event in the first clause:

(205) mi zhi ɓá zo ɗú *mi-a* pyè
I come CMPL finish thresh I-SUBJ winnow
'After thrashing it I will winnow it.'

(206) mi zhi mi ɓá yá shi *mi-a* lugu snà
I come I CMPL begin sit(sg.) I-SUBJ fine.flour sift
'I will sit down and sift the flour.'

Subjunctive mode is interpreted as a modality marking because it is restricted to assertions which are irrealis in nature. According to Givón, a realis-assertion is one which is strongly asserted to be true, while an irrealis-assertion is one which is weakly asserted as being possibly true (1984:284). The prevalence of subjunctive mode in procedural texts is therefore seen as resulting from the nature of procedural discourse as describing possible events, not events which are asserted to have actually happened.

Subjunctive marking is not a common feature in narrative text. Sentences (203) and (204) above, for example, are the only two instances found in "Cat and Rat." (Note that (204) is part of a quotation).

5.3 Verb serialization

Serial verb constructions (commonly abbreviated as SVCs) are found throughout Nupoid languages. SVCs are defined as constructions in which a noun phrase is followed by a series of one or more verb phrases, and in which there are no overt connecting links between the verb phrases (Lawal 1993:185). The types of SVCs found in Gbari are similar

to those which have been documented for Nupe (George 1975), Ebira (Adive 1989:129), and Yoruba (Bangbose 1982). A classification of the SVC's found in Gbari is proposed here using the labels shown in (207):

(207) a. Modifying
b. Comparative
c. Complex
d. Purposive
e. Concomitant

The labels in (207) are drawn from classifications by Bangbose (1982) for Yoruba, and Adive (1989:129) for Ebira. These SVC types are treated in the following sections.

5.3.1 Modifying serialization

In modifying serialization, the second verb in the series acts somewhat adverbially, extending or qualifying the meaning of the first verb. Four types are distinguished:

(208) a. verb + motion verb to indicate direction
b. verb + *gyi* 'to give' to mark the benefactor of an action
c. verb + *ya* 'to release or leave' to indicate termination of association
d. verb + *6e* 'to add' to indicate more of the activity in the first verb

5.3.1.1 Verb + Motion verb

In this construction, the second verb is used to signal the direction of motion with reference to the speaker. The verb *lo* 'to go' indicates direction away from the speaker, and *zhi* 'to come' indicates direction toward the speaker.

(209) wo-a *du* *zhi*
he-PAST pass come
'He came in.'

(210) elú *tá* fnù *lo* chnímwa
bird stretch wing go tree
'The bird is flying to the tree.'

In addition to *lo* and *zhi*, verbs which are subclasses of these, such as *shnì* 'descend' (go down) and *dô* 'to enter' (go in) can also be used. In (211), two verbs follow the first, both indicating direction (*shnì* 'descend' indicates 'down' and *lo* 'to go', indicates a direction away from the speaker).

(211) wo-a *du* *shnì* *lo* gnigwó
he-PAST pass descend(sg.) go market
'He passed down to the market.'

(212) wo-a *dà* znà *dô* ga-i
he-PAST walk walk enter it-with
'He walked into the room with it.'

When a destination noun appears as in (210) and (211), these verbs might also be seen as serving as destination markers relative to the nouns in question.

5.3.1.2 Verb + *gyi*

The verb *gyi* 'to give' can serve to mark a dative or a benefactive object. Dative usage is shown in (213) and benefactive in (214).

(213)mi ga *da* *gyi* wo
I SEQ talk give him
'I will tell him.'

(214)mi ga *lo* gnigwó *gyi* he
I SEQ go market give you(sg.)
'I will go to market for you.'

5.3.1.3 Verb + *ya*

Different kinds of verbs can be followed by *ya* 'to release or leave' which adds such ideas as 'away' or 'apart' or 'out of' to the first verb. The general sense added to the verb

might be something like 'termination of association with'. (In the following examples, *ya* is glossed as 'release' or 'leave' (one being transitive, the other, intransitive) as appropriate.)

(215) mi ynákayná á *bmà ya*
my pencil PAST/PFOC break leave
'My pencil has broken.'

(216) mato á *dù ya*
car PAST/PFOC pass leave
'The car has gone.'

(217) mi-á fulá *ka ya*
I-PAST/PFOC hat remove(pl.) release
'I removed the hat and threw it away.'

(218) á wo *gbmì ya* katé-lo
they/PAST/PFOC him take.out(sg.) leave room-LOC
'They sent him out of the room.' (not to go back in again)

5.3.1.4 Verb + 6e

When *6e* 'to add' is the second verb in a series, the resulting meaning is that of doing more of the activity indicated in the first verb. Example (219) shows the independent usage of *6e*, while and example (220) shows the serial use.

(219) mi ga chnímwa 6e lo
I SEQ wood add LOC
'I will add more wood.'

(220) wo-á kàmba *si 6e* lo
he-PAST/PFOC maize buy add LOC
'He bought more maize.'

5.3.2 Comparative serialization

In this construction, the verb *pe* 'to surpass' is used as the second verb to form a comparative construction. Example (221) shows the independent usage, and example (222) the serial usage of *pe*.

(221) wo pe yi kpa
he surpass our height
'He is taller than us.'

(222) yi gba-gba *pe* wo
we come.short-REDUP surpass him
'We are shorter than him.'

5.3.3 Complex serialization

In complex (or idiomatic) serialization, the meaning of the resultant verbal idea cannot be fully computed from the meaning of the verbs in series. These might also be termed idiomatic serializations. For example, the verbs *tu* 'to be on (sg.)' and *mu* 'to measure' in (223) together mean 'to learn'.

(223) mi *tu* Gbali *mu*
I be.on(sg.) Gbari to.measure
'I am learning Gbari.'

(224) wo *kní* mi *kpmi*
he choose me pick.off
'He is insulting me.'

(225) wo *gwo* *du* *che* de tnútnù-i
he receive pass throw with work-with
'He is continuing with work.'

5.3.4 Purposive serialization

In purposive serialization, the verb *lo* 'to go' plus another verb is used to indicate purpose, as seen in (226):

	S	V	V	O
(226)	mi	ga	*lo*	*pwo*	ède
	I	SEQ	go	wash	clothes

'I am going to wash clothes.'

The use of "*lo* + verb" with future tense as show in (226) is a commonly heard construction. It should be distinguished from the English constrution 'I am going to...,' as the Gbari construction involves a literal "going" previous to the action in the second verb. In the present and past tenses *lo* takes a nominalized complement, as seen in (227) and (228):

	S	V	O	V
(227)	mi	lo	ède-pwo	
	I	go	clothes-wash	

'I am going for clothes-washing.'

	S	V	O	V
(228)	mi-á	lo	kàmba-gwo	
	I-PAST/PFOC	come	maize-measure	

'I went to grind maize.' or
'I went for maize-grinding.'

Note that *lo* + verb in the future tense may be seen as a true serialization (where verb phrases follow one another with no conjunctive marking). In the non-future tenses, however, *lo* acts more like a complement-taking verb. With such verbs (described more fully in section 6.3), a proposition may function as one of the sentence arguments of the verb. The auxiliary verbs discussed in section 5.1.5 were examples of such verbs, which took nominalized complement clauses as their object argument. Thus, *lo* + verb behaves as a serialization in the future tense, but elsewhere, more like a complement-taking verb. These data suggest that *lo* + verb should be given an intermediate status as a serialization, as different characteristics are displayed at different times.

While *lo* + verb is used to express purpose in going, the verbs *zhi* 'to come' and *6é* 'to come from a distance' are used to express purpose in coming. Their present and past forms display the same kind of nominalization as in (227) and (228). In the future tense, the special construction shown in (229) is used.

(229) mi ga zhi mi 6á pwo de
I SEQ come I CMPL wash clothes
'I will come to wash clothes.'

The glossing of *6á* in (229) is based on the assumption that this particle has the same completive meaning as when *zhi 6á* appear together as completive particles (described in section 5.2.4). The pragmatic use of both *zhi* and *6á* in (229) must be interpreted differently from when these are used as completive markers, however, as the sentence in (229) involves a literal coming. Moreover, the sentence in (229) cannot be considered a serialization because *mi 6á* (overt conjunctive marking) appears between the verbs *zhi* and *pwo*. Thus, among the "motion verb + verb" constructions cited in this section, only *lo* + verb in the future tense appears as a true serialization.

5.3.5 Concomitant serialization

In concomitant serialization the verbs in series are viewed as parts of a single event, such that the larger event can be thought of as the sum of the meaning of each verb. The verb *lá* 'to take (sg.)' commonly appears as the first verb in these constructions, as in (230) - (232):

(230) *lá* *zhi* ga-i
pick.up(sg.) come it-with
'Bring it!'

(231) *lá* *lo* ɓaɓá ga-i
pick.up(sg.) go Baba it-with
'Take it to Baba.'

(232) *lá* *gyi* mi
pick.up(sg.) give me
'Give it to me.'

A locative verb commonly appears as the second verb in these constructions, as in (233) and (234). In these examples, both verbs have transitive meanings.

(233) *lá* kata *ku* é katémpá-lo
pick.up(sg.) hat hang(sg.) at wall-LOC
'Hang the hat (which is on the floor) on the wall.'

(234) mi ga *tá* ɓwá *ku*
I SEQ stretch hand hang(sg.)
'I will hang it up.'

Many constructions appear however, in which both verbs are intransitive, as in (235) and (236):

(235) boketi á *bma* ya *shi*
bucket PAST/PFOC fall leave sit(sg.)
'The bucket has fallen down.' (and is now sitting in an upright position)

(236) mangulu á *ka* ya *dna* é boketi-lo
mango PAST/PFOC detach(pl.) leave be.inside(sg.) at bucket-LOC
'A mango fell inside the bucket.'

Note that in the transitive examples in (233) and (234) the second verbs are clearly an integral part of the event, while the second verbs in the intransitive examples (235) and (236) are a bit more marginal to the main event. Cases in which a second locative verb is even more marginal are seen where the second verb phrase is clearly a locative margin, as in (237) and (238):

(237) yi ga ká ɓaɓá *zhi* *fumba* *ɓe-lo*
we SEQ wait Baba be.on(pl.) shade here-LOC
'We will wait for Baba under the shade.'

(238) wo snu tnútnù *dna* *é* *fwa-lo*
he do work be.inside(sg.) at farm-LOC
'He is working at the farm.'

Thus, the importance of the second verb in these constructions appears to be somewhat scalar in nature. It is most integral with transitive verbs, less so with intransitives, and finally transitions into cases in which it is entirely marginal to the event in view.

5.3.6 Serialization not found in the data

Other kinds of serialization have been found in other Benue-Congo languages, but not in the current data from Gbari. Examples are shown in (239) - (242). Examples (239) - (241) are from Givón (1984:179), and (242) is from Adive (1989:135).

(239) ìywi awá utsì ikù (Yatye)
boy took door shut
'The boy shut the door.'

(240) mo fī àdé gé nakã̀ (Yoruba)
I took machete cut wood
'I cut wood with the machete.'

(241) mo fī ọgbọ̀n gé isi (Yoruba)
I took cleverness cut tree
'I cleverly cut the tree.'

(242) okè ọ̀ hị̀ vye rí̩ (Ebira)
Oke he buy meat eat
'Oke bought meat and ate it.'

In (239) - (242) the first verb 'to take' is used to mark different semantic roles. This verb marks the role of patient in (239), instrument in (240), and manner in (241). Example

(242) uses two verbs in series to mark distinctly different events. The absence of these constructions from the current data suggests that they are most likely not present in Gbari.[38]

5.3.7 Evaluation of serial constructions

The precise nature and role of serial verb constructions in Gbari remains an area of continued study. Givón's treatment of serial verbs, however, seems to account for many of the constructions listed in the preceding sections.

Givón sees verb serialization as one method of marking case roles (Givón 1984:179). He draws examples from Niger-Congo languages of serial verbs marking the roles of patient, dative, benefactive, locative, comparative, instrument, and manner. Of these, the data from Gbari display marking for dative in (213), benefactive in (214), locative in (233), and comparative in (222). Serial constructions for patient, instrument, and manner, as noted in section 5.3.6 above, have not been attested in Gbari.

The avenue by which a serialized verb may take on the role of a case marker is analyzed by Givón (1975:86) as a process of re-interpretation. This process may begin with two verbs of equal rank, but by gradual re-interpretation one of the verbs takes on a more marginal, circumstantial role in the sentence. It is this re-interpreted verb which may begin functioning as a case marker. In Gbari, it appears that it is always the second verb in the series which becomes re-interpreted as a case marker (as in the "verb + *gyi* 'to give'" construction, where *gyi* functions to mark benefactive or dative case).[39] The serial

[38] Hyman (1975:140) specifically notes that Gbagyi does not use serialization to encode instrument (as in (240)).

[39] This contrasts with examples from other Niger-Congo languages as shown in section 5.3.6 where the first verb in the series may function as a case marker.

constructions in Gbari which cannot readily be seen as marking case are (a) verb + *ya* 'to release or leave', (b) verb + *6e* 'to add', (c) a construction like *lo* 'to go' + verb, to express purpose, and (d) 'take' + 'come with', which together mean 'to bring'. Note, however, that the second verb in constructions (a) and (b) have taken on a peripheral role in the sentence, much the same as a verb which begins to function as a case marker.

Regarding the type of serialization which uses 'take - come with', as in (230), George's comments on Nupe are probably applicable to Gbari:

> One explanation for the widespread occurrence of serial structures in Nupe, and in Kwa languages in general, is that certain basic verbs are commonly used in combination in circumstances where a language like English would normally use semantically composite verbs. The situation in Nupe is viewed as that of lexical parsimony, such that, whereas Nupe has just lá and bé 'take + come', English has an additional lexical item bring, which optionally replaces 'take + come' in the surface structure. Because Nupe has no surface equivalent of bring, both lá and bé must appear in the surface sentence. Thus, a simplification in the rules of the lexicon dictates some complexities in the rules of syntax. (George 1975:81)

The nature and function of serialized constructions in Gbari will remain an area of continued study. In particular, a study of the behavior of serial constructions in discourse, which has not been attempted as yet, may yield important insights into the function of these constructions in Gbari.

CHAPTER 6

SUBORDINATE CONSTRUCTIONS

This chapter describes various aspects of subordinate clauses in Gbari. Relative clauses, which act as noun modifiers, are described in section 6.1. The characteristics of certain adverbial clauses are then treated in section 6.2. Complement clauses, which function as noun phrases in relation to a complement taking verb, are surveyed in section 6.3.

6.1 Relative Clauses

Restrictive relative clauses are clauses which act as noun modifiers by in some way restricting the identity of the modified noun. Givón discusses the restrictive nature of relative clauses with the following:

> Like other restrictive modifiers, such as adjectives, relative clauses are a major device used in the grammar of referential identification. Most typically, a relative clause is used when the speaker assumes that the referent's identity is accessible to the hearer--i.e. definite-- but not easily accessible. If the referent were easily accessible, a pronoun or zero would have been used. To assist the hearer in tracking down the referent..., the speaker supplies a proposition that codes an event or state in which the referent is a participant-- as subject, direct object, indirect object etc. (Givón 1990:645)

An example of a restrictive relative clause is the clause which follows 'man' in 'the man I saw yesterday, as it furnishes the hearer with information which will be helpful in identifying the referent. In many languages, however, the use of non-restrictive relative clauses is also attested. Such relative clauses are used to provide ancillary, parenthetical information regarding the referent, as in 'the man, who was standing in the doorway, turned

and walked outside'. Such non-restrictive relative clauses are not attested in the Gbari data collected for this study and are a topic which will be pursued in further research. In the following discussion, the term "relative clause" will therefore apply to restrictive relative clauses.

In Gbari, only definite nouns are modified by relative clauses. The relative clause in (243), for example, modifies the definite noun 'yams'.

(243) mi yé a-tsí [*nḍ̀ye dá yna*]
I want PL-yam REL be.sweet DET
'I want the yams which are sweet.'

If 'yams', however, is indefinite, a relative clause may not be used. 'I want yams which are sweet' must be encoded as in (244):[40]

(244) mi yé a-tsí *dá-da-i*
I want PL-yam sweet- REDUP-ADJ
'I want sweet yams.'

As shown in (243), relative clauses always appear with two elements which bracket the proposition contained in the relative clause. The initial element is the relativizer *nḍ̀ye*. This relativizer is treated in section 6.1.1. The clause-final element takes the form of a determiner which may take one of several forms (such as *yna*). This clause-final determiner is discussed in section 6.1.2.

6.1.1 The relativizer *nḍ̀ye*

The relativizer *nḍ̀ye* is morphologically composed of the relative pronoun *n*, and the determiner *ḍ̀ye*. Gbagyi makes use of the relative pronoun *ń* (without *ḍ̀ye*) as the relativizer

[40] Hyman and Magaji (1970:47) report that indefinite nouns may be modified by relative clauses in Gbagyi. To accomplish this, a relative clause having the structure found in (243) is used, but without the presence of a clause final determiner.

(Hyman and Magaji 1970:47).[41] Northern Gbari uses *e* as the relative pronoun (the relativizer is *ele* in Kwakuti and *edʒye* in Paiko), but the initial *e* is normally dropped in speech.

The second element in the relativizer is *dʒye*, which appears to function as a determiner. Its use here is seen as related to the use of *dʒye* as an anaphoric determiner to mark previously mentioned nouns (as discussed in section 4.4). Its use is still considered anaphoric since it follows the relative pronoun *n-* in *ndʒye* which itself is an anaphoric reference to its co-referential noun.

The use of *ndʒye* is sometimes optional. When it is not present, the final vowel of the preceding syllable is lengthened, as in (245). (This lengthening is indecated in the example sentences by placing a colon after the relativized noun, as with *èse:* in (245).)

(245) èse: [wo-a *shi é Gnawnu-lo yna*] e snu wo m
settlement he-PAST found at Gnawnu-LOC DET it do him NEG
'His settlement at Gawnu did not suit him.'
literally 'The settlement which he settled at Gawnu did not suit him.'

6.1.2 The clause-final determiner *yna*

The clause-final determiner can take one of three forms. These may be (a) the determiner *yna*, (b) the deictic demonstratives *hynâ* 'that' or *hni* 'this', and (c) the deictic suffixes *-i* (proximal) or *-a* (distal), which attach to a locative verb. These three possibilities are illustrated in (246):

[41] In Gbari, *n* never appears independently of *dʒye*. They are always heard together as *ndʒye*. Although I consistently transcribed *ndʒye* as *ndʒye* in southern Gbari, acoustic measurements have shown that the nasal is actually pronounced with mid tone. The nasal is, however, the stressed element, probably accounting for why it was mistakenly perceived as having high tone.

(246)a. the determiner *yna*:

aza [*ndʃye ʃyi é kúti-lo yna*] ɓa kna
PL-person REL to.be.in(pl.) at forest-LOC DET they come.out(pl.)

ʃyé eknú dé yi lo m
because war repeat be PROG NEG
'Those who were in the forest came out since the war was over.'

b. clause-final deictic demonstrative:

nyígwoza [*ndʃye yi-a ʃye wo wyé esugwó hynâ*]
woman REL we-PAST see her eye yesterday that

wo kákpá á bmà ya
her leg PAST/PFOC break leave
'That woman we saw yesterday broke her leg.'

c. clause-final deictic suffix:

kna núwná: [*ʃyi-a*] zhi ga-i
take.out(pl.) water be.in(pl.)-DIST bring it-with
'Take that water out and bring it to me.'
literally, 'Take out the water that is in there and bring it to me.'

In (246) the deictic suffix *-a* is used to identify an object within sight. The relativizer *ndʃye* is almost always deleted in these types of sentences.

The determiner *yna* is used as the default clause-final element (as in (246a) above) in situations where a deictic demonstrative or a deictic suffix is not appropriate. In Northern Gbari, however, *nyi* is used as the default determiner in place of *yna*, as seen in (247):

(247) za [*le da ɓeta de mi nyígwo-i nyi*]...
person REL say word with my wife-with DET
'The person who is talking to my wife...'

Although both *yna* and *nyi* are interpreted as determiners, their morphology suggests that they are deictic in nature. Note the relationship between *yna* and *nyi* to the demonstratives *hynâ* 'that' and *hnì* 'this', as well as to the place nouns *éyna* 'there' and *ényi*

'here'.[42] The determiners *yna* and *nyi* appear to be composed of a root (either /yn/ or /ny/) and the deictic suffixes *-i* (proximal) and *-a* (distal). It further appears that speakers from the south are using the distal form exclusively while those from the north the proximal form. The fact that no dialect uses contrasting forms in clause-final position suggests that the deictic meaning of these words has become bleached, such that their analysis as 'determiners' is more appropriate. At least two other languages are cited in the literature as using determiners as the final element in the relative clause: Ngemba, a Grassfields Bantu language (Chumbo 1977:295), and Kanuri, a Nilo-Saharan language (Hutchison 1981:60).

6.1.3 Generalized relative clauses

Relative clauses frequently occur modifying the five referential category nouns *eɓé* 'matter', *eynâ* 'thing', *èbà* 'place', *esà* 'time', and *eza* 'person'. These "generalized relative clauses" correspond to English clauses beginning with 'what', 'when', 'where', and 'who'. Examples are shown in (248) - (251). Examples (248) - (250) correspond to so-called headless relative clauses in English.

(248) ɓé [*ndʏe a snu à yi Kwali yna*] hynâ
matter REL PAST make they call Kwali DET that
'That is what made them call it Kwali.'

(249) sà [*ndʏe wo-a shi ga-i lo yna*] wo ga yá ɓwí tí
time REL she-PAST sit(sg.) it-with LOC DET she SEQ begin tear drip
'When she was sitting there, she began to cry.'

[42] The words *éyna* 'there' and *ényi* 'here' are composed of the locative particle *é* plus the *yna* (denoting a distal meaning) and *nyi* (denoting a proximal meaning). They are not examples of nouns beginning with the singular noun prefix *e-*.

(250) mi kpé bà: [*wo yi lo ɣna*] m
I know place he be LOC[43] DET NEG
'I don't know where he's been.'

(251) za [*ndɣe a sa pyí ɣna*] à yi wo Ali
person REL PAST cut house DET they call him Ali
'The person who first settled was called Ali.'

For the English clause beginning with 'how', Gbari uses *shna*. The precise meaning of *shna* is not well understood, and is rendered as 'way' in (252) for lack of a more precise gloss:

(252) mi ga da ɓeta tu shna [*ndɣe yi gwo gyélí é yi ɓwá be ɣna*]
I SEQ talk word be.on(sg.) way REL we greet strangers at our side here DET
'I'm going to talk about how we greet strangers in our place.'

6.1.4 Marking the case role of the relativized noun

An important question in the typology of relative clauses relates to how languages encode the case role of the head noun in relation to the proposition contained within the relative clause. Keenan (1985:146) lists four major strategies which languages employ to signal this relationship. between the head noun and the proposition inside the relative clause. These are: (a) the use of an anaphoric personal pronoun within the relative clause, (b) the use of a case-marked relative pronoun at the beginning of the clause, (c) repeating the relativized noun within the relative clause, and (d) not referencing the relativized noun at all (leaving a "gap" where the relativized noun would appear).[44] Of these methods, Gbari uses both the anaphoric personal pronoun and the "gap" strategy. The use of an anaphoric pronoun is

[43] It is unclear from the current data whether this *lo* should be glossed as a locative marker or a progressive aspect marker.

[44] The "gap" method is a major strategy used in English, as is evident in 'the yams which I am selling', where the gap appears after the word 'selling'.

illustrated in the following paradigm, where the head noun *minsa* 'man' occurs in the roles of subject, object, indirect object, and possessor within the relative clause. In each case, the head noun is referenced within the relative clause by the anaphoric pronoun *wo*.

(253) a. Subject in relative clause:

minsa ndɟye *wo*-a gyi mi epà ynáˌ
man REL I-PAST give me book thing
'The man who gave me the book

wo ga dé ze kpé zhi é sugwo.
he SEQ do.again turn know come at tomorrow
will return tomorrow.'

b. Object in relative clause:
minsa ndɟye mi-a dɟye *wo* wyé é sugwo yna,
man REL I-PAST see him eye at yesterday thing
'The man whom I saw yesterday

wo ga dée ze kpé zhi é sugwo
he SEQ do.again turn know come at tomorrow
will return tomorrow.'

c. Indirect object in relative clause:
minsa ndɟye mi-a gyi *wo* pà hynâˌ
man REL I-PAST give him book that
'The man to whom I gave a book

wo ga dé ze kpé zhi é sugwo
he SEQ do.again turn know come at tomorrow.
will return tomorrow.'

d. Possessor of object in relative clause:
minsa ndɟye *wo* pa hnì mi ba hnyâˌ
man REL his book this I read that
'That man whose book I'm reading

wo ga dé ze kpé zhi é sugwo
he SEQ do.again turn know come at tomorrow
will return tormorrow.'

Keenan (1985:147) notes that languages which use the anaphoric pronoun strategy frequently do not use pronouns when the head noun functions as the subject of the proposition in the relative clause.[45] Although (253a) shows the use of a pronoun for subject position, other examples show that the subject pronoun is normally absent from the relative clause in Gbari. Examples of null subject pronouns are seen in (246a), (246c), (247) and (251). Example (254) is reproduced here from (247) with the subject position within the relative clause marked with "<gap>".

(254) za [*le* *<gap>* *da* *ɓeta* *de* *mi* *nyígwo-i* *nyi*]...
person REL say word with my wife-with DET
'The person who is talking to my wife...'

A subject pronoun is apparently used in (253a) because the proposition within the relative clause is past tense and a pronoun is used to carry the past tense marking.

When the head noun functions as direct object within the relative clause, the same pattern of pronominalization is seen as is described for direct object nouns in section 4.1. Human referents are coded with explicit direct object pronouns, as illustrated by *wo* 'him' in (253b), while inanimate objects are pronominalized by zero anaphora, as seen in (259) (where the position of the zero anaphora is indicated with Ø).

(255) biro [ndye Baɓá a gyi mi Ø yna] hnì nû
pen REL Baba PAST give me (it) DET this FOC
'This is the pen which Baba gave me.'

[45] Keenan (1985:147) lists Urhobo and Yiddish as the only languages which regularly use the subject pronouns in the relative clause in cases where the subject is co-referential with the relativized noun.

Keenan and Comrie (1977) suggest that the tendency for zero subject pronouns to appear in relative clauses is related to their proposed "Accessibility Hierarchy", shown in (256).

(256) Subject>Direct object>Indirect object>Object of a pre- or postposition>Possessor

The Accessibility Hierarchy proposes that the identity of the subject of a relative clause is the most accessible (the easiest to identify) for the hearer, and that the identity of the head noun as a possessor within the relative clause is the least accessible. Hence, the lower a case role appears in the Hierarchy, the more likely it will be referenced with an anaphoric pronoun. The paradigm in (253) suggests that Gbari uses anaphoric pronouns for all positions in the Hierarchy other than subject (the most accessible role), except when a subject pronoun is retained to carry tense marking.

The presence of anaphoric pronouns in relative clauses offers an explanation for why *ga-i* 'it-with' appears in the "generalized" relative clauses beginning with *sà*,[46] as shown in (249), which is reproduced here.

(249) sà [*ndye wo-a shi ga-i lo yna*] wo ga yá ɓwí tí
time REL she-PAST sit(sg.) it-with LOC DET she SEQ begin tear drip
'When she was sitting there, she began to cry.'

In (249) the head noun *sà* functions as a time margin in relation to the proposition inside the relative clause. My language associate indicated that the pronoun *ga* 'it' refers to the relativized noun *sà* 'time'. Furthermore, *ga-i* 'it-with' always occurs toward the end (normally as the last element) of clauses beginning *sà*, the same position where a time margin normally occurs in independant clauses. Thus, the English expression 'the time in

[46] Generalized relative clauses are discussed in section 6.1.3.

which' has the equivalent expression 'the time with which' in Gbari. No anaphoric pronoun, however, appears in the generalized clauses where the relativized noun is *èbà* 'place' or *shna* '(possibly) way', as shown in (250) and (252). As these two clauses are formulaic constructions which are frequently used in the language, they may represent special cases in which the role of the relativized noun within the relative clause is considered to be so accessible to the hearer that a "gap" strategy can be used in their encoding.

In summary, the current data from Gbari suggests that the language makes use of both the anaphoric personal pronoun and the "gap" strategy to signal the case role of the head noun within the relative clause. The "gap" strategy appears to be reserved for head nouns which function in subject position within the relative clause, as well as the two exceptional generalized clauses noted above.

6.2 Adverbial Clauses

This section examines the characteristics of several types of adverbial clauses. Section 6.2.1 examines the characteristics of preposed temporal clauses which frequently appear in narrative and procedural discourse. Section 6.2.2 discusses future tense 'after' clauses and conditional constructions.

6.2.1 Adverbial clauses in discourse

A common feature of the texts used in this study is that of preposed adverbial clauses which recapitulate material contained in the previous sentence. The results in a discourse structure as shown in (257):

(257) Event A happened.
After event A was complete, event B happened.
After event B was complete, event C happened.
etc.

Thompson and Longacre (1985:209) refer to this type of structure as one method of effecting cohesion within paragraphs. It is cited as a common feature of narrative and procedural discourse in languages of the Philippines and New Guinea. The following two sections describe the characteristics of these clauses in narrative and procedural texts.

6.2.1.1 Adverbial clauses in narrative texts

The use of preposed adverbial clauses in narrative text is illustrates in the following examples taken from 'My Morning at the Farm':

(258) [*mi-a kúlishi labmile yna,*] mi ga ji fyi a-za
I-PAST woke.up early DET, I SEQ greeting put.in(pl.) PL-person
'After I woke up early, I greeted people.'

(259) [*sà mi-a zo a-za ji fyi ga-i yna,*]
time I-PAST finish PL-person greeting put.in(pl.) it-with DET
'When I finished greeting people,

mi ga dù ya ga lo fwa efwa dye yi lambata ɓwá n
I SEQ pass leave SEQ go farm farm the is lambata side FOCUS
I left for the farm --the farm that is on Lambata side.'

(260) [*mi-a lo lo tsi fwa yna,*] yi-a shì wyí ga lo bye
I-PAST go go arrive farm DET, we-PAST carry guinea.corn SEQ go plant
'As I was going to the farm, we carried guinea corn to plant.'

(261) [*yi-a zhi ɓá bye wyí --ewyí a zo bye yna,*]
we-PAST come CMPL plant guinea.corn --guinea.corn PAST finish plant DET
'After we planted guinea corn (the guinea corn finished),

mi ga chigaba ga byi tsí
I SEQ continue SEQ bury yam
'I continued with planting yams.'

Of the three narrative texts under focus in this study, preposed adverbial clauses of the kind described above are used throughout 'My Morning at the Farm'. The two other narratives, 'Cat and Rat', and 'The Founding of Kwali' contained fewer examples of these clauses. Further research is needed to determine the factors which motivate the use of these clauses in discourse.[47]

These adverbial clauses are used in narrative to encode both temporal sequence and temporal overlap. The tense/aspect marking used to encode these relationships is described in the remainder of this section.

In temporal sequence, the adverbial clause is sometimes glossed as beginning with 'when' and sometimes with 'after'. Nevertheless, a relationship of temporal sequence is always present, as the event in the adverbial clause always precedes the event in the main clause. The adverbial clause characteristically contains a completive element--either the completive particles *ɔ̀hi bá* or the verb *ɔ̀ɔ* 'to finish', while the main clause contains the sequence particle *ga*. Examples are shown below:

(262)a. Temporal sequence with *ɔ̀hi bá* in the initial clause, and *ga* in the main clause:

[wo-a *ɔ̀hi bá* dye ètsu wyé yna,]
he-PASTcome CMPL see rat eye DET
'When he saw the rat,

pushi *ga* gnà wo gnà-gnà
anger SEQ be.too.much him be.too.much-REDUP
his anger became too much for him.'

[47] One parameter which may motivate their use is whether or not the events follow in strict sequence. In 'My morning at the Farm' the events follow in immediate succession with no intervening gaps in time, which is less true of the other two narratives.

b. Temporal sequence with *zo* in the initial clause, and *ga* in the main clause:

[sà mi-a *zo* a-za ji fyi ga-i yna,]
time I-PAST finish PL-person greeting put.in(pl.) it-with DET,
'When I finished greeting people,

mi *ga* dù ya ga lo fwa
I SEQ pass leave SEQ go farm
I left for the farm.'

c. Temporal sequence with both *zhi ɓá* and *zo* in the initial clause, and *ga* in the main clause:

[mi-a *zhi ɓá* *zo* tsí byi yna,] mi *ga* dù ya ga lo pyí
I-PAST come CMPL finish yam bury DET I SEQ pass leave SEQ go house
'When I finished planting yams, I left for home.'

Note further that several of the clauses in this section (examples (259) and (262b)) are actually relative clauses in which *sà* 'time' is the head noun and *yna* is the clause-final determiner.[48] Example (259) is reproduced here:

(263) [*sà mi-a zo a-za ji fyi ga-i yna,*]
time I-PAST finish PL-person greeting put.in(pl.) it-with DET
'When I finished greeting people,

mi ga dù ya ga lo fwa efwa dye yi lambata ɓwá n
I SEQ pass leave SEQ go farm farm DET is lambata side FOCUS
I left for the farm --the farm that is on Lambata side.'

However, other examples contain only *yna* in clause-final position, without an initial *sà*, as in (258) and (262c). Example (262c) is reproduced here:

(262)c. [*mi-a zhi ɓá zo tsí byi yna,*] mi *ga* dù ya ga lo pyí
I-PAST come CMPL finish yam bury DET I SEQ pass leave SEQ go house
'When I finished planting yams, I left for home.'

[48] These clauses also contain the pronoun *ga* along with the suffix *-i* 'with'. The function of *ga-i* in these clauses is unclear at the present time. Language assistants have suggested that it means 'with the time.'

The pragmatic reasons why *sà* appears in some cases and not in others is still under study. The evidence suggest, however, that there is a distinction between the use of *sà* as the initial element, as in (259), and the presence of the completive particles *zhi ɓá*, shown in (262c), as these forms appear to be mutually exclusive. The narrative evidence suggest that clauses beginning with *sà* have a clear temporal reference, motivating their translation as beginning with 'when' or 'after'. Clauses containing *zhi ɓá*, however, appear to refer more to simply an event's 'having been completed', with no accompanying reference to the intended relationship between its 'completion' and the clause which follows. These clauses might be classified as those which Thompson and Longacre (1985:200) call "absolutive" clauses, in which the relationship of the subordinate clause to the main clause is not explicit.[49] The clause in (262c), for example, probably permits the translation 'having finished planting yams, I left for home.' Here the relationship between the clauses might also be seen as having somewhat of a causal relationship, such that 'having finished planting yams' can be seen as motivating the 'I left for home'. Thus, one type of temporal sequence in Gbari using *sà* 'time' appears to carry an overt reference to temporal sequencing, while another using *zhi ɓá*, seems to carry a less explicit reference to sequence and may be open to more pragmatic interpretation.

Temporal overlap in narrative texts is of two types--complete and partial. In complete overlap, the two events occur simultaneously, and both clauses are marked with the past tense particle *a*, as shown in (264):

[49] Thompson and Longacre (1985:200) note that one method of coding such clauses is that of nominalizing the clause. The presence of the clause-final determiner *yna* might be seen as serving to effect a kind of nominalization of the clause in Gbari.

(264) [*mi-a* lo lo tsi fwa yna,] *yi-a* shì wyí ga lo bye.
I-PAST go go arrive farm DET, we-PAST carry guinea.corn SEQ go plant
'As I was going to the farm, we carried guinea corn to plant.'

In partial overlap, the event in the adverbial clause is represented as in progress when the event in the main clause happens. Here, the first clause is marked with the past tense particle *a*, and the main clause has the sequence particle *ga*, as seen in (265) and (266):

(265) [sà ndɏye etsú Nyizeasna *wo-a* dɏí tsú ga-i yna,]
time REL chief The.world.is.painful he-PAST eat chieftancy it-with DET
'When Chief 'it is a painful world' was ruling the people,

wo *ga* zhi ɓá yá shi é bolo dna gbe-lo
he SEQ come CMPL allow sit(sg.) at bolo river bank-LOC
he came down and settled at the bank of Bolo river.'

(266) [sà ndɏye *wo-a* shi ga-i-lo yna,] wo *ga* yá ɓwí tí
time REL she-PAST sit(sg.) it-with-LOC DET she SEQ begin tear drip
'While she was sitting there, she began to cry.'

A consistent characteristic of these adverbial clauses in narrative texts is the presence of the clause-final determiner *yna*. This is the same determiner found at the end of relative clauses, as discussed in section 6.1.2. However, *yna* is never found to mark adverbial clauses in procedural discourse or to mark future constructions (treated in sections 6.2.1.2 and 6.2.2 below). These facts suggest that *yna* is limited to marking realis events (events which are asserted to have actually happened), paralleling the role of *yna* in relative clauses in marking definite nouns. Procedural discourse and future constructions, as they encode unrealized or possible events, are thus not marked with *yna*.

6.2.1.2 Adverbial clauses in procedural texts

Preposed adverbial clauses are a pervasive feature of the three procedural discourses used in this study. The following examples are taken from a section of "How to Make Guinea Corn Tuwo":

(267) mi ga dú
I SEQ beat
'I beat it.'

(268) [*mi zhi 6á zo dú,*] mi-a pyè
I come CMPL finish beat I-SUBJ winnow
'After I beat it, I winnow it.'

(269) [*mi zhi 6á pyè*] mi-a ze fyi gnínyí-lo
I come CMPL winnow I-SUBJ pour put.in(pl.) mortar-LOC
'After I winnow it, I pour it into a mortar.'

(270) mi se
I pound
'I pound it.'

(271) [*mi zhi 6á zo se,*] mi-a pyè mi-a lo inji ga-i
I come CMPL finish pound I-SUBJ winnow I-SUBJ go engine it-with
'After I finish pounding it, I winnow it and take it to the grinding engine.'

The constructions in (268) - (271) all encode temporal sequence. The adverbial clauses are not marked for tense, but contain the completive aspect particles *zhi 6á.* These clauses, however, are not marked with the clause-final determiner *yna.*[50]

The main clauses (268) - (271) are marked with the subjunctive mode. As described in section 5.2.6, subjunctive mode is used for an event which projected to some point in time after the first event (by nature irrealis), and is encoded with *-a* on the pronoun stem.

[50] See section 6.2.1.1 above for an analysis of the absence of *yna.*

No examples of temporal overlap in procedural texts (of the form 'while I do event A, I do event B') are found in the data. These will be pursued in future research.

6.2.2 Future tense 'after' clauses and conditional constructions

Future tense 'after' and conditional constructions are syntactically related to the adverbial clauses described in the preceding sections. Future tense 'after' clauses may be coded in two ways, illustrated in (272) and (273):

(272) [*mi zhi ɓá zhi fwa,*] mi ga lo gnigwó
I come CMPL come farm I SEQ go market
'After I come back from the farm, I will go to market.'

(273) [*ndɨye mi ga dé ze kpé zhi,*] yi ga lo fwa
REL I SEQ repeat turn know coming we SEQ go farm
'After I return, we will go to the farm.'

The "after" clause in (272) uses the completive particles *zhi ɓá*, while the "after" clause in (273) uses *ndɨye* and the sequence particle *ga*. The sentence in (273), however, can be interpreted either as (a) an "after" clause or (b) a conditional clause. It is reproduced below, where it is glossed with a conditional meaning.

(274) [*ndɨye mi ga dé ze kpé zhi,*] yi ga lo fwa
if I SEQ repeat turn know coming we SEQ go farm
'If I return, we will go to the farm.'

Thompson and Longacre (1985:193) note that the semantic difference between future tense 'after' clauses and future conditionals "is simply one degree of expectability," and that this distinction is not coded in many languages.[51]

[51] Thompson and Longacre cite Indonesian and some languages of New Guinea as languages which do not distinguish between these types of clauses (1985:193).

An interesting union of both the temporal and conditional meanings of this clause type is seen in (275), taken from "How To Make Guinea Corn Tuwo."

(275) [*ndye mi ga shi dú-dú-bà*] [*èna ga zhi*]
when I SEQ sit(sg.) thresh- REDUP-place goat SEQ come
mi ga yna wo
I SEQ chase him
'When I am sitting in the threshing place, if goats come, I will chase them away.'

The first event, that of 'when I am sitting in the threshing place', is a non-conditional event, while the second event 'if goats come' is conditional. However, *ndye* only appears once, at the beginning of the first clause. Note from the translation of (275) that English requires inserting both 'if' and 'when' to express these meanings.

6.3 Complement clauses

This section surveys the different types of verbal complements found in Gbari. Givón (1990:515) defines complements as "propositions functioning in the role of either subject or object argument of the verb." In (276), for example, the complement clause *Mali snu ynadyídyi m* functions as the object argument of *kpé* 'to know'.

(276) mi-a zhi bá kpé [dye *Malí snu ynadyídyi m*]
I-PAST come CMPL know COMP Mary make food NEG
'I discovered that Mary had not cooked the food.'

According to Noonan (1985:90) "complementation is basically a matter of matching a particular complement type to a particular complement-taking predicate." Gbari attests four basic complement types, listed in (277):

(277) sentence-like complements
paratactic complements
reduced argument complements
nominalized complements

Each of these types is considered in the following sections.

6.3.1 Sentence-like complements

A sentence-like complement has the characteristics of an independent sentence. It normally follows the complementizer *ḍye*, as shown in (278).

(278) wo gna [*ḍye wo-á ynaḍyíḍyi snu*]
he say COMP she-PAST/PFOC food make
'He says that he cooked food.'

Sentence-like complements have tense marking which is independent of the main clause. In (278) the verb *gna* 'to say' is marked for present tense, while the complement clause is marked as a past construction using the completive aspect particle *á*. Noonan (1985:92) refers to complements which carry their own tense marking as having 'independent time reference' (ITR). He cites the predicates listed in (279) as those which take complements having ITR.

(279) utterance predicates
propositional attitude predicates
pretense predicates
acquisition of knowledge predicates
fearing predicates
commentative predicates

The verb types listed in (279) correspond to those verbs which take sentence-like complements in Gbari. An example using an utterance predicate is shown above in (278). Examples of the remaining verb types are shown below:

(280)a. propositional attitude predicate:

e knu mi wyé [*ḍye wo-a ynaḍyíḍyi snu m*]
it be.big my eye COMP he-PAST food make NEG
'I doubt that he will cook food.'

b. pretense predicate:

wo shna ɓé [*ɗye wo snu ynaɗyíɗyi*]
he imitate matter COMP he make food
'He is pretending to cook food.'

c. acquisition of knowledge predicate:

mi ɗye lo [*ɗye wo-a ynaɗyíɗyi snu*]
I see PROG COMP she-PAST food make
'I see that she cooked food.'

d. fearing predicate:

èdnà wó wô [*ɗye eɓé gâ ɓé*]
fear feel him COMP matter SEQ happen
'He is afraid that it might happen.'

e. commentative predicate:

se snu ankúlí [*ɗye wo-á èna ɗye wu*]
you(pl.) do forgiveness COMP she-PAST/PFOC goat that kill
'I'm sorry that she killed the goat.'

The complementizer *ɗye* is often optional for utterance and propositional attitude predicates exemplified in (278) and (280), just as the complementizer 'that' is optional in English for these same predicate types.

Another complementizer *ge* (*gyi* in Northern Gbari) is possible with the commentative predicate 'to be important', as in (281). Although *ɗye* could be used as well, *ge* is preferred for this sentence.

(281) yi ɓé lùgwé [*ge hê ɓwá ɲà byè ke he lo snu ynaɗyíɗyi*]
is matter big COMP you hand wash first SEQ you(sg.) go make food
'It's important to wash your hands before you cook.'

6.3.2 Paratactic complements

While sentence-like complements have independent time reference, the remaining three clause types, paratactic, reduced argument, and nominalized complements all have 'dependent time reference' (DTR). Their time reference depends upon the meaning of the complement taking predicate and its tense marking.

Paratactic complements are clauses joined to the main clause by means of juxtaposition, with no overt conjunction between them. The manipulative predicates *yá* 'to allow', and *snu* 'to make' take such complements:

(282) yá wo [*wo pí máto*]
allow him he drive car
'Allow him to drive the car.'

(283) wo snu mi lo [*mi snu tnútnù*]
he make me go I do work
'He is making me work.'

(284) Ribeka a snu Biskilla kàlákàlá [*wo gâ snu ynaɗíɗí*]
Rebecca PAST make Pricilla with.force she SEQ make food
'Rebecca forced Pricilla to cook the food.'

The modal verb *chni* 'to be able to do' is normally followed by a paratactic complement. It takes the noun *eɓé* 'matter' as its direct object, which is followed by the paratactic complement, as in (285):

(285) wo chni ɓé [*wo che kútá bwole*]
he be.able matter he throw stone now
'He is now able to throw stones.'

6.3.3 Reduced argument complements

Reduced argument complements are 'reduced' in that the subject argument of the complement clause appears to function as the object argument of the main clause. Verbs

which take these complements include the desiderative verb *yé* 'to want', the manipulative verb *bma* 'to help', and the immediate perception verb *wó* 'to hear or feel'.

(286) mi-á bma [*wo snu*]
I-PAST/PFOC help him do
'I helped him.'

(287) fwa [*wo snu tnútnù*]
stop him do work
'Let him work.'

(288) mi wó [*wò snu ynaɗyíɗyi*]
I hear him make food
'I hear him cooking food.'

(289) mi-a wó [*wò to mi* ɓwá]
I-PAST feel him touch my hand
' I felt him touch my hand.'

The analysis that *wo* in the above examples functions as the object of the first verb is based on the intuition of language assistants, who insisted that *wo* should be glossed as 'him'. Note that there is no case marking morphology to indicate the status of *wo* in (286) - (289). Tone does not seem to be an indicator, as mid tone is found in (287), but low tone is found in (288) and (289).

For the immediate perception verb *ɗye wyé* 'to see', the adverbial noun complement *ewyé* 'eye' follows the object noun. This apparently forces the object pronoun to be repeated as the subject of the complement clause, resulting in a paratactic complement, as seen in (290):

(290) mi ɗye wo wyé [*wò snu ynaɗyíɗyi*]
I see him eye he make food
'I see him cooking food.'

The question as to the exact status of *wo* in these clauses will remain a topic of continued research.

6.3.4 Nominalized complements

Nominalized complements have the structure of nominalized propositions. As discussed in section 4.2.3, nominalization is normally effected by moving the verb (interpreted as a verbal noun) to clause-final position. This is seen in (291) where *lo makalanta* 'go (to) school' is nominalized as *makalanta-lo* 'school going'.

(291) yi ga kpá [*makalanta-lo*]
we SEQ do.together school-going
'We will go to school together.'

The verbs which take nominalized propositions include the auxiliary verbs discussed in section 5.2.4.2, of which *kpá* 'to do together' in (291) is an example.

In addition, there is a modal verb *chna* 'to be obliged to do' which takes a nominalized complement:

(292) se he ga chna [*etsí-si-si*]
until you(sg.) SEQ must.do yam-buying-REDUP
'You must buy yams. / Until you buy yams.'

Nominalized complements can sometimes appear in prepositional phrases. The verb *myi* 'to be able' uses a locative phrase as its complement:

(293) wo myi é [*nuwná-ya-bé*]-lo
he be.able at water-swim-matter-LOC
'He is able to swim.'

The nominalized complement to *gwo dù che* 'to continue' can appear in the prepositional phrase beginning with *de* 'with', as in (294). An alternate form is shown in (295):

(294) wo-a gwo dù che de [*ynaɗyíɗyi-snu*] ga-i
she-PAST receive pass throw with food-making it-with
'She continued to cook.' (literally 'she continued with cooking')

(295) wo-a gwo dù che ga snu ynaɗyíɗyi
she-PAST receive pass throw SEQ make food
'She continued cooking.'

6.3.5 Conclusion

In summary, four basic complement types are attested in Gbari--sentence-like, paratactic, reduced argument, and nominalized complements. Of these, only sentence-like complements in Gbari appear with tense marking which is independent of the tense marking in the main clause. Moreover, the same verb types which appear with sentence-like complements cross-linguistically appear with these complements in Gbari as well. The remaining three complement types (paratactic, reduced argument, and nominalized complements) have dependent time reference--taking their time reference from the tense marking in the main clause.

A more detailed study of complementation in Gbari, which will build on the beginning analysis presented here, is planned for future research.

CHAPTER 7

CONCLUSION

This thesis has presented an overview of basic aspects of the phonology and grammar of Gbari. One of its goals has been to contribute to the linguistic understanding which is necessary for the successful development of Gbari as a written language. This chapter summarizes those issues which appear to be most relevant to the task of language development in Gbari, as well as the ways in which the analysis in this thesis might contribute toward this ultimate goal. The discussion first considers three issues which will be important in the development of a standard Gbari orthography. This is followed by a discussion on literature development as it relates to the Gbari community as a whole.

Perhaps the most controversial issue in the development of an orthography concerns the way in which the nasal autosegment will be written in Gbari. As noted in section 2.8, Gbari speakers have historically differed in the way they represent syllables containing the nasal autosegment (varying between NCV, CNV, and CVN spellings). Consistent rules regarding its representation will thus need to be adopted in a standard orthography. The discussion in section 2.3.1.1 presented evidence that the nasal should be seen as an autosegmental feature whose phonetic realization is dependent on the distinctive features of the onset consonant. This analysis suggests that the use of a single convention to represent this feature will in some way reflect the phonemic intuition of native speakers. Section 2.8 proposed a CNV spelling for this purpose, noting that this avoids the confusion which a

CVN spelling may introduce in certain contexts. The adequacy of CNV spellings will need to be tested by how well Gbari speakers respond to trial literacy materials which make use of this convention.

Another orthographic issue relates to the extent to which /ɗ/ will appear in literature intended for use in Gbari as a whole. The discussion in section 2.6 indicated that /ɗ/ is used in Southern Gbari for a set of words which begin with a corresponding /l/ in the North. For literature intended for general use, it was suggested that the Southern Gbari spellings be adopted to accommodate readers in the South.[52] It was further noted in section 2.6 that Gbari (especially Southern Gbari) is unique among related languages in its use of /ɗ/, which has possibly been retained from Proto-Kwa. This suggested connection to the proto-language might thus be appealed to as a source of pride, and further motivate the acceptance of Southern Gbari spellings.

A third issue relates to the representation of tone in a standard Gbari orthography. Research in this area will need to address questions concerning both the extent and method with which tone should be marked. A complicating factor is the variation in lexical tone which is know to exist in the Gbari areas. This may be especially problematic for literature intended for general use, where an orthography marked with unfamiliar tones might cause confusion and misunderstanding of texts for some readers. A detailed study of the nature of

[52] One of the words in question is *ɗ̀yé*, which, in addition to meaning 'to see', also serves as a complementizer, a relativizer, and a definite marker. As such, it would appear quite frequently in textual material.

the dialectal variation of tone, as well as the importance of the grammatical and discourse functions of tone in Gbari, will be needed in adressing this important issue.[53]

Another important decision facing the Gbari community centers on which variety of Gbari might serve as the standard literary dialect. The experience of other language development projects in Nigeria has shown that this is a potentially divisive issue. In contrast with Gbagyi, the Gbari people do not exhibit a strong sense of identity as a unified language group. The adoption of a standardized writing system will therefore require a strong spirit of cooperation and accommodation among the Gbari dialects. Preliminary conversations have suggested that the Northern dialect, as spoken in Kwakuti, might be chosen as a standard form. This variety is on the southern end of the Northern Gbari area (in a central location with reference to Gbari as a whole) and is reportedly a dialect that most Gbari speakers can understand fairly well.

A related question has to do with how well a standardized dialect will be received in the Gbari community as a whole. The answer to this question will depend on several factors, including reader attitudes, the extent to which the standard dialect differs from a local variety, and how far regional variation might be accommodated. In order to gain some insight into the issue of regional variation, this thesis has partially focused on the significant differences between Northern and Southern Gbari. The differences noted in this study

---

[53] Bird's comments (1996:35) regarding dialectal variation in tone may prove applicable in the Gbari situation: "While an orthography is usually adopted for a cluster of dialects, a tone study of each dialect might be too onerous a task. Even if such a study is undertaken, different representations and rules will be suggested for the different dialects, and harmonising them for orthography purposes is a further non-trivial activity. However, if we limit ourselves to identifying the *functions* (rather than the *mechanisms*) of tone, the situation across the dialects is likely to be more uniform. The orthography can represent those functions of tone which are evident in at least one of the dialects, and by doing this iconically (rather than phonemically), the tone orthography can be interpreted differently in the different dialects."

suggest that grammatical structures are fairly uniform between dialects. Where grammatical variation exists, the differences were found to be primarily lexical, rather than structural in nature. The variation which was noted in the relative clause in section 6.1, for example, is a lexical difference, in which *ndɨye* and *yna* are used to bracket the relative clause in Southern Gbari, while *ele* and *nyi* are used in the North. Another example is seen with the completive particle *ɔhi ɓá* (as described in section 5.2.4) which appears as *ɔhi ga* in Northern Gbari. These findings suggest that lexical variation will probably constitute the main factor in how successfully a standardized form of the language will be received throughout the Gbari speaking areas. It should be noted, however, that only a limited amount of data have been under study in this thesis, and that further investigation may identify more important differences in grammatical structures. A study of differences in discourse strategies, for example, has yet to be undertaken, as well as a study of the nature and function of tone in the grammars of both dialects.

Taken together, the issues surveyed in this chapter indicate that the Gbari community will face several challenging decisions as it moves toward the goal of developing Gbari as a written language. As continued linguistic research will be an important component of this task, it is hoped that the beginning study offered in this thesis may serve as a foundation for further research into the Gbari language.

APPENDIX A

NARRATIVE TEXT

CAT AND RAT

CAT AND RAT

Bale De Ètsu-i
Cat With Rat-with
'Cat And Rat'

1. Esà kwo-kwo-í 6ale de ètsu-i 6a 6e yi nukwodò nû
   time old- REDUP-ADJ cat with rat-with they PROG be friend FOC

   ɗyégwe-ɗyégwe
   good- REDUP
   In the olden days cat and rat were very good friends.

2. Zaza 6e chni 6é wo ɗò 6a mi m
   person PROG be.able matter he enter them middle NEG
   Nobody was able to get between them.

3. Ba ga lo-a gbentsí fwa kpá nù 6i6i6i
   they SEQ go-?[54] plantain farm do.together cultivate large
   They planted a plantain farm together.

4. A-gbentsí hynâ a zhi 6á snu 6a-a ɗyí
   PL-plantains that PAST come CMPL do they-SUBJ eat
   When the plantain was ripe, they were to eat it.

5. Ba ga lo ga ka ɗyé 6a ga gu 6a
   they SEQ go SEQ pluck(pl.) so.that they SEQ hide they

   ɗyí byè ke 6a lo kpé knú
   eat first SEQ they go know sell
   They went and plucked it so that they could hide it and eat some of it first before selling it.

[54] The function of the particle *-a* in this construction is unclear from the current data. See also lines 14 and 18 in this text.

6. Ètsu ga gna ɗye à gyi wo wo lo gu
rat SEQ say that they give him he go hide

ɗyé wo-ɗye dna ɓwó-lo nû
so.that he-RFLX put.in(sg.) hole-LOC FOC
The rat said that they should give it to him to go and hide it, because his home is hotter than the cat's.

7. Wo bà gnà ná gnu pe ɓale nyi
his place be.too.much fire climb more.than cat own
That his place is hotter than that of cat as he is living in a hole.

8. Bale ga yé
cat SEQ agree
The cat agreed.

9. Ètsu ga lo wo ɓwó ga-i
rat SEQ go his hole it-with
The rat took it to his hole.

10. Gbentsí a zhi ɓá bmi yna
plantain PAST come CMPL ripen DET
The plantain ripened.

11. Ètsu dé da gyi ɓale ɗye gbentsí a bmi m
rat repeat say give cat that plantain PAST ripen NEG
The rat did not tell the cat about the plantain.

12. Bale e ke kpé kwo dú m
cat he also know fist too NEG
The cat did not know about it.

13. Ètsu ga gbentsí-lí ɗyí knali
rat SEQ plantain-DET eat alone
The rat ate the plantain alone.

14. Dye wo to wó gbmàlí gbmàlí hali ga lo-a zo
that he touch feel one one until SEQ go-? finish
That he is testing one one until it finishes.

15. Bale e ke kpé kwo m
cat he remain know fist NEG
Cat remained not knowing about it.

16. Nɗye ɓale ɓi wo ɓé nû wo ga gna
if cat ask him matter FOC he SEQ say

ɗye gbentsí ɗye bmi ɓé m
that plantain that ripen matter NEG
Whenever the cat asked him about the plantains, he would say that they aren't ripe yet.

17. Kà fyé ɓale ga ɓi ètsu ɓé nû wo
pluck(pl.) day cat SEQ ask rat matter FOC he

ga gna ɗye ebmi ɓé m
SEQ say that ripen matter NEG
On the day of plantain harvest, the cat asked the rat, and he said that they weren't ripe yet.

18. Fyé dé yi ɓale a che pyí wo ga lo-a gbentsí
day another be cat PAST throw house he SEQ go-? plantain

fnule ɗye zhi é ètsu pyankpa-lo
peeling see be.on(pl.) at rat backyard-LOC
One day he was walking about the houses, he saw some plantain peels at the rat's backyard.

19. Núbwo ga yna wo byi
stomach SEQ chase him badly
He became furious.

20. Wo-a zhi ɓá ɗye ètsu wyé yna
he-PAST come CMPL see rat eye DET

pushi ga gnà wo gnàgnà
annoyance SEQ too.much him be.too.much
When he saw the rat his annoyance became too much for him.

21. Wo ga gna ètsu ètsu lo
he SEQ say rat rat go

yá mi tsi he bà m he-á wó
allow me reach your (sg.) place NEG you(sg.)-PAST/PFOC hear
He said, "Rat! Rat! Don't allow me to get near you. Do you hear me?

22. Nɗye mi ga he tsi kpé mi ga he wu mi-a ɗyí
if I SEQ you(sg.) reach know I SEQ you(sg.) kill I-SUBJ eat

é mi gbentsí nɗye fyí é he ɓwó-lo yna ɓé-lo
at my plantain if be.in(pl.) at your (sg.) hole-LOC DET matter-LOC
If I should reach you I will kill you and eat you up-- because of my plantain that is in your hole.

23. He-á wó
you(sg.)-PAST/PFOC hear
Do you hear me?

24. Ètsu a wó lo yna wo ga ze tsí-i
rat PAST hear PROG DET he SEQ turn running-with

ga pe lo dna é wo ɓwó-lo
SEQ surpass go into(sg.) at his hole-LOC
When the rat heard that he ran and entered his hole.

25. Bé nɗye a ɓé ètsu ga bu ɓale tsí
matter REL PAST come rat SEQ mix cat running

yna hynâ nû
DET that FOC
That is why when the rat sees the cat it runs away from it.

26. Bale muhni nɗye wo ga ètsu ɗye wyé wo ga
cat also if he SEQ rat see eye he SEQ

làgà tu wo ɗyé wo yé wo gbentsí
arise be.on(sg.) him because he desire his plantain
And when the cat sees the rat it will follow it and chase it because he wants his plantain.

27. Wo ga wna wo wo-a ɗyí
he SEQ catch him he-PAST eat
He will catch him and eat him.

28. Hali zhi níní ga-i ɓale ló yi-lo
until come today it-with cat still be-LOC

wo ɓi wo gbentsí ta
he ask his plantain debt
Up till today the cat is still there asking for his plantain debt.

APPENDIX B

PROCEDURAL TEXT

HOW TO MAKE GUINEA CORN TUWO

HOW TO MAKE GUINEA CORN TUWO

Shna Nɗye À Dú Je Yna
Way REL They Beat Tuwo DET
'How to Make Guinea Corn Tuwo.'

1. Mi ga e6í lá dna é dobwí-lo
   I SEQ child take(sg.) put.in(sg.) at silo-LOC

   ɗyé wo-a wyí kní gyi mi
   so.that he-SUBJ guinea.corn choose give me
   I will put a boy into the silo to fetch me some guinea corn.

2. Wo ga wyí kní gyi mi
   he SEQ guinea.corn choose give me
   He fetches the guinea corn for me.

3. mi ga ɗú
   I SEQ thresh
   I thresh it.

4. Nɗye mi ga shi ɗú-ɗú-bà èna ga zhi
   when I SEQ sit(sg.) thresh- REDUP-place goat SEQ come

   mi ga yna wo
   I SEQ chase him
   When I am sitting in the threshing place, if goats come to eat part of it, I will chase them away.

5. Mi zhi 6á zo ɗú mi-a pyè
   I come CMPL finish thresh I-SUBJ winnow
   After thrashing it I will winnow it.

6. Mi ga zhi 6á pyè mi-a ze fyi gnínyí-lo
   I SEQ come CMPL winnow I-SUBJ pour put.in(pl.) mortar-LOC
   After winnowing I pour it into the mortar.

7. Mi se
   I pound
   I pound it.

8. Mi ga zhi 6á zo se mi-a pyè
I SEQ come CMPL finish pound I-SUBJ winnow

mi-a lá mi-a lo inji ga-i
I-SUBJ take(sg.) I-SUBJ go grinder it-with
After I finish the pounding I will winnow it and take it to the grinding machine.

9. Inji ga gwó
grinder SEQ grind
The engine will grind it.

10. Mi zhi mi 6á yá shi mi-a lugu snà
I come I CMPL begin sit(sg.) I-SUBJ fine.flour sift
I will sit down and sift the flour.

11. Mi ga lugu snà mi-a wyichele kpmi
I SEQ fine.flour sift I-SUBJ coarse.flour separate
When I finish sifting I will separate the coarse flour from the fine.

12. Mi-a je shnáwnu tu ná
I-SUBJ tuwo pot put.on(sg.) fire
I will put the cooking pot on the fire.

13. Mi-a snagwo da
I-SUBJ ashes soak
I will then moisten the ashes in the ash container

14. Mi-a snagwo ze fyi jeshnáwnu hynâ-lo
I-SUBJ ashes pour put.in(pl.) tuwo.pot that-LOC
I will then pour the ash water into the cooking pot.

15. Mi-a núwná to 6e-lo
I-SUBJ water fetch add-LOC
I add pure water to it.

16. Núwná zhi 6á jnu mi-a jebwu wo
water come CMPL boil I-SUBJ batter stir.in
When the water starts boiling I will stir (the coarse flour) into the batter.

17. Mi zhi 6á jebwu wo jebwu zhi 6á gnu 6wá
I come CMPL batter stir.in batter come CMPL climb hand

mi-a lugu lá shi mi kpè je
I-SUBJ fine.flour take(sg.) set I put.on(pl.) tuwo
After I stir the batter and it begins to thicken, I pick up the fine flour and add it to the porridge.

18. Mi zhi ɓá zo kpè mi du
I come CMPL finish put.on(pl.) I stir.hard
After adding it, I stir vigorously.

19. Mi zhi ɓá du jebwu ke to nɗye yi lo yna
I come CMPL stir.hard coarse.flour reduce take REL be PROG DET

mi-a ze kpè-lo
I-SUBJ pour put.on(pl.)-LOC
After I stir vigorously, I take from batter (water) which I had removed earlier and pour it in. (This thins it out if it has become too thick).

20. Mi du zhi ɓá nyi mi-a shní shi
I stir come CMPL become.soft I-SUBJ take.off(sg.) set
I stir it until it becomes soft and then I take the pot off the fire.

21. Mi zhi ɓá shní shi mi-a kna fyi snípwé-lo
I come CMPL take.off(sg.) set I-SUBJ take.out(pl) put.in(pl.) bowl-LOC

mi-a kna fyi-lo
I-SUBJ take.out(pl) put.in(pl.)-LOC
After setting it down, I serve (the porridge) into bowls.

22. Mi zhi mi-a enyì kpè za za snípwé-lo
I come I-SUBJ soup put.on(pl.) person person bowl-LOC
I then put soup into each person's bowl.

23. Mi-a ku gyi zaza
I-SUBJ take(pl.) give person
I set it out for everyone.

24. Wo ɗyí
he eat
They eat it.

REFERENCES

Adive, John R. 1989. The verbal piece in Ebira. Dallas: Summer Institute of Linguistics.

Bamgbose, Ayo. 1982. Issues in the analysis of serial verbal constructions. Journal of West African Languages 12:2.3-21.

Bendor-Samuel, John (ed.). 1989. The Niger-Congo languages. Lanham: University Press of America.

Bennett, Patrick R. and Jan P. Sterk. 1977. South Central Niger-Congo: a reclassification. Studies in African Linguistics 8:3.241-273

Benveniste, Emile. 1946. Relations de personne dans le verbe. Bulletin de la Société de Linguistique de Paris 43.1-12.

Blench, Roger and Musa Doma. 1993. A dictionary of the Gbari language. Unpublished draft version. Gbari Gbadogun: Abuja.

Bird, Steven. 1996. Principles of African tone orthography design. Edinburgh: HCRC Publications: University of Edinburgh.

Burquest, Donald A. 1984. A field guide for transformational syntax. Pre-publication draft.

Blench, Roger M. 1989. Nupoid. In Bendor-Samuel (ed.), 305-322.

Chumbo, Beben. 1977. Relatives as determiners: a case from ngemba. In Der-Houssikian and Kotey (eds.), 283-302.

Clements, George. 1991. Place of articulation in consonants and vowels: a unified theory. Working papers of the Cornell Phonetics Laboratory 5.77-123. Ithica, N.Y.: Cornell University.

Comrie, Bernard. 1976. Aspect. Cambridge: Cambridge University Press.

Crozier, D. H. and R. M. Blench (eds.) 1992. An index of Nigerian languages. Summer Institute of Linguistics: Dallas.

Crystal, David. 1985. A dictionary of linguistics and phonetics, 2nd. ed. Oxford: Basil Blackwell.

Der-Houssikian, Haig and Paul F. Kotey (eds.) 1977. Language and linguistic problems in Africa. Columbia, S.C.: Horubean Press.

Edgar, F. 1909. A grammar of the Gbari language, with Gbari-English and English-Gbari dictionaries. Belfast: W. and G. Laird.

Gensler, Orin D. 1996. On reconstructing the syntagm S-AUX-O-V-Other to Proto-Niger-Congo. Proceedings of the twentieth annual meeting of the Berkeley linguistics society, Feb. 18-21, 1994. Special session on historical issues in African linguistics. Journal of the Berkeley Linguistics Society 20s:1-20.

George, Isaac. 1970. Nupe tonology. Studies in African Linguistics 1:1.100-122.

George, Isaac. 1971. The á- construction in Nupe: perfective, stative, causative, or instrumental. In Kim (ed.), 81-100.

George, Isaac. 1975. A grammar of Kwa-type verb serialization. Ph.D. dissertation, University of California, Los Angeles.

George, Isaac. 1976. Verb serialization and lexical decomposition. Studies in African Linguistics, Supplement 6.63-72.

Givón, Talmy. 1984. Syntax: A functional-typological introduction, Vol. 1. Amsterdam: John Benjamins.

Givón, Talmy. 1990. Syntax: A functional-typological introduction, Vol. 2. Amsterdam: John Benjamins.

Haiman, John. 1985. Natural syntax. Cambridge: Cambridge University Press.

Hutchison, John P. 1981. The role of definitization in relative clause formation strategies. Studies in African Linguistics, Supplement 8.59-64.

Hyman, Larry M. and Daniel J. Magaji. 1970. Essentials of Gwari grammar. Occasional publication 27. Ibadan, Nigeria: University of Ibadan.

Hyman, Larry M. 1972. Nasals and nasalization in Kwa. Studies in African Linguistics 3:167-205.

Hyman, Larry and Russell Schuh. 1974. Universals of tone rules: Evidence from West Africa. Linguistic Inquiry 5:1.81-115.

Itô, Junko. 1989. A prosodic theory of epenthesis. Natural Language and Linguistic Theory 7:217-259.

Kaye, Johnathan D. 1981. Implosives as liquids. Studies in African Linguistics, Supplement 8.78-81.

Keenan, Edward L. 1985. Relative clauses. In Shopen (ed.), Vol. 2, 141-170.

Keenan, Edward L. and Bernard Comrie. NP accessibility and universal grammar. Linguistic Inquiry 8:63-100.

Kenstowicz, Michael. 1994. Phonology in generative grammar. Cambridge: Blackwell.

Kim, C.W. and H. Stahlke (eds.) 1971. Papers in african linguistics. Champaign: Linguistic Research Institute.

Lawal, Nike S. 1993. Serial verbs in Yoruba as adjunct phrases. Lingua 91:2/3.185-200.

Lehmann, Winfred P. 1978. Syntactic typology. Austin: University of Texas Press.

Longacre, Robert. 1983. The grammar of discourse. New York: Plenim Press.

Low, W. P. 1908. Gbari grammar, notes and vocabulary. Zungeru: Government Printer.

Madugu, Isaac S. George. 1985. Complex verbs in Nupe and Yoruba. Studies in African Linguistics 16:3.294-321.

Madugu, Isaac S. George. 1986. The á-construction revisited. Journal of West African Languages 16:1.99-112.

Noonan, Michael. 1985. Complementation. In Shopen (ed.), Vol. 2, 42-140.

Rosendall, Elias P. 1997. The identification of suspect consonants in Gbari. Unpublished term paper for class in Acoustic Phonetics. The University of Texas at Arlington.

Rosendall, Heidi James. 1992. A phonological study of the Gwari lects. Dallas: Summer Institute of Linguistics.

Sebeok, Thomas A. (ed.) 1971. Current trends in linguistics, Vol. 7. The Hague: Mouton.

Shekwo, J.A. 1979. Fundamentals of the Gbagyi language. Zaria, Nigeria: Ahmadu Bello University.

Shekwo, Joseph A. 1987. Gbagyi spelling book: the common clusters. Zaria: Ahmadu Bello University.

Sheshi, Numa. 1993. Gbari orthography. Gurara Voice 1:1.25-27.

Shopen, Timothy (ed.) 1985. Language typology and syntactic description. 3 vols. Cambridge: Cambridge University Press.

Sterk, Jan P. 1978. The noun class system of Gade (Nigeria). African Languages 4.24-46.

Stewart, John M. 1971. Niger-Congo, Kwa. In Sebeok (ed.), 179-212.

Thompson, Sandra A. and Robert E. Longacre. 1985. Adverbial clauses. In Shopen (ed.), Vol. 2, 171-234.

Welmers, William E. 1973. African language structures. Berkeley: University of California Press.

Williamson, Kay. 1973. More on nasals and nasalization in Kwa. Studies in African Linguistics 4:115-138.

Williamson, Kay. 1989. Benue-Congo overview. In Bendor-Samuel (ed.), 247-274.

Williamson, Kay. 1989. Niger-Congo overview. In Bendor-Samuel (ed.), 3-45.

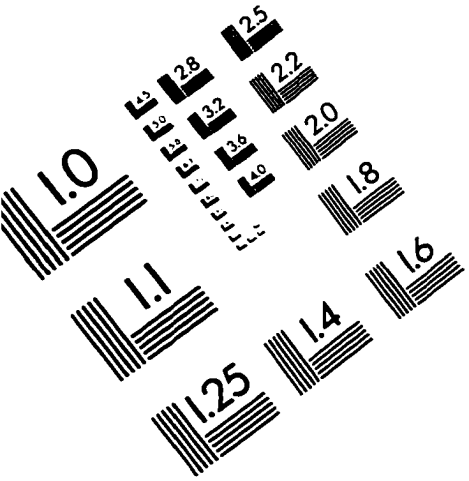
LIST OF ABBREVIATIONS

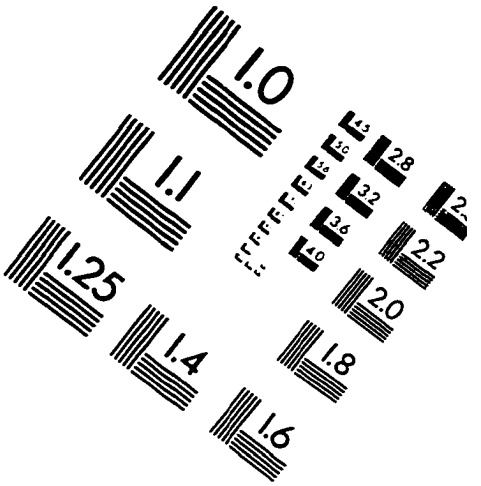
ADJ	Adjective
ATR	Advanced Tongue Root
CMPL	Completive
DET	Determiner
DIST	Distal
DTR	Dependent Time Reference
FOC	Focus Marker
Hz	Hertz
ITR	Independent Time Reference
LOC	Location Marker
NEG	Negative
PFOC	Focus on the Patient Noun
PL	Plural
pl.	Plural
PROG	Progressive
PRON	Pronoun
POSS	Possessive
PROX	Proximal
QWH	Content Question Marker
QYN	Yes/No Question Marker
REDUP	Reduplication
REL	Relativizer
RFLX	Reflexive
SEQ	Sequence
sg.	Singular
SUBJ	Subjunctive
vd.	Voiced
vl.	Voiceless

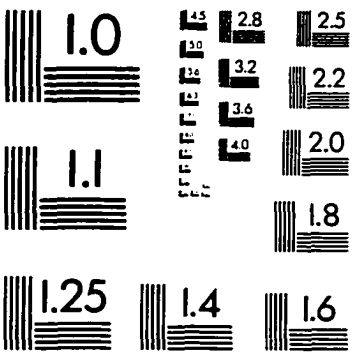
BIOGRAPHICAL INFORMATION

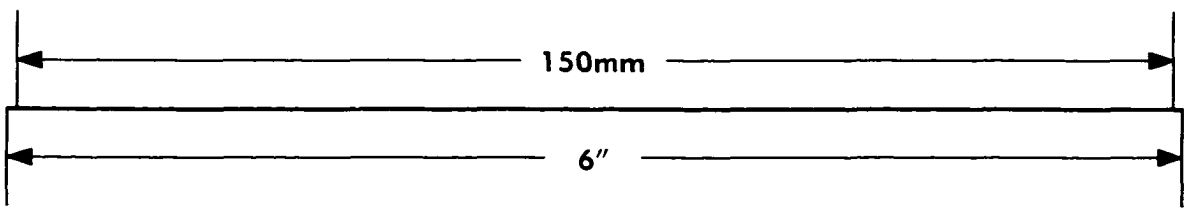
Elias Patrick Rosendall (1955-) obtained his B.A. in English from Calvin College in 1978, and an Associates in Business from Grand Rapids Junior College in 1983. After working as a computer specialist for several years, he studied linguistics with the Summer Institute of Linguistics and went to Africa as a linguist. He studied the Gbari language of central Nigeria, and gave lectures and tutored at an Introductory Course for Applied Linguistics held by the Nigerian Bible Translation Trust. He then returned to the U.S. to finish his M.A. in linguistics at The University of Texas at Arlington. He intends to return to Nigeria upon the completion of his M.A. to continue to study and assist in the development of Gbari, as well as lecture and tutor at the Nigerian Bible Translation Trust. He has a wife, Heidi James Rosendall who is also a linguist, and two children.

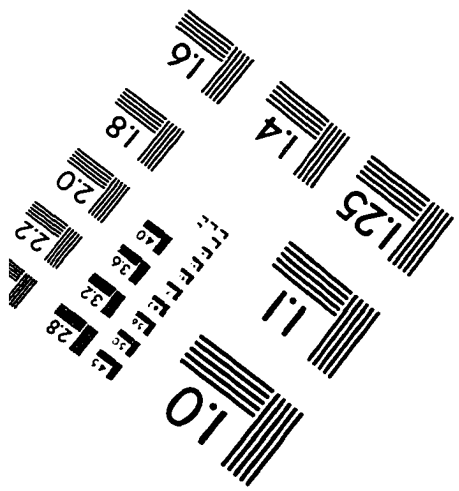
IMAGE EVALUATION TEST TARGET (QA-3)

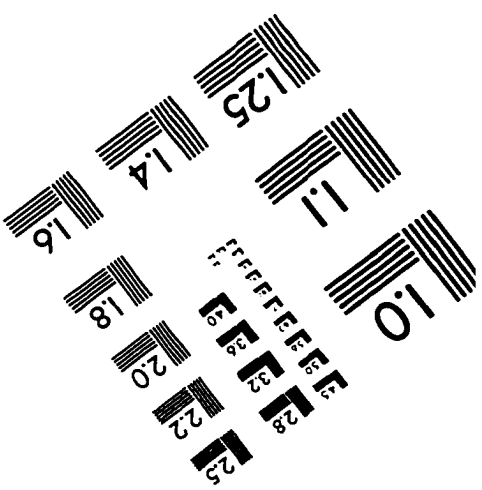












APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989