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Temne phonology and morphology

Yillah, M. Sorie, Ph.D.

City University of New York, 1992

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A

TEMNE PHONOLOGY AND MORPHOLOGY

by

M. SORIE YILLAH

A dissertation submitted to the Graduate Faculty in
Linguistics in partial fulfillment of the requirements for
the degree of Doctor of Philosophy, The City University of
New York.

1992

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This manuscript has been read and accepted for the Graduate Faculty in Linguistics in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

23 January 1992
Date

R. M. R. Hall
R. M. R. Hall, Chair of
Examining Committee

January 23, 1992
Date

R. S. Kayne
Richard S. Kayne, Executive
Officer

Alan M. Stevens
Alan Stevens

RAV
Robert Vago
Supervisory Committee

The City University of New York

Abstract

TEMNE PHONOLOGY AND MORPHOLOGY

by

M. Sorie Yillah

Adviser: Professor R. M. R. Hall

Temne is a southern West Atlantic language which is spoken in the Northern Province of Sierra Leone, of which I am a native speaker.

My aim in writing this dissertation was primarily descriptive: to provide a systematic account of the sounds and forms of the language. I have also tried to sketch in brief the syntactic and semantic frames in which the morphological structures are embedded.

Chapter 1 presents a general introduction to the segmental phonology of Temne. Chapter 2 examines the morphophonology of the specifier system of the noun phrase and provides new classification of the singular/plural, definite/indefinite pairings. In Chapter 3, I discuss the pronominal system and in Chapter 4, Numerals, Prepositions, and Adverbials. In Chapter 5 I examine the verbal complex.

Although the dissertation does not contain an explicit tonology chapter, I deal with tone rules throughout whenever they shed light on phonological or morphological process -- e.g. the reattachment of the tones of deleted segments. The tone is always marked.

IN LOVING MEMORY OF ALL MY PARENTS
KASIRI: Mohamed (Amie) Lamina Yillah
and Hadja Mariama Sirè Yillah

NEW YORK: Prof. B. S. L. Hall
Mr. Sam Rosenberg

ACKNOWLEDGEMENTS

In Kasiri, the town in the Northern Province of Sierra Leone, where I grew up, two languages are spoken, Temne and Soso. Although I am ethnically a Soso, I have spoken Temne all of my life and I believe that I am a completely coordinate bilingual in the two languages. There are two reasons why I chose Temne rather than Soso as the topic of my doctoral dissertation. The first is that the Noun Class prefixes (what I refer to as SPEC prefixes) and their manifestations in the nominal, pronominal and verbal systems presented a descriptive challenge which captured my imagination. The second reason why I chose Temne is that, by and large, the West Atlantic languages (to which Temne belongs) are less well-described than are the Mande languages such as Soso and I felt that I could, with the techniques of modern linguistic analysis, present a description of Temne which was both more detailed and more accurate than the existing descriptions.

My academic career has benefitted from the kindness, encouragement, and fine teaching of several wonderful scholars and gentle human beings. I would like to list some of them here:

From my primary and secondary school years in Sierra Leone, Mr. S. D. Kamara, Mr. J. P. Kargbo, Mr. N. H. Sesay, Mr. R. A. Bangura, the finest principal in the

world, the Reverend Father C. Olivani, and my uncle, Alhajie Yaya Kebe.

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especially Linda Pelc, Nava Shaked, Michael Huntington, Sarah Pyle, and the late Jing Liu.

The members of my dissertation committee, Professors R. M. R. Hall (Chair), Alan M. Stevens and Robert Vago have been most patient and most helpful. I thank them all from the bottom of my heart.

I arrived in the United States, as most foreign students do, yearning for a good education but far short of the means to carry my dream through. In the twenty years or so years I have lived here, no single individual has most exactly filled in for my father as has my Committee Chairman, Professor R. M. R. Hall. Since the first course in Phonetics which I took with him in 1974, he and his late wife, Professor Beatrice Hall (SUNY at Stonybrook) provided me every bit of humanly possible kindness. I not only became a linguist in admiration of them but their encouragement and nonpareil teaching made it easy for me to understand why they were so fascinated with human language. This dissertation would never have been completed had Professor Hall not kept reminding me that I was first and foremost a linguist and a lawyer only by default. My eternal gratitude, Sir.

Knowing Professor Hall means becoming a member of his family and I thank my friends Megs, Judy and John Samuel Hall for making me welcome into their family. My deepest gratitude also to Mrs. Ellen Hall whose kindness

and support during my education at the Graduate Center as well as during the period when I was writing this dissertation made it easier for me to understand the fine points of linguistic analysis which her husband brought to bear in the dissertation.

Finally, a word of thanks to those near and dear to me: My late parents (Mohamed Lamin Yillah and Hadja Mariama Yillah), my brother (Mr. Hafie Sorie Yillah), who gave me the opportunity to come to the United States and made it easy for me by taking up the burden of providing for the entire family in my absence; my dear wife (Leisa Bush) and the rest of the family who have so patiently waited for me: Hadja Nmah, Sister Mabinty, Ramatu, Isatu, Yalhan, Aminatta, Masiré, Mohamed (Papa), Hafie (Junior), Mariama, Aisha, Abdulai, Nmah, MaBinti, Hafie, all my nephews and nieces, and Hadja Betty. Thank you!!!

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INTRODUCTION

This study describes the phonology of Temne, [tɛ̀mnɛ̀], a language spoken in Sierra Leone in West Africa. The Temne people have been variously referred to as 'Teymenes', 'Capes', 'Sapes', 'Timne', 'Timini', (See Westerman and Bryan (1952), Wylie (1977), Fyfe (1962)) in the various European documents which have chronicled the contacts between them and the world beyond the seas. The Temne call themselves [áŋtɛ̀mnɛ̀] and their language [káɛ̀mnɛ̀]. According to the Greenberg classification (1963), Temne is a member of the West Atlantic branch of Niger Kordofanian, the great super phylum which includes most of the languages of Western, Central and Southern Africa. It is noteworthy that in West Atlantic the system of nominal concordial affixes (usually, but not invariably, prefixes) which characterizes the languages of the Bantu sub-branch of Niger Kordofanian is also well attested and many of these morphemes are clearly cognate. The southern sub-branch of West Atlantic, which includes Temne, Bullom, Lanluma (Landoma), Baga, Limba, Kissi, and Gola has been termed MEL by Dalby (1964).

Temne is spoken primarily in the northern stretch of Sierra Leone, referred to as the Northern Province. The other major languages spoken in the Northern Province are Soso, Limba, Loko, Fula, Bullom, Kuranko, and Yalunka. Soso, Loko, Kuranko, and Yalunka are Mande languages.

Limba, Fula and Bullom are also West Atlantic languages. The major towns where Temne is spoken are Kasiri, Rokupr, Kambia, Port Loko, Lunsar, Makeni, and Magburaka.

Tradition has it that the Temnes originally lived in the foothills of the Futa Jallon Mountains in modern day Guinea and that they were pushed south into their current location in the Northern Province of Sierra Leone by the Sosos, following the latter's displacement in the ancient kingdom of Mali in the late 14th century (Wylie, 1977). The Temnes migrated in sufficient numbers to enable them to remain as a distinct ethnic group among their neighbors, the Bulloms and the Limbas. By the 16th century, they had become the majority group in the area, occupying most of the coast from where Freetown, the capital of Sierra Leone, is now located northward into the interior, and splitting the Limbas in two (Wylie, 1977). Another major consequence of the Temne migration involved the development of Krio, the creole language of Sierra Leone. A Temne king ceded the Freetown peninsula to British philanthropists in 1787 so that they could establish a home for the hundreds of Africans who had been stranded in Britain after slavery was nullified 'on English ground' (Fyfe, 1962). Since Krio, the Afro-European creole language of Sierra Leone, grew out of the speech of these and other recolonized Africans and African Americans (African Tories from the United States via Nova

Scotia, and exiled Jamaican Maroons among others) in what had been Temne tribal territory, the Temne can also be said to have had a rôle, albeit an indirect one, in the genesis of this new language.

In the first official census of Sierra Leone (taken in 1963), there were 2,180,355 people in the country. Of that number, there were 648,931 Temne speakers, making them the second largest group at the time after the Mende group (672,831) (Clarke, 1969). In an unofficial 1973 estimate by the International Planned Parenthood Federation, the population of Sierra Leone was projected to reach 4,044,000 by 1990 and 5,126,000 by the year 2000. Other recent unofficial estimates set the population of Sierra Leone at five million. It has also been estimated that the Temnes, who currently number about 1.6 million, have now become the largest ethnic group in the country.

Nowadays, the Temnes are mainly Moslems. However, a substantial number still practice their traditional ancestral forms of worship. Many Temnes are Christians. Sociopolitically, the common bond of the Temnes is their belief that they consist of twenty-five patriclans, all of which are descended from a common ancestor (Wylie, 1977). One consequence of this belief is the Temne propensity to organize into petty kingdoms or chiefdoms each of which consists of a few small villages. Each such village is overseen by a headman or subchief who pays allegiance to

the king or paramount chief of the chiefdom. The Temne proclivity for organization can also be seen in the Poro and Ragbenle (Maneke) societies which, with their secret rites, tend to dominate much of Temne social life. However, the Temne sociopolitical infrastructure has been considerably weakened since 1973 when Sierra Leone adopted a republican form of government.

The Temnes are mainly farmers. They grow rice, cassava, potatoes, corn and greens. However, many Temnes are also petty traders in Freetown. A large number of Temnes also transport goods and passengers throughout the country.

There are four major dialects in Temne: Sanda, Bombali, Yoni, and Konike.

Sanda Temne is spoken along the coast. The major Sanda-speaking chiefdoms are Koya, Marampa, Masimra, Kasse (Maforki), Loko Masama, Kafu Bullom, Mambolo, Samu and Magbema. There are about 500,000 speakers of the Sanda variety. Sanda speakers are usually multilingual in Soso, Bullom, Fula, Loko and Limba. Sanda may also be divided into subdialects: Loko-Masama and Kambia, depending on whether its speakers also speak Soso or Bullom. Speakers of the Kambia dialect invariably also speak Soso and/or Bullom, whereas speakers of Loko-Masama normally do not. Therefore, the Kambia variety usually contains lexical items from Soso and Bullom not also found in the

Loko-Masama variety.

Bombali, also referred to as 'Bambali', is spoken in the northeast, primarily in Bambali chiefdom around Makeni, the provincial headquarters of the Northern Province. There are about 300,000 Bombali speakers.

Konike and Yoni are spoken in the south in Yoni, Mabang, Gbonko-Lenken, Tani and Kolifa chiefdoms. Konike is spoken mainly outside Yoni chiefdom, especially in Gbonko-Lenken. The Temne generally consider Yoni and Konike to be the 'purest' dialects of Temne. Some people also consider Konike to be purer than Yoni. Konike and Yoni have the largest number of monolingual Temne speakers, about 800,000. These four Temne dialects are mutually intelligible. However, they differ in certain lexical items. Konike and Sanda are least alike because they sometimes do not assign the same meanings to some lexical items. In consequence, certain words which are considered inappropriate for public use in the Sanda dialect occur frequently in the Konike dialect. One such word is [fír] 'anus'. This word is never used in public in Sanda. However, in Konike, it is commonly used as a generic term for 'buttocks', and therefore permitted in public. Another major difference between Konike and Sanda involves the morpheme for the second person singular pronoun. The Konikes use /m^h+/ , whereas the Sandas use a syllabic nasal /ŋ/.

Most Temnes are non-literate. However, this only reflects the general situation in Sierra Leone, where three-fourths of the population cannot read or write. Until recently, the Temnes generally did not send their children to western schools as did, for instance, the neighboring Mendes. Temnes who are Moslems still prefer to send their children to Koranic schools. The non-Moslem Temnes either send their children to western style schools or to the traditional system of education which is taught in the Poro and Ragbenle rites.

Temnes do not currently possess a common writing system. However, Temnes once had a writing system, remnants of which still remain among the members of the secret societies. The demise of the Temne writing system might be attributed to the sociopolitical pressures of the colonial era, which lasted until 1961. Therefore, those Temnes who write do so only either in Arabic or in English.

There have been significant attempts to reduce Temne to writing. These efforts have chiefly revolved around Bible translations into Temne. However, the orthographies utilized by these translations do not provide adequate phonemic representations for the language and the practice of writing and reading has never become widespread. Therefore, I shall not use any of these orthographies in this study.

As far as the historical origins of the language are concerned, Greenberg (1963) classifies Temne as a Southern West Atlantic language. This classification is not precisely new: as early as Koelle's Polyglotta Africana (1854) and Westermann's Die Westatlantische Gruppe der Sudansprachen (1928), it was proposed that a 'North-West Atlantic' subgroup needed to be set up as a separate entity because these languages exhibit the Bantu-type nominal class affixes, which are not found in any other West African language group. Thomas reports that this singular characteristic of West Atlantic led G. A. Krause to classify Temne as a Bantu language (1970: vi.).

Although there is general agreement that Temne is a West Atlantic language, its position within West Atlantic still awaits further clarification: for instance, Wilson (1961) proposes that a 'Temne subgroup' consisting of Temne, Baga and Lanluma (which he calls 'Landoma') can be isolated from the West Atlantic group (which he terms North-West Atlantic). Wilson's proposal was taken up by Dalby (1964), who proposed the name MEL because he found that he could exclude Limba from Greenberg's Southern West Atlantic. At the present moment Temne is referred to either with the broader term West Atlantic or as Mel.

Several Temne grammars have been written. The earliest descriptions are to be found in Schlenker (1854, 1861), and Sumner (1922). The most recent publications

on Temne are Scott (1956), Wilson (1968), Thomas (1970), and a paper I wrote (Yillah, 1975), where I examined the system of complementation in the language within an earlier generative syntax framework.

I am ethnically a Soso, but I was born in Sinbeck, a section of Kasiri, in Samu chiefdom, in Kambia District. Everyone in Kasiri is multilingual in Temne, Soso and/or Bullom. The facts reported in this study represent my own dialect of Temne. This dialect could be referred to as Sanda, but as I have also suggested above, it is really best referred to as KAMBIA. I have benefitted tremendously from the fact that one of the largest Temne communities outside of Sierra Leone is found in Washington, D.C., where I have been residing for the past four years. I have reinforced or clarified my intuitions on the Kambia subdialect from Mr. and Mrs. M. S. Sesay, Mr. K. Hassan Radder, Mr. F. Y. Kebe and Mr. Farma Tass Mansaray. I have also benefitted from discussions with Mr. Joseph Serry-Kamal and Ms. Mariama Turay, who provided facts about the Bombali dialect, as well as discussions with Mr. Abu Forna and Mrs. J. M. Kamara, who provided valuable clarifications on the Yoni and Konike dialects.

Although this endeavor is focused on the phonology of Temne, it also provides relevant syntactic and morphological analyses. The study describes the phonology of

the language by extending recent proposals within autosegmental theory in such works as Leben (1973), Goldsmith (1976), McCarthy (1979), Kiparsky (1985), Lieber (1987), Pulleyblank (1988) and Yip (1988). Chapter 1 presents a general introduction to the segmental phonology of Temne. Chapter 2 examines the morphophonology of the specifier system of the Noun Phrase. In Chapter 3, I discuss the pronominal system, and in Chapter 4, Numerals, Prepositions, and Adverbials, and the study ends in Chapter 5 with the verb.

CHAPTER ONE: PHONETICS AND PHONOLOGY

1.1 The Consonant System

On the phonetic level, there are nineteen consonants in Temne. These consonants are listed in Table 1.

Table 1 Surface consonants of Temne

Key: B = Bilabial; LD = Labio-dental; D = Dental;
A = Alveolar; AP = Alveo-Palatal; P = Palatal;
LV = Labio-velar; V = Velar; L = Laryngeal

| | B | LD | D | A | AP | P | V | LV | L |
|--------------------|---|----|---|---|----|---|---|------|-----|
| Stop | p | | t | ɬ | | | k | (kp) | |
| | b | | d | | | | | gb | |
| Affricate | | | | | č | | | | |
| Fricative | | f | | s | š | | | | (h) |
| Liquid | | | | l | | | | | |
| | | | | r | | | | | |
| Nasal | m | | | n | | ɲ | ŋ | | |
| Approximant | | | | | | y | | w | |

- (1) [p] : [pá] 'to say'
 [b] : [bá] 'to have'
 [t] : [tá] 'for'
 [d] : [dá] 'the'
 [ɬ] : [ɬà] 'not'
 [k] : [ká] '(and) then'
 [gb] : [gbá] '(type of) sauce'
 [f] : [fàmá] 'loin cloth'
 [č] : [čèp] 'sow, grow'

| | | | |
|-----|---|--------|------------------|
| [s] | : | [sàmá] | 'ladder' |
| [š] | : | [šèm] | 'beast, meat' |
| [l] | : | [lìm] | 'neck' |
| [r] | : | [rìm] | 'voice' |
| [m] | : | [má] | 'when' |
| [n] | : | [nà] | 'cow' |
| [ñ] | : | [ñés] | 'name' |
| [ŋ] | : | [ŋà] | 'they (focused)' |
| [y] | : | [yá] | 'mother; woman' |
| [w] | : | [wàs] | 'to farm' |

1.1.1 Phonetic correlates

All the dialects and subdialects of Temne¹ show the inventory of sounds in Table 1 and in (1). The two consonants enclosed within parentheses, (h) and (kp), are not part of the true consonantal system of Temne. The sound [h] occurs in a few interjections which are used to indicate dissent or draw the hearer's attention, e.g., háli, an emphatic negative marker, hě 'look here', and hán 'for a while'. These words appear to have been borrowed from Soso, Fula, Malinke (Mandingo) or Arabic.

The sound [kp] is a labio-velar plosive. It is the voiceless counterpart of [gb]. None of the previous

¹As a part of the research for this dissertation, I spoke to members of all the major Temne dialect groups (see Introduction) and I checked my sets of minimal pairs with them.

works on Temne, e.g., Scott (1952), Wilson (1961), report the sound [kp] in their inventories. However, Wilson (1961) may have had the distinction between [kp] and [gb] in mind when he suggested that [gb] can also be imploded and glottalized 'when strongly articulated in initial position (p.3).' In Table 1, [gb] represents the sound which Wilson refers to as 'strongly articulated', and I symbolize the sound which he implies is less strongly articulated as [kp].

The sound [kp] occurs only in words which appear to have been borrowed perhaps from KpaMende, a subdialect of Mende spoken in Sierra Leone. The few Temne speakers who claim to have [kp] in their inventory speak the Yoni variety, i.e., the subdialect of Temne which is spoken in areas adjacent to Mendeland. However, even in the speech of these Temne speakers, there are only a few words which contain [kp] and these speakers also sometimes substitute [gb] for [kp] in those few words.

The sound [g] never occurs in Temne. In fact, most Temnes can not reproduce it when they speak languages like English where [g] does occur. Temne speakers use [k] where languages like English would require the sound [g]; the English word 'good' invariably comes out as [kud] when pronounced by a Temne speaker who is in the process of acquiring English.

The sound [ɬ], as in the name of the language

[ɕəm̀nɛ̀], is an apical retroflex alveolar stop. It is usually not aspirated. It is different from the more forward [t], which is laminal and aspirated. The sound [ɕ] is usually written in the official Sierra Leonean orthography as 'th'. Unfortunately, this convention has caused some confusion because many writers have mistaken it for the English interdental fricative which occurs in thin. For instance, Sumner (1922), reported that [ɕ] is a fricative, while Wilson (1961) described it is an interdental plosive, a characterization also found in Thomas (1970). However, in light of what I have said above, these characterizations are incorrect.

Temne speakers do not aspirate their stops except [t], and can not even hear the difference between an aspirated stop and an unaspirated one. Therefore, to speakers of languages such as English, where aspirated stops are common, Temne stops may sound like implosives. When Temnes are faced with the task of producing the English interdental fricative [θ], they almost always replace it with the alveolar stop, [ɕ].

The Temne labial and velar voiceless stops [p] and [k] are both pronounced with no or very little aspiration. Thus Temne retroflex [ɕ] patterns with the other voiceless stops while dental, laminal [t] is outside of

the expected pattern.²

The sound /r/ is trilled. In some cases, most often in morpheme-initial position, [r] may be interchanged with [d], e.g., [dárù] 'the world', which may sometimes occur as [rárù]. However, each of these sounds, [d] and [r], remains a separate phoneme because there are in fact cases when [r] and [d] are not interchangeable. For instance, [rõ] 'road' never occurs as [dõ] and [dì] 'to eat' never occurs as [rì]. We will see further examples of this in Chapter 2.

1.1.2 Phonemic consonants

On the systematic phonemic level, Temne has only sixteen consonants. Following Chomsky and Halle (1968) and taking into account the practice of Vago (1975), Elimelech (1978), and Pulleyblank (1988), these consonants may be arrayed into the following distinctive feature matrix:

²Dalby (1964) reports that in Bullom dental [t] is apical and unaspirated whereas alveolar retroflex [ɖ] is laminal and aspirated. In Dalby's cognate sets there are many clear pairs of words in which the [t] vs. [ɖ] distinction is maintained and corresponds in the two languages.

(2) The underlying consonant system of Temne

| | p | t | ɕ | k | b | d | gb | f | s | l | r | m | n | ŋ | y | w |
|------|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|
| Cons | + | + | + | + | + | + | + | + | + | + | + | + | + | + | - | - |
| Syll | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| cont | - | - | - | - | - | - | - | + | + | + | + | - | - | - | + | + |
| son | - | - | - | - | - | - | - | - | - | + | + | + | + | + | + | + |
| nas | - | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| lab | + | - | - | - | + | - | + | + | - | - | - | + | - | - | - | + |
| ant | + | + | - | - | + | + | - | + | + | + | - | + | + | - | - | - |
| cor | - | + | + | - | - | + | - | - | + | + | + | - | + | - | - | - |
| high | - | - | - | + | - | - | + | - | - | - | - | - | - | + | + | + |
| back | - | - | - | + | - | - | + | - | - | - | - | - | - | + | - | + |
| vcd | - | - | - | - | + | + | + | - | - | + | + | + | + | + | + | + |

1.1.2.1 The fricative consonants [s] and [š]

The distribution of [s] and [š] is as follows:

i. Before front vowels, [s] and [š] are in free variation:

| | |
|------------------|---------------------------------|
| sí or ší | 'gas expelled through the anus' |
| sím or ším | 'to break' |
| sìŋkár or šìŋkár | 'to exchange' |
| sèk or šèk | 'to tie' |
| sék or šék | 'tooth' |
| sém or šém | 'to reject (a gift)' |
| séŋá or šéŋá | 'a curse; to curse' |
| sèm or šèm | 'beast; animal' |

sɛŋ or šɛŋ 'clasps of thunder'

ii. However, before back vowels only [s] is found:

sɛ́ 'we'; sɛ́ká 'sauce'

sɛ̀ 'we (focused)'; sɛ̀p 'to lie in wait for'

sásá 'item of witchcraft'; sàm 'sore (n.)'

sù 'us'; sùm 'darkness'

sòm 'to send'; sòp 'to anoint'

sɛ́p 'pig'; sɛ̀t 'to sew'

There is however one word šá(n) 'ginger' in which [š] is found before a non-front vowel. This may be a loan word (though its source is not evident to me) or it may be an onomatopoeic word, an ideophone, perhaps in imitation of the sound of spitting which follows the chewing of ginger, which is used for medicinal purposes. In any case, this is a most minor exception to an otherwise straightforward pattern: there is one underlying segment /s/ which may optionally have an allophone [š] before front vowels.

1.1.1.2 [t] and [č]

The case of [t] and [č] as allophones of /t/ is exactly analogous to that of [s] and [š] as allophones of /s/.

i. Before front vowels either [t] or [č] may be found in free variation:

tím or čím 'to fight'

| | |
|----------------|------------------------|
| tík or čík | 'guest; visitor' |
| tí(ŋ) or čí(ŋ) | 'without consequences' |
| tèy or čèy | 'to leave (behind)' |
| tèk or čék | 'beards' |
| té(ŋ) or čéŋ | 'hill' |
| tèn or čèn | 'to skin, to flay' |
| tě or čě | 'to stay behind' |
| tèp or čèp | 'to sow; to grow' |

ii. Before back vowels, only [t] is found:

| | | |
|------|-----------------------------------|---------------------------|
| t+n | 'dog'; t+p | 'to begin' |
| t^p | 'to cut down'; t^ | 'let (modal)' |
| tám | 'to announce, proclaim'; táy | 'to spread out to dry' |
| tú | 'illness'; túmá | 'boxes' |
| tófí | 'to steal through witchcraft'; tó | 'how?' |
| tò | 'to pound'; tóm | 'to chew' |

In the case of [t] as in the case of [s], a following [-back] vowel has caused a dental-alveolar consonant to become, for whatever reason, an alveolar-palatal one.

1.1.2.3 The retroflex voiceless stop [ɖ]

The question now arises, why is it that if /t/ may become optionally [ɖ] before front vowels, /ɖ/ never does? This is, frankly, a question to which at present I have no good answer. In words such as tís 'knife', təm 'old man' and ɖés 'shallow', the articulation of the [ɖ] seems to be in no way different from its articulation in tāl 'to cut, peel', tʌktʌk 'to tickle' or tɪt 'to choose'. When one compares /ɖ/ with /t/ - - for example, tāl 'to cut, peel' with tálà 'hoe (n.)', one notes a heavy, "dampened" quality in the vowel following the retroflex consonant which is absent in the vowel following the non-retroflex one; impressionistically, the a after /ɖ/ seems a quarter to a half tone lower than the a after /t/. The acoustic impression is much the same as that made by vowels following the so-called emphatic consonants of Arabic. Jakobson in his seminal article on the 'emphatic' phonemes in Arabic (1957/1962: 512) suggests that the feature "flat" (as opposed to "sharp") is the appropriate one for describing the consonants and the concomitant lowering in pitch which follows them. Jakobson's students have also used the feature "flat" to mark the difference between plain and retroflex t (/t/ and /ɖ/) in the languages of India.

It is evident that there must be a difference in manner of articulation, not just place, which distin-

guishes /t/ from /t̤/ and allows /t/ to become, optionally, palatalized to [č] but which protects /t̤/ from undergoing this change. Although /t/ and /t̤/ are adequately differentiated by the former being specified as [+anterior] while the latter is [-anterior], it would, perhaps, be more revealing to mark /t̤/ as [+RTR] (for Retracted Tongue Root) -- the modern articulatory equivalent of the Jakobsonian acoustic feature [+flat]. The presence of this feature on /t̤/, and its absence on [t] and [č], accounts for the difference in phonetic realization. The fact that [t] and [č] are both non-aspirated, as are the initial stops /p/ and /k/, while /t̤/ is always aspirated, is another differentiating characteristic of the two stop series. This lack of aspiration is undoubtedly related to the retraction of the tongue root in the articulation of [t̤] but the precise mechanism of cause and effect is as yet not completely clear to me.

1.1.2.4 The palatal nasal [ɲ]

On the surface, the palatal nasal consonant [ɲ] is in complimentary distribution with the velar nasal consonant [ŋ].

i. [ɲ] occurs before front vowels:

| | |
|-----|-------------------------|
| ɲí | 'it (subject position)' |
| ɲín | 'one' |
| ɲés | 'name' |

| | |
|---------|---------------|
| nēné | 'Here is it!' |
| nèt | 'to mince' |
| nèkí(r) | 'to sprinkle' |

ii. However, only [ŋ] occurs with back vowels:

| | |
|--------|---------------------------|
| ŋ́ | 'it (object position)' |
| ŋ̀nt | 'tree' |
| ŋ̀^ | 'they (subject position)' |
| ŋ̀^t | 'scratch' |
| ŋ̀às | 'row' |
| ŋ̀àp | 'win' |
| ŋ̀óf | 'moon; month' |
| ŋ̀lálá | 'kola(nut) tree' |
| ŋ̀kí+l | 'snore' |

There are no words in Temne where either [n̄] or [ŋ] occurs before [u]. Aside from this curious gap, however, [n̄] can be analyzed as a case of palatalization where the nasal [ŋ] is fronted in anticipation of the front vowel which follows it.

[n̄] never occurs postvocally except when it precedes the palatalized stop [č]. These facts lead one to establish /ŋ/ as the underlying phoneme and to see [n̄] as a conditioned allophone. There are additional facts concerning [ŋ] which are best examined in conjunction with a consideration of the nasalized vowels - - see 1.2.3, below.

1.2 The Vocalic System

On the surface, Temne contains nine oral vowels:

| | | | |
|-----|---|---|---|
| (3) | i | + | u |
| | e | ^ | o |
| | ε | a | = |

These vowels may be exemplified by the following words:

| | | | | |
|-----|-----|---|---------------------|--------------|
| (4) | [i] | : | [mìs] | 'mosquito' |
| | [e] | : | [nès] | 'spider' |
| | [ε] | : | [m ^h εs] | 'egg' |
| | [u] | : | [kùs] | 'to unload' |
| | [o] | : | [kòs] | 'cheek' |
| | [=] | : | [k ^h às] | 'star' |
| | [a] | : | [kás] | 'father' |
| | [^] | : | [b ^h ^k] | 'to load' |
| | [+] | : | [p ^h ^t] | 'to stumble' |

1.2.1 The phonetic realization of the vowels

The vowel system of Temne is essentially a 3 x 3 one which distinguishes three positions of openness: high, mid and low, and a back versus non-back position of articulation. The front vowels are all unrounded; the back vowels are differentiated into a rounded and a non-rounded set. A distinctive feature matrix for the vowels of Temne is as follows.

| | | | | | | | | | | |
|-----|-------|---|---|---|---|---|---|---|---|---|
| (5) | | i | e | ɛ | + | ʌ | a | u | o | ɔ |
| | High | + | - | - | + | - | - | + | - | - |
| | Low | - | - | + | - | - | + | - | - | + |
| | Back | - | - | - | + | + | + | + | + | + |
| | Round | - | - | - | - | - | - | + | + | + |

In general, the Temne vowels have essentially the IPA cardinal values. [i] and [u] are always the "tense," non-long variants which are found in the unstressed syllables in General American English words such as pity ([pítɪ]) and value ([vályu]).

[e] and [o] have approximately the values of the vowels in French été 'summer' and haute 'height'.

[ɛ] and [ɔ] are somewhat more 'open' and more 'lax' than their cardinal equivalents.

Temne /a/ is slightly more front than cardinal a, being approximately the vowel in French patte ([a]) 'paw'. With some speakers one sometimes notes a slight movement of [ŋ] before [a] towards [ñ], although the degree of palatalization is never quite as great as one finds before the front vowels.

[ʌ] is a mid, back, unrounded vowel, of approximately the same degree of openness as the unstressed [ə] in English above.

[+] is a quite high, close, back, unrounded vowel. It is close to the vowel in the English adverb just as pronounced in those American dialects where it is not

homophonous with the adjective. E.g., "He's j[+]st j[^]st -- not merciful".

Schlenker (1861) distinguished one back, unrounded vowel but he used the symbol [^] for both the vowel in b^k 'load' and the vowel in p^t 'to stumble'. Wilson (1961) distinguished between the two sounds but he used [ð] for the vowel of p^t. I have chosen to use [+] for this vowel on grounds of phonetic verisimilitude.

1.2.2 Vowel Length, Syncope, Epenthesis, and the Reduced Vowels

The first thing to be observed about the vocalic system of Temne is the absence of phonemically distinctive length. While vowels may at times be prolonged for emphasis, such lengthening belongs to the expressive system and not to the systematic phonological system of the language.

In all respects except one, Temne is very much a syllable-timed language like Spanish or Italian. Every vowel is just about as long as every other vowel, high tone or low, root or affix. The one exception is the high, back, unrounded vowel [+] which is subject to deletion if it is not the only vowel in a root and which is also the vowel which is inserted in epenthesis. Even in those cases where it is not completely deleted, in rapid speech /+/ tends to be pronounced a little more quickly, to be a little shorter, than the other vowels.

Temne uses the syllable type CVCV in almost identical proportions to its use of the syllable types CVCC. Words are generally not more than three syllables long. In fact, about 80% of the Temne lexicon consists of two syllable words.

The reduced vowel [+] is the only vowel that can both either be left out between consonants or freely inserted between consonant clusters.

1.2.2.1 Syncope

There are many Temne words the shape of which is underlyingly CV₁CV₂C. If either V₁ or V₂ or both is [+], then deletion rules can operate which will omit an [+] in situations of rapid or casual speech. Some examples of this are

| (6) | <u>lento form</u> | <u>allegro form</u> | |
|-----|-------------------|---------------------|--|
| a. | gb'ílá | gblá | 'broom' |
| b. | gbá'íþ | gbálp | 'to wink' |
| c. | s'ká | ská | 'sauce, garnish' |
| d. | s'ɲtá | sɲtá | 'tingling sensation: "pins and needles" ' |
| e. | nám'ít | námt | 'to mix' |

If the deletion rule would yield an unpronounceable cluster by Temne standards then it does not apply. For example, k'þ'ít 'chest (of the body)' cannot be reduced to either *kþ'ít or *k'þt and so the same form is used in

both *lento* and *allegro* speech.

The presence of [ɪ] seems to be bound up with low tone. Thus the present tense $gbá\acute{l}p \sim gbálp$ 'to wink'; $\acute{\imath}gbá\acute{l}(f)p$ 'he winks' is present tense, but with the perfect tense/aspect tone pattern ($\acute{\imath}gbà\grave{l}p$ 'he has winked'), the [ɪ] deletion rule is blocked.³

1.2.2.2 Epenthesis

The reduced vowel [ɪ] is the only vowel capable of being inserted between morpheme boundaries where consonants adjoin one another. At the phrasal level, the insertion of [ɪ] can clearly be heard in slow speech:

| (7) | <u>Underlying form</u> | | <u>Phonetic realization</u> | |
|-----|---|---|---|--------------------|
| a. | $\acute{a} - sék \quad k\grave{h}$ they -tied him | → | $\acute{a}sé\acute{k}\acute{ɪ}k\grave{h}$ | 'they tied him' |
| b. | $\acute{a} - b\acute{ɪ}p \quad p\acute{ɪ}l\acute{a}$ they-met rice | → | $\acute{a}b\acute{ɪ}p\acute{ɪ}p\acute{ɪ}l\acute{a}$ | 'they met rice' |
| c. | $\acute{a} - sék \quad r\acute{ɪ}$ they-tied it | → | $\acute{a}sé\acute{k}\acute{ɪ}r\acute{ɪ}$ | 'they tied it' |
| d. | $\acute{a} - sék \quad w\acute{ɪ}r$ they-tied goat | → | $\acute{a}sé\acute{k}\acute{ɪ}w\acute{ɪ}r$ | 'they tied a goat' |

However, in rapid speech, [ɪ] is not inserted.

Instead, one of two adjacent identical consonants is truncated, but adjacent non-identical consonants are

³There is no difference between the present and the past tenses either segmentally or tonally. $\acute{\imath}gbá\acute{l}p$ is either 'he winks' or 'he winked'; all indications of time-reference are accomplished by means of temporal adverbials: $y\acute{e}t\grave{e}n$ 'now', $k\acute{á}k\grave{e}$ 'nowadays', $d\acute{ɪ}s$ 'yesterday', $\acute{a}n-l\acute{ɔ}k\grave{e} \quad n\acute{a}t\acute{ɪ}$ 'at that time, then'.

unaffected.

| (8) | <u>Underlying form</u> | <u>Phonetic realization</u> |
|-----|--|-----------------------------|
| a. | á - sék k̀̀ → ásék̀̀ they -tied him | 'they tied him' |
| b. | á - b́p ṕlá → áb́plá they-found rice | 'they found rice' |
| c. | á - sék rī → ásék rī they-tied it | 'they tied it' |
| d. | á - sék wír → ásék wír they-tied a goat | 'they tied a goat' |

The data in (8) suggest that [+] is the default vowel which is inserted to realize the preference for CV(CV) syllables. A similar conclusion was partially reached by Wilson (1961:4):

[ə] in most contexts other than in C V C radical is regarded as anaptyctic. No two consonants can come together in any juncture, [ə] being inserted to prevent their meeting.

However, as the data show, the insertion of default [+] does not also preclude it from having phonemic status. Nor does it imply an absolute prohibition against sequences of consonants as Wilson suggests. For instance, as (7) and (8) show, there is clearly a need to distinguish between those cases when [+] occurs underlyingly and those cases when it is inserted by default. That is, one must differentiate phonemic /+ / from the universal phonetic tendency to insert a truncated vowel between consonant clusters.

On the word level there are certain morphemes such as the indefinite article {k₁} and the infinitive marker

{k₂} (both prefixes) and various suffixal verbal extensions such as {r} 'directional marker', {s} 'iterative' and {t} 'intensive' which do not contain a vowel in their underlying representations.

(9) The indefinite article and the infinitive marker⁴

| <u>Underlying form</u> | <u>Phonetic realization</u> | |
|------------------------|-----------------------------|-------------------------|
| a. k-tâ | k+tâ | 'an arm' |
| b. k-lîm | k+lîm | 'a neck' |
| c. k-tálá | k+tálá | 'a hoe' |
| d. k-mùná | k+mùná | 'potato leaf dish' |
| e. k-sâm | k+sâm | 'a wound, sore, cut' |
| f. k-lùkâ | k+lùkâ | 'a seed' |

(10) Various verbal extensions

| <u>Underlying form</u> | <u>Phonetic realization</u> | |
|------------------------|-----------------------------|---------------------------------|
| a. gbál-r | gbál+r | 'to write to' |
| b. gbál-s | gbál+s | 'to write (iterative)' |
| c. gbáp-r | gbáp+r | 'to attach to (directional)' |
| d. gbáp-s | gbáp+s | 'to attach (iterative)' |
| e. gbáp-t | gbáp+t | 'to attach to' |

⁴The indefinite article is clearly {k} in the following examples and the [+] is inserted by a rule of epenthesis. The alternative analysis which would see the underlying form of the article as k+- and account for forms such as klùkâ 'a seed' by means of a rule of syncope is inadequate, a fact which is obvious when one also considers the definite article and the rules of metathesis which are involved. I discuss this point in 2.4).

| | | |
|----|-------|-----------------------------------|
| | | (intensive)' |
| f. | bùm-r | bùm̀r 'to watch (directional)' |
| g. | bùm-s | bùm̀s 'to watch (iterative)' |

1.2.3 Nasalized vowels and [ŋ]

Temne also contains nine derived nasalized vowels.

These are:

| | | | |
|------|----|----|----|
| (11) | ĩ | ĩ̃ | ũ |
| | ẽ | ẽ̃ | õ |
| | ɛ̃ | ã̃ | ɯ̃ |

In (12), there are examples of words containing all nine nasalized vowels with contrasts between them and oral vowels.

| | | | | | |
|------|---------------|-----------------|-----|-----------------|---------------|
| (12) | [i] : [pìṃ] | 'pluck' | - - | [ĩ] : [gbíṅ] | 'swear' |
| | [e] : [ñém] | 'yawn' | - - | [ē] : [lěṅ] | 'song' |
| | [ɛ] : [rèṅ] | 'spread' | - - | [ɛ̃] : [rěṅ] | 'thunder' |
| | [u] : [súm] | 'dark -ness' | - - | [ũ] : [gbũṅ] | 'rush' |
| | [o] : [rò] | 'there' | - - | [õ] : [róṅ] | 'road' |
| | [ɔ] : [gbɔ̃ṃ] | 'curse' | - - | [ɔ̃] : [gbɔ̃ṅ] | 'bunch' |
| | [a] : [gbà] | 'dish' | - - | [ã] : [gbãṅ] | 'dry land' |
| | [ʌ] : [tʌk] | 'tree -ants' | - - | [ʌ̃] : [tʌ̃k] | 'cold' |
| | [+] : [k+n] | 'bend' | - - | [+̃] : [t̃+ñk] | 'stump' |

There are several things which are noteworthy about the nasalized vowels of Temne:

- i. Before non-derived anterior nasal consonants,

nasalization of vowels does not occur. There is little of the anticipatory nasal "leak" which one finds in many English dialects in this position, e.g., mine being realized as [mäyn]. In words such as pim 'to pluck' and rɛn 'to spread', the vowels are purely oral ones and the lowering in the velum seems to coincide rather closely with the onset of the oral stricture.⁵

ii. The Temne nasalized vowels exactly match the set of oral vowels with no differences in tongue placement or in timbre. (Contrast the situation in French and other languages where there are fewer nasal than oral vowels and where noticeable shifts in vowel quality occur under the condition of nasalization.)

iii. In word-final position a nasalized vowel is always followed by an [ŋ]. If because of derivation a suffix containing a non-velar consonant is added to a root ending in [ŋ], this [ŋ] assimilates to the place of articulation of the following [+consonantal] segment with the

⁵While it would be most interesting to have instrumental studies to measure the exact point of closure of oral vowels before nasal consonants, it is certainly clear that the degree of nasalization here is much different from that found before [ŋ] or before a nasal consonant derived from [ŋ]. The morphophonemic evidence presented in (ii) and (iii) below argues strongly that there is a contrast.

nasalization of the preceding vowel being maintained. For example, in the verb [lènŋ] 'to sing', if a suffix beginning with a coronal consonant is added, the velar nasal becomes a coronal by anticipatory assimilation:

(13) [lèns+r]

lènŋ + s + r
sing + iterative + directional

'to sing repeatedly at (someone)'

but when epenthesis occurs (see 1.2.2.2, above), the [ŋ] is maintained.

(14) [lénŋ+r]

lènŋ + r
sing + directional

'to sing for (someone)'

This shows that the rule of Epenthesis is ordered before the rule of Place Assimilation of [ŋ].⁶

As I noted above, vowels before underlying non-velar nasals show no signs of nasalization. Thus one can have a contrast such as:

(15) [rɛns]

rɛn + s
spread + iterative

'to spread over and over (as, for example, clothes which have been washed, on

⁶Since the orthography which I am using in this dissertation is a systematic phonemic one, I shall leave Vowel Nasalization and Place Assimilation of consonants unmarked. [lɛns+r] and [lɛŋ+r] will be lèns+r and lénŋ+r orthographically throughout.

the ground to dry)'

versus

(16) [lɛ̃ns]

lɛ̃ŋ + s
sing + iterative

'to sing over and over'

There are also clear oral vowels before /m/
(pīm 'to pluck'; sīm 'to break'; rīm 'voice').
This /m/ does not assimilate to the place of
assimilation of a following consonant. For example

(17) [pīms]

pīm + s
pluck + iterative

'to pluck, to pick over and over'

However, possibly because there are no verbal
extensions which begin with labial consonants, there
do not seem to be any contrasts of the type

(18) i. C V m C V
labial

versus

ii. C V m C V
nasal labial

All of the examples which I have been able to recall
have been of type (ii) where a nasalized vowel is
followed by the [m] and labial consonant. Some
examples of this are:

(19) gbɛ̃mpɛ̃ 'loin cloth'
pɛ̃mpɛ̃ 'thread'

| | |
|-------|--|
| rúmpá | 'intestine' |
| ṭámhá | Thamba (personal name); also 'tomato' |

In the contemporary language all of these words seem to be monomorphemic. In order to account for the nasalization of the vowels one could either say that historically they are bimorphemic with gb̀mp̀ 'loin cloth' breaking down into gb̀ṅ + p̀, but any such analysis would be completely arbitrary as would be an analysis which saw /gb̀ṅp̀/ as underlying and realized on the surface as [gb̀mp̀]. An alternative would be to say that gb̀mp̀ is underlyingly really /gb̀mp̀/ and that a special rule of vowel nasalization applies before the cluster -mp- which does not apply when a word ends with a simple nasal. An analogy here might be to the rule which caused Old English /mind/ to become Middle English /mīnd/ and thus a candidate for the Great Vowel Shift change of /ī/ to /ay/.⁷ Although any of these

⁷Professor R. M. R. Hall has suggested to me that what may have happened in Middle English to cause the lengthening of historically short vowels in words like mind, mild, field, climb and hound is that the sonority of the liquid or nasal which was followed by a non-velar voiced stop was focussed, so to speak, into the preceding vowel causing this vowel to acquire an extra mora. Temne does not have a rule like the English one which devoices nasals which are followed by a homorganic stop and it certainly has nothing like the English vowel shift rule. However, in the case of Temne, what is transferred from the nasal consonant to the vowel is not extra sonority as in the case of English but nasality. Word-finally, Temne non-velar nasals are voiced throughout though they need

proposals would be ingenious, all of them would be completely ad hoc and I prefer to leave the question open for the time being. Tentatively for purposes of pattern symmetry, let us assume that gbɔmpɔ is underlyingly /gbɔ̃mpɔ̃/ while realizing that this analysis has little more than neatness to recommend it.

1.2.4. Vowel + vowel Sandhi phenomena

Within morphemes, Temne has no diphthongs. When two vowels come together across morpheme or word boundaries, there can be four possible results:

1. The first vowel can be deleted.

This is far and away the most common result.

- (20) a. [i] + [e] → [e]

wùní + dí + è
person + there + Emph. ---->

wúnídê 'Someone is there'

- b. [i] + [ɛ] → [ɛ]

wùní + dī + é-mès
person + eat + the-eggs ---->

wúníděmès 'an egg-eater'

- c. [i] + [ɔ] → [ɔ]

not be released. There is no "spill" of nasalization onto the vowel in the case of words like pims 'to pluck over and over' but there always is such a "spill" when a stop follows as in gbɔmpɔ 'loin cloth', etc. My suggestion has the minor virtue of providing an explanation for this fact in terms of universal phonetic principles.

wùní + ɔ́-dér
 person + he-came ---->

wùɔ́dér 'Someone came'

d. [i] + [a] ----> [a]

wùní + à-wóp + é
 person + they-caught + Relative ---->

wùnáwópé 'The person whom they
 caught'

e. [ɛ] + [ɔ] ----> [ɔ]

yé + ɔ́-wír
 with + the-goat ---->

yɔ́wír 'with the goat'

f. [ɛ] + [a] ----> [a]

kèné + á
 who + Question ---->

kèná 'Who?'

g. [o] + [ɛ] ----> [ɛ]

dò + é-mès
 where + the-eggs ---->

dɛ̀mès 'where the eggs'

h. [o] + [ɔ] ----> [ɔ]

dò + ɔ́-pá
 where + he-said ---->

dɔ́pá 'the place he said'

i. [o] + [a] ----> [a]

dò + á-pá
 where + they-said ---->

dǎpá 'the place they said'

j. [ɔ] + [a] ----> [a]

kɛ̀nɔ́ + á-wóp
 him + they-caught ---->

kɛ̀nɔ́wóp 'It was he they caught'

k. [ɔ] + [ɛ] → [ɛ]

k̀nɔ́ + é-m̀s
him + the-eggs →

k̀né́m̀s é-ǹk̀s 'It was he the eggs
soiled'

l. [a] + [e] → [e]

yá + èyè
here + these →

yèyè 'Here they are'

m. [a] + [ɛ] → [ɛ]

ká + é-f̀r
then + the eyes →

ké́f̀r 'And then, the eyes'

n. [a] + [ɔ] → [ɔ]

ká + ɔ-dí
then + he-ate →

ká́dí 'Then, he ate'

2. If the first and second vowels are identical, then the deletion of the first vowel may also be said to apply, although of course there is no real way to tell which vowel has been deleted.

(21) a. [i] + [i] → [i]

ẁní + í-bàná
person + a-big →

ẁníbàná 'a big person'

b. [ɛ] + [ɛ] → [ɛ]

yé + é-m̀s
with + the-mosquitoes →

yém̀s 'with mosquitoes'

c. [a] + [a] → [a]

ká + á-dí
then + one-ate ---->

kádí 'Then, one ate'

d. [ɔ] + [ɔ] ----> [ɔ]

k̀̀nɔ́ + ɔ́-wóp
him + she-caught ---->

k̀̀nɔ́wóp 'It was he she caught'

Note that when a vowel is lost due to sandhi its tone is nonetheless preserved. For example, in 20h above, dò + ɔ́pá yields [dɔ́pá] with the contour tone on the first vowel preserving the low tone on dò and the high tone on ɔ́pá. Thus, in themselves the tones would not give us a conclusive answer as to which vowel is deleted when identical vowels coalesce.

3. In a certain small number of cases, no vowel deletion occurs.

- (22) a. sà- ɔ́ - wóp 'It was we he held'
us- he- held
*sɔ́wóp
- b. nà- ɔ́ - wóp 'It was you (pl.) he
you-he -held held'
*nɔ́wóp
- c. ɲà- ɔ́ - wóp 'It was they he held'
them-he-held
*ɲɔ́wóp
- d. sà- í- wóp 'It was we I held'
we- I -held
*sí-wóp

- e. nà-í- wóp 'It was you (pl.)
 you-I-held I held'
 * ní-wop

Since the set of free-standing vowels in Temne is limited to those found in pronouns and in articles or prefixes, there are very few cases of vowels which fail to delete. In some cases a metathesis will occur, e.g.,

- (23) ká + é
 Dem CL4 + Rel
 that + which

which will yield áké 'which'; or a semi-vowel will be inserted between the two vowels

- (24) è + é
 Dem CL2 + Rel
 that + which

yielding èyé 'which'.

I return to the question of the processes which occur when pronouns and class prefixes interact with other words in considerable detail in Chapter 3.

4. In a small number of cases, a new vowel different from the second vowel will result when two vowels come together.

- (25) a. [ɛ] + [e] → [ɛ]
 yé + èyé
 with + these ----→
 yéyé 'with these'
- b. [o] + [i] → [ɛ]
 dò + í-pá
 where + I-said ----→

děpá 'it is where I said'

c. [ɔ] + [i] → [ɛ]

kɔ̀nɔ́ + í-wóp
him + I caught →

kɔ̀néwóp 'It was he I caught'

d. [a] + [i] → [ɛ]

ká + í-dí
then + I ate →

kédí 'Then, I ate'

At first sight these four cases may seem rather chaotic but if one analyses them in terms of distinctive features, a definite pattern emerges:

| | | | | | | |
|------|------|-------|---|-----|---|-----|
| (26) | i. | [ɔ] | + | [e] | → | [ɛ] |
| | | high | - | - | | - |
| | | low | + | - | | + |
| | | back | - | - | | - |
| | | round | - | - | | - |
| | ii. | [o] | + | [i] | → | [ɛ] |
| | | high | - | + | | - |
| | | low | - | - | | + |
| | | back | + | - | | - |
| | | round | + | - | | - |
| | iii. | [ɔ] | + | [i] | → | [ɛ] |
| | | high | - | + | | - |
| | | low | + | - | | + |
| | | back | + | - | | - |
| | | round | + | - | | - |
| | iv. | [a] | + | [i] | → | [ɛ] |
| | | high | - | + | | - |
| | | low | + | - | | + |
| | | back | + | - | | - |
| | | round | - | - | | - |

The generalization which arises from examples 1, 3,

and 4 is that in vowel coalescences the height of the first vowel (in all cases [+low]) is maintained while the backness and roundness of the second vowel are maintained. Example 2, however, is recalcitrant. Here the resulting vowel acquires a feature [+low] although neither the first nor the second vowel is low. At present I have no explanation for this fact.

1.3 Conclusion

This chapter has introduced the sound inventory of Temne as well as examined the restrictions on segment sequencing which occur in the language. We have seen that there is hardly any restriction against sequences of consonants except that adjacent identical consonants are collapsed in rapid speech. The major sequencing restriction occurs with vowels, where a nuclear restriction against sequences of vowels within morphemes exists. However, this restriction encounters a few exceptions at the phrasal level.

A summary and formalization of the rules which have been discussed in Chapter 1 is as follows:

(27) Summary of rules

1. Palatalization:

- i. /s/ may become [š] before non-back vowels
- ii. /t/ may become [č] before non-back vowels

iii. /ŋ/ becomes [ñ] before non-back vowels

Palatalization may be formalized as follows:

- a.
$$\left[\begin{array}{l} +\text{consonantal} \\ -\text{syllabic} \\ -\text{sonorant} \\ -\text{nasal} \\ +\text{anterior} \\ +\text{coronal} \\ -\text{voiced} \end{array} \right] \rightarrow [-\text{anterior}] / \text{---} \left[\begin{array}{l} -\text{cons} \\ +\text{syll} \\ -\text{back} \end{array} \right]$$
- b.
$$\left[\begin{array}{l} +\text{consonantal} \\ +\text{nasal} \end{array} \right] \rightarrow \left[\begin{array}{l} -\text{anterior} \\ -\text{back} \end{array} \right] / \text{---} \left[\begin{array}{l} -\text{cons} \\ +\text{syll} \\ -\text{back} \end{array} \right]$$

2. Epenthesis:

[+] may be inserted between two consonants.

Epenthesis may be formalized as follows:

$$[\emptyset] \rightarrow \left[\begin{array}{l} -\text{consonantal} \\ +\text{syllabic} \\ +\text{high} \\ -\text{low} \\ +\text{back} \\ -\text{round} \end{array} \right] / \left[\begin{array}{l} +\text{cons} \\ -\text{syll} \end{array} \right] \text{---} \left[\begin{array}{l} +\text{cons} \\ -\text{syll} \end{array} \right]$$

3. Nasalization:

A vowel preceding [ŋ] is nasalized

Nasalization may be formalized as follows:

$$\left[\begin{array}{l} -\text{consonantal} \\ +\text{syllabic} \end{array} \right] \rightarrow [+nasal] / \text{---} \left[\begin{array}{l} +\text{cons} \\ -\text{syllabic} \\ +\text{nasal} \\ +\text{back} \end{array} \right]$$

CHAPTER TWO: THE NOUN PHRASE 1: THE SPECIFIER SYSTEM

2.1 The System of Prefixes

In a Temne Noun Phrase (NP), specifiers/determiners (SPEC) precede nouns. All modifiers -- numerals, demonstratives, quantifiers, adjectives and relative clauses -- follow nouns. Therefore, the NP might be represented by a phrase structure rule such as:

(28) NP → SPEC N (ADJ)

This phrase structure rule is exemplified in

| | | | | |
|------|------|---------|--------|---------------------|
| (29) | Má | lémbéré | m+bànà | 'The large oranges' |
| | SPEC | N | ADJ | |
| | the | orange | large | |

Temne and the other West Atlantic languages exhibit a system of noun phrase concord which is very similar to that found in Bantu languages like Swahili. Every Temne NP carries one of nine syntactico-semantic specifications much like the "genders" of languages like French or German. These nine specifications determine the phonological shape of the SPEC prefixes (indefinite and definite, singular and plural) which obligatorily precede all nouns, the concord markers which occur within a noun phrase, and the pronouns, demonstratives, and relatives which are syntactically associated with a given noun throughout the sentence. For example:

- (30) a. $\dot{\text{i}}$ - lãṅgbá $\dot{\text{ɔ}}$ - dɛr
 SPEC man SPEC came
 indef. subj.
 'A man came'
- b. $\dot{\text{ɔ}}$ - lãṅgbá $\dot{\text{i}}$ - bãnà $\dot{\text{ɔ}}$ - nɛ́k rá - mès
 SPEC man SPEC fat SPEC see SPEC egg
 subj. indef. subj. def.
 'The fat man saw the egg'
- c. ãṅ - lãṅgbá ã - bãnà ãṅ - nɛ́k rá - mès
 SPEC man SPEC fat SPEC see SPEC egg
 subj. indef. subj. def.
 'The fat men saw the egg'
- d. rá - mès rɛ́ - fínɔ̀ rɛ́ - yí nɔ̀
 SPEC egg SPEC good SPEC be here
 def. indef. Loc.
 'The good egg is here'
- e. é - mès é - fínɔ̀ è - yí nɔ̀
 SPEC egg SPEC good SPEC be here
 def. indef. Loc.
 'The good eggs are here'

In sentence (a), we see the indefinite pronominal Class 1 specifier $\dot{\text{i}}$ - associated with the noun lãṅgbá 'man'; the verbal Class 1 prefix $\dot{\text{ɔ}}$ - occurs before the verb dɛr 'come'. In sentence (b), we see the definite pronominal Class 1 SPEC $\dot{\text{ɔ}}$ - associated with lãṅgbá, but the indefinite Class 1 SPEC $\dot{\text{i}}$ - associated with the adjective -bãnà 'fat' since adjectival modifiers are always joined to their nouns by SPEC prefixes which agree with the nouns in specification-class but are indefinite.⁸

⁸Note that all indefinite specifiers have low tone when they are attached to nouns but high tone when they join adjectives to nouns within the same NP. I shall

é- again occurs as the pronominal prefix with nínk 'to see'; since the object -mès 'egg' is Class 5a, it has a different SPEC, rá-. In sentence (c), since the subject NP is now plural the specifier which is associated with a Class 1 noun like làngbá 'man', is án-; the Class 1 plural indefinite SPEC is à- which we now find joining the adjective -bànà 'fat' to its noun. án- is also used as the pre-verbal concord prefix, agreeing with the plural Class 1 subject. In sentence (d) the Class 5a subject -mès 'egg' has its Class 5a definite prefix rá-; the adjective fínà 'good' is joined to it by the indefinite prefix rí-.⁹ In sentence (e) we find the usual plural prefix for Class 5a nouns é- on -mès 'egg'. Here we see the Class 2 definite prefix è- before the verb¹⁰ but the indefinite prefix é- before the adjective. Here, as so often in Temne, crucial grammatical information is conveyed by tone alone.

2.2 A Classification of the SPEC prefixes

Previous grammars of Temne (Wilson 1963, Scott 1967,

return to this topic in Chapter 3 and in 5.9.

⁹In 1.2.2.2, I argued that the appropriate underlying form of this prefix is r- and that the í is inserted by the rule of epenthesis.

¹⁰The reasons for the verbal prefix being è-, with low tone rather than high, is that yí 'to be', like the adjectival verbs, requires a low tone prefix. This is discussed in Chapter 5.

Thomas 1970) have proposed various systems for arranging and classifying the specification classes and the prefixes and pronouns which are associated with them. I have found none of these arrangements to be satisfying and so I have made my own classification which is as follows:

Table 2 The SPEC prefixes of Temne by singular-plural contrasts

| Class | Singular | | Plural | |
|-------|----------|-----|--------|-----|
| | Indef | Def | Indef | Def |
| 1 | ĩ/ũ | ɔ́ | à | áŋ |
| 2 | à | áŋ | è | é |
| 3 | w | wɔ́ | t | tá |
| 4 | k | ká | t | tá |
| 5a | r | rá | è | é |
| 5b | r | rá | n | ná |
| 6a | r | rá | m | má |
| 6b | r | rá | s | sá |
| 6c | d | dá | s | sá |
| 7 | k | ká | p | pá |
| 8 | à | áŋ | m | má |
| 9 | | | n | ná |

Since the prefixes in this table show a certain amount of redundancy -- for example the singular prefix **k/ká** is assigned to both Class 4 and Class 7, **r/rá** to both singular Class 5a and 5b, and 6a and 6b, **t/tá** to plural Classes 3 and 4, and **é/è** to plural Class 2 and Class 5a, etc. -- it might be tempting to organize the system in a non-redundant fashion as in Table 3.

Table 3 The SPEC prefixes of Temne by nonredundancy

| Class | Singular | | Plural | |
|-------|----------|-----|--------|-----|
| | Indef | Def | Indef | Def |
| 1 | ì/ù | ś | à | áŋ |
| 2 | à | áŋ | è | é |
| 3 | w | wś | t | tá |
| 4 | k | ká | - | - |
| 5 | r | rá | m | má |
| 6 | d | dá | s | sá |
| 7 | | | p | pá |
| 8 | | | n | ná |

However, I believe that such an analysis would introduce a great deal of confusion in the name of simplicity. What a specifier class like Class 4 means intuitively, in my opinion, is that there are certain nouns like lìm 'neck', tà 'hand', sŋ 'mouth', which form their indefinite and definite singulars with **k/ká** and plurals with **t/tá**. There are other nouns, for example -ílá 'grain of rice', -éndé 'grain of millet', which, although they have **k/ká** as their singulars have, **p/pá**, not **t/tá** as their plurals. The purpose of my nine member classification system is to state the singular-plural pairings as economically as possible. If one took a "non-redundant" system such as Table 4 as one's point of departure, one would then have to note for every noun with a **rá**- singular definite whether it had a **sá**-, **má**-, **ná**- or **é**- as its plural definite.

Like the assignment of the genders in European languages, the SPEC classes of Temne are in part "natural" (e.g., most nouns which refer to human beings are members of Class 1), and in part arbitrary. Some animals such as nà 'cow' are also members of Class 1, whereas others like bòk 'snake' are members of Class 2, and still others like -èr 'mouse', and -ìr 'goat' are members of Class 3. Class 2 also contains some body parts like kùp 'eyelash', lìns 'ear' and sánt̀k 'fingernail'. Obviously, there is no sure semantic criterion for assigning class membership just as there is no phonological one. Therefore, class membership must be specified in the lexicon and it seems to me that the maximally economical way is to specify both singular and plural membership together as is done in Table 3. There are exceptions to any neat scheme but this strategy, I believe, provides the way to the fewest possible exceptions.

2.3 The Specifiers: Phonological Realizations and Semantic Correlates

Wilson (1961:9) has suggested that the prefixes of Temne classify nouns according to gender, number and person in the same way that the prefixes of the Bantu languages do. While it is certainly true that the classifiers of the West Atlantic languages and of the Bantu languages have a common origin, it is the case today that, as Greenberg (1963:9) noted, the semantic reasons

which might have motivated the proliferation of prefixes in Bantu and in languages like Temne can not be fully ascertained. Whatever logic once underlay the assignment of nouns to SPEC classes is at best only partially available to the child learning Temne today. There are generalizations which can be made and in the following list I shall endeavor to extract whatever coherence I can from the groupings. Nonetheless, it would seem that learning precisely which nouns belong to which classifier class is today for the child learning the language a matter of rote memorization. (A study of children's acquisition of the prefix system of Temne would be a strong desideratum). Note in all of the classes, indefinite nominal prefixes have low tone in both the singular and the plural and that definite nominal prefixes have high tone in both the singular and the plural. There is no tone sandhi between prefixes and their nouns.

2.3.1 Class 1

The Class 1 prefixes are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | ɔ́- | áŋ- |
| indefinite: | ì- | à- |

Class 1 NPs are predominantly [+human]. For example:

| | | | | | |
|------|-----------------|--------------|---------------|--------------|---------------------|
| (31) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | ɔ́-ṭèm̀nè | ì-ṭèm̀nè | áṅ-ṭèm̀nè | à-ṭèm̀nè | 'Temne (person)' |
| | ɔ́-ṭèm | ì-ṭèm | áṅ-ṭèm | à-ṭèm | 'elder (male)' |
| | ɔ́-bày | ì-bày | áṅ-bày | à-bày | 'chief' |
| | ɔ́-kèy | ì-kèy | áṅ-kèy | à-key | 'thief' |
| | ɔ́-kàbí | ì-kàbí | áṅ-kàbí | à-kàbí | 'smith' |

Also included within Class 1 are two nouns which refer to nonhumans: ì-sèm 'an animal, beast; meat, beef' and ì-nà 'a cow, bull'. These two words are the only examples of non-humans which are primary members of this class. -nà 'cow' may also occur with the Class 4 prefix kà- with a slight semantic difference. ɔ́-nà is the cow which is a known cow and which is a domestic animal, whereas kì-nà is simply a cow to which one has no personal relationship. Although nà 'cow' may, and sèm 'animal' must, be used with a Class 1 prefix in the singular, both of these nouns have Class 4 prefixes in the plural.

The prefixes which link adjectives to nouns are, as we saw above, the indefinite prefix í- (singular) and á- (plural). The relativizer ɔ́wé (singular), áṅé (plural) and the preverbal prefixes are, on the other hand, both built on the definite. For example:

| | | | | | |
|------|----|-------------|----------|------------|--------------|
| (32) | a. | ɔ́ - làngbá | í - bàná | ɔ́ - w - é | dèr - é |
| | | SPEC man | SPEC fat | SPEC | REL come REL |
| | | def. | adj. | def. | |

(k̀nɔ́) yí ɔ́ - sɔ́kɔ́ ká mī¹¹
 (EMPH) be SPEC uncle of me

'The fat man who came is my uncle'

b. áŋ -làngbá á - bànà á - ŋ - é dèr - é
 SPEC man SPEC fat SPEC REL come REL
 def. adj. def.

(ŋà) yí áŋ - sɔ́kɔ́ ŋá mī
 (EMPH) be SPEC uncle of me

'The fat men who came are my uncles'

2.3.2 Class 2

The Class 2 prefixes are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | áŋ- | é- |
| indefinite: | à- | è- |

This is generally the largest [-human] class. In fact, it is the major animal class. Domestic animals and familiar animals are contained in this class.

| (33) | <u>Singular</u> | | <u>Plural</u> | | |
|------|-----------------|--------------|---------------|--------------|----------------|
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | áŋ-bòk | à-bòk | é-bòk | è-bòk | 'snake' |
| | áŋ-tìn | à-tìn | é-tìn | è-tìn | 'dog' |
| | áŋ-kúy | à-kúy | é-kúy | è-kúy | 'crocodile' |
| | áŋ-mús | à-mús | é-mús | è-mús | 'cat (kitten)' |
| | áŋ-ŋárí | à-ŋárí | é-ŋárí | è-ŋárí | 'cat' |

¹¹While the tones of definite pronominal specifiers are always high and of indefinite pronominal specifiers always low, preadjectival specifiers and preverbal specifiers are subject to other, different rules. I shall deal with these in Chapter 5.

| | | | | |
|---------|--------|--------|--------|-------------|
| áŋ-tókó | à-tókó | é-tókó | è-tókó | 'fowl' |
| áŋ-néné | à-néné | é-néné | è-néné | 'cockroach' |

In Class 2 are also included many words for body parts, both those which exist in sets of symmetrical pairs and those which do not.

| | | | | | |
|------|-----------------|--------------|---------------|--------------|-----------------------------|
| (34) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | áŋ-lónk | à-lónk | é-lónk | è-lónk | 'upper arm' |
| | áŋ-línk | à-línk | é-línk | è-línk | 'upper leg' |
| | áŋ-kùp | à-kùp | é-kùp | è-kùp | 'eyelash' |
| | áŋ-líns | à-líns | é-líns | è-líns | 'ear' |
| | áŋ-sántík | à-sántík | é-sántík | è-sántík | 'finger, or toe nail' |

Class 2 further includes a number of implements and manufactured articles.

| | | | | | |
|------|-----------------|--------------|---------------|--------------|-------------------------|
| (35) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | áŋ-ťís | à-ťís | é-ťís | è-ťís | 'knife' |
| | áŋ-gbàťó | à-gbàťó | é-gbàťó | è-gbàťó | 'machete' |
| | áŋ-fát | à-fát | é-fát | è-fát | 'pot' |
| | áŋ-gbàsá | à-gbàsá | é-gbàsá | è-gbàsá | 'headscarf' |
| | áŋ-rónkó | à-rónkó | é-rónkó | è-rónkó | 'ceremonial garment' |

One further word which does not seem to fit into any neat semantic class is:

(36) báp+r 'leaf'

The inanimate words in this SPEC class like báp+r

'leaf' or áṅgbàṭú 'machete' have the expected relative pronouns and preverbal prefixes of their class.

- (37) a. áṅ - gbàṭú áṅ - šímá
 SPEC - machete SPEC - break-Past
 def.

'The machete broke'

- b. é - bápír é - fùmpò
 SPEC - leaf SPEC - fall-Perf.

'The leaves have fallen'

However, if a Class 2 noun is animate, then it has Class 1 relative and preverbal prefixes.¹²

- (38) a. áṅ - tókú ú - w - é ì - wáy - é ...
 SPEC -fowl SPEC - REL I -buy -REL
 CL2 CL1 Past

'The fowl which I bought ...'

- b. é - tókú á - ṅ - é ì - wáy - é áṅ - fì
 SPEC-fowl SPEC -REL I - buy -REL SPEC-die
 CL2 CL1 Past CL1
 Plu. Plu. Plu.

'The fowls which I bought have died'

2.3.3 Class 3

The Class 3 prefixes are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | wú- | tá- |
| indefinite: | w- | t- |

¹²In folktales, when animals -- and at times even things -- are personified and given the power of speech, they are always constructed with Class 1 SPEC prefixes, whatever their natural, "real world", SPEC class.

Class 3 is a relatively small class. It includes small furry animals such as:

| | | | | | |
|------|-----------------|--------------|---------------|--------------|---------|
| (39) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | ʃw-èr | w-èr | át-èr | t-èr | 'mouse' |
| | ʃw-ìr | w-ìr | át-ìr | t-ìr | 'goat' |
| | ʃw-òr | w-òr | át-òr | t-òr | 'fox' |

and two words for persons: wánɿ 'child' and wùní 'person'. Both these words have suppletive plurals which are Class 1.

| | | | | | |
|------|-----------------|--------------|---------------|--------------|----------|
| (40) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | ʃw-ánɿ | w-ánɿ | án-féɿ | à-féɿ | 'child' |
| | ʃw-ùní | w-ùní | án-fím | à-fím | 'person' |

Since all of the nouns in this class are animate they all have Class 1 relative and preverbal concords.

For example:

- (41) a. ʃw - èr ʃw - é án -nárí ʃ - wóp - é
 SPEC-mouse SPEC-REL SPEC-cat SPEC-catch-REL
 CL3 CL1 CL2 CL1 Past
 'The mouse which the cat caught'
- b. ʃw -ánɿ ʃ - dér
 SPEC-child SPEC-come-past
 CL3 CL1
 'The child came'
- c. w -ánɿ ʃ - dér
 SPEC-child SPEC-come-past
 CL4 CL1
 'A child came'

| | | | | | | | | | |
|----|------|---|------|------|---|------|------|---|-------|
| d. | t | - | ìr | áŋ | - | dí | k | - | ééréŋ |
| | SPEC | | goat | SPEC | | eat | SPEC | | grass |
| | CL4 | | | CL1 | | Past | CL4 | | |

'Goats eat grass'

All of the nouns of this class except the suppletive plurals fét 'children' and f+m 'people' begin with vowels and are therefore subject to a rule of metathesis which was already referred to in 1.2.4 (23) and which I shall discuss in detail later. Stated briefly and informally, this rule requires that if a prefix which ends in a vowel is added to a noun which begins with a vowel, the vowel and its preceding consonant change places. Thus from an underlying wá- èr 'the mouse' we will have a surface form úwèr. However if the prefix does not contain an underlying vowel, as the indefinite w- does not, no metathesis occurs and the resulting form is wèr 'a mouse'.

2.3.4 Class 4

The prefixes of Class 4 are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | ká- | tá- |
| indefinite: | k- | t- |

Class 4 might be characterized as a kind of default or neutral class containing parts of a number of different semantic sets. For example Class 4 contains most body parts and physical conditions:

| (42) | | <u>Singular</u> | | <u>Plural</u> | |
|------------|--------------|-----------------|--------------|---------------------------------------|--|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | | |
| ká-tà | kì-tà | tá-tà | tì-tà | 'hand' | |
| ká-sìŋ | kì-sìŋ | tá-sìŋ | tì-sìŋ | 'mouth' | |
| ká-ór | k-ór | tá-ór | t-ór | 'stomach' | |
| ká-lìm | kì-lìm | tá-lìm | tì-lìm | 'neck' | |
| ká-lèp | kì-lèp | tá-lèp | tì-lèp | 'back of neck' | |
| ká-bónp | kì-bónp | tá-bónp | tì-bónp | 'head' | |
| ká-sàm | kì-sàm | tá-sàm | tì-sàm | 'sore' | |
| ká-fòlén | kì-fòlén | tá-fòlén | tì-fòlén | 'gap left by a missing tooth (child)' | |
| ká-fàn | kì-fàn | tá-fàn | tì-fàn | 'gap left by a missing tooth (adult)' | |

Class 4 also contains two commonly used tools and one mineral.

| (43) | | <u>Singular</u> | | <u>Plural</u> | |
|------------|--------------|-----------------|--------------|---------------|--|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | | |
| ká-báp | kì-báp | tá-báp | tì-báp | 'axe' | |
| ká-tálà | kì-tálà | tá-tálà | tì-tálà | 'hoe' | |
| ká-òŋt | k-òŋt | tá-òŋt | t-òŋt | 'coal' | |

There are also several nondomesticated animals in this class.

| (44) | | <u>Singular</u> | | <u>Plural</u> | |
|------------|--------------|-----------------|--------------|---------------|--|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | | |
| ká-yék | kì-yék | tá-yék | tì-yék | 'monkey' | |
| ká-nàŋká | kì-nàŋká | tá-nàŋká | tì-nàŋká | 'chameleon' | |

ká-ṭ̀lú k+-ṭ̀lú tá-ṭ̀lú t+-ṭ̀lú 'baboon'

Class 4 also contains most major vegetables and dishes made from vegetables.

| (45) <u>Singular</u> | | <u>Plural</u> | |
|----------------------|--------------|---------------|---|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> |
| ká-ṣ̀k̀b̀s | k-ṣ̀k̀b̀s | tá-ṣ̀k̀b̀s | t-ṣ̀k̀b̀s 'cucumber --naturalized from English <u>cucumbers</u> ¹³ |
| ká-áí | k-áí | tá-áí | t-áí 'squash' |
| ká-yóká | k+-yóká | tá-yóká | t̃-yóká 'cassava leaves (a dish)' |
| ká-mùná | k̃-mùná | tá-mùná | t̃-mùná 'potato leaves (a dish)' |

The prefixes k- and ká- of this class are also used for deverbal nominalizations.

From dì 'eat' are derived:

| | | |
|------|------|------------|
| (46) | k̃dì | 'eating' |
| | kádì | 'the food' |

and from f̀f 'speak' come:

| | | |
|------|-------|------------|
| (47) | k̃f̀f | 'speaking' |
| | káf̀f | 'speech' |

¹³Another example of a loan word which was reanalyzed and brought into Class 4 is k̀k̀lì 'a ritual mask'. This word was borrowed from Mende (n) g̀g̀lì with the g's being reinterpreted as k's in Temne (Temne has no g and the Temne find this sound difficult to pronounce) and the k- analyzed as a Class 4 prefix; the plural of this word t̀k̀lì 'ritual masks' and the plural of k̀k̀b̀s 'cucumber' is t̀t̀b̀s 'cucumbers' just as one would expect from Class 4.

Serialized constructions also use the indefinite and definite singular prefixes of this class.¹⁴

- (48) a. $k\grave{t}$ - $f\grave{f}$ $k\acute{a}$ \acute{s} - $f\acute{f}$
 SPEC speak SPEC he speak-past
 indef. def.

'He actually spoke'

- b. $k\grave{t}$ - $d\acute{e}r$ $k\acute{a}$ \acute{s} - $d\acute{e}r$
 SPEC come SPEC he come-past
 indef. def.

'He actually came'

As is the case with the animate nouns which belong to SPEC classes 2 and 3, the animate nouns of Class 4 also use Class 1 relativizers and preverbal concords.

One anomaly in this class is the word for fish, lòp. Lòp is a member of this class in the singular indefinite $k\grave{t}l\grave{o}p$ 'a fish', definite $k\acute{a}l\grave{o}p$ 'the fish' but in the plural it has the prefixes \acute{e}/\grave{e} which are characteristic of Classes 2 and 5a.

2.3.5 Class 5

Class 5 consists of two subsets; Class 5a in which the prefixes are:

| | Singular | Plural |
|-------------|----------------|---------------|
| definite: | $r\acute{a}$ - | \acute{e} - |
| indefinite: | r - | \grave{e} - |

¹⁴ These structures in which the verb is isolated and repeated for emphasis are common in many languages of West Africa and in the Afro-Caribbean creoles. These are discussed in detail in Andriolo & Yillah (1975).

and 5b in which the prefixes are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | rá- | ná- |
| indefinite: | r- | n- |

One might have carried the principle of each specifier class consisting of a unique correlation between a singular and a plural prefix to its logical conclusion and have established Class 5b as a separate class in itself. However, Classes 5a and 5b have one thing that unites them. Optionally, for most, if not all speakers, the r- and rá- singular prefixes may become d- and dá-.¹⁵ There are other r- prefixes, those in Class 6, for which this is not the case (see 2.3.6, below).

Class 5a is confined to a few nouns, all of them body parts:

| (49) <u>Singular</u> | | <u>Plural</u> | | |
|----------------------|--------------|---------------|--------------|---------|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| rá-f̀̀r | r̀̀- f̀̀r | é-f̀̀r | è-f̀̀r | 'eye' |
| rá-sék | r̀̀- sék | é-sék | è-sék | 'tooth' |
| rá-m̀̀s | r̀̀- m̀̀s | é-m̀̀s | è-m̀̀s | 'egg' |
| rá-f̀̀n | r̀̀- f̀̀n | é-f̀̀n | è-f̀̀n | 'hair' |

The fact that these nouns have their plurals in e-, and are thus the same as the nouns of Class 2 in this

¹⁵I have a very impressionistic feeling that the r-forms are more common among older speakers and the d-forms are more common among younger speakers. However, most speakers of all the major dialects would seem to use both.

respect, does not call the distinction of 5a into question.

Class 5b consists of the nonderived nouns:

| | | | | | |
|------|-----------------|--------------|---------------|--------------|----------|
| (50) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | rā-béŋà | rì-béŋà | nā-béŋà | nì-béŋà | 'rope' |
| | rā-p'ámpè | rì-p'ámpè | nā-p'ámpè | nì-p'ámpè | 'thread' |
| | rā-bìntá | rì-bìntá | nā-bìntá | nì-bìntá | 'vein' |

and a number of deverbal nouns:

| | | | | |
|------|--------|-----------|--------------|-------------------|
| (51) | rì-tù | 'disease' | (< kì-tù | 'to become ill') |
| | rì-fì | 'death' | (< kì-fì | 'to die') |
| | rì-yèm | 'lie' | (< kì-yémáŋ | 'to lie') |

2.3.6 Class 6

Class 6 consists of a few nouns:

| | | | | | |
|------|-----------------|--------------|---------------|--------------|------------------------------|
| (52) | <u>Singular</u> | | <u>Plural</u> | | |
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | rā-èŋ | r-èŋ | sá-èŋ | s-èŋ | 'thunder' |
| | rā-ùmá | r-ùmá | sa-ùmá | s-ùmá | 'shirt; item of clothing' |
| | dā-ér | d-ér | sa-ér | s-ér | 'face' |
| | dā-ór | d-ór | sa-ór | s-ór | 'hunger' |

Although this class is at best a mixed bag, the prefixes in it have certain things in common. Neither the r- of r-èŋ 'thunder' nor the r- of r-ùmá 'shirt; apparel' can become a d- under any circumstances. The d- of d-ér 'face' and the d- of d-ór 'hunger' are immutable

d's and have no r- variants. -ɛ̃n, -ér and -ór all have s- plurals.

Two nouns, rù 'world' and rét 'sun', since they designate unique entities, have no plurals. Since both of these nouns have r's which cannot change into d's, I have on this basis assigned them to Class 6 rather than to Class 5.

2.3.7 Class 7

Class 7 has the prefixes:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | ká- | pá- |
| indefinite: | k- | p- |

Class 7 consists of three words:¹⁶

| (53) | <u>Singular</u> | | <u>Plural</u> | | |
|------|-----------------|--------------|---------------|--------------|-------------|
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| | ká-íla | k-íla | pá-íla | p-íla | 'rice' |
| | ká-éndé | k-éndé | pá-éndé | p-éndé | 'millet' |
| | ãṅ-ríf | à-ríf | pá-ríf | p-ṅ-ríf | 'anal hair' |

¹⁶Two of these words k`íla 'a grain of rice' and kéndé 'a grain of millet' are reminiscent of the Soso words màlé 'rice' and fúndé 'millet'. Although at present no Temne would see either of his words as anything but completely Temne words, it is tempting to think that both of these words may be old loans either from Soso or into both Soso and Temne from some third language.

2.3.8 Class 8

The prefixes of Class 8 are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | áŋ- | má- |
| indefinite: | â- | m- |

Class 8 consists of the words for most liquids and some fruits and vegetables. The words for salt and soap are also included in this class since the Temne perceive them as being produced from liquids; the words for liquids occur only in the plural.

| (54) | <u>Singular</u> | | <u>Plural</u> | | |
|------|-----------------|--------------|---------------|--------------|-----------------------|
| | <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| - | - | - | má-àŋt | m-àŋt | 'water' |
| - | - | - | má-áró | m-áró | 'oil' |
| - | - | - | má-bèr | mì-bèr | 'alcohol beverage' |
| - | - | - | má-nónó | mì-nónó | 'cows' milk' |
| - | - | - | má-tìr | mì-tìr | 'blood' |
| - | - | - | má-sòtè | mì-sòtè | 'urine' |
| - | - | - | má-àŋtír | m-àŋtír | 'tear (drop)' |
| - | - | - | má-àŋtís | m-àŋtís | 'saliva' |
| - | - | - | má-ràné | mì-ràné | 'sweat' |
| - | - | - | má-ér | m-ér | 'salt' |
| - | - | - | má-sóy | mì-sóy | 'soap' |

Class 8 also consists of the names for a number of

fruits the juice of which is usually extracted, as well as a number of vegetables with a fairly high liquid content.

(55)

| <u>Singular</u> | | <u>Plural</u> | | |
|-----------------|--------------|---------------|--------------|-----------------|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| áŋ-mánkò | à-mánkò | má-mánkò | mì-mánkò | 'mango' |
| áŋ-lémbéré | à-lémbéré | má-lémbéré | mì-lémbéré | 'orange' |
| áŋ-lónṭó | à-lónṭó | má-lónṭó | mì-lónṭó | 'okra' |
| áŋ-káŋtír | à-káŋtír | má-káŋtír | mì-káŋtír | 'peanut' |
| áŋ-rókís | à-rókís | má-rókís | mì-rókís | 'lime' |
| áŋ-sàŋṭór | à-sàŋṭór | má-sàŋṭór | mì-sàŋṭór | '(sp. of okra)' |

Class 8 also contains a few body parts such as -ásá 'breast' and -ṣŋkí1 'testicle' which are perceived by the Temne as sources of liquids. These words have their singulars in other classes but have the prefixes of Class 8 as plurals.

(56)

| <u>Singular</u> | | <u>Plural</u> | | |
|-----------------|--------------|---------------|--------------|------------|
| <u>Def</u> | <u>Indef</u> | <u>Def</u> | <u>Indef</u> | |
| rá-ásá | r-ásá | má-ásá | m-ásá | 'breast' |
| ká-ṣŋkí1 | k-ṣŋkí1 | má-ṣŋkí1 | m-ṣŋkí1 | 'testicle' |

However, when -ṣŋkí1 'testicle' designates several separate testicles, it occurs in the plural with the regular Class 4 plural prefix t-: tá-ṣŋkí1 definite, t-ṣŋkí1 indefinite.

2.3.9 Class 9

The prefixes of Class 9 are:

| | Singular | Plural |
|-------------|----------|--------|
| definite: | nā- | - |
| indefinite: | n- | - |

It is my feeling as a native speaker that n-ànt 'fire' and n-èy 'sun's rays' are both plural but there is no real grammatical test which will enable one to differentiate singular from plural in these words. Like the liquids in Class 8, n-ànt 'fire' and n-èy 'sun's rays' are uncountable and there is no measure which can be used with fire or the sun's rays the way one can speak of a cup or pot of water.

Table 4 provides a summary of the major exponents of each class.

Table 4 A conspectus of the Temne prefixes

| Class | Singular | | Plural | | Major exponent |
|-------|----------|-------|--------|-------|-----------------------------------|
| | Def | Indef | Def | Indef | |
| 1 | ú | ì/ù | án | à | humans |
| 2 | án | à | é | è | most major non humans; body parts |
| 3 | wú | w | tá | t | furry animals |
| 4 | ká | k | tá | t | body parts; tools |
| 5a | rá | r | é | è | body parts |

| | | | | | |
|----|----|---|----|---|-------------------|
| 5b | rá | r | ná | n | rope-like objects |
| 5c | dá | d | tá | t | human conditions |
| 6a | rá | r | sá | s | natural phenomena |
| 6b | dá | d | sá | s | human attributes |
| 7 | ká | k | pá | p | grains |
| 8 | áŋ | à | má | m | liquids |
| 9 | ná | n | - | - | heat |

2.4 Contents of SPEC: Number and Definiteness in Temne

Temne SPEC decomposes as:

(57) SPEC ---> Number Definiteness

(58)

| | <u>Definite</u> | <u>Indefinite</u> | |
|--------------|------------------------------|----------------------|---------|
| a. Singular: | k - á - lìm Num Def neck | k - lìm Num neck | 'neck' |
| Plural: | t - á - lìm Num Def neck | t - lìm Num neck | 'necks' |
| b. Singular: | r - á - béŋà Num Def rope | r - béŋà Num rope | 'rope' |
| Plural: | n - á - béŋà Num Def rope | n - béŋà Num rope | 'necks' |
| c. Singular: | w - í - èr Num Def mouse | w - èr Num mouse | 'mouse' |
| Plural: | t - á - èr Num Def mouse | t - èr Num mouse | 'mice' |
| d. Singular: | á - ŋ - bòk Num Def snake | à - bòk Num snake | 'snake' |

Plural: é - - bøk è - bøk 'snakes'
 Num snake Num snake

Number is invariably segmentally expressed as a-, ε-, t-, d-, k-, n-, m-, s-, r-, p- and w-. Furthermore, singular/plural distinctions are indicated by distinct lexically specified segments. For example:

| (59) | <u>Singular</u> | <u>Plural</u> | <u>Class</u> |
|------|-----------------|---------------|--------------|
| | i/u | a | 1 |
| | a | ε | 2 |
| | w | t | 3 |
| | k | t | 4 |
| | r | ε | 5, a |
| | r | n | 5, b |
| | d | t | 5, c |
| | r | s | 6, a |
| | d | s | 6, b |
| | k | p | 7 |
| | a | m | 8 |
| | n | - | 9 |

As can be seen, the correlation of singular and plural segments in Temne is unlike the cases from Fula discussed in Lieber (1987). In Temne, singular-plural correlations must be stated separately in the lexicon; there are no morphophonemic rules by which plurals can be derived from singulars or vice-versa.

Definiteness in Temne is expressed either segmentally or tonally. In Class 1 singular, the definite and

indefinite morphemes $\acute{\text{c}}-$ and $\grave{\text{i}}-$ are simply different lexical items. In Class 1 plural and in Class 2 singular, where the indefinite prefix is $\grave{\text{a}}-$, definiteness is expressed by a suffix $-\eta$ added after the definite prefix and before the first segment of the stem. In Classes 2 and 5a plural definiteness is expressed simply tonally. The indefinite prefix is $\grave{\text{e}}-$ and the definite is $\acute{\text{e}}-$. In all of the other cases, the indefinite is a single consonantal segment which is simply added to stems which begin with vowels, e.g., $-\acute{\text{o}}\text{r}$ 'stomach' is $\text{k} + \acute{\text{o}}\text{r} \rightarrow \text{k}\acute{\text{o}}\text{r}$ indefinite, and which undergoes epenthesis with stems beginning with consonants: $\text{k} + \text{l}\grave{\text{i}}\text{m} \rightarrow \text{k}\grave{\text{i}}\text{l}\grave{\text{i}}\text{m}$ 'neck'.

In the case of definite prefixes the characteristic vowel in all cases except Classes 1 and 5a is $\acute{\text{a}}-$. In the case of words which begin with consonants, $\text{a}-$ is simply inserted between the consonantal prefix and the stem, e.g., $\text{k} + \acute{\text{a}} + \text{l}\grave{\text{i}}\text{m} \rightarrow \text{k}\acute{\text{a}}\text{l}\grave{\text{i}}\text{m}$ 'the neck'. In the case of stems which begin with vowels, since one then has a sequence of $\text{C} - \text{V} + \text{V} - \text{X}$ -- which is unacceptable in the language -- a metathesis occurs with the initial consonant and the initial vowel changing places.

(60) C V + V X
 1 2 3 4 ----> 2 1 3 4

For example, $\text{k} - \acute{\text{a}} + \acute{\text{o}}\text{r} \rightarrow \text{k}\acute{\text{a}}\text{r}\acute{\text{o}}\text{r}$ 'the stomach (Class 4)', and $\text{w} - \acute{\text{c}} + \grave{\text{e}}\text{r} \rightarrow \text{w}\acute{\text{e}}\text{r}\grave{\text{e}}\text{r}$ 'the mouse (Class 5a)'.

2.5 Nominal Derivation

Nominal derivation is accomplished by means of the SPEC prefixes and also frequently by the addition of a suffix. The gerund, or "name of the action," verbal noun is formed by the addition of the Class 4 SPEC prefix ká/k. For example,

- (61) a. ɔ́-dí à-nàk 'He eats rice'
 he-eats CL2-rice
- b. ká-dì k̀-ḥínḥ 'Eating is nice'
 CL4-eat CL4-nice
- c. ká-dì áṅ-nàk k̀-ḥínḥ 'Eating rice is nice'
 CL4-eat the-rice CL4-nice

The indefinite SPEC prefix of Class 4 k- is also used in the formation of certain tense/aspects (See also 2.3.4, above, especially examples 46, 47 and 48).

- d. ɔ́-yí dá k̀-ḥínḥ 'He is eating'
 he-is at CL4-eating
- e. ɔ́-yí ká k̀-ḥínḥ¹⁷ 'He is eating'
 he-is at CL4-eating

The constant that we have seen above concerning the tones of definite and indefinite prefixes -- indefinite SPEC prefixes are low and definites are high -- also holds good when k- and ká- are used to form verbal nouns. The tone of the verb root, however, is lexically speci-

¹⁷There is a subtle difference between these two sentences. 61,d describes an event which is going on at the moment of speaking. 61,e describes an event which has continued from the recent past more or less up to the moment of speaking.

fied in the case of monosyllabic verbs¹⁸ although the tones of polysyllabic verbs seem to be constant.

| | | | | | | |
|------|------|----|-------------|------------|--------------|---------|
| (62) | i. | a. | ká-dér | 'coming' | (definite) | H-H |
| | | b. | kà-dér | 'coming' | (indefinite) | L-H |
| | ii. | a. | ká-dì | 'eating' | (definite) | H-L |
| | | b. | kà-dì | 'eating' | (indefinite) | L-H |
| | iii. | a. | ká-dírá | 'sleeping' | (definite) | H-H-H |
| | | b. | kà-dírá | 'sleeping' | (indefinite) | L-H-H |
| | iv. | a. | ká-fúmpɔ́ | 'falling' | (definite) | H-H-H |
| | | b. | kà-fúmpɔ́ | 'falling' | (indefinite) | L-H-H |
| | v. | a. | ká-gbéndéné | 'dropping' | (definite) | H-H-H-H |
| | | b. | kà-gbéndéné | 'dropping' | (indefinite) | L-H-H-H |

Besides the system of prefixation discussed in the previous sections, in Temne nouns may also occur with suffixes. In previous studies (e.g., Scott 1952, Wilson 1961), it was assumed that suffixes only occurred on verbs. Although the verb takes many more suffixes than the noun does, the Temne noun also augments, changes, or extends its meaning by suffixation. The suffixes which are fairly widespread in Temne are as follows. None of these suffixes is really productive but they are all frequent enough to provide evidence for what once must have been a highly active process.

¹⁸This is especially noteworthy in light of the fact that the tone patterns of all tensed verbs are uniform for a given tense/aspect. Thus, although the verbal nouns are kàdì 'eating' kàdér 'coming', the present tense for both verbs is H-H, í-dí 'I eat', í-dér 'I come'.

- (63) /l/ : a. kì-bók → kì-bók-í1 'inner vulva'
CL4-vulva CL4-vulva-Suff.
- or
- ñì-bók → ñì-bók-í1 'inner vulva'
CL5b-vulva CL5b-vulva-Suff.
Plu.
- b. m-ńk → m-ńk-í1 'testicles'
CL8-scrotum CL8-scrotum-Suff.
- c. k-ńk-í1 → t-ńk-í1 'testicles'
CL4-testicle CL4-testicle-Suff.
Plu.
- /s/ : m-ànt → m-ànt-ís 'saliva'
CL8-water CL8-water-Suff.
- /r/ : a. rì-fòy → à-fíy-ír 'shade'
CL5b-night CL2-night-Suff.
- or
- rì-fòy → kì-fíy-ír 'umbrella'
CL5b-night CL4-night-Suff.
- b. à-fì → à-fí-r 'anus'
CL2-waist CL2-waist-Suff.
- c. m-ànt → m-ànt-ír 'teardrop'
CL8-water CL8-water-Suff.
- /a/ a. à-kùp → ák-úp-á 'feather'
CL2-(eye) lash CL4-lash-Instr.
- b. à-kòt → ák-òt-á 'cloth'
CL2-tie, wrap CL4-wrap-Instr.
- c. k-ùm → k-ùm-á 'box'
CL4-secret CL4-secret-Instr.
- d. à-súm → à-súm-á 'frown'
CL2-darkness CL2-darkness-Instr.
- /u/ a. k-ùm → k-ùm-ú 'large container'
CL4-secret CL4-secret-Suff.
- b. à-ťúť → à-ťúť-ú 'worm'
CL2-snout CL2-snout-Suff.

/e/ à-kòṭ → ák-óṭ-é 'load'
 CL2-tie, wrap CL4-wrap-Instr.

2.6 The semantics of the nominal suffixes

2.6.1 The suffix -l

The suffix -l generally signals that the noun is the innermost part of a larger noun. It is commonly used with inner body parts like those in (63), above. -l is also found in à-núnkí+l 'a snore' (from kì-núnkí+l 'to snore'), à-gbónk+l 'a valley' (from à-gbónk 'a shell'). The suffix -l also seems to occur on certain words where no underived simplex form exists. For example,

- (64) a. à-mùṅk+l 'a wave'
 CL2-wave
- b. à-bìf+l 'a shoot or bud of a plant;
 CL2-shoot yolk of an egg'
- c. k-ìṅk+l 'storm'
 CL4-storm

With the exception of m-únk (Class 8), all of the nouns which take this suffix are members of Class 2 or Class 4.

2.6.2 The suffix -s

The suffix -s is quite restricted occurring with a very few nouns such as:

- (65) a. m-ànṭ-ís 'saliva' (< m-ànṭ 'water')
 CL8-water-Suff.
- b. mì-rók-ís 'lemon' (which is called 'lime' in
 CL8-lime-Suff. Sierra Leone)

- c. à-bák-ís 'a tin cup for snuff'
CL2-tin cup-Suff.

Neither r-ók-ís 'lemon' nor à-bák-ís 'a tin cup for snuff' seems to have a simplex in the contemporary language. It might be tempting to speculate that -s originally meant something like 'a thickened liquid,' with a watery fruit like a lemon satisfying this description. However, à-bák-ís 'a tin cup for snuff' does not seem to fit this sense very well.

M-ànt 'water', m-ànt-ís 'saliva' and m+-rók-ís 'lemon' are all members of SPEC Class 8, the liquid class. However, à-bák-ís 'a tin cup for snuff' is a member of Class 2 which includes utensils and body parts.

2.6.3 The suffix -r

The suffix -r usually describes a particular use of the larger noun from which it is derived. For instance, the noun rì-fḍy 'night' can be seen as providing shade from the sun. Therefore, the new word formed by suffixation with -r, fḍy-ír 'shade, umbrella' is in effect "that which shades". Rì-fḍy 'night' is SPEC class 5b but à-fḍy-ír is Class 2 and kì-fḍy-ír 'umbrella' is Class 4.

2.6.4 The suffix -á

The suffix -á is the most productive nominal suffix in Temne. It is usually used with nouns to designate instrumentality. Thus from à-kòt 'a wrapping, bundle' is

derived ák-òtá 'a cloth' (< a 'wrapping thing'); from s-èn 'claps of thunder' (which the Temnes invoke in curses) is derived à-séná 'a curse' (< 'a cursing thing'). It is also found with a few nouns where no underived simplex forms exist such as bánká 'hut', tánká 'claws, teeth', yánká 'raffia leaves', etc. All these nouns function as instruments.

The suffix -á is used with nouns of all SPEC classes although it is more commonly used with Class 2 nouns. In most cases the suffix -á changes the SPEC class of a noun. For example, à-kòt 'a wrapping, bundle' (Class 2) becomes k-òtá 'a cloth' (Class 4), s-èn 'claps of thunder' (Class 6a) becomes à-séná 'a curse' (Class 2).

2.6.5 The suffix -ú

There are a few word pairs where -ú can possibly be identified as some kind of relic morpheme. These are:

(66) a. kùm 'secret' - - - kúmú 'a large container -- possibly somewhere things could be "secreted" '

b. tút 'snout of an animal' - - - tùtú 'worm'

It is certainly not clear to me that tùtú 'worm' is derived from tút 'snout of an animal'; although I have tried to imagine a suitable semantic bridge, I have failed as yet to find one. It is also quite possible

that tùtù 'worm' belongs to the rather small class¹⁹ of reduplicated nouns which designate insects and insect-like creatures:

- (67) a. néné 'cockroach'
 b. kÁrkÁr 'ringworm'
 c. fÁrfÁr 'butterfly'

Also possibly related to tùtù 'worm' are:

- (68) a. pùtù 'protuberant stomach, potbelly'
 b. gbùtù 'bump'
 c. kùkù 'hide and seek' (a children's game)

2.6.6 Other possible derived patterns

In present day Temne, nominal compounding seems to be completely absent. Noun + Noun modification structures can be made rather easily using syntactic means and the SPEC prefixes. For example,

- (69) a. ák-òtá ká áŋ-ṭébùl 'table cloth'
 SPEC-cloth of SPEC-table
 (Lit: 'The cloth of the table')
- b. áŋ-skúl ná áŋ-fəṭ-á-bèrá 'girls' school'
 SPEC-school of SPEC-children-SPEC-female
 (Lit: 'The school for the children who are girls')
- c. áŋ-níyó ná ɔ́-bày 'The chief's crown'
 SPEC-crown of SPEC-chief
 (Lit: 'The crown of the chief')

¹⁹ Reduplicative processes such as these are quite restricted in Temne. How restricted can easily be seen when one compares Temne with a Mande language like Soso where diminutives and augmentatives can be formed from nouns and adjectives almost at will via reduplication (see Yillah, 1979).

- d. k̀ì-báp k̀ì-r̀ì-fát 'iron axe'
 SPEC-axe of-SPEC-iron
 (Lit: 'An axe of iron')

Nominal compounding in the strict Indo-European sense is certainly not absent from other African languages. For example, in Soso we have

- (70) a. t̀ébùl(i) dúgì (< t̀ébùlì + dùgì)
 table cloth
 'table cloth'
- b. m̀èngè b̀àṅxì (< m̀èngé + b̀àṅxì)
 king house
 'king's house'

where nominal compounding involves a series of complex tone changes.²⁰

In Soso, nominal compounding is as productive as it is in English. It is therefore a little surprising that identifiable compounds seem to be so completely absent in Temne. There are, however, a certain number of disyllabic and trisyllabic nouns where one suspects that the last syllable or syllables are a relic of some sort or other: either the 2nd member of a compound or the

²⁰In Yillah (1979), I discussed the tone change rules involved in nominal compounding. Thus from the H L HL + L HL tonal pattern of t̀ébùlì 'table' + dùgì 'cloth' we get H H H L. A syntactic phrase t̀ébùlì x̀á dùgì 'table's cloth' would also have been possible; in this case the tones of the constituents are unaltered. It is noteworthy that in Soso, while noun modifiers occur in the order Modifier-Head, adjectival modifiers are always Head-Modifier. The distinction between modification and predication is also tonal. For example, t̀ébùlì-f̀íxè 'the white table' but t̀ébùlì f̀íxé 'the table is white'.

- c. i. \acute{s} -tík (Class 1) 'the guest, visitor'
 ii. rá-tík (Class 5b) ' "strangerhood"
 -- the condition of
 being a
 stranger'
- d. i. kî-fîṭá (Class 4) 'to become blind'
 ii. rá-fíṭ (Class 5b) 'blindness'

Some of the richness of this system can be seen in the following lists of the combinatory possibilities of tèmnè 'pertaining to Temne land, people and language' and kíyámp 'Freetown' (< English 'camp').

- (73) a. i. kî-tèmnè (Class 4) 'Temne language'
 ii. ká-tèmnè (Class 4) 'the Temne language'
 iii. rî-tèmnè (Class 5b) 'Temnehood
 (indefinite)'
 iv. rá-tèmnè (Class 5b) 'Temnehood (definite)'
 v. ì-tèmnè (Class 1) 'A Temne person'
 vi. à-tèmnè (Class 1) 'Temne people'
 vii. má-tèmnè (Class 8) 'The Temne fashion,
 manner'

The prepositional phrases dó-tèmnè and ná-tèmnè give rise to quasi-locative nominalizations which are roughly parallel to the Bantu U-Ganda 'the land of the Ganda'.

- (74) b. i. dó-tèmnè '(there) in Temneland'
 ii. ná-tèmnè '(here) in Temneland'
- (75) i. ká-kíyámp (Class 4) 'Freetown'
 ii. kî-kíyámp (Class 4) 'from Freetown'
 iii. rî-kíyámp (Class 5b) 'from Freetown'
 iv. ì-kíyámp (Class 1) 'a Freetown person'

- v. ɔ́-kíyámp (Class 1) 'the Freetown person'
vi. à-kíyámp (Class 1) 'Freetown people'
vii. má-kíyámp (Class 8) 'The Freetown fashion'
viii. dɔ́-kíyámp (Class 6c) '(there) in Freetown'
ix. nɔ́-kíyámp (Class 6c) '(here) in Freetown'

A summary of the rules discussed in Chapter 2 is as follows:

(76) **Metathesis**

| | | | | | |
|---|---|---|---|---|--------------------|
| C | V | + | V | X | |
| 1 | 2 | | 3 | 4 | ----> 2 1 3 4 |

(77) **Epenthesis** (see Chapter 1, (27)).

CHAPTER THREE: THE NOUN PHRASE 2: THE PRONOMINAL SYSTEM

3.1 Introduction

In Temne as in many other languages there are major differences between first and second person pronouns, singular and plural, and all third person pronouns. This is understandable when one reflects that first and second person pronouns are entities in and of themselves. They do not refer to anything outside of themselves except the persons of the discourse, the speaker and the hearer. Third person pronouns, on the other hand, are exactly that, pro-nouns. They are always co-indexed with a noun phrase in the sentence or the discourse paragraph.²¹

There is another major dichotomy in Temne between the system of pronominal reference having to do with all animates, human and non-human, and the system having to do with inanimate nouns. As will be apparent below, the third person pronominals in Temne -- the subject prefixes of verbs, the object forms, the independent pronouns, the possessive suffixes, the deictics, the interrogatives and the anaphoric pronouns -- are all built rather transpar-

²¹ In Temne there are no meteorological verbs such as English 'it's raining' or 'it's windy today'. Temne expresses these ideas as:

- a. āk-ḏm ká-mí-dér-yán 'It is raining'
 the-rain it-coming
- b. āṅ-fêf à-lél ʒónḏṅ 'It is windy today'
 the-wind it-heavy today

ently on the system of SPEC prefixes. Since the SPEC prefixes are 'genders' in the broadest sense of this term and since Temne is a language which has a requirement of 'gender' and number agreement, all the SPEC classes of prefixes shown in Table 2 (2.1), above, also have their corresponding pronominals. The first and second person subject prefixes, possessives, etc., may all once have contained some kind of morpheme or morpheme partial which also bore a relationship to the SPEC prefixes but this is far from obvious today.

In presenting this material I shall first discuss the system of first and second person pronouns and pronominals, singular and plural, in detail. Then I shall present the system of third person pronouns which refer to animate beings, human and non-human, and then go on to discuss third person pronouns which refer to inanimates. While discussing the first and second persons pronoun, I shall attempt to establish the syntactic frames and semantic felicity conditions which govern the use of the various forms.

3.2 The Animate Pronominals

Table 5 lists the first, second and third person animate pronominals.

Table 5 Animate Pronominals

| 1st & 2nd Anim | SPEC Pref def/ indf | Disj or Indp Pro | V e r b l | A d j e c | Obj Pro | P o s s | R e f l x |
|-------------------------|------------------------------|---------------------------|-----------------------|-----------------------|------------|------------------|-----------------------|
| 1Sg | | mìné | í | î | mi | mī | nè |
| 1Plu | | sà | sí | à | su | sū | nè |
| 2Sg | | mùnɔ́ | ń | î | mu | mū | nè |
| 2Plu | | nà | ní | à | nu | nū | nè |
| 3rd Anim | | | | | | | |
| CL 1 Sg | ɔ́/î | kɛ̀nɔ́ | ɔ́ | î | kɔ | ɛ̀ŋ | nè |
| CL 1 Plu | án/à | sà | án | à | ɲa | ɲāɲ | nè |
| CL 2 Sg | án/à | kɛ̀nɔ́ | ɔ́ | î | kɔ | ɛ̀ŋ | nè |
| CL 2 Plu | ε/ε | ná | án | à | ɲa | ɲāɲ | nè |
| CL 3 Sg | wɔ/w | kɛ̀nɔ́ | ɔ́ | î | kɔ | ɛ̀ŋ | nè |
| CL 3 Plu | tá/t | ɲà | án | à | ɲa | ɲāɲ | nè |
| CL 4 Sg | ká/k | kɛ̀nɔ́ | ɔ́ | î | kɔ | ɛ̀ŋ | nè |
| CL 4 Plu | tá/t | ɲà | án | à | ɲa | ɲāɲ | nè |

In this table, I have left the tones of the object pronouns unmarked because these tones are completely predictable: if the verb root has a high tone then the pronominal object will have a low tone, and if the verb root has a low tone, the pronominal object will have a mid tone. There are excellent albeit complex reasons why

one would not wish to derive the high tone forms from underlying mid tones or the mid tone from underlying highs. It therefore seems simpler to derive both the object mid tone forms and the object low tone forms by a rule of tone spreading from the verb to the object pronoun.

The first thing which is worthy of note is that while the verbal subject prefixes of the 1st person singular are the same as the adjectival subject prefixes segmentally, their tones are different.

- (78) a. í - n'ɨk ì - nà 'I saw a cow'
 Vbl. saw CL2 cow
 Subj. indef.
 prefix
- b. ì - yèŋk yé 'I am not well'
 Adj. well not
 Subj.
 prefix

Although Temne in general does not have syllabic nasals, the second person singular verbal subject prefix η' is a definite exception. In verbal collocations such as:

- (79) a. η' - bük̀ 'You have bathed'
 2nd bathed +
 sing. perf. tonal pattern

and

- b. η' - dèr 'You have come'
 2nd came +
 sing. perf. tonal pattern

the nasal does not assimilate in place of articulation of the following consonant and one easily perceives distinct

tone levels, HIGH on the prefix and LOW on the verbal root.

3.2.1 Disjunctive and Topicalized pronouns

Temne is what has been termed a 'pro-drop' language. That is, it is a language in which the person, number, and 'gender' of the subject is fully marked on the verb, as is the case in many other languages of this sort. Since the verb is marked for its subject with an affix, in general it is not necessary for there to be an independent free-standing pronoun in the same sentence. In a narrative bit such as the following,

- (80) a. (Mìnén) í-kóné dō-pét 'I went to town'
 (I topic) I-went to-town
- b. ká í-b+p ɔ́ - wɔ́nt (ká) mī
 then I-met the-sibl. (of) me
 'and I met my sibling'
- c. ká ɔ́-kèrà mī dō-stór
 then he-took me to-store
 'and he took me to the store'
- d. ká í-wáy s-úmá 'and I bought clothes'
 then I-bought CL-cloth
 6b

the most normal realization is probably with all of the verbs having only affixed subject pronouns. However, if there is an element of contrast, if this sentence is somehow the answer to a question such as 'Now, what did who do?', it is possible to have the topicalized first person pronoun mìnén. Although it would not be directly

ungrammatical to have mìnén in clause (b) or (d), it would be decidedly odd to do so, though with ingenuity one might be able to imagine appropriate contexts. The answer to a question such as:

(81) kèné kóné dó-pét é? 'Who went to town?'
 who went to-town Interrog.

would be either

(82) a. mìnén! 'It is/was I'

or

b. mìné kóné dó-pét 'I went to town'
 I went to-town

In this context,

(83) í-kóné dó-pét 'I went to town'

with no emphasis would be inappropriate and non-responsive to the discourse situation. An answer which consisted of

(84) mìnén. í-kóné dó-pét
 I . I-went to-town

'It is/was I. I went to town'

is always in reality two sentences: 'It was I. I went to town'. While it is possible to use both the focused pronoun and the independent pronoun together, as in

(85) mìnén, mìné kóné dó-pét 'I, I went to town'
 I , I-went to-town

this is a case of extreme emphasis and would be rather strange in most contexts.

The focused pronouns mìnén 1 singular, sán 1 plural, mùnén 2 singular, nán 2 plural, kònén 3 singular, as well

as the focused pronoun of the third person plural nán seem clearly to consist of the independent forms mìnɛ, sà, mùnɔ, nà, kɔnɔ and nà plus an emphatic particle -n. This -n is also found as an obligatory suffix for all personal names and epithets.

- (86) Àlêŋ ɔ-nánɔ tá Fátmátàn 'Ali married Fatmata'
Ali he-married Fatmata

In its underlying form, this suffix is clearly -àn and the surface forms which we find are due to a straightforward combining process. If a name ends in a consonant, the suffix is always -àn, for example, Ûsmánàn (< 'Osman'), Dáwúdàn (< 'Daud'). If the name ends in a vowel, the vowel + vowel combining processes which were described in 1.2.4, apply. For example, Àlí + àŋ will by the rule given in (26,iv) yield Àlêŋ. The first and second person plural focused pronouns sán and nán also show combining processes.²²

In sentences (82) and (84), above, note that since the focused pronoun mìnɛŋ is used, and this constitutes a quasi-independent predication, the subject prefix í- must also be used.

²²Instead of sán and nán, some speakers have sân and nân which would presuppose a pronominal sá and ná to which the suffix has been added. I assume that for these speakers the high tones of the subject prefix sí and ní have somehow influenced the independent pronouns sà and nà and therefore have been retained in sân and nân. It is significant that these speakers have contour tones in these words. As we have seen in examples such as (20a) above, the usual result when vowels having unlike tones coalesce is that a contour tone will result.

- (87) (=84) mīnéŋ. í-kóné dó-pet
I . I-went to-town

'It is/was I. I went to town'

But when mīné is used as in

- (88) (=82b) mīné kóné dó-pet 'I went to town'

there is no independent subject prefix.

When objects are focused to sentence initial position, it is mīné and not mīnéŋ which is used. For example,

- (89) a. mīné ŋ-n+ŋk 'You saw me'
me you-saw
- b. mīné ɔ́-yò-ná mā-pàŋɕ²³
me he-did-BEN the-work
- 'He did the work for me'

In these sentences, the material which was moved leftward into emphatic position has not left a phonologically realized trace.

3.2.2 Topicalization and Negation

In Temne, there are two kinds of negation: the negation of the action expressed by the verb as in

- (90) í-n+ŋk-yé Àlêŋ 'I did not see Ali'
I see Neg. Ali

and negation of an emphasized element

- (91) a. mīn-ɕá Àlêŋ ɔ́-n+ŋk 'Ali did not see me'
me NEG Ali he-see

²³ In deliberate speech this sentence begins as I have cited it, mīné ɔ́yòná.... In rapid speech, the final vowel of mīné and the initial vowel of ɔ́yòná will coalesce to yield mīnɔ́yòná.

- b. $\hat{A}l\hat{e}\eta$ mìn- $\hat{t}\hat{a}$ \acute{c} -n \acute{h} k 'Ali did not see me'
 Ali me NEG he-see

Although I treat Negation as a whole in 5.6 below, it is important to give some account of forms such as mìn- $\hat{t}\hat{a}$ 'not I/me', mùn- $\hat{t}\hat{a}$ 'not you', kòn- $\hat{t}\hat{a}$ 'not he, she/him, her', sà- $\hat{t}\hat{a}$ 'not we/us', nà- $\hat{t}\hat{a}$ 'not you (pl.)', nà- $\hat{t}\hat{a}$ 'not they/them'. The forms sà- $\hat{t}\hat{a}$, nà- $\hat{t}\hat{a}$, nà- $\hat{t}\hat{a}$ have slow speech variants sàn- $\hat{t}\hat{a}$, nàn- $\hat{t}\hat{a}$, nàn- $\hat{t}\hat{a}$. In moderately rapid speech, the - η is dropped but the nasalization of the vowel remains. In rather rapid speech, the forms are sà- $\hat{t}\hat{a}$, nà- $\hat{t}\hat{a}$, nà- $\hat{t}\hat{a}$, as given above, with oral vowels. The lento forms allow one to postulate an underlying -ân which is probably the same as the emphatic -ân that we saw in mìn η , and $\hat{A}l\hat{e}\eta$ in 3.2.1. The forms mìn- $\hat{t}\hat{a}$, mùn- $\hat{t}\hat{a}$, kòn- $\hat{t}\hat{a}$ again have lento variants with nasalized vowels mĩn- $\hat{t}\hat{a}$, mũn- $\hat{t}\hat{a}$, kõn- $\hat{t}\hat{a}$ and this allows us again to postulate base forms mìn- $\hat{t}\hat{a}$, mùn- $\hat{t}\hat{a}$, kòn- $\hat{t}\hat{a}$ which by nasal assimilation yield [mĩn- $\hat{t}\hat{a}$], [mũn- $\hat{t}\hat{a}$] and [kõn- $\hat{t}\hat{a}$]. A further speculative leap would see at least historically mìn $\acute{e}\eta$ - $\hat{t}\hat{a}$, mùn $\acute{c}\eta$ - $\hat{t}\hat{a}$ and kòn $\acute{c}\eta$ - $\hat{t}\hat{a}$ as underlying mìn- $\hat{t}\hat{a}$, mùn- $\hat{t}\hat{a}$ and kòn- $\hat{t}\hat{a}$ with a syncope having changed mìn $\acute{e}\eta$, etc., to *mĩn η which by simplification became [mĩn] or, alternatively, [mìn $\acute{e}\eta$], etc., having by haplology deleted one of the two successive syllables

containing a nasal.²⁴

3.2.3 Reflexives and Reciprocals

The reflexive is indicated by the verbal suffix -nè, which appears to contain the prefix n-.

- (92)
- | | | |
|----|-------------------------------------|------------------------------|
| a. | í - náp - n-è I - hit - self | 'I hit myself' |
| b. | ḡ - náp - n-è you - hit - self | 'You (sing.) hit yourself' |
| c. | ś - náp - n-è he - hit - self | 'He/she hit himself/herself' |
| d. | s+ - náp - n-è we - hit - self | 'We hit ourselves' |
| e. | n' - náp - n-è you - hit - self | 'You (plu.) hit yourselves' |
| f. | án - náp - n-è they - hit - self | 'They hit themselves' |

The reciprocal pronoun is indicated by a reciprocal suffix on the verb. The reciprocal suffix consists of the iterative verbal suffix -s followed by the benefactive morpheme, -a, and the reflexive marker -nè.

- (93)
- | | | |
|----|--|--------------------------------|
| a. | s' -yép - s - á-nè we -lend- Iter-Ben-Reflexive | |
| | | 'We exchanged with each other' |

²⁴ It might be tempting to see the forms mínén, múnén, etc., as a separate category which one might term Emphatic. However, since they seem to be clearly derived from the focused forms, I have preferred to see them not as a part of the lexical base but rather as being derived by rule.

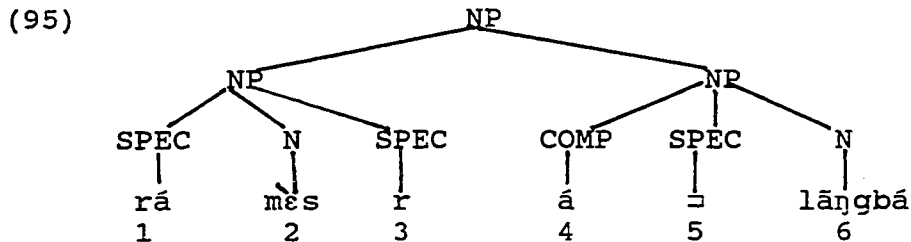
- b. nɛ́ -yép - s - á-nè
 you-lend- Iter-Ben-Reflexive
 'You (plu) exchanged with each other'
- c. áŋ -yép - s - á-nè
 they-lend-Iter-Ben-Reflexive
 'They exchanged with each other'

3.2.4 Possession and Possessives

In Temne there are no real possessive pronouns as such. There is only one essential possessive construction whether the possessor is a noun or a pronoun. In the unmarked case, the head of a genitive construction (the possessor) follows its complement (the thing possessed). A genitive construction consists of a complement, a head, and, joining them, a complementizer which contains a SPEC element which corresponds to the SPEC class of the thing possessed. An NP containing a genitive phrase such as

- (94) rá-mès rá ɔ́-lāngbá 'the man's egg'
 the-egg of the-man

may be diagrammed as follows:



(Condition: 3 must correspond to 1)

In all cases, the prefix of the initial noun, the

entity possessed, precedes it and is also copied before the possessor NP. If the thing possessed is a member of Classes 3 through 9, its corresponding prefix is completely transparent.

- (96) a. rá-mè̃s r-á ɔ̃-làṅgbá (CL 2 sg.)
the-egg it-of the-man
'The man's egg'
- b. é-mè̃s y-á ɔ̃-làṅgbá (CL 2 plu.)
the-eggs they-of the-man
'The man's eggs'
- c. ká-báp k-á ɔ̃-làṅgbá (CL 4 sg.)
the-axe it-of the-man
'The man's axe'
- d. tá-báp t-á ɔ̃-làṅgbá (CL 4 pl.)
the-axe they-of the-man
'The man's axes'
- e. ká-báp k-á mī (CL 4 sg.) 'My axe'
the-axe it-of me
- f. tá-báp t-á mī (CL 4 pl.) 'My axes'
the-axes they-of me

In Classes 1 and 2, there are some slight anomalies as will be apparent from the following table.

Table 6 Classes 1 and 2 Possessives

| | SPEC Pref Def/ Indef | Obj Pro | NP COMP | Poss Pro |
|----------------|-------------------------------|------------|------------|-------------|
| Class 1 | | | | |
| 1 Sing | í | mí | k-á | mī |
| 2 Sing | ɔ̃ | mu | k-á | mū |
| 3 Sing | ɔ̃ | kɔ̃ | k-á | -ɔ̃ṅ |

| | | | | |
|-------------------------------------|-------|-------------|-----|-------|
| 1 Plu | s'í | su | k-á | sū |
| 2 Plu | n'í | nu | k-á | nū |
| 3 Plu | án̄ | ɲa | k-á | -ɲā̄ |
| Class 2 | | | | |
| Anim Sing e.g., dog | ś/ì | kɔ | k-á | -ɔ̄ |
| Inanim Sing e.g., nose | án̄/à | ɲi | ɲ-á | ɲá-tí |
| Anim Plu | án̄/à | ɲa | ɲ-á | ɲá-tí |
| Inanim Plu | é/è | yi (ɛ+i) | y-á | yá-tí |

- (97) a. ś-rání k-á mī 'My wife'
the-wife the-of me
- b. án̄-rání ɲ-á mū 'Your wives'
the-wife the-of you
- c. tá-báp t-á sū 'Our axes'
the-axes the-of us
- d. ś-rání k-á ś-lā̄ngbá 'The man's wife'
the-wife the-of the-man
- e. tá-báp t-á án̄-lā̄ngbá 'The men's axes'
the-axes the-of the-men
- f. án̄-t̄n k-á ś-kás 'The father's dog'
the-dog it-of the-father
- g. án̄-sót̄ ɲ-á án̄-t̄n 'The dog's nose'
the-nose it-of the-dog
- h. ká-tá k-á ká-báp 'The axe's handle'
the-arm it-of the-axe

3.3 Personification and animateness

In Temne, any noun phrase, animate or inanimate, can be personified and made to behave as though it were human. When a non-human NP is personified, it takes completely human pronominals though it still has the SPEC prefixes of its class. For example,

- (98) a. à-nés ì-bàṅà ɔ̣-wârkà dó-lónk ká-mū
 a-spider a-big it-crawled on-shoulder of-you
 'A large spider crawled on your shoulder.'
- b. Pà-Nés-àṅ ɔ̣-pá, 'í-gbáṅ à-bàsàk
 Mr-Spider-TOP he-said, I-slung a-sack
 dó-lónk ká-mī
 on-shoulder of-me
 'Mr. Spider said, 'I have a sack slung over my shoulder'

In sentence (98a) the subject is animate but not personified. It has the to-be-expected Class 2 SPEC indefinite prefix à-, and since it is animate it has the universal animate adjectival prefix ì- and the universal animate third person verbal subject prefix -ɔ̣. In Sentence (98b) the subject is the personified 'Mr. Spider', Pà-Nés-àṅ (the Temne equivalent of the widespread West African trickster-hero Anansi) and so the person concords are human.

The difference between the concords for animate and inanimate nouns of SPEC Classes 2,3, and 4 can be seen from the following sentences.

(99) a. Class 2

- i. Áŋ-nés ì-bàná ɔ́-fúmpɔ́
 The-spider Adj-big 3-fell
 pref. sg.
 anim. anim.

'The large spider fell'

- ii. Áŋ-ɕís à-bàná áŋ-fúmpɔ́
 The-knife Adj-big 3-fell
 pref. sg.
 inanim. inanim.

'The big knife fell'

b. Class 3 (which contains only animate nouns)

- i. ɔ́w-èr ì-bàná ɔ́-fúmpɔ́
 The-rat Adj-big 3-fell
 pref. sg.
 anim. anim.

'The large rat fell'

- ii. Á-ɕèr à-bàná áŋ-fúmpɔ́
 The-rat Adj-big 3-fell
 pref. sg.
 anim. anim.

'The big rats fell'

c. Class 4

- i. ká-yék ì-bàná ɔ́-fúmpɔ́
 The-monkey Adj-big 3-fell
 pref. sg.
 anim. anim.

'The large monkey fell'

- Or: ká-yék kì-bàná ɔ́-fúmpɔ́
 The-monkey Adj-big 3-fell
 pref. sg.
 neutral anim.

(Same meaning)

ii. ka-báp k̀-̀bà̀nà k̀-̀fú̀mp̀
 The-axe Adj-big 3-fell
 pref. sg.

'The large axe fell'

* ka-báp ì-bà̀nà ́-fú̀mp̀
 The-axe Adj-big 3-fell
 pref. sg.
 anim. anim.

In all of the sentences in (99), the SPEC prefixes are the proper ones for the classes in question: án- for both nés 'spider' and tís 'knife'; ká- for both yék 'monkey' and báp 'axe'. However, nés 'spider' has the animate adjectival prefix ì- and the animate 3rd singular verbal subject prefix ́-, whereas tís 'knife', although it also has the Class 2 SPEC prefix án- has the inanimate Class 2 adjectival prefix à- and the inanimate verbal subject prefix án-. So too with yék 'monkey' and báp 'axe'. One slight irregularity here is that the animates of Class 4 such as yék 'monkey', nà̀nká 'chameleon', ̀̀̀lú 'baboon' may have either animate adjectival prefixes as in (99c,i) ká-yék ì-bà̀nà or ká-yék k̀-̀bà̀nà with the same Class 4 adjectival prefix as the inanimate nouns of this class like báp 'axe'.

3.4 Third Person Inanimate Pronominals

The following table lists the third Person inanimate pronominals, singular and plural.

Table 7 Inanimate Pronominals

| | SPEC Pref def/ Indf | Disj/ Indp Pro | V r b l | A d j e c | O b j | Poss Pro |
|-----------------------|------------------------------|----------------------|------------------|-----------------------|-------------|-------------|
| 3rd Inanim | | | | | | |
| CL 2 Sing | áŋ/à | ŋà | áŋ | à | ŋi | ŋá-tí |
| CL 2 Plu | é/è | yà (ε+a) | é | è | yi | yá-tí |
| CL 4 Sing | ká/k | kà | kí | kì | ki | ká-tí |
| CL 4 Plu | tá/t | tà | tí | tì | ti | tá-tí |
| CL 5a Sing | rá/r | rà | rí | rì | ri | rá-tí |
| CL 5a Plu | é/è | yà | é | è | yi | yá-tí |
| CL 5b Sing | rá/r | rà | rí | rì | ri | rá-tí |
| CL 5b Plu | ná/n | nà | ní | nì | ni | ná-tí |
| CL 6a Sing | rá/r | rà | rí | rì | ri | rá-tí |
| CL 6a Plu | má/m | mà | mí | mì | mi | má-tí |
| CL 6b Sing | rá/r | rà | rí | rì | ri | rá-tí |
| CL 6b Plu | sá/s | tà | tí | tì | ti | tá-tí |
| CL 6c Sing | dá/d | dà | dí | dì | di | dá-tí |
| CL 6c Plu | sá/s | tá | tí | tì | ti | tá-tí |
| CL 7 Sing | ká/k | ká | kí | kì | ki | ká-tí |

| | | | | | | |
|-------------|------|----|----|----|----|-------|
| CL 7 Plu | pá/p | pá | pí | pì | pi | pá-tí |
| CL 8 Plu | má/m | má | mí | mì | mi | má-tí |
| CL 9 Plu | ná/n | ná | ní | nì | ni | ná-tí |

In Temne, reflexivity is a function of animateness. For this reason, I have not listed reflexive forms for any of the inanimate pronouns. For the adjectival subject prefixes which begin with consonants (Class 4 singular k-, Class 4 plural t-, Class 5a singular r-, etc.), the same rules of epenthesis apply as for the SPEC prefixes -- see ((27), Rule 2), above. Thus the underlying form /r-mès r-lí's/ would surface as [rì-mès rílís] 'a bad egg'.

3.5 Inanimate Possessives

There is nothing remarkable about inanimate possessive constructions in and of themselves. For example,

- (100) a. áŋ-wólá ŋá rá-mès
 the-shell of the-egg
 CL2 CL5a
 'The shell of the egg'
- b. rá-fát rá ká-báp
 the-iron of the-axe
 CL5b CL4
 'The iron (blade) of the axe'

- c. Áp-í-lá pá ró-mòk
 the-rice of the-swamp
 CL7 CL5a
 'The rice of the swamp'
- d. Rá-mèr rá ÷w-ìr
 the-tongue of the-goat
 CL5b CL3
 'The tongue of the goat'

However, if the possessive is pronominalized and the possessor is inanimate, a particle -tí is suffixed to the possessor pronoun, the NP complementizer. For example,

- (101) a. áŋ-wólá ñá-tí 'Its (the egg's) shell'
 the-shell of-it
- b. rá-fát rá-tí
 the-iron of-it
 'Its (the axe's) iron/blade'
- c. Áp-í-lá pá-tí 'Its (the swamp's) rice'
 the-rice of-it

If the possessor is animate as in (101d) then there is no suffixed particle and the structure is exactly like any human possession.

- d. Rá-mèr r-÷ŋ 'Its (the goat's) tongue'
 the-tongue of-him

which is comparable to

- (102) a. Rá-mèr rá ÷-làngbá
 the-tongue of the-man
 CL5b CL1
 'The tongue of the man'
- b. Rá-mèr r-÷ŋ
 the-tongue of-him
 'His (the man's) tongue'

- c. Rá-mèr rá-mĩ 'My tongue'
the-tongue of-me

There are two functions fulfilled by this particle -tĩ. One is as a kind of obligatory neutral pronoun which must occur following the complementizer in all genitival constructions involving inanimates where the possessor is pronominalized. The other function, which Wilson (1963: 18) calls 'anaphoric', is to provide a kind of discourse deixis: án-wólá ná-tĩ could be appropriately translated in some contexts as Wilson suggests 'the very shell'. In some contexts, the appropriate English translation is simply possessive while in others there is this quality of 'anaphora'. There is, needless to say, much more that can be said about the semantics of other pronominals. However, this is beyond the scope of this study.

3.6 Relatives

The Temne equivalents of who and which clauses are simply formed by SPEC prefixes on -é, the morpheme equivalent of wh-.

- (103) a. ś-làngbá śwé (<ś-é) 'The man who'
the-man who
- b. ε-mes éyé (<é-é) 'The eggs which'
the-eggs which
- c. ká-báp áké (<ká-é) 'The axe which'
the-axe which
- d. rá-fát aré (<rá-é) 'The iron which'
the-iron which

In (a), the Class 1 definite prefix ś- precedes the

relativizer particle $-\underline{é}$. Epenthesis applies to insert $-w-$, the glide corresponding to the backness of the class prefix $\underline{é}$ -. In (b), epenthesis again applies to insert $-y-$ between the front vowel class prefix $\underline{é}$ - and the relativizer particle $-\underline{é}$. This morphophonemic rule may be stated as:

$$(104) \quad \emptyset \rightarrow \begin{array}{c} \text{GLIDE/ V} \\ [\alpha bk] \quad [\alpha bk] \end{array} \underline{é}$$

There is no case marking inside the relative clause. Therefore, \underline{w} -làngbá $\underline{wé}$ may mean either 'the man who' or 'the man whom'.

- (105) a. \underline{w} -làngbá $\underline{wé}$ dèr-é 'The man who came'
 the-man who came-wh
- b. \underline{w} -làngbá $\underline{wé}$ áŋ-tìn \underline{w} -nínk-é dèr
 the-man whom the-dog it-saw-wh came
 'The man whom the dog saw came'

In both (a) and (b), the relative pronoun is $\underline{wé}$ despite the change in case. As can be observed from (105), above, in Temne relative clauses also require that the relative particle $-\underline{é}$ be added at the end. Since the particle is also used in demonstratives and wh-interrogatives, I return to a discussion of final $-\underline{é}$ as well as all such final morphemes in the next section.

3.7 Demonstratives

In Temne, the proximate and distant demonstratives this and that are formed by the addition of SPEC prefixes before $-\underline{é}$ and $-\underline{án}$.

- (106) a. i. ɔ́-làngbá ɔ́wē 'This man'
the-man this
- ii. ɔ́-làngbá ɔ́wān 'That man'
the-man that
- b. i. rá-mès árē 'This egg'
the-egg this
- ii. rá-mès árān 'That egg'
the-egg that
- c. i. ká-báp ákē 'This axe'
the-axe this
- ii. ká-báp ákān 'That axe'
the-axe that

The Temne equivalents of these and those are also formed in the same manner as this and that, i.e., by the addition of plural SPEC prefixes to -ē or -ān.

- (107) a. i. án-làngbá ánē 'These men'
the-men these
- ii. án-làngbá ánān 'Those men'
the-men those
- b. i. é-mès éyē 'These eggs'
the-eggs these
- ii. é-mès éyān 'Those eggs'
the-eggs those
- c. i. tá-báp átē 'These axes'
the-axes these
- ii. tá-báp átān 'Those axes'
the-axes those

Note that here again the rules of metathesis and epenthesis have applied. Rá- (SPEC prefix Class 5a) + -ē yields árē, as in rá-mès árē 'this egg', ká- (SPEC prefix Class 4) + -ē yields ákē as in ká-báp ákē 'this axe', and so too án-làngbá ánē and tá-báp átē. In é-mès éyē 'these

- (110) a. i. kènέ.....á 'Who?'
who-sg...interrog.
- ii. kènέ.....έ 'Who?'
who-sg...interrog.
- iii. kènέ-ηά.....á 'Who (pl.)?'
who-they...interrog.
- iv. kènέ-ηά.....έ 'Who (pl.)?'
who-they...interrog.
- b. i. kó.....á 'What?'
what-sg..interrog.
- ii. kó.....έ 'What?'
what-sg..interrog.
- iii. kó-m+yèt.....á 'What (pl.)/What things?'
what-SPEC-things..interrog.
CL8
- iv. kó-m+yèt.....έ 'What (pl.)/What things?'
what-SPEC-things..interrog.
CL8
- c. i. dèké.....á 'Where?'
where interrog.
- ii. dèké.....έ 'Where?'
where interrog.
- d. i. SPEC-dèké.....á 'Who/Which?'
which interrog.
- ii. SPEC-dèké.....έ 'Who/Which?'
where interrog.
- e. i. tó.....á 'How?'
how interrog.
- ii. tó.....έ 'How?'
how interrog.
- f. i. à-líkó.....á 'When?'
a-time interrog.
CL2

- or à-1[́]k[́] à-dèké.....á 'When?'
a-time the-which....interrog.
CL2 CL2
- ii. à-1[́]k[́].....é 'When?'
a-time interrog.
CL2
- or à-1[́]k[́] à-dèké.....é 'When?'
a-time the-which....interrog.
CL2 CL2
- g. i. k[́]η.....á 'Why?'
why interrog.
- ii. k[́]η.....é 'Why?'
why interrog.

Questions with the particle -é are somewhat more marked, somewhat more incredulous than those with -á.

For example,

- (111) a. kèn[́]é á-p[́]l[́] tá rá-présídént-á
who they-crowned for the-president-interrog.

'Who was elected president?'

is a simple request for information, whereas

- b. kèn[́]é á-p[́]l[́] tá rá-présídént-é
who they-crowned for the-president-interrog.

'Who did they elect president?/
They elected who president?'

would be used to express great incredulity or surprise if one, for example, had been told that someone completely unexpected had been chosen president.

If it is appropriate in the situation, questions with kèn[́]é...é 'Who' can also be plural.

- (112) a. kèn[́]é-ŋá dèr ká á-mét-é
who-plu came to the-party-interrog.

'Who (all) came to the party?'

- b. kènέ-ηά à-bòtá tá dō-páliyámént-é
 who-plu they-voted for to-parliament-
 interrog.

'Who (all) did they vote for parliament?'

An alternative type of interrogative structure is

- (113) a. kènέ wùní dér-é
 which person came-interrog.
 'Which person/Who came?'
- b. à-f+m à-dèké dér-é
 the-people they-which came-interrog
 'Which persons/Who (all) came?'

The interrogative kó...á 'What?' also has an alternative form kó rìkà-á 'What thing?'. Some examples of this:

- (114) a. kó η-wáy-á 'What did you buy?'
 what you-buy-interrog.
- b. kó rìkà η-wáy-á
 what thing you-buy-interrog.
 'What thing did you buy?'
- c. kó-ηά η-wáy-á
 what-them you-buy-interrog.
 'What (all) did you buy?'
- d. kó m+yèt η-wáy-á
 what things you-buy-interrog.
 'What things did you buy?'

Examples of the other interrogatives are:²⁵

²⁵One is of course reminded of Krio interrogatives such as wus p=s+n (<'which person') or wudat (<'who that') 'Who?', wetin (<'what thing') 'What?', wusay (<'which side') 'Where?', wustem (<'which time') 'When?', wetin du (<'what thing did/caused') 'Why?'. It is certainly not the case that this is in any way a Krio influence on Temne. The Temne expressions I have given

- (115) a. Dèké ḡ-kóné-á 'Where did you go?'
where you-go-interrog.
- b. Tó ḡ-bémpá áḡ-sét-á
how you-made the-house-interrog.
'How did you make the house?'
- c. À-lòkò (à-dèké) ḡ-dér-á
a-time (a-which) you-came-interrog.
'What time/When did you come?'
- d. Kḡ ḡ-dér-á 'Why did you come?'
why you-came-interrog.

3.9 The Pronominal System -- Some partial regularities

Table 8 Animate Pronominals

| 1st & 2nd Anim | SPEC Pref def/ indf | Disj or Indp Pro | V e r b l | A d j e c | Obj Pro | P o s s | R e f l x |
|-------------------------|------------------------------|---------------------------|-----------------------|-----------------------|------------|------------------|-----------------------|
| 1Sg | | mìné | í | ì | mi | mī | nè |
| 1Plu | | sà | sí | à | su | sū | nè |
| 2Sg | | mùnó | ḡ | ì | mu | mū | nè |
| 2Plu | | nà | ní | à | nu | nū | nè |
| 3rd Anim | | | | | | | |
| CL 1 Sg | ó/ì | kònnó | ó | ì | kó | ḡḡ | nè |
| CL 1 Plu | áḡ/à | sà | áḡ | à | ḡa | ḡāḡ | nè |

are the only way that these ideas are expressed in the language; they are in no way recent calques. The Temne structures and the Krio structures (which have their exact parallels in all of the other Afro-Caribbean creoles) are both reflexes of a very widespread West African conceptualization.

| | | | | |
|-----------------------|-----|-------------|-----|-------|
| Inanim Plu | é/è | yi (ε+i) | y-á | yá-tí |
|-----------------------|-----|-------------|-----|-------|

Table 10 Inanimate Pronominals

| | SPEC Pref def/ Indf | Disj/ Indp Pro | V r b l | A d j e c | O b j | Poss Pro |
|-----------------------|--|-------------------------------|----------------------------|----------------------------------|----------------------|---------------------|
| 3rd Inanim | | | | | | |
| CL 2 Sing | án/â | ɲà | án | à | ɲi | ɲá-tí |
| CL 2 Plu | é/è | yà (ε+a) | é | è | yi | yá-tí |
| CL 4 Sing | ká/k | kà | k ⁺ | k ⁺ | ki | ká-tí |
| CL 4 Plu | tá/t | tà | t ⁺ | t ⁺ | ti | tá-tí |
| CL 5a Sing | rá/r | rà | r ⁺ | r ⁺ | ri | rá-tí |
| CL 5a Plu | é/è | yà | é | è | yi | yá-tí |
| CL 5b Sing | rá/r | rà | r ⁺ | r ⁺ | ri | rá-tí |
| CL 5b Plu | ná/n | nà | n ⁺ | n ⁺ | ni | ná-tí |
| CL 6a Sing | rá/r | rà | r ⁺ | r ⁺ | ri | rá-tí |
| CL 6a Plu | má/m | mà | m ⁺ | m ⁺ | mi | má-tí |
| CL 6b Sing | rá/r | rá | r ⁺ | r ⁺ | ri | rá-tí |
| CL 6b Plu | sá/s | tà | t ⁺ | t ⁺ | ti | tá-tí |
| CL 6c Sing | dá/d | dà | d ⁺ | d ⁺ | di | dá-tí |

| | | | | | | |
|----------------------|------|----|-----|-----|----|-------|
| CL 6c Plu | sá/s | tá | t'í | t'ì | ti | tá-tí |
| CL 7 Sing | ká/k | ká | k'í | k'ì | ki | ká-tí |
| CL 7 Plu | pá/p | pá | p'í | p'ì | pi | pá-tí |
| CL 8 Plu | má/m | má | m'í | m'ì | mi | má-tí |
| CL 9 Plu | ná/n | nà | n'í | n'ì | ni | ná-tí |

In the above presentation of the Temne pronominals, I have tried to take a rather narrow view of just what the lexical entries might be, what the fillers are that occupy rather narrowly drawn lexical slots.²⁶ For example, the singular rá-prefix of Class 5a has as its plural

²⁶In Table 8 'Classes 1 and 2 possessives' and Table 9 'Inanimate pronominals', above, I have indicated that the Class 2 and Class 5 plural object pronominal yi is composed of ε-, the Class 2 SPEC prefix, plus -i and implied a rule which devocalized the ε- into y-. Such a rule would also account for the Class 2 plural disjunctive (independent) pronoun yà as well as for yá- of the possessive pronoun yá-tí (<ε + á). There is a major difficulty with this rule in any thoroughgoing phonology of Temne. It is normally the case when two vowels abut in the underlying representation that either metathesis occurs as in (62) or epenthesis occurs inserting an [αback] glide after the first vowel (see (106)). In the case of yi and yá, it seems clear that the source is ε + i or ε + á but neither epenthesis nor metathesis has occurred. One could patch up the system in a number of arbitrary ways invoking a local ordering or a different sort of word boundary or a level of deep lexical phonology different from the levels at which metathesis and glide formation occur. In my present understanding of Temne phonology any such rule would be ad hoc and proposed only to fit this specific case. Rather than do this, I prefer to simply point this out as a case where further generalizations may be possible and assume for the moment that yi and yá are underived lexical items.

ɛ- while the singular rá- prefix of Class 5b has ná- as its plural and the singular rá-prefix of Class 6 has sá- as its plural. In order to keep the classes maximally distinct, I have set up three different classes here and yet surely on some level there is only one singular class which correlates with three plural classes. Since there does not seem to be any syntactic or semantic basis for predicting class membership here, I have opted for three classes. This is a neat solution but it probably does not really capture the greatest generalization.

Again, plural Class 6 has tá- as its disjunctive pronoun, t- as its adjective prefix, tí as its object form, tá-tí as its possessive pronoun but sá- as its verbal SPEC prefix. Again, there must be a generalization which is escaping us. In many languages though not elsewhere in Temne, s's interchange with t's on either the sub-phonemic level or the morphophonemic level. Certainly no more can be teased from the facts by internal reconstruction, I believe, but here is another site where comparative reconstruction might yield something more positive, either clear evidence for suppletion or an understanding of what the environment was that turned a t- into an s-.

Again, just how many k's are there in the morpheme structure of Temne? Does the Class 7 SPEC prefix ká- (plural pá-) have anything to do with the Class 4 SPEC

ká- prefix (plural tá-)? Is this a case of the accidental homonymy of two ká- prefixes or is there only one ká- prefix which happened to be associated with different plurals and does this ká- have anything to do with the Class 1 (and Class 2) animate object pronoun kɔ and disjunctive pronoun kɔ̀nɔ́?

Further, the Class 1 definite SPEC prefix and verbal prefix ɛ́- could certainly be related to the ɛ́- of the disjunctive pronoun kɔ̀nɔ́ and object pronoun kɔ. Such a relationship seems too good not to be true and yet, again, there is no hard evidence that it is.

Do the 1st person singular disjunctive pronoun míné, object mí, possessive mí̄, and the 2nd person singular disjunctive pronoun mùnɔ́, object form mu, possessive mū̄, have a common pronominal 'bearer' m- to which are suffixed the characteristic mí of the 1st person singular and mu of the 2nd person singular?

It is also tempting to see a shared element in the n- of the disjunctive míné (1 singular) and mùnɔ́ (2 singular) as well as in the -nɔ́- of kɔ̀nɔ́ (3 singular).

A theory which proposed a shared element m in the first and second person singular would find support in the 1st person singular verbal prefix ɛ́- but would then have to explain why the second person singular verbal prefix is the syllabic ɛ́-. Why did apparent suppletion occur here?

In the singular, the meaning-bearing elements seem to be vowels: i (1st person), u (2nd person), ɛ (3rd person). In the plural, the meaning-bearing elements seem to be consonants: s (1st person), n (2nd person), na (3rd person). The na- of the object pronoun and the disjunctive pronoun, the an- of the verbal prefix and the nan of the possessive pronoun again present a problem. Is nan the starting point with na and an being somehow reductions of it, or is an a metathesis of na and is nan somehow a syncretic form which combines pieces of both?

Again, are the Class 2 inanimate object pronoun ni and the verbal prefix an related, and are both related to the NP-complementizer na and the possessive pronoun na-ti? It would certainly seem so but how does one pass from supposition to certainty?

In the Class 2 inanimate plural NP complementizer ya, there would certainly seem to lurk the adjectival SPEC prefix ɛ plus the a of the NP complementizer with ɛ becoming the y, perhaps under a stress shift. This also seems to be a likely explanation for the Class 2 plural animate and inanimate possessive pronouns yan and the n element which they contain would also seem to be present in the 3rd person singular Class 1 possessive suffix -n. In these speculations, I have been stimulated by Trager (1967) for English and by Trager and Rice (1954) for Arabic. Unfortunately, I can push these speculations no

further at present but perhaps they may provide food for thought for someone engaged in comparative historical reconstruction of West Atlantic.

A summary of the rules discussed in Chapter 3 follows:

(116) **Glide Insertion:**

$$\emptyset \rightarrow \begin{array}{c} \text{GLIDE} / \text{V} \quad \underline{\quad} \quad \text{V} \\ [\text{abk}] \quad [\text{abk}] \end{array}$$

(117) **Metathesis** (See Chapter 2, 76).

CHAPTER FOUR: NUMERALS, PREPOSITIONS AND ADVERBIALS

4.1 Numerals

Temne has a classic extended quinary system of numerals, one of the most common counting systems in all of Africa (See Schmidl (1915) and Zaslavsky (1973)). In quinary numerical systems the first five numbers are unique and usually etymologically opaque; the next five numbers are expressed as five-plus-one (six), five-plus-two (seven), etc. In an extended quinary system like that of Temne, ten is another new beginning, eleven is ten-plus-one and sixteen is ten-plus-five-plus-one. Twenty is another new beginning, twenty-one is twenty-plus-one and thirty-one is thirty-plus-ten-plus-one. Eighty is four-twenties and ninety-one is four-twenties-plus-ten-plus-one.²⁷ One hundred is again a new beginning; as is one thousand; and one-hundred-and-six is the to-be-expected one-hundred-plus-five-plus-one.

²⁷Since people the world over count on their fingers and toes, it is not surprising that five, ten, and twenty should be new beginnings. In many African languages, Schmidl (1915) found that the word for 'man' is also the word for 'twenty' and 'forty' is literally 'two men'. The generation of numbers such as 'forty', 'sixty', 'eighty', etc., as multiples of twenty is also found in French (where it is certainly an innovation vis-à-vis Latin) and as an alternate system in older English. (cf. 'four score and seven').

4.1.1 The Numerals from one to five

The counting forms of Temne numerals from one to ten are as follows:

| (118) | | <u>Long forms</u> | <u>Short forms</u> |
|-------|--------|-------------------|--------------------|
| 1 | p-ín | 6 t-àmṭúrúkin | d-ùkin |
| 2 | pì-ríṅ | 7 t-àmṭ+dérín | d-èrín |
| 3 | pì-sàs | 8 t-àmṭ+rísàs | d-ìsàs |
| 4 | p-àṅlè | 9 t-àmṭ+ríṅàṅlè | d-ṅàṅlè |
| 5 | t-àmáṭ | 10 t-ḅfṭ | |

Since numerals are essentially noun modifiers they fall within the domain of the SPEC system and the numerals from one through four agree in SPEC class with their noun heads.

| | | | | | |
|-------|----|--------|--------|------------|----------------------|
| (119) | a. | kì-báp | k-ín | (Class 4) | 'one axe' |
| | | tì-báp | t-ìríṅ | | 'two axes' |
| | b. | rì-mès | r-ín | (Class 5a) | 'one egg' |
| | | è-mès | é-sàs | | 'three eggs' |
| | c. | k-ílá | kín | (Class 7) | 'one grain of rice' |
| | | p-ílá | pí-ríṅ | | 'two grains of rice' |
| | d. | n-àṅt | n-ín | (Class 9) | 'one fire' |
| | | n-àṅt | n-áṅlé | | 'four fires' |
| | e. | è-tḅn | y-éríṅ | (Class 2) | 'two dogs' |
| | | è-tḅn | y-áṅlé | | 'four dogs' |
| | f. | è-mès | y-éríṅ | | 'two eggs' |
| | | è-mès | y-áṅlé | | 'four eggs' |

The Class 2a and Class 5a plural prefixes for the numerals 'two' and 'four' are slightly anomalous phonologically and I assume that they are lexically specified.²⁸

When one is performing simply the mathematical operation of counting and not counting some specific thing the default prefix p- is used with these numbers as in the counting examples above. In order to express the number of times an action is performed the SPEC-like prefixes w-/m- are used.

- (120) w-ín 'once' m-àr'è 'twice'
 mì-sàs 'three times' m-àn'lè 'four times'

For example

- (121) a. í-n'èk kɛ̃ w-ín 'I saw him once'
 I-saw him Num-one
 b. ɔ́-k'óné dó pét m-àr'è
 he-went to town Num-two
 'He went to town twice'
 c. ɔ́-gbáŋtá mí m-àn'lè

²⁸In Footnote 23 above I discussed the problem presented by a glide-formation rule which devocalizes ɛ- to y- before -i or -a. y-ér'è and y-àn'lè, the numerals 'two' and 'four' with Class 2 and 5a plural concords pose a similar difficulty. The numeral 'three' of these classes is é-sàs which clearly consists of é- + -sàs and so the words for 'two' and 'four' should also contain ɛ-.

However the writing of a rule which will cause ɛ to become y will involve us in the same contradictions I mentioned in Footnote 23. Again I prefer to simply allow the anomaly to remain and see y-ér'è and y-àn'lè as lexically given. Note also that in the paradigm given in (119) there are tonal changes which are not expected. The tones are correct as given but an explanation will have to wait for further study.

he-hit me Num-four

'He struck me four times'

When counting [+animate] nouns whether of Class 1, Class 2 or Class 3 there are special prefixes used for the first four numbers. They are:

Table 11 Prefixes of the first four numbers

| C l a s s | Example | O n e | T w o | T h r e e | F o u r |
|-----------------------|---------|-------------|-------------|-----------------------|------------------|
| 1 | man | k | ŋ | à | ŋ |
| 2 | snake | k | ŋ | à | ŋ |
| 3 | goat | k | ŋ | à | ŋ |
| 4 | axe | k | t | t | t |
| 5a | egg | r | y (<ɛ) | y (<ɛ) | y (<ɛ) |
| 5b | rope | r | y (<ɛ) | y (<ɛ) | y (<ɛ) |
| 6a | breast | r | m | m | m |
| 6b | thunder | r | t | t | t |
| 6c | face | d | t | t | t |
| 7 | rice | k | t | t | t |
| 8 | water | m | m | m | m |
| 9 | fire | r | y (<ɛ) | y (<ɛ) | y (<ɛ) |

(122) a. ì-làŋgbá ì-bànà ì-k-ín 'One fat man'
SPEC-man SPEC-big SPEC-Num-one

b. è-bòk à-fet̩ ŋ-Àr+ŋ 'Two young snakes'
SPEC-snake SPEC-young Num-two

- c. t-ir à-kór à-sàs
SPEC-goat SPEC-pregnant Num-three
'Three pregnant goats'
- d. tì-báp tì-l̀l̀l̀ t-à̀l̀è
SPEC-axe SPEC-little Num-four
'Four little axes'

In the case of the numeral prefixes I am assuming that, as in the case of the SPEC prefixes, the prefix itself is simply a consonant p-, w-, m-, etc., and that when the numeral begins with a vowel the prefix and the vowel coalesce, but that when the numeral begins with a consonant, an ɨ is inserted by epenthesis as is the case with the SPEC prefixes (See Rule 27, Chapter 1, above). If one were to assume otherwise, that for example, the counting prefix was *pì-, then one would have to explain either why metathesis did not occur yielding *ìpìn 'one' or one would need a special deletion rule which would delete the ì before the following vowel or a special rule ordering device which would block epenthesis from yielding *pìyìn. It seems much preferable to simply say that p-, w-, and m-, etc., are like the SPEC prefixes and require a rule of epenthesis which inserts ɨ before a numeral beginning with a consonant. By this account the two ɨ's in pìrìɨ 'two' are of different origins. The first is inserted by epenthesis while the second is underlying and specified in the lexicon.

There is however one anomaly for which I have no

ready explanation. The default vowel which is inserted between consonants is in all cases except 'two' $\dot{\pm}$. The exception is the word $\underline{m-\dot{\Delta}r\dot{\eta}}$ 'two times'. There does not seem to be any reason why a nasal should require an Δ and not an $\dot{\pm}$ following it and indeed the form $\underline{m\dot{\pm}l\dot{\eta}k\dot{\eta}}$ 'seeds (indefinite)' (Class 6a) is perfectly well-formed. There also does not seem to be any reason why $\underline{-r\dot{\eta}}$ should be preceded by Δ and not $\dot{\pm}$, so these words must also be seen as deviant and as an exception to the rule of epenthesis.

4.1.2 The numerals from six to ten

The numerals from 'six' through 'nine' are obviously built on $\underline{t\dot{\eta}m\dot{\eta}t}$ 'five' and the roots $\underline{-\dot{\eta}n}$ 'one', $\underline{-\dot{\epsilon}r\dot{\eta}}$ 'two', $\underline{-s\dot{\eta}s}$ 'three' and $\underline{-\dot{\eta}n\dot{\eta}}$ 'four' but a number of minor morphophonemic processes have occurred²⁹ which are more or less particular to these roots. The first is that a certain amount of structure has been created joining $\underline{t\dot{\eta}m\dot{\eta}t}$ 'five' to $\underline{k-\dot{\eta}n}$, $\underline{r-\dot{\eta}n}$, etc. I would like to suggest that $\underline{-r-}$ of $\underline{t\dot{\eta}m\dot{\eta}r\dot{\eta}k\dot{\eta}}$ 'six', $\underline{t\dot{\eta}m\dot{\eta}r\dot{\epsilon}s\dot{\eta}s}$ 'eight' and $\underline{t\dot{\eta}m\dot{\eta}r\dot{\epsilon}\dot{\eta}n\dot{\eta}}$ 'nine' and the $\underline{-d-}$ $\underline{t\dot{\eta}m\dot{\eta}d-\dot{\epsilon}r\dot{\eta}}$ 'seven' all go back to the conjunction $\underline{y\dot{\epsilon} - r\dot{\epsilon} - d\dot{\epsilon}}$ which con-

²⁹ These processes are somewhat analogous to the metathesis which occurs between English three on the one hand and thirteen and thirty on the other. Metathesis is not an active, synchronic rule of any kind and yet the metathesis which did happen in thirteen and thirty is transparent enough for even the most naive speakers of English to see them as related to three.

joins NPs.³⁰

I have no completely satisfactory non-ad hoc way of accounting for the vocalism. However, the following historical scenario is at least conceivable. The first is that tàmát+dér+ñ 'seven' consists of tàmát-dé-r+ñ 'five-and-two' and that tàmát+rénànè 'nine' consists of tàmát-ré-ànè 'five-and-four'. In the case of the words for 'seven' and 'eight' -dé- and -ré- both 'and' have simply joined to r-ñ 'two' and sàs 'three'. Why it is that the allomorph of the word for 'and' occurs as -dé- in tàmát+dér+ñ 'seven' and -ré- in tàmát+résàs 'eight' is for me at this time completely unclear although the allomorphy of -ré- varying with -dé- also exists when these words are free standing conjunctions.³¹

In the case of tàmát+rénànè 'nine', the following steps may have occurred. tàmát-ré-ànè yielded by glide insertion and nasal spread a form such as *tàmát-ré-y-ànè and then the inserted -y- became a nasalized -ỹ- which, since the vowel it followed was also nasalized, was reinterpreted as -ñ-; [ñ] being in many ways the default nasal in Temne and also the nasal which is always associ-

³⁰ For the general principle of using a conjunction in the derivation of numerals compare older English one-and-twenty for 'twenty one', German ein und zwanzig 'twenty one' and Spanish diez y seis 'sixteen'.

³¹ We have seen above in 1.1.1 and in Class prefixes 6a and 6b (Table 2) that some but not all r's and d's may interchange with one another. This is a topic which deserves further study.

-tá- will under some prosodic condition be reduced to -tí-. Metathesis is certainly widespread in Temne but metathesis under these particular conditions is otherwise unknown.

In either case, the sequence of rules now has yielded [támť+dé-r+ń] 'seven' which is the form found in the speech of many Temnes, especially under conditions of deliberate speech. Many other Temne speakers, myself included, under conditions of at all rapid speech have [támť+dé-r+ń], that is, a form in which the first t- has been assimilated anticipatorily in place and manner of articulation to the second.

Under conditions of rapid speech many Temnes have támť+rísàs 'eight' for támť+résàs 'eight' and támť+rínànlè 'nine' for támť+rénànlè 'nine'. However, no one says *támť+d+rín as a reduced form of támť+dérín 'seven'. It is probably significant that the reduction of -é- to -í- occurs after -r but not after -d but I have no theoretical explanation for this isolated fact.

Pattern congruity would require támť-rí-p-ín for the number 'six' but what actually occurs is of course támť-rú-k-ín. There are two problems here. One is the vowels of the second and third syllables -ú_ú- instead of -í_é- or -í_í- and the second problem involves the first consonant of the last syllable k-ín and not *p-ín as one would expect from the numeral 'one'. Both of

these questions have no good solution. It seems obvious that tâmtúrúkin 'six' has the same overall pattern as the words for 'seven', 'eight' and 'nine' and that the first morpheme tâmt- is the same in all four of these words and that it contains a modified form of tâmát 'five'. The -r- of -rú- also fits in with the -ré- 'and' morphemes in 'eight' and 'nine' and with the -dé- 'and' morpheme in 'seven'. Since in many languages there is an opposition between on the one hand, the two grave stops p and k and on the other hand the acute stop t³², one can at least hypothesize that some assimilation or dissimilation process may have been at work to change the -p- into a -k- or vice versa. One guess might be that the original number for 'one' was k-ín but that pattern congruity pulled k-ín into p-ín to conform with the prefixes of the counting forms pì-rín, pì-sàs and p-ànle. One might then see the -ú ú- sequence as arising from an assimilation which caused the -g- to become a velar vowel, -u-, before the velar consonant k.

³² Professor R. M. R Hall has pointed out to me that there exists in English what has been called generic rhyme in which a syllable with the coda V₁-p and one with V₁-k can be considered to rhyme but in which a syllable with V₁-t is not accepted as a rhyme for either. This type of rhyme convention is found in the following quatrain which is inserted at times in the American folk songs 'Jack Of Diamonds' and 'Rebel Soldier'.

If the ocean was whiskey
and I was a duck
I'd swim down inside it
and never come up.

4.1.2.1 Short forms of the numerals from six through nine

In (118), above, I listed the following long and short forms for the numerals six through nine. I am now repeating this in the following list.

| (125) | <u>Long forms</u> | <u>Short forms</u> |
|-------|-------------------|--------------------|
| 6 | ṭ-àmṭúrúkin | d-ùkin |
| 7 | ṭ-àmṭ'édérín | d-érín |
| 8 | ṭ-àmṭ'ír'sàs | d-'sàs |
| 9 | ṭ-àmṭ'ír'ḡāḡlè | d-ḡāḡlè |

The short forms are used in rapid and more casual speech. In them the r ~ d alternation found in the allomorphs of the conjunction dé/ré/yé has been generalized to d and the optional reduction of é to í found in the words for 'eight' and 'nine' has become obligatory.

However, -ú- as the penultimate vowel in the word for 'six' and -é- as the penultimate vowel in the word for 'seven' have been maintained. Only the long forms of the numbers 'six' through 'nine' can be used as the last number of a more complex number. For example 'sixteen' is tḡfṭ'ṭàmṭúrúkin and not *tḡfṭ'ṭùkin.

4.1.2.2 Generalities concerning the tones of the numerals 'one' through 'nine'

The numerals 'one' through 'nine' are repeated in the following list with the letters for their tones listed below them.

| (126) | | <u>Long forms</u> | <u>Short forms</u> |
|-------|---------------------|------------------------------------|-------------------------|
| 1 | pin H | 6 ṭamṭurukin L H H H | ḍukin L H |
| 2 | p+r+ṇ L H | 7 ṭamṭ+der+ṇ L H H H | ḍer+ṇ L H |
| 3 | p+sas L L | 8 ṭamṭ+r+sas L H H L | ḍ+sas L L |
| 4 | paṇlɛ L L | 9 ṭamṭ+r+ṇaṇlɛ L H H L L | ḍ+ṇaṇlɛ L L L |
| 5 | tamaṭ L H | | |

The tones of the numerals 'one' through 'four' have maintained themselves exactly in the numbers 'six' through 'nine' in both the long and the short forms. The -r^íṇ of p+r^íṇ 'two' has a HIGH tone as does the -r^íṇ of ṭamṭ+ḍér^íṇ 'seven' (long form) and ḍér^íṇ 'seven' (short form). In support of the analysis I have already postulated, it is reassuring to note that both p-^íṇ 'one' and k-^íṇ the final element of 'six' (long form and short form) are all high tone.

The analysis I have given of tāmát 'five' and tāmṭú/tām-t^í- is also supported by the tonal data. The epenthetic vowel -ú- of 'six' and -^í- of 'seven', 'eight' and 'nine' is in all cases high. This suggests that when the second -á- of tāmát 'five' was lost by syncope its tone was reattached to the following vowel which was created by epenthesis. It is also noteworthy that the vowels of the long forms, -r^ú- in the word for 'six', -ḍé- in the word for 'seven' and -r^é- in the words for

'eight' and 'nine' are in all cases high as is the vowel of the conjunction dé/ré/yé 'and'. The fact that the vowels of the first elements of the reduced forms dùkín 'six', dèrín 'seven', etc., are all low suggests that these reduced forms were created by a complex process of phonological reduction and are not just simply clippings of corresponding long forms. The low tones of the first syllables of the short forms (dù-, dè-, etc.) could be seen as replicating the low tones of tàm-, the first syllable of the long forms yielding in all cases a fixed pattern of "first syllable low".

4.1.3 The numerals from ten through twenty

The counting forms of the numerals from 'ten' through 'twenty' are as follows:

| | | | | |
|-------|----|----------------|----|------------------------|
| (127) | 10 | t̀̀f́́t | | |
| | 11 | t̀̀f́́t w-ín | 16 | t̀̀f́́t tàm̀̀túrúkín |
| | 12 | t̀̀f́́t m^r+ñ | 17 | t̀̀f́́t tàm̀̀t+dér+ñ |
| | 13 | t̀̀f́́t m+sàs | 18 | t̀̀f́́t tàm̀̀t+résàs |
| | 14 | t̀̀f́́t m-àñlè | 19 | t̀̀f́́t tàm̀̀t+r+ñàñlè |
| | 15 | t̀̀f́́t tàmát | 20 | k+gbá |

As I said above the numeral t̀̀f́́t 'ten' is a new beginning and the word t̀̀f́́t is etymologically opaque. The numerals 'eleven' through 'nineteen' are built quite regularly on t̀̀f́́t much as the numerals for 'six' through 'nine', tàm̀̀túrúkín, etc., are built on tàmát 'five'. The

one deviation to this simple mechanical regularity is that the prefixes of the numerals 'eleven' through 'fourteen' are w- in the case of tɔ́fɔ́t w-ín 'eleven' and m- in the cases of tɔ́fɔ́t m̀-rín 'twelve' through tɔ́fɔ́t m̀-ànlè 'fourteen'. We have seen the m-/w- prefix in the series w-ín 'once', m̀-àr+n 'twice', etc., in (120), above.

In the numerals 'eleven' through 'fourteen' the constituent pieces are clear and there are no elements of the combinatory process which are not straightforward. What is without any explanation is why only the prefix of the second element of 'eleven' should be w- and not, say, p- or k-. There also seems to be no general logical explanation for why the prefixes for the numerals 'twelve' through 'fourteen' should be precisely m̀-à-, m̀-ì- and m̀- rather than some other tonal or segmental possibility.

The numerals 'eleven' through 'nineteen' do not agree with the nouns they modify.

- (128) a. à-làṅgbá tɔ́fɔ́t k-ín 'eleven men'
 b. è-mès tɔ́fɔ́t k-ín 'eleven eggs'
 c. t̀-báp tɔ́fɔ́t k-ín 'eleven axes'

4.1.4 The numerals twenty-one through one hundred

The numerals 'twenty-one' through 'one hundred' are basically unremarkable, being composed in quite predict-

able fashion of the twenties and the numbers from 'one' to 'nineteen'. The one point worthy of note is that the new beginning *kìgbá* 'twenty' consists of a quasi-singular prefix *k-* and a head *gbá* and that the numerals for 'forty', 'sixty' and 'eighty' have a plural-like *t-* before *gbá*. These *k-/t-* prefixes are the same as the prefixes of SPEC Class 4, and Class 4 is the default class, so it may be the case that these numeral prefixes are simply the Class 4 prefixes. However, there does not seem to be any simple direct correspondence between the numeral prefixes for the counting forms of the numerals 'one' through 'nineteen' and so it may be simply fortuitous that the prefixes of the numerals 'twenty' through 'ninety nine' do match up directly with those of SPEC Class 4.

Since the process of generation of the numerals for 'twenty' through 'ninety nine' is quite regular it is not necessary to write out the whole set explicitly. Some sample derivations are as follows:

| | | | | |
|-------|----|----------------------------|----|---|
| (129) | 20 | <i>kìgbá</i> | 21 | <i>kìgbá wín</i> |
| | 30 | <i>kìgbá t̀f̀t̀</i> | 32 | <i>kìgbá t̀f̀t̀ m̀r̀í̀</i> |
| | 40 | <i>t̀gbá t̀r̀í̀</i> | 43 | <i>t̀gbá t̀r̀í̀ m̀s̀s̀</i> |
| | 50 | <i>t̀gbá t̀r̀í̀ t̀f̀t̀</i> | 54 | <i>t̀gbá t̀r̀í̀ t̀f̀t̀</i> <i>m̀ǹl̀è</i> |
| | 60 | <i>t̀gbá t̀s̀s̀</i> | 65 | <i>t̀gbá t̀s̀s̀ t̀m̀á̀t̀</i> |
| | 70 | <i>t̀gbá t̀s̀s̀ t̀f̀t̀</i> | 76 | <i>t̀gbá t̀s̀s̀ t̀f̀t̀</i> <i>t̀m̀t̀ú̀r̀ú̀k̀ín</i> |

| | | | |
|-----|-------------------|----|---------------------------------|
| 80 | tìgbá tǎṅlè | 87 | tìgbá tǎṅlè tǎmṭì- dèrín |
| 90 | tìgbá tǎṅlè tǎfót | 98 | tìgbá tǎṅlè tǎfót tǎmṭìrèsàs |
| 100 | kémé kín | | |

4.1.5 The numerals from one hundred and one to one thousand and above

The expected pattern is continued unremarkably for the numbers from 'one hundred' to 'one thousand' and above. 'One hundred and one' is k-émé k-ín w-ín and 'two hundred and two' is t-émé t-rín mΛ-rín. It is noteworthy that the word for 'hundreds' -émé also has the same k-/t- prefixes as the word for 'twenties' -gbá. In the numbers 'six hundred' through 'nine hundred' the 'six' through 'nine' component must always be the long form, for example, t-émé t-àmúrukín 'six hundred'. This pattern continues through to à-wúl 'thousand'. 'One thousand one hundred and one' is à-wúl n-ín k-émé k-ín w-ín and 'one thousand two hundred and two' is à-wúl n-ín t-émé t-rín mΛ-rín, 'two thousand five hundred and fifty' would be è-wúl y-erín t-émé t-àmát tì-gbá tì-rín t-àfót. Note that the stem for 'thousand' -wúl is treated as though it were a member of SPEC Class 2 with an à- prefix in the singular and an è- prefix in the plural. The only real anomaly in the numbers 'one thousand' and above is found in the 'times' integers 'one', 'two', 'three' and 'four'. This can be seen in the following

list.

| | | |
|-------|------|--------------------------|
| (130) | 1000 | à-wúl ñ-in |
| | 2000 | è-wúl y-èr'ñ |
| | 3000 | è-wúl è-sàs |
| | 4000 | è-wúl y-ànle |
| | 5000 | è-wúl t-àmát |
| | 6000 | è-wúl ðàmṭúrúkin etc. |

In the thousands of 'five' and above the -wúl 'thousand' and the 'times' word tàmát, etc., are simply juxtaposed. Then, what are ñ-, è- and y-? A naive answer might be to see these elements as some kind of conjunction ??'and'. However, à-wúl ñ-in is not 'a thousand and one' but rather one thousand..., i.e., 'a thousand times one' and the morphemes or morpheme partials ñ-, è-, y- do not yield themselves to any simple analysis. There is no obvious lexical meaning or unitary grammatical function that can be assigned to them.

Traditional Temne society had only one more numeral designation. The expression è-wúl è-wúl è-wúl.... which could be used for the indefinite and vague English 'thousand and thousands....'. In contemporary Temne, è-wúl è-wúl è-wúl.... is sometimes used for a million but without any precise significance. Those Temne who do deal with large numbers do so in English, since English is the language in which they learnt to do mathematics.

The tonal patterns of the numbers above one thousand

are completely the ones which can be predicted from the tones of their component parts.

4.2 Prepositions and Adverbials

4.2.1 The locative adverbials dé, nè, dí, dò

Concepts which are the notional equivalents of the prepositions of Western European languages are expressed in two ways in Temne: by means of true prepositions and by means of verbal extension suffixes such as the dative/benefactive -á, -í revertive, -á instrumental, -ná benefactive and the instrumental. For example:

- (131) a. Àlêŋ ɸ-táká Lélàŋ áŋ-búk.
Ali he-gave-Dat. Lela the-book

'Ali gave the book to Lela'
- b. Àlêŋ ɸ-súrí rá-p̀mp̀ ká ár-ùmá.
Ali he-pulled-Revr. the-thread out of the-
shirt

'Ali pulled the thread out of the shirt'

- c. Àlêŋ ɔ́-káŋtĩná Lélàn ká-raré
Ali he-opened-Benef. Lela the-door
'Ali opened the door for Lela'
- d. Àlêŋ ɔ́-búkɔ́ná má-sóy
Ali he-bathe-Instr. the-soap
'Ali bathed with the soap'

Since the verbal extensions are a proper part of the morphology of the Verb Phrase they will be treated in Chapter 5 below and in this section I shall concentrate on the true prepositions.

4.2.1.1 Locative Adverbials

In Temne a generic place is a Class 6c noun. Hence it occurs with the prefix dá/d.

- (132) a. d-èr 'a place, somewhere'
b. ád-èr 'the place'

Locative adverbials are formed by prefixing the Class 6c indefinite prefix d- on a locative morpheme. The form of the locative morpheme is determined by the proximity of the speaker to the place referred to. There are only two degrees of deixis in Temne, "here" and "there" but there are as well two degrees of definiteness for each, "around here" versus "right here" and "around there" versus "right there". These may be summarized as follows:

| | | |
|-------|-----------|----------|
| (133) | Proximate | Definite |
| dé | + | - |
| nɔ́ | + | + |

| | | |
|----|---|---|
| dí | - | - |
| dò | - | + |

For emphasis dé and nè and dí and dó can be combined into the emphatic deictic adverbials dé-nè and dí-dò which mean approximately "right here" and "right there". Either dé or nè and either dí or dò can express locations but only nè and dò can be used for the goals of motion.

- (134) a. Àlêŋ ɔ́-yí dé 'Ali is here'
Ali he-is here
- b. Àlêŋ ɔ́-yí nè sèt 'Ali is here in the house'
Ali he-is here [in the] house
- c. Àlêŋ ɔ́-yí dí 'Ali is there'
Ali he-is there
- d. Àlêŋ ɔ́-yí dó 'Ali is over there'
Ali he-is there
- e. Àlêŋ ɔ́-yí dé nè 'Ali is right here'
Ali he-is here
- f. Àlêŋ ɔ́-yí dí dò 'Ali is right there'
Ali he-is there

In addition to being pro-forms for the places "here" and "there" nè and dó can also function as preposition-like elements.

- (135) a. Àlêŋ ɔ́-yí nè pét 'Ali is (here) in town'
Ali he-is here town

or

- b. Àlêŋ ɔ́-yí dé nè pét
Ali he-is here here town
- 'Ali is right here in town'

In the first example the proximate location is certainly implied but it is not made explicit as it is in the second. In the same way dó can serve as a preposi-

tion indicating a distant location. For example

- (136) a. $\hat{\text{Àl}}\hat{\text{ê}}\eta \text{ ɔ́-yí d} \acute{\text{o}} \text{ p} \acute{\text{e}}\text{t}$
 Ali he-is there in town
 'Ali is over there in town'
- b. $\hat{\text{Àl}}\hat{\text{ê}}\eta \text{ ɔ́-yí dí d} \acute{\text{o}} \text{ p} \acute{\text{e}}\text{t}$
 Ali he-is there there
 'Ali is right there in town'

When used with $n \grave{e}$ and $d \acute{\text{o}}$, nouns occur without their usual class prefixes. For example, $s \acute{\text{e}}\text{t}$ 'house' is a member of SPEC Class 2 $\hat{\text{á}}\eta/\hat{\text{à}}$, but 'here in the house' is $n \grave{e}-s \acute{\text{e}}\text{t}$ and not * $n \grave{e} \hat{\text{á}}\eta-s \acute{\text{e}}\text{t}$; 'river bank' $b \grave{a}\eta$ is a member of SPEC Class 4 $k \acute{\text{á}}/k$ but '(there) on the river bank' is $d \acute{\text{o}}-b \grave{a}\eta$. $N \grave{e}$ and $d \acute{\text{o}}$ can be used for the goals of motion as well as for rest.

- (137) a. $\text{ɔ́-d} \acute{\text{e}}\text{r } n \grave{e} \text{ p} \acute{\text{e}}\text{t}$ 'He came to town'
 he-came to town
- b. $\text{ɔ́-k} \acute{\text{ó}}\text{né } d \acute{\text{o}} \text{ p} \acute{\text{e}}\text{t}$ 'He went to town'

4.2.1.2 The deictic $y \grave{a}\eta$

When pointing in a direction a speaker may use the directional adverb $y \grave{a}\eta$ 'this/that way' to emphasize the direction much as we in English say "over here" or "over there". When used with $d \acute{\text{o}}$, $y \grave{a}\eta$ may contract to $d \grave{a}\eta$ and $d \acute{\text{o}}$ may be omitted, with however, slight semantic differences. For example

- (138) a. $\hat{\text{Àl}}\hat{\text{ê}}\eta \text{ ɔ́-yí d} \grave{a}\eta/y \grave{a}\eta$
 Ali he-is there/over there
 'Ali lives over there (non-specific)'

- b. Àlêŋ ɸ-yí dō-yán̄
Ali he-is there

'Ali lives there (specific)'

Note in the examples dān and yān in sentence (138a) are low tone but yán̄ in sentence (b) is high tone.

4.2.1.3 Dò/n̄

The locative adverbials/prepositions dò and n̄ may be moved to sentence initial position for the purpose of emphasis. In this case they are accompanied by the definite SPEC prefix for Class 6c dá.

- (139) a. Àlêŋ dō dá ɸ-kɸné 'Ali went over there'
Ali there that he-went

This slow speech form would become

- b. Àlêŋ dō dá-kɸné 'Ali went over there'
Ali there that he-went

in rapid speech, with the vowel-vowel contraction rules presented in 1.2.4 above, applied. In the same way,

- (140) n̄ dá í-dér (Slow Speech) 'Its here I came'
here where I-came

becomes n̄ dé dér in rapid speech.

4.2.2 The simple prepositions yē, tá and ká

Temne has three other simple, monomorphemic prepositions: yē 'with', tá 'for' and ká 'at, from'.

4.2.2.1 The Preposition yē

yē, like the English preposition 'with' may express

either accompaniment or instrumentality. For example

- (141) a. í-káŋtí ká-rárè yē áŋ-sáp̄
I-opened the-door with the-key
'I opened the door with the key'
- b. í-sṭ́dí yē Àlêŋ 'I studied with Ali'
I-study with Ali

4.2.2.2 The Preposition tá

The notion of an action "for" or "for the benefit of" someone may be expressed either with the verbal suffix -ná or with the preposition tá. Thus:

- (142) a. í-yṑ́-ná Àlêŋ má-páŋṭ
I-did-BEN Ali the-work
'I did the work for Ali'

or

- b. í-yṑ́ má-páŋṭ tá Àlí
I-did the-work BEN Ali
'I did the work for Ali'

Note the obligatory difference in word order here. With the benefactive suffix the order is Verb-Benefactive-Object-Direct Object but with the preposition the order is Verb-Direct Object-tá-Benefactive Object.

4.2.2.3 The Preposition ká

The preposition ká is a kind of default complementizer which mediates the relationship between the verb with which it is constructed and the position of rest or goal which its subject bears to its object.

- (143) a. áŋ-píktò áŋ-yí ká áŋ-gbìŋgbìŋ
 the-picture it-is LOC the wall
 'The picture is on the wall'
- b. s'í-yírá ká áŋ-tébùl dáyèr
 we-sat LOC the-table near
 'We sat at the table -- near it'
- c. s'í-yírá ká é-tébùl dáyèr
 we-sat LOC the-table near
 pl.
 'We sat at the tables -- near them'
- d. ká-gbárá k'káťé ká áŋ-bàt
 the-kernel it-fell LOC the-palm tree
 'The kernel fell off the palm tree'
- e. ɔ-w-áŋť ɔ-w'rkà ká áŋ-tébùl
 the-child he-crawled LOC the-table
 'The child crawled under the table'

As can be seen from the examples above the basic lexical content is to be found in the verb. In (143a), yí 'be at rest in/on a place' is interpreted as 'on' when the subject is a picture and the locus is a wall. In (143b), the preposition ká is to be interpreted as 'at' when the verb is yírá 'to sit' and the locus is a table, and so forth through the other examples. I have included sentence (143c) to show that ká in these cases is indeed a preposition and is in no way bound up with the homophonous NP-complementizer for animate possessors ká which we saw in section 3.2.4, above. Compare and contrast

- (144) a. áŋ-t'n ká ɔ-làŋgbá 'The man's dog'
 the-dog POSS the man
- b. é-t'n yá áŋ-làŋgbá 'The men's dogs'

the-dogs POSS the men

with Sentence (143b) and (c), which I repeat here

- (145) a. s^í-yírá ká á_ŋ-tébùl dáyèr (= 143,b)
we-sat LOC the-table near

'We sat at the table -- near it'

- b. s^í-yírá ká é-tébùl dáyèr (= 143,c)
we-sat LOC the-table near
pl.

'We sat at the tables -- near them'

While ultimately it may be the case that the preposition ká bears some relationship to the NP-complementizer ká which I discussed in section 3.2.4, above, in present day Temne they certainly seem to be completely distinct lexical items.³³

4.2.3 Complex Prepositions

In order to express "prepositional" relationships such as 'above/over, beside, beneath/under, inside, between/ among, in the midst of, outside, toward', Temne makes use of what we may term "compound" or "complex" prepositions which consist of a "proper" preposition dó, ně, ká, rá plus a second element which is often rather

³³The polysemy of Temne tá is reminiscent of the polysemy of Krio na and, I am informed, of Haitian Creole nā. In Krio, we have relationships such as the following expressed by na: i de na ya 'He is here'

i de go na t_ŋ 'He is going to town'

i de k_ŋ na t_ŋ

'He is coming from town'

i trowe wata na mi fes

'He threw (away)

water on my face'

transparently a noun somewhat analogous to the side of English beside or the head of English ahead or even the foot of at the foot of. The chief of these nominal-prepositional elements are:

- (146) a. ráṭā 'under part of the body'
 nò/dó ráṭā 'under/beneath'
- b. k-òr 'stomach'
 nò/dó kòr 'inside'
- c. tṣṣ 'the torso, the trunk, middle of the
 body'
 kátṣṣ 'between'
 rátṣṣ 'among'
- d. kàṅ ?'exposure'
 nò/dó kàṅ 'outside'
- e. dáyèr ?'side'
 dáyèr nṁ 'beside, near'

Of the items listed in the above list ká-rátá (CL 4), k-òr (definite ák-òr, CL 4) and ká-tṣṣ (CL 4) are clear nouns which have an existence of their own. Kàṅ 'exposure' seems to exist only in the set phrase:

- (147) rá-kàṅ áré ṣ-wúrá mé rî-lís
 the (CL 6a) exposure which he took out me it-bad
 'His exposure of me is/was bad'

Dáyèr, which I have glossed most tentatively as 'side,' does not really seem to have an independent existence in the contemporary language, however it seems to pattern more nearly with ráṭā, tṣṣ and kàṅ than anywhere else, and so I have listed it here. I have no explanation for the fact that the phrase is dáyèr nṁ + NP and not * nṁ dáyèr; I also have no explanation for the

fact that dó can not co-occur with dáyèr.

Some examples of these compound prepositions are as follows:

- (148) a. i. ɔ́-wáŋɕ ɔ́-yí nɛ́-rátà ká mí
the-child she-is LOC-under of me
'The child is under me'
- ii. ɔ́-wáŋɕ ɔ́-yí dó-rátà ká mú
the-child she-is LOC-under of you
'The child is under you'
- b. i. rá-mès rí-yí nɛ́-kòr ká mí
the-egg it-is LOC-inside of me
'The egg is inside my stomach'
- ii. rá-mès rí-yí dó-kòr ká áŋ-fʌt
the-egg it-is LOC-inside of the-pot
'The egg is inside the pot'
- c. i. ɔ́-bày ɔ́-tʰmá dè nɛ́-kàn
the-chief he-stands here LOC-outside
'The chief is standing here outside'
- ii. ɔ́-bày ɔ́-wùr dó-kàn
the-chief he-went out LOC-outside
'The chief has gone outside'
- d. i. áŋ-tɛ̀n ɔ́-gbápsà dí dáyèr ká áŋ-sét
the-dog it-lean there beside of the house
'The dog is leaning against the house'
- ii. áŋ-tɛ̀n ɔ́-yí dáyèr nɛ́
the-dog it-is beside here
'The dog is near/beside here'

4.2.4 Instrumentals: the preposing of instrumental phrases

In Temne instrumentality may be indicated either by

the instrumental morpheme $y\bar{e}$ (as we have seen in 4.2.2.1, above) or by the instrumental verbal suffix $-á$. Thus the following two sentences, from the description of a wrestling match, are very close paraphrases of one another.

- (149) a. $\text{ɔ-wóp-á ká-tà áŋ-l'ŋk}$
 he-held-INSTR the-arm the-leg
 'He held the leg with the arm'
- b. $\text{ɔ-wóp áŋ-l'ŋk y\bar{e} ká-tà}$
 he-held the-leg INSTR the-arm
 'He held the leg with the arm'

In expressions like these the NP immediately following the verb functions as the instrument. If the instrumental suffix $-á$ is used then either the instrument or the direct object may be focused into sentence initial position. In either case, the focused NP is followed by a copy of its definite SPEC prefix which joins the focused element to the rest of the sentence.

- (150) a. $\text{ká-tà ká ɔ-wóp-á áŋ-l'ŋk}$
 the-arm it he-held-INSTR the leg
 'He held the leg with the arm'
- b. $\text{áŋ-l'ŋk ŋá ɔ-wóp-á ká-tà}$
 the-leg it he-held-INSTR the arm
 'He held the arm with the leg'

4.2.5 Time Adverbials

The principal nouns for periods of time are as follows:

- (151) a. rá-b'ɪt , 'the morning'
 b'ɪtb'ɪt 'early in the morning'

- b. rá-yàŋ 'the afternoon'
 rét(í)yàŋ 'evening'
 rá-yàŋ rí-bákì 'late afternoon'
- c. rá-f̀y 'the night'
 rá-f̀y rí-f̀éṭ 'early night, late evening,
 (Lit: "the young night")'
- d. áŋ-óf 'the moon -- month'
- e. ká-rén 'the year'
- f. áŋ-l̀k̀ 'the hour, day'
- g. áŋ-rè 'the day'

These nouns may be used as time adverbials with no preposition and, with one exception, with no changes in structure.

- (152) a. í-níŋk k̄ ríyàŋ
 I-saw him the-afternoon
 'I saw him in the afternoon'
- b. Màréŋ ́-dér rí-f̀y 'Mary came at night'
 Mary she-came the-night
- c. á-kóm-k̄ rí-yàŋ rí-bákí
 they-gave birth-to him the-afternoon the-old
 'He was born in the late afternoon'
- d. Àlêŋ ́-náŋtá Màréŋ ká-rèn ṭàs-é
 Ali he-married Mary the-year past-REL
 'Ali married Mary last year (Lit: the year which passed)'

The one exception concerns the noun bít 'morning' which, when it is used in a time adverbial, can not be constructed with its prefix rá.

- (153) a. ́-dírá bít 'He went to sleep in the morning'
 he-slept morning

- b. áŋ-yókáně b'íṭb'íṭ
they-woke-up early

'They woke up early in the morning'

When an adverbial of time is focused to sentence initial position the same ká focus marker which we saw in section 4.2.4, above, is also required.

- (154) a. b'íṭ-ká ɔ'-dírá
morning-that he-slept

'He went to sleep in the morning'

- b. b'íṭb'íṭ-ká áŋ-yókáně
early-that they-woke up

'They woke up early in the morning'

4.2.6 Manner Adverbials

In English and, I am told, in Indo-European languages in general, the category of adverbial is a rather clearly defined morphological one with such derivations as 'he was angry' → 'he spoke angrily' being quite straightforward and quite productive. This is not the case in Temne -- the notional equivalent of most English manner adverbials is an adjective or the abstract nominalization of an adjective. These will be dealt with in detail in Chapter 5, Section 5.9, in which I discuss the process by which stative adjectival verbs, e.g. gbút 'to be short' becomes gbùt 'short,' when used as an attributive adjective, and can be further nominalized as rágbùt 'shortness'.

There are two words in Temne lémp 'quickly' and

kìt̀ègbè 'slowly, carefully' which function as nonderived manner adverbials.

- (155) a. ɔ́-wúr lɛ́mp 'He went out quickly'
 he-went out quickly
- b. ɔ́-kɔ́ṭ k̀t̀ègbè 'He walked slowly/carefully'
 he-walked carefully/slowly

If the adverbial element is preposed then the focus marker ká must occur between it and the body of the sentence.

- (156) a. lɛ́mp-ká ɔ́-wúr b́ṭ
 quickly-FOC he-left morning
 'Quickly he left in the morning'
- b. k̀t̀ègbè-ká ɔ́-kɔ́ṭ-á
 carefully/slowly-FOC he-walked-with
 'He walked slowly/carefully'

This adverbial element can also be nominalized as in

- (157) a. ɔ́-lɛ́mp òwé rá-m̀ès r̀gbáyá-é
 the-quickness which the-egg it-cracked-Rel
 p+-sɔ́mpá mī
 it-disturbed me
 'The suddenness with which the egg cracked
 disturbed me'

CHAPTER FIVE: THE VERB

5.1 Introduction

There are in Temne two classes of verb-like elements: verbs proper such as fàf 'speak', dér 'come', gbántá 'strike', wòp 'catch' and adjectival verbs such as fínè 'good, beautiful', bótí 'sweet', bólí 'tall', gbění 'green, grey'. Adjectival verbs are in almost all respects a subset of verbs proper and it is therefore expeditious in this presentation to first sketch in the morphology and morphophonology of verbs proper and then discuss adjectival verbs. Yí 'to be someone' or 'become something' and 'to be in a place' patterns like the adjectival verbs; what is said about them in 5.9 also applies to it.

5.2 The Verbal Complex

The verbal complex consists of the following constituents:

$$(158) \text{ PreAUX (NEG) } \left\{ \begin{array}{l} \text{(PROG)} \\ \text{(MOD)} \end{array} \right\} (\text{ASP}) \sqrt{\text{verb}} (\text{EXT}) (\text{IMP}) (\text{ADV}) \dots (\text{Q})$$

It is worthy of note that the schema in (158) contains no tense specification. Temne, like many of the world's languages does not obligatorily mark tense, as do English and the other Indo-European languages. Concepts notionally equivalent to "present" or "past" are either

left unmarked or are expressed morphologically by time adverbials, which are always optional. For example:

- (159) a. ɔ̣-lãṅgbá ɔ̣-dér
 'The man comes/is coming/came'
- b. ɔ̣-lãṅgbá ɔ̣-dér à-témó-tèm (ká) kákè
 the-man he-come the-time-time (at) now
 'The man comes all the time nowadays'
- c. ɔ̣-lãṅgbá ɔ̣-dér dís 'The man came yesterday'

Thus only a PREAUX and a verb are required in a core Temne sentence -- all other constituents, the Progressive, Modals, Aspects, Verbal Extensions, Adverbials, etc., are optional.

For the purposes of this exposition I am discussing the constituents of the verbal complex from left to right in almost the same order as that in which they are presented in (158). Since NEG requires the other Auxiliary constituents, I shall defer its presentation until I have discussed them. The Adverbial constituent is discussed in 4.2 and Question is discussed in 3.8 and so they will not be discussed as separate categories again, although they will be referred to where necessary. This conspectus actually represents a number of different lexical levels. The rule which attaches the verbal extensions to verbs must be at one of the deeper levels of the lexical process; as we see below in section 5.4, by the time that affix hopping occurs in the Progressive, the extension and the verbs will have become one. Verb in (158) will

include then all extensions (and the reflexive) and the affix hopping rule will treat them all as one constituent.

5.3 The PRE-AUXILIARY

The PreAUXiliary is expanded as

$$(160) \quad \text{PreAUX} \rightarrow \left\{ \begin{array}{l} \text{SPEC Prefix} \\ \text{Disjunctive (Independent) Pronoun} \\ \text{Interrogative Pronoun} \\ \text{Relative Pronoun} \end{array} \right\}$$

I interpret the PRE-AUXILIARY as anything which occupies the position immediately after the subject NP or, if there is no subject NP present, the first position in a nonderived sentence. The constituents which can occupy the PREAUX position are: SPEC prefixes, disjunctive pronouns, and interrogative and relative pronouns which are the subjects of their sentences.

5.3.1 The SPEC Prefixes and the Disjunctive Pronouns

The rule in (160) will produce the following sentences choosing the SPEC prefixes.

- (161) a. $\acute{\text{c}}\text{-l\grave{a}\text{ngb\acute{a}} \acute{\text{c}}\text{-d\acute{e}\text{r}}$
 SPEC
 'The man comes/came/is coming'
- b. $\acute{\text{c}}\text{-d\acute{e}\text{r}}$ 'He comes/came/is coming'
 PRO
- c. $\text{r\acute{a}-m\grave{e}\text{s} \text{r}\acute{\text{+}}\text{-f\acute{u}\text{mp}\acute{\text{c}}}$
 SPEC
 'The egg falls/fell/is falling'

- d. rí-fúmpá PRO 'It falls/fell/is falling'
- e. í-dér PRO 'I come/came/am coming'

The PreAUXiliary must be bound to some antecedent NP; in sentences (a) and (c) to the NP which immediately precedes it; in sentences (b) and (d) to an antecedent which precedes it elsewhere in the discourse or which is evident from the pragmatics of the situation. In first and second person situations as in (161e) the interchanges of the discourse themselves provide the antecedents.

If the disjunctive (independent) pronouns are chosen we may get sentences such as

- (162) a. mìné fúmpá 'I fell'
- b. í-làngbá k̀̀nń́ d̀̀ér
the-man HE come
- 'The man came (or The man was the one who came)'

It is significant that when the disjunctive pronouns are used TENSE is no longer unmarked; sentences with disjunctive pronouns as their only non-verb constituent may only be interpreted as PAST. A sentence such as

* í-làngbá k̀̀nń́ d̀̀ér à-témó-tèm (ká) kákè
* í-làngbá k̀̀nń́ d̀̀ér à-témó-tèm (ká) kákè
the-man he-come the-time-time (at) now

(i.e., sentence (159b) with a disjunctive pronoun instead of a SPEC prefix) is as bizarre as a sentence such as '* he came tomorrow' would be in English.

Sentences such as (162b) may have a variant in which the disjunctive pronoun is deleted segmentally but in

which its tones remain causing the final high tone of a preceding word to become a falling tone.

(165) ɔ̄-làŋgbâ dêr 'The man was the one who came'
 (Compare and contrast ɔ̄-làŋgbá ɔ̄-dêr (161a) and
 ɔ̄-làŋgbá kɛ̀nɛ̀ dêr (162b)).³⁴

5.3.2 The Interrogative and Relative Pronouns

In Temne the interrogative and the relative pronouns are not homophonous but there is a great deal of structural similarity between interrogative sentences and relative clauses. In both interrogatives and relatives we must distinguish between sentences in which the interrogative or relative pronoun is the subject of its sentence -- in which case the pronoun is in PREAUX position and no other pronominal is possible -- and sentences in which the interrogative or relative pronoun is an object or some other term and in which there is a PREAUXILIARY, either SPEC prefix or disjunctive pronoun. Let us first consider interrogative and relative sentences in which the pronoun is the subject of its sentence.

(164) a. kɛ̀nɛ̀ dêr-é? 'Who came?'

³⁴This situation is a great deal more complex than I have indicated here and it requires a full length tonology of Temne for any kind of satisfactory non-ad hoc solution. It may well be the case that kɛ̀nɛ̀ is underlyingly kɛ̀nɛ̀' with a floating low tone which depresses the tone of the following verb. The sequence ɔ̄-làŋgbâ dêr with two falling tones one after the other is certainly far from expected, but these are indeed what the surface tones of the language are.

- who came-Q
- b. kó fúmpɔ́-é? 'What fell?'
what fall-Q
- c. ɔ́-làngbá òwé dèr-é ɔ́-dí
the-man who come-REL he-ate
'The man who came ate'
- d. rá-mès àré fúmpɔ́-é rí-gbáyá
the-egg which fell-REL it-broke
CL5a CL5a CL5a
'The egg which fell broke'

There are two points of similarity to be noted. In (164a) and (164c) dér does not have a SPEC or disjunctive PREAUX and in (164b) and (d), fúmpɔ́ does not have one either. The interrogative and relative pronouns occupy this slot in the verbal complex to the exclusion of any other PREAUX. Note in passing that in the main clauses in (164c) and (164d) the verbs dí 'ate' and gbáyá 'fell' do have SPEC prefixes since there is no other constituent in PREAUX in their clauses.

- (165) a. kèné ñ-n'ɲk-é? 'Whom did you see?'
who you-see-Q
- b. ɔ́-làngbá òwé í-n'ɲk-é ɔ́-dí
the-man whom I-saw-REL he-ate
'The man whom I saw ate'
- c. kó ñ-n'ɲk-é? 'What did you see?'
what you-see-Q
- d. rá-mès àré í-n'ɲk-é rí-gbáyá
the-egg which I saw-REL it-broke
CL5a CL5a CL5a
'The egg which I saw broke'

In these sentences a transformation like English Wh-

fronting has occurred and so neither the question word nor the relative pronoun occupies the position immediately before the verb and as a result the verb must have a SPEC prefix.

Another point of similarity between interrogative sentences and relative clauses is the occurrence of the constituent -é. In interrogative sentences -é must be the final constituent of the sentence and in relative clauses, the final constituent of the clause (See 3.7-3.9, above).

5.4 The Progressive

The progressive may be rewritten as

$$(166) \text{ PROG} \rightarrow \left\{ \begin{array}{l} \text{k}\grave{\text{i}}\text{-... - á}\eta \\ \text{m}\acute{\text{i}}\text{-... - á}\eta \end{array} \right\}$$

5.4.1 The Progressive k $\grave{\text{i}}$ -...-á η

The Progressive k $\grave{\text{i}}$ -...-á η occurs in sentences such as

$$(167) \begin{array}{l} \text{ɔ́-là}\eta\text{gbá k}\acute{\text{í}}\text{-dér-ká}\eta \quad \text{'The man is coming'} \\ \text{the-man} \quad \text{be-come-ing} \end{array}$$

This form of the Progressive appears to be composed of the Class 4 indefinite SPEC prefix k-, which, as we saw earlier, also serves as a default prefix in verbal constructions (See 2.2.4, (48)-(49)). The suffix of -á η appears to be the same emphatic morpheme which we saw earlier in section 3.2.1, above, as a suffix on proper

names. $-\acute{a}\eta$ occurs with a copy of the **k**-prefix in (167).

There are three things to note about the Progressive $k\grave{i}-\dots-\acute{a}\eta$. First, it is always in the present tense -- the modal $b\acute{u}(k\acute{i})$ is used to express a past progressive notion. This will be discussed below in 5.4.3.2. The second thing to note about $k\grave{i}-\dots-\acute{a}\eta$ is that it does not allow either a SPEC prefix or a pronoun (disjunctive, relative, or interrogative) in PREAUX position.

- (168) a. $\acute{u}-l\grave{a}\eta gb\acute{a} k\grave{i}-d\acute{e}r-k\acute{a}\eta$
 the-man be-come-ing
 'The man is coming (=167)'
- b. $*\acute{u}-l\grave{a}\eta gb\acute{a} \acute{u}-k\grave{i}-d\acute{e}r-k\acute{a}\eta$
 the-man SPEC-be-come-ing
- c. $*\text{ɔ}-l\grave{a}\eta gb\acute{a} k\grave{ɔ}n\acute{u} k\grave{i}-d\acute{e}r-k\acute{a}\eta$
 the-man DISJ-be-come-ing

Finally, an affix hopping rule applies which moves the suffix $-\acute{a}\eta$ over the verb. This rule is best seen as having two parts:

- (169) a.

| | | | | | |
|---|---|------------------|------|---|---|
| X | k | $\acute{a}\eta$ | VERB | Y | |
| 1 | 2 | 3 | 4 | 5 | → |
| 1 | 2 | 2+3 | 4 | 5 | |
| X | k | $k\acute{a}\eta$ | VERB | 5 | |

This rule copies the **k**-element of the progressive and cliticizes $-\acute{a}\eta$ to the copy. The second part of this rule moves the $-k\acute{a}\eta$ over the verb.

- (169) b.

| | | | | | |
|---|---|------------------|------|---|---|
| X | k | $k\acute{a}\eta$ | VERB | Y | |
| 1 | 2 | 3 | 4 | 5 | → |
| 1 | 2 | \emptyset | 4+3 | 5 | |

After this rule, epenthesis applies to insert /+/ between the **k**- and whatever consonant follows it. At

this stage -kán is then also suffixed to the verb.

5.4.2 The Progressive mí-...-án

There is no difference in meaning between the Progressive kí-...-án and the Progressive mí-...-án. There is, however, a major co-occurrence restriction. When a disjunctive, interrogative, or relative pronoun is chosen as the PREAUX constituent then mí-...-án must be chosen and kí-...-án may not be. (As we have seen, a SPEC prefix may not co-occur with kí-...-án; this is also true of mí-...-án).

- (170) a. i. ɔ́-làṅgbá kì-dér-kán 'The man is coming'
the-man be-come-ing
- ii. ɔ́-làṅgbá mí-dér-yán 'The man is coming'
the-man be-come-ing
- b. i. ɔ́-làṅgbá k̀nɔ́ mí-dér-yán
the-man he be-come-ing
'The man is coming'
- ii. ɔ́-làṅgbá ɔ̀wé mí-dér-yán-é ɔ́-tɔ́ dí
the-man who be-come-ing-REL he-will eat
án-mánkò
the-mango
'The man who is coming will eat the mango'
- iii. k̀né mí-dér-yán-é? 'Who is coming?'
who be-come-ing-Q

In sentence (170a,i) and (170a,ii) there is no difference in meaning or in co-occurrence restrictions between the two sentences and there seems to be no explanation for the occurrence of one form or the other except

the whim of the speaker. In the (170b) sentences we see the three cases where mí-...-án must be chosen. Sentence (170b,i) contains a disjunctive pronoun, sentence (170b,ii) a interrogative pronoun and sentence (170b,iii) a relative pronoun in subject position.

In formulating the expansion of the constituent PROG in (166) I have given the two choices as kí-...-án and mí'-...-án. It seems to me quite plausible that -kán consists of a copy of k- plus -án and for purposes of pattern symmetry I have also represented the second constituent of the second expansion as -án. Although such a formulation is somewhat arbitrary, since there is no ready explanation for the y- which is the first segment in yán on the surface, there is, I feel, an identity between the C + -án formatives in the two expansions of PROG. Typically, a y occurs when a front vowel is devocalized. However, at this stage of my analysis, I have no likely suggestion as to what this vowel may be. One could of course simply avoid this problem by expanding PROG to kí-...-kán and mí'-...-yán in an alternate version of (166) but I feel that such a solution would miss the probability of a generalization. Therefore I prefer to be somewhat ad hoc here and generate a y- in Rule (171a) which parallels (169a), above.

| | | | | | | | |
|-------|----|---|--------|----|------|---|---|
| (171) | a. | X | m | án | VERB | Y | |
| | | 1 | 2 | 3 | 4 | 5 | → |
| | | 1 | 2, y+3 | | 4 | 5 | |
| | | X | mí yán | | VERB | 5 | |

At this point Rule (171b) applies hopping -yán over the verb plus any other constituents which may have become suffixed to it, just as -kán was hopped over the verb in (169b).

| | | | | | | | |
|-------|----|---|----|-----|------|---|---|
| (171) | b. | X | mí | yán | VERB | Y | |
| | | 1 | 2 | 3 | 4 | 5 | → |
| | | 1 | 2 | ø | 4+3 | 5 | |

In rapid speech a sequence such as kàn mí-dér-yán 'He is the one who is coming' is often heard as kàn mí-dér-án. It could be the case that this is really the base form which was reinterpreted, perhaps mediated by a verbal extension which ended in a vowel, with an inserted glide y-.

Clearly, at least morphologically, kí- and mí- do not have the same status since the copying process does not occur when mí- is used.

(172) * kàn mí-dér-mí-yán

Also note the tone differences between kí- and mí-. The low tone of kí- is reminiscent of the low tone which we find used with the indefinite SPEC prefixes containing consonants. Therefore, it is evident that mí-, at least tonologically, is not the indefinite SPEC prefix of Class 8 m/má.

5.4.3 Modals

Futurity in Temne is expressed with the modals tí- and mí-. Tí- is used when the SPEC prefixes are chosen

in PREAUX and mí- is used when SPEC prefixes are not -- with disjunctive pronouns, interrogatives, and relatives. Modals can not co-occur with the Progressive, although ultimately the modal mí- may well be the same morpheme as the element mí- in the mí-...-yán progressive sequence in 5.3.2, above. For these reasons in Rule (158), I have stated that the second constituent of the verbal complex is to be expanded as either PROGRESSIVE or MODAL. Modal itself is to be expanded as

$$(173) \text{ MOD} \rightarrow \left\{ \begin{array}{l} t' \\ m' \end{array} \right\}$$

Example sentences showing the expansion of MODAL

are:

- (174) a. ɔ́-làŋgbá ɔ́-t' dér nínánŋ
 the-man he-will come tomorrow
 'The man will come tomorrow'
- b. ɔ́-làŋgbá kɛ̀nɔ́ mí-dér nínánŋ
 the-man he will-come tomorrow
 'The man will come tomorrow'
- c. ɔ́-làŋgbá ɔ̀wé mí-dér nínánŋ-é....
 the-man who will-come tomorrow-REL...
 'The man who will come tomorrow...'
- d. rá-mès àré mí-fúmpɔ́-é...
 the-egg which will-fall-REL...
 'The egg which will fall...'
- e. kèné mí-dér nínánŋ-é?
 who will-come tomorrow-Q
 'Who will come tomorrow?'
- f. kó fúmpɔ́-é 'What fell?'

what fell-Q

In sentence (174b) the word k̀̀ǹ̀ may be omitted, yielding

(175) ɔ́-làṅgbâ ḿ-dér nínáṅ
the-man will-come tomorrow

'The man will come tomorrow'

Here although k̀̀ǹ̀ has been omitted, it again has left its tonal trace as it did in sentence (163). As in (163), làṅgbá has become làṅgbâ with its final high tone becoming a falling tone because of the tone of the deleted first segment of k̀̀ǹ̀.

5.4.3.1 Modals within the complementation process

In Temne the following sentences involving Modals are all possible:

(176) a. Àlêṅ ɔ́-yí t́k(̀̀)-dér
Ali he-be (?t́ + ḱ)-come

'Ali should come'

b. Àlêṅ ɔ́-bá t́k(̀̀)-dér
Ali he-has to-come

'Ali must come'

c. i. Àlêṅ ɔ́-t́-bá k̀̀-der
he-FUT-has to-come

'Ali will have to come'

ii. Àlêṅ k̀̀ǹ̀ ḿ-bá k̀̀-der
he FUT-has to-come

'Ali will have to come'

d. Àlêṅ ɔ́-gb́lì dér

Ali he-able come

'Ali is able to come'

- e. $\hat{\text{Àl}}\hat{\text{è}}\eta$ ɔ-t'gb'ílì dér
 Ali he-will-able come

'Ali will be able to come'

- f. $\hat{\text{Àl}}\hat{\text{è}}\eta$ ɔ-yémá dér
 Ali he-want come

'Ali wants to come'

- g. $\hat{\text{Àl}}\hat{\text{è}}\eta$ ɔ-t'-yémá dér
 Ali he-will-want come

'Ali will want to come'

I suppose that with great ingenuity one could base generate yí 'be', bá 'have', gb'ílì 'be able to' and yémá 'want' but this seems quite counterintuitive to me. yí, bá and yémá are all completely independent verbs in their own right and each of them can have noun phrase complements. Although gb'ílì does not exist in the language except as a verb which requires another verb as its complement, nonetheless it patterns just as yémá does.

The exact nature and origin of the complementizer t'k(ì) is not clear to me. It seems quite reasonable to suppose that it has its origins in the Modal t'í and the SPEC prefix k'ì which is elsewhere used in the nominalization of verbs (see 2.2.4, (48)-(49)). It is possible to speculate that ɔ-yí t'k(ì) dér might have an underlying semantic interpretation something like **he-be + shall + Nominalizer + verb** and that the interpretation of $\hat{\text{Àl}}\hat{\text{è}}\eta$ ɔ-bá t'k(ì) dér is similarly **Ali he-has + shall +**

Nominalizer + verb. These speculations aside, one can certainly see tík(ɪ) as simply a complementizer which is required by the verbs yí and bá in their Modal functions.³⁵

5.4.3.2 The Modal bɔ́(kɪ)

Another constituent which also appears to have a relation to the SPEC prefix kɪ is bɔ́(kɪ) which expresses a progressive or continuous action in the past and where kɪ is also cliticized to the modal which precedes it just as in the complementation constructions we have seen in 5.4.3.1.

- (177) a. Àlêŋ ɔ́-bɔ́(kɪ)-dér 'Ali was coming'
 Ali he-PAST PROG-come
- b. Àlêŋ ɔ́-bɔ́(kɪ)-dì 'Ali was eating'
 Ali he-PAST PROG-eat
- c. Àlêŋ ɔ́-bɔ́-dér 'Ali was coming'
 Ali he-PAST PROG-come
- d. Àlêŋ ɔ́-bɔ́-dì 'Ali was eating'
 Ali he-PAST PROG-eat

Here the ɪ of -kɪ tends to be omitted in rapid speech and as in (177c and d) the whole particle may also be deleted with no tonal trace. When kɪ is present unreduced, the cliticization is always to the modal which

³⁵From the point of view of Universal Grammar, it is interesting to note that the polysemy of Temne bá with its two senses 1. 'to have, to possess' and 2. 'to be obliged (to do something)' is exactly paralleled by English 1. to have (= to possess) and 2. to have (to do something) and by Spanish 1. tener (algo) and 2. tener (que hacer algo).

precedes it and never to the verb which follows.

It is not clear that the optional k̀ of b̀(̀k̀) is related to the complementizer t̀k̀(̀) which we saw in (176a) above, because it is quite odd for any other verb to follow b̀(̀k̀) such as in

(178) ??Àlêŋ ɔ́-b̀(̀k̀)-yémá dér
Ali he-PROG-want come

the English equivalent of '??He was wanting to come'.

Let me note in passing that the Temne Past Progressive, like the English Past Progressive is always a conjoined tense. That is to say í-b̀-̀dì 'I was eating' always implies some other action which occurred while the action of eating was in progress as for example, í-b̀-̀dì má ɔ́-dér-é 'I was eating when he arrived'

5.5 Aspect

The constituent ASPECT is expanded as:

(179) ASP → $\begin{cases} p̀ \\ lá \end{cases}$

There are two aspects in Temne, Imperfective, which is unmarked, and Perfective, which may be realized as either Present Progressive p̀ or Past Perfective lá.

The Past Perfective with lá is like the English Past Perfective, and like the Temne Past Progressive, a conjoined tense. A sentence such as ɔ́-làngbá ɔ́-lá-dér 'the man had come' always implies some other sentence.

(180) ɔ́-làngbá ɔ́-lá-dér áŋ-tèm áŋ-é

the-man he-PAST PERF-go the-time REL

Lélàŋ ɔ́-kɔ́né-é
Lela she-left-REL

'The man had come before Lela left'³⁶

The Temne Perfective *pò* is a completely autonomous tense. It may co-occur with adverbials such as *ká-kákè* 'at present', *yétèn* 'now', *téní* 'at last' and *t̃̀ñ* 'already/yet'. It is also used for activities or states which began in the past and have continued up until the present, here again paralleling the structure of English but not that of many other languages. Some examples of sentences using *pò* are as follows:

- (181) a. í-pò-dì ká-kákè
I-PRES PERF-eat at-present
'I have just finished eating'
- b. í-pò-dì yétèn
I-PRES PERF-eat now
'I have just finished eating'
- c. í-pò-dì téní
I-PRES PERF-eat at last
'I have finished eating at last'
- d. í-pò-dì t̃̀ñ
I-PRES PERF-eat already
'I have finished eating already'

³⁶Note in passing that in Temne the order must always be:

ɔ́-lá-dér áŋ-tèm áŋ-é Lélàŋ ɔ́-kɔ́né-é
he-PAST PERF-come the-time which Lela left
'He had come before Lela left'
and never *Lélàŋ ɔ́-kɔ́né áŋ-tèm ɔ́-lá dér

- e. Dáwúdàṅ ɔ̀-pò-gbásí tɪ́-rén tɔ̀fɔ̀tɔ̀ nɔ̀-Ámériká
 Dauda he-PERF-take the-years ten in-America
 'Dauda has been in America for ten years
 (Lit: He has taken 10 years in America)'
- f. Dáwúdàṅ ɔ̀-pò-yí dɔ̀-Lɔ̀ndɔ̀n kàbí gbàprónáṅ
 Dauda he-PRES PERF-be in-London since March
 'Dauda has been in London since March'

The Present Perfective may also be used for listing background experiences.

- (182) a. ɔ̀-pò-kɪ́né dɔ̀-Lɔ̀ndɔ̀n tápyí ɔ̀-tárá...
 he-PRES PERF-go to-London and so he-knows
 'He has lived in London and so he knows...'
- b. ɔ̀-pò-kàráṅ tápyí ɔ̀-gbá+lì...
 he-PRES PERF-studied and so he-can
 'He has studied and so he can...'

5.6 Negation

There are in Temne two negative morphemes, yɛ and ɬà. While it is simple enough to write a rule such as

$$(183) \text{ NEG} \rightarrow \begin{cases} \text{yɛ} \\ \text{ɬà} \end{cases}$$

it is much more difficult to give a unitary account of the rules which govern the occurrence of these morphemes, as may be seen from the following sentences.

- (184) a. ʌ̀lɛ̀ṅ ɔ̀-dér yɛ́
 Ali he-come NEG
 'Ali doesn't/didn't/is not coming'
- b. ʌ̀lɛ̀ṅ ɔ̀-pò yɛ́ dér
 Ali he-PRES PERF NEG come
 'Ali hasn't come'

- c. ̀̀Alêŋ k̀̀n-̀̀tâ d̀̀ér
Ali he-NEG come

`Ali didn't come'
- d. ̀̀l-̀̀làngbá ÷wé-tè d̀̀ér-é...
the-man who-NEG come-REL

`The man who did not come...'
- e. k̀̀né-tè d̀̀ér-é?
who-NEG come-Q

`Who didn't come?'
- f. ̀̀Alêŋ k̀̀n-̀̀tâ mí-d̀̀ér-yán
Ali he-NEG be-come-ing

`Ali isn't coming'
- g. ̀̀Alêŋ k̀̀-̀̀dér-kán ̀̀tâ
Ali be-come-ing NEG

`Ali isn't coming'

Each of the above environments is unique; if one were to interchange the negative morpheme or the sentence position between any two of the above sentences, the result would be ungrammatical.

As a first step in the analysis it is important to note that here again we have the significant dichotomy between the SPEC prefixes and the pronominals -- disjunctive, relative and interrogative. In sentences (183a) and (b), we have the SPEC prefix $\underline{\text{ɔ}}$ - and the negativizer is $\underline{\text{yé}}$. In (183c), (d) and (e), pronominals occur and the negativizer is $\underline{\text{tâ}}$. In sentences (f) and (g) there is the additional complication that in both forms of the Progressive the negativizer is also $\underline{\text{tâ}}$. As we have seen above, it is also the case that SPEC prefixes may not co-

occur with either form of the Progressive (5.4.1 and 5.4.2). In sentence (f), when the truncated disjunctive pronoun k̀n is used t̃a occurs immediately after the pronoun but in sentence (g) where the Progressive k̃+...án is used, t̃a occurs as the last element in the verbal complex.

6.6.1 NEG-Yé

In order to explore the ways in which these disparate facts are a part of a single grammatical system it is necessary to start with the simpler constituent ye, the morpheme which co-occurs with the SPEC prefixes. Here the general principle is that yé always occurs after the first verbal element, whether a main verb or an auxiliary. Thus we may have, as well as

- (185) a. ʔlêŋ ɔ́-dér yé (=184a)
 Ali he-come NEG
 'Ali doesn't/didn't/is not coming'
- b. ʔlêŋ ɔ́-pò yé dér (=184b)
 Ali he-PRES PERF NEG come
 'Ali hasn't come'

also

- c. ʔlêŋ ɔ́-lá yé dér
 Ali he-PAST-PERF NEG come
 'Ali hadn't come'
- d. ʔlêŋ ɔ́-b̀ yé dér
 Ali he-PAST-PROG NEG come
 'Ali wasn't coming'

- e. ʔlêŋ ɔ̄-gb̄lɪ́ yé dɛ́r
 Ali he-MOD NEG come
 'Ali can't come'
- f. ʔlêŋ ɔ̄-yèmà yé dɛ́r
 Ali he-MOD NEG come
 'Ali doesn't/didn't want to come'
- g. ʔlêŋ ɔ̄-bà yé k̄-dɛ́r
 Ali he-MOD NEG to-come
 'Ali doesn't have to come'

In all of the above sentences yé occurs with a high tone and its tone neither affects nor is affected by the tone of any constituent which either precedes or follows it and so we may conclude that there is no cliticization of yé on any other constituent. Here we have a situation that is very similar to the case of English which Chomsky (1957) described in his famous Affix Hopping Rule: Constituent X must be positioned immediately after any one of a number of constituents, Y, Y', Y'', etc., whichever of them occurs.

Rather than trying to base-generate five different slots for the Negative and have a number of complex conditions and co-occurrence restrictions, it is much simpler to base generate X before all possible Y's and have a transformation which will move X after the first Y. Therefore I offer, as a first tentative formulation, this rule of NEG-Verb inversion.

(186) NEG-VERB INVERSION

PREAUX NEG X

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | → |
| 1 | 3 | 2 | |

(Condition: 1 = SPEC Prefix)

5.6.2 NEG-tâ

If a pronominal is used in PreAUX the negative particle must be tâ; this particle follows and cliticizes on the pronominal and influences, and is influenced by, its tones and segments. Citing representative examples from the disjunctive, relative, and interrogative pronouns we have:

- (187) a. ś-lāṅgbá k̀n-tâ dér 'The man did not come'
 the-man he -NEG come
- b. *ś-lāṅgbá k̀nś-tâ dér
 the-man he -NEG come
- c. ś-lāṅgbā-tâ dér (Same meaning as (187a))
 the-man -NEG come
- d. ś-lāṅgbá ðwé-té-dér-é...
 the-man who-NEG-come-REL
 'The man who did not come...'
- e. ð-lāṅgbā-tê-dér-é... (Same meaning as (187d))
 the-man -NEG-come-REL (187d))
- f. k̀né-té dér-é? 'Who didn't come?'
 who -NEG come-Q
- g. ś-lāṅgbá k̀n-tâ pó-dér
 the-man he -NEG PERF-come
 'The man has not come'

We know from other contexts that the underlying tones of the disjunctive pronoun k̀nś are LH (see 162, 163 and 175, above) and I shall offer evidence below that

the underlying tone of tâ is LOW. We also know as a general principle of Temne tonology that contour tones only occur as the result of the deletion of a segment. In sentence (187a), we see that the last vowel of the pronoun has been completely deleted as a result of the cliticization and that its high tone is displaced onto tâ, yielding tâ. Sentence (b) is ungrammatical because tâ is not cliticized on the disjunctive pronoun which precedes it. In sentence (c) the disjunctive pronoun has been completely deleted and its tone dispersed onto the segments immediately adjacent to it: the first tone onto the preceding vowel, the second onto the following vowel. This situation exactly parallels (163) and (175) above. In sentence (187d) tâ follows the relative pronoun ɔwé as a clitic inside the relative clause ɔwé...é (See 3.6 above, for relative clause formation). In this case the a of tâ has been raised and fronted to e in a kind of perseverative assimilation which may be a remnant of a once more thoroughgoing vowel harmony process. Although [t̥] may in other morphemes be followed by a front vowel, the change here of [t̥] → [t] seems to be conditioned by the cliticization and resultant assimilation. This sentence also offers evidence for the underlying low tone of tâ. Since no segment has been deleted before or after tâ, its underlying tone stays in place.

In (187e), we have another example of tone dispersal. The morpheme wé is deleted with the segments both before and after it receiving contour tones. In (f), kèné-té dér-é, we have another example of fronting and raising of a. The high tone of té can be accounted for by a general principle of high tone spread in questions. For example, in the statement ɔ́-làngbá ɔ́-dér 'The man comes/is coming/came', the first vowel of làngbá is LOW; however in the question because of Question High Tone Spread, this vowel becomes HIGH ɔ́-làngbá ɔ́-dér-í? 'Is the man coming/Did the man come?'. Dì 'to eat' is underlyingly LOW but in the question ɔ́-làngbá ɔ́-dí-í? 'Is the man eating/Did the man eat?' dí becomes HIGH.³⁷

These processes of deletion and cliticization are by no means always predictable as we see from the kí-...-án progressive construction.

5.6.2.1 The Progressive kí-...-án and Negation

In 5.4.1 and 5.4.2, we noted that the Progressive kí-...-án, unlike its counterpart mí-...-án never allows pronouns in PREAUX and in (184f) and (g) we saw that both forms of the Progressive require tá as their negativizer: in the case of the mí-...-án construction, tá follows the pronoun, and in the kí-...-án it follows the verbal

³⁷Impressionistically it seems to me that in questions especially in Yes/No Questions, all of the high tones are just a little bit higher than the high tones of the corresponding statement. This is a point which would merit instrumental investigation.

complex.

- (188) a. ʔlɛ̃ŋ kɔ̃n-tà mɪ́-dér-yáŋ (=184f)
Ali he-NEG be-come-ing

'Ali isn't coming'

- b. ʔlɛ̃ŋ kɪ́-dér-káŋ t̃à (=184g)
Ali be-come-ing NEG

'Ali isn't coming'

I am therefore led to conclude that (188b) must contain some sort of pronominal which has no phonetic realization. It is not possible to postulate that this is a pronominal which has been deleted (the way kɔ̃nɔ̃ and ɔ̃wé are in sentences (187c) and (e)) but a great deal of unity of grammatical presentation is achieved if we assume that this sentence contains a pronominal element with no segmental or tonological realization. Since t̃à is a clitic it must cliticize to something. Since there is no pronominal in sentences like (188b) for it to cliticize to, it "hops" to the end of the verbal complex yielding the sequence kɪ́-dér-káŋ t̃à '...is not coming'.

While this certainly is not the same process as that which "hops" yé after the first verbal element in sentences like ɔ̃-dér-yé 'he did not come' or ɔ̃-pò-yé-dér 'he hasn't come' there would seem to be a definite analogy between the two processes. While there is a certain degree of abstraction in a solution which hypothesizes a pronoun which has no surface realization whatsoever, the gain which one achieves by doing this, I feel, justifies

the device: one is able to have a single slot for NEG in the verbal complex and to account in a unitary fashion for the distribution of $y\acute{e}$ and $\grave{t}\grave{a}$ and to account for the placement of these particles and for the resulting tones by means of a few simple rules. These are:

$$(189) \quad 1. \quad \text{NEG} \rightarrow \begin{cases} y\acute{e} \\ \grave{t}\grave{a} \end{cases} \quad (=183)$$

(Condition: if SPEC is present in PREAUX $y\acute{e}$ must be chosen; otherwise $\grave{t}\grave{a}$)

2. **$Y\acute{e}$ -HOPPING**

$$\begin{array}{cccc} \text{PREAUX} & \text{NEG} & \text{X} & \\ 1 & 2 & 3 & \rightarrow \\ & 1 & 3 & 2 \end{array} \quad (=186)$$

(Condition: 1 = SPEC Prefix)

3. Rules involving $\grave{t}\grave{a}$

a. **Cliticization**

$$\begin{array}{cccc} \text{Pronoun} & \text{\grave{t}\grave{a}} & \text{X} & \\ 1 & 2 & 3 & \rightarrow \\ & 1+2 & \emptyset & 3 \end{array}$$

b. **Perseverative Assimilation**

$$\grave{t}\grave{a} \rightarrow t\acute{e} / \begin{cases} \text{\textcircled{w}\acute{e}} \\ \text{k\grave{e}n\acute{e}} \end{cases} \text{---}$$

c. $k\grave{a}n\acute{a}$ -truncation

This rule may be seen as operating on a segmental and on a tonal tier:

i. Segmental:

$$\begin{array}{c} \Rightarrow \rightarrow \emptyset / k\grave{a}n \quad _ \quad \acute{a} \\ \quad \quad \quad L \quad H \quad L \end{array}$$

ii. Tonal:

$$\begin{array}{c} k\grave{a}n \quad _ \quad \acute{a} \\ | \quad \quad \quad / \\ L \quad H \quad L \end{array}$$
d. $k\grave{a}n\acute{a}$ -deletion (obligatory if Rule (c) has not applied:

i. Segmental:

$$\begin{array}{ccc} X & k\grave{a}n\acute{a} & \acute{a} \\ 1 & 2 & 3 \end{array} \rightarrow \begin{array}{ccc} 1 & \emptyset & 3 \end{array}$$

ii. Tonal:

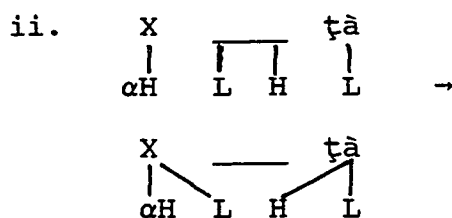
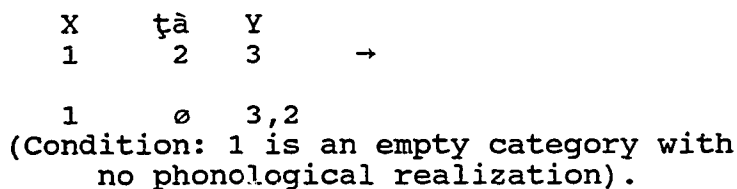
$$\begin{array}{c} X \quad _ \quad \acute{a} \\ | \quad | \quad | \\ \alpha H \quad L \quad H \quad L \end{array} \rightarrow \begin{array}{c} X \quad _ \quad \acute{a} \\ \backslash \quad / \\ \alpha H \quad L \quad H \quad L \end{array}$$

(Note: if the tone of X is HIGH it becomes HIGH-LOW (i.e., a high falling tone); if the tone of X is LOW this rule applies vacuously).

e. $\grave{a}w\acute{e}$ -deletion

i. Segmental:

$$\begin{array}{ccc} X & \grave{a}w\acute{e} & \acute{a} \\ 1 & 2 & 3 \end{array} \rightarrow \begin{array}{ccc} 1 & \emptyset & 3 \end{array}$$

f. **Tà Hopping**

The rules in the above set account for all the possible structures containing the negative particles yé and tà in a single unitary fashion. There is however, unfortunately, a minor ordering paradox involved. The strings in (187c) é-làngbá-tà dér and (187e) and (f) é-làngbá-té-dér-é... and kéné-té dér-é? presuppose that cliticization has already applied, causing the tones on the final vowel of làngbá and on tà to become contour tones and causing [tà] to [té], with a change in both vowel quality and in the place and manner of the release of the t. Succinctly the question is this: if tà cliticized onto the preceding pronominal, why was the pronominal subject to deletion when tà was not, but if tà did not cliticize onto a pronominal, why was it subject to the segmental and tonal changes that we have seen? An additional minor question is this: why did tà become precisely té. If the vowel was going to front, why did it front to /e/ and not /ε/, and why did the back /t/

front to /t/? When I stated the rule of tà becoming té, I did not attempt to formulate it in feature terms because it seems to me that there is no non-ad hoc way of doing so. When ATR-based vowel harmony systems collapse into seven-vowel systems the last two vowels to maintain [+ATR] seem to be /e/ and /o/ (R. M. R. Hall personal communication). However, in the string kèné-té the trigger for the change from /a/ to /e/ is not a tense (and presumably [+ATR]) vowel but a lax /ɛ/. Could it be that the original assimilation occurred in the string wé-té and was then generalized by analogy to kèné-té?

One further comment, Rule 189.2, **Yé-Hopping**, and 188.3.g, **Tà-Hopping** both have the same effect, to move a negativizer after a verb. It would be tempting to attempt to collapse these two rules into a single rule schema but there are, I think, strong reasons for not doing so. **Yé-Hopping** is an obligatory rule which is sensitive to no other condition once the yé negativizer has been chosen. **Tà-Hopping**, on the other hand is a very special rule which involves only the negative when the kì-...án continuous morpheme is being used and, necessarily, there is no surface pronominal. While these two rules have the same effect their conditions are so different that it would give a false sense of simplicity to collapse them.

5.7 The Imperative

The following paradigms of k̀nέ 'go', d̀ 'eat' and f̀n 'shave' illustrate the formation of the Imperative in the 2nd person singular and plural.

- (190) a. 2Sg k̀nέ (d̀)!' 'Go there!'
d̀ ŕ-m̀s 'Eat the egg!'
d̀ ŕ 'Eat it (Class 6)!'
f̀n Àl̀n 'Shave Ali!'
f̀n ń 'Shave yourself!'
- b. 2Pl k̀nέ d̀ ǹn 'Go there (all of you)!'
d̀ ǹn ŕ-m̀s 'Eat the egg (all of you)!'
d̀ ŕ ǹn 'Eat it (all of you)!'
f̀n ǹn án-l̀ngb́ 'Shave the men!'
f̀n ń́ ǹn 'Shave them!'
f̀n ń́ ǹn 'Shave yourselves!'

The formation of the Imperative is completely straightforward with the one exception that if a pronominal (an object, a pronoun of place such as d̀ 'there' or the reflexive ǹ) is used then the order is VERB-PRONOMINAL-PLURAL IMPERATIVE MARKER ǹn. A further exception to this rule is that if the non-proximate pronoun of place d̀ is used the order is VERB-PLURAL IMPERATIVE MARKER ǹn-d̀, i.e., k̀nέ ǹn d̀ 'Go over there!'

In the case of a double object verb such as t́ḱ 'give', the word order is as follows:

- (191) a. Sg t́ḱ Àl̀n án-ḱĺ 'Give Ali the money!'

- tàkà kɛ̃ ɲì 'Give it to him'
- b. Pl tàkà núŋ Àlêŋ áŋ-kálá 'Give Ali the money!'
- tàkà kɛ̃ ɲì núŋ 'Give it to him!'

In Temne it is possible to form a first person dual and plural imperative and third person singular and plural imperatives. The first person dual imperative is not really an autonomous combination of first person singular and second person singular. Since all of these persons are formed with prefixes, there is no difference in constituent order between verbs containing objects and reflexives and verbs which do not.

- (192) 1Sg tɛ̃ kɔ́né 'Let me go!'
(tɛ̃ < tã+i, See 1.2.4)
- 1Dual màŋ kɔ́né 'Let us go!'
(mãŋ < mìnêŋ yé múnɔ́ŋ, See 3.2.1)
- 1Pl tà (s̀) kɔ́né 'Let us go (three or more persons)'
- 3Sg tɔ́ kɔ́né 'Let him go!'
(tɔ́ < tã+ɔ́)
- 3Pl táŋ kɔ́né 'Let them go!'
(tá < tã+áŋ)

5.8 Verbal EXTensions

In Temne a verb root may be augmented and extended by means of verbal extension suffixes, consonants or vowels. Verb root extension is one of the deepest morphological processes in the derivation of a Temne verb and by the time other morphological processes apply the

verb and its extensions have completely fused together as a single unit. In a considerable number of cases, the extension suffixes occur with verb roots which have no free-standing forms in the contemporary language and the only meaning available today is the extended one.

However, by comparison with other verbs which have a simple form and an extended one, even those verbs where there is no simple form can usually be identified. An ordered list of the components of EXTENSION is as follows.

- (193) EXT → (INTENSIVE) (ITERATIVE) (DIRECTIONAL)
 { (REVERTIVE)
 (CAUSATIVE/BENEFACTIVE) } (BENEFACTIVE)
 (INTRANSITIVE)

As a sort of tour de force one may construct a sentence like the following which uses almost all the extensions in order.

- (194) ǎ-lǎŋgbá ǎ-gbép-t-s-r-á-ná-nè
 the-man he-put-INTENS-ITER-DIR-CAUS-BENE-REFLEX
 ká-báp ká áŋ-bát
 the axe on the-palm tree
 'The man put the axe on the palm tree
 over and over for himself'

While such sentences are undoubtedly grammatical they are certainly not the norm for the language. In the following list I have tried to illustrate all of the suffixes and the co-occurrence possibilities of many of them. However, there is much in the way of lexical semantic restriction at work here; some suffixes such as

ná 'Benefactive' and á 'Causative' seem to combine with most roots where the semantics are at all appropriate. Many others such as r Directional, s Iterative and t Intensive are much more restricted and less productive. Frequently the derived meaning of a verb root plus an extension is seemingly more than the sum of the meanings of the two constituents by themselves. For example, fɔ́f 'to speak' plus r Directional 'at, toward,' yields fɔ́fír literally 'to talk at someone' but best translated into English as 'to find fault with someone'. The following list and discussion will sketch out the gross morphological components but it does not in any way exhaust the semantic possibilities.

(194) The Extension Suffixes with their phonological realizations

- a. INTENSIVE: t
- b. ITERATIVE: $\left. \begin{array}{c} s \\ t \end{array} \right\}$
- c. DIRECTIONAL: r
- d. CAUSATIVE/BENEFACTIVE: á
- e. INTRANSITIVE: è
- f. BENEFACTIVE: ná

5.8.1 The Intensive: /t/

Some examples of the use of this suffix are:

- (195) a. Àlêŋ ɔ́-gbépt-nè ká-fɔ́yír-k-ɔ́ŋ
Ali he-leaned-self the-umbrella-the-his

'Ali leaned his umbrella against himself'

- b. Àlêŋ ɔ́-bót-nè má-sóy
Ali he-rubbed-self the soap

'Ali rubbed soap on himself'

- c. Àlêŋ ɔ́-námít áŋ-nàk
Ali he-mix the-food

'Ali is mixing the food'

- d. Lélànŋ ɔ́-ŋét à-sìkà
Lela she-mince the-greens

'Lela is mincing the greens'

In Sierra Leone greens are minced by the handful and so (195d) is appropriate even when Lela cuts the greens only once because even a single cut produces several shreds of greens.

5.8.2 The Iterative Suffixes /s/ and /ɬ/

In present day Temne there seems to be no semantic difference between the two iterative suffixes /s/ and /ɬ/. If the intensive suffix /t/ is used then it may only be followed by /s/; with this exception, there is no phonological principle involved in the fact that some roots select /s/ and some roots /ɬ/. For example, símít 'to break iteratively' but tám̀s 'to lick (repeatedly)' (licking is an action which is by nature repetitive); gbánɬ 'to pound' but m̀ǹs 'to drink over and over'. Some examples of sentences containing verbs using these prefixes are:

- (196) a. Àlêŋ ɔ́-fɔ́fít-nè

Ali he-speaks-ITER-self

'Ali is talking to himself'

- b. $\tilde{A}l\hat{e}\eta$ \acute{c} -kápís-nè
Ali he-scratch-ITER-self

'Ali is scratching himself'

- c. i. $\tilde{A}l\hat{e}\eta$ \acute{c} -fÁk ám-ànt
Ali he-dropped the-water

'Ali dropped the water'

- ii. $\tilde{A}l\hat{e}\eta$ \acute{c} -fÁk+ṭ ám-ànt
Ali he-dropped-ITER the-water

$\eta\acute{a}$ áṅ-pṣṭí
from the-cup

'Ali dripped (or dribbled) water from
the cup'

5.8.3 The Directional -r

In many African languages there are two directional morphemes which occur as verbal suffixes, one indicating motion toward the speaker and one motion away from the speaker (this is based on my observation of the Mande languages and personal communication from R. M. R. Hall concerning the Nilotic and Bantu languages). It is therefore a little surprising that Temne has only one directional suffix, -r, which can express either motion toward the speaker or motion away from the speaker. For example séké 'to give as collateral' but sékér 'to receive as collateral'; gbàl 'to write' but gbál+r 'to write to'; fṛf 'to speak' but fṛf+r 'to talk (at) someone, to chastise'; nṛmí 'to grimace' but nṛmír 'to make a

face at someone'. The following are examples of verbs using this suffix in sentences.

- (197) a. i. Àlêŋ ɔ́-mòt̚ áŋ-tɔ́tláyt
 Ali he-lit the-flashlight
 'Ali lit the flashlight (<torch light)'
- ii. Àlêŋ ɔ́-mòt̚ír mí áŋ-tɔ́tláyt
 Ali he-lit-DIR me the-flashlight
 'Ali shone the flashlight on me'
- b. i. Àlêŋ ɔ́-wáy áŋ-tɔ́tláyt
 Ali he-bought the-flashlight
 'Ali bought the flashlight'
- ii. Àlêŋ ɔ́-wáyír mí áŋ-tɔ́tláyt
 Ali he-bought-DIR me the-flashlight
 'Ali bought the flashlight from me'

In a number of cases such as lÁtír 'to soak with rain', wótír 'sharpen', tímír 'to stand or erect something', már 'help', yèr 'give', etc., the verb root can no longer stand by itself and the semantics of the situation is what leads us to postulate a fossilized extended form.

- (198) a. Àlêŋ ɔ́-wótír áŋ-tís
 Ali he-sharp-DIREC the-knife
 'Ali sharpened the knife' (from the notion away from self as one whets something.)
- b. Àlêŋ ɔ́-tímír áŋ-bèŋ
 Ali he-stood the-board
 'Ali stood the board up'

5.8.4 The Revertive -í, the Causative -á, and the intransitive -è

These morphemes all occupy the same slot in the verbal complex and only one of them can be chosen at one time. All three of these morphemes are fairly productive.

5.8.4.1 The Revertive -í

The most common use of the suffix /í/ is the inverting, where the agent reverses an earlier outcome achieved by the verb.

- (199) a. i. Àlêŋ ɔ́-gbák ár-ùmá
Ali he-hang the-piece of clothing
'Ali is hanging up the piece of clothing'
- ii. Àlêŋ ɔ́-gbák-í ár-ùmá
Ali he-hang-INVERS the-piece of clothing
'Ali is taking down the piece of clothing'
- b. i. Àlêŋ ɔ́-súnt áŋ-bítrà
Ali he-cork the-bottle
'Ali is corking the bottle'
- ii. Àlêŋ ɔ́-súnt-í áŋ-bítrà
Ali he-cork-INVERS the-bottle
'Ali is uncorking the bottle'

In a small number of examples the suffix /í/ also refers to some attribute of the actor.

- (200) a. Áŋ-t̀̀l ɲá-gbós-ì mì
the-medicine it-purged-ATTRIB me
'The medicine gave me diarrhea'
- b. i. Àlêŋ ì-bák-í Lélàŋ
Ali he-old-ATTRIB Lela
'Ali is older than Lela'

- ii. Àlêŋ mût-í Lélàŋ
 Ali he-precede in birth-ATTRIB Lela
 'Ali preceded Lela in birth'

Among the Temne, to precede some one at birth is an attribute as is age, height, etc., and so /í/ is the correct suffix in the above examples.

5.8.4.2 The Causative -á

For ease of reference, I have termed the suffix -á 'causative' but causation here must be taken in the broadest of senses. For example

- (201) a. i. Àlêŋ ɔ́-ŋát dó-kɔ̀m
 Ali he-raised upstairs
 'Ali went upstairs'
- ii. Àlêŋ ɔ́-ŋát-á ár-ùmá
 Ali he-raised-CAUS the-piece of clothing
 'Ali lifted the piece of clothing upwards'
- b. i. Àlêŋ ɔ́-dím tá-báp
 Ali he-lost the-axes
 'Ali lost the axes'
- ii. Àlêŋ ɔ́-dím-á Lélàŋ tá-báp
 Ali he-lost-CAUS Lela the-axes
 'Ali caused Lela to lose her axes'
 (cf. non-standard English 'he lost her the axes' or 'he lost the axes on her').
- c. i. Àlêŋ ɔ́-gbál à-rèkà
 Ali he-write a-letter
 'Ali is writing a letter'
- ii. Àlêŋ ɔ́-gbál-á ká-pɛn
 Ali he-write-CAUS the-pen
 'Ali is writing with the pen'

(subliterally, perhaps, 'He is causing writing with the pen').

5.8.4.3 The Intransitive -è

The suffix /è/ is used when:

- a. The object of a transitive verb has become the subject of the corresponding intransitive verb

AND

- b. The action of the transitive verb is reversed.

For example

- (202) a. i. Àlêŋ ɔ́-gbák ár-ùmá (=199a)
Ali he-hang the-piece of clothing
'Ali is hanging up the piece of clothing'
- ii. Ár-ùmá rí-gbàk-è
the-piece of clothing it-hang-INVERS
'The piece of clothing has fallen off'
- b. i. Àlêŋ ɔ́-súnt áŋ-bíṭrà
Ali he-cork the-bottle
'Ali is corking the bottle'
- ii. Áŋ-bíṭrà áŋ-súnt-è
the-bottle it-cork-INVERS
'The bottle has uncorked'
('It has popped its cork')
- c. i. Àlêŋ ɔ́-káŋṭá ká-rárè
Ali he-closed the-door
'Ali closed the door'
- ii. Àlêŋ ɔ́-káŋṭí ká-rárè
Ali he-opened the-door
'Ali opened the door'
- iii. Ká-rárè kí-káŋṭ-è
the-door it-open-INVERS

'The door has opened'

5.8.5 The Benefactive -nā

The benefactive suffix has two allomorphs: **-nā** after vowels and **-ā** after consonants. Thus we have gbùké 'to run' but gbùkènā 'to run for (the benefit of) someone'; yá 'to do' but yènā 'to do (something) for someone'; táp 'to chop' but tápā 'to chop for someone'; tím 'to fight' but tímā 'to fight for someone'. For example

- (203) a. Àlêŋ ɔ́-gbuke-nā Lélàŋ áŋ-rékà
Ali he-ran-BEN Lela the-letter
'Alie rushed the letter for Lela'
- b. Lélàŋ ɔ́-yɔ́-nā Àlêŋ má-pántɔ́
Lela she-did-BEN Ali the-work
'Lela did the work for Alie'
- c. Lélàŋ ɔ́-rú-nā Màrɛŋ ɔ́-wántɔ́
Lela she-braided hair-BEN Mary the-child
'Lela braided the child's hair for Mary'
- d. Àlêŋ ɔ́-gbɛ̀m-ā Lélàŋ ɔ́-sɛ̀m
Ali he-pound-BEN Lela the-meat
'Ali is pounding the meat for Lela'
- e. Lélàŋ ɔ́-tòŋ-ā Àlɛŋ ɔ́-sɛ̀m
Lela she-cooked-BEN Ali the-meat
'Lela cooked the meat for Ali'
- f. Lélàŋ ɔ́-táy-ā Àlêŋ ɔ́-sɛ̀m
Lela she-dry-BEN Ali the-meat
'Lela is drying the meat for Ali'

The allomorph **-ā** of the morpheme **-nā** "Benefactive" is clearly distinguished tonally from the causative **-á**

which we saw in 5.8.4.2, above.

5.8.6 Infixation

There are a number of verbs in Temne where meaning is modified by a kind of vowel gradation. Some examples are:

- (204) a. //gbp// 'to stay attached'
- gb^hp 'to turn upside down (bellyside down)'
- gbá

'to fasten'

gbìp 'trap, catch'

gbé

'climb (climbing is still where belly rubs on the tree)'

gbépt 'to bring together (horizontally)'

gbánpá 'to bring together (abstracts)'

gbónpá 'to bring together in a bunch'

b. //sk// 'to disperse'

s^hk 'to remove'

sàk 'to sow grain'

séké 'to give as collateral; to transfer possession of'

c. //tp// 'to transform'

t^hp 'to begin'

t\p 'to chop wood'

tép 'to grow'

t^hpí 'to create'

In present day Temne this process is certainly not productive but it may be a remnant of a once functioning

system of either infixation or of vowel symbolism, yielding such things as augmentatives and diminutives by means of a vowel change.

5.9 Adjectival Verbs

As I stated above, Temne adjectives are in their underlying structure verbs and grammatical structures involving predications with adjectives are a subset of predications with verbs. For example

- (205) a. i. \acute{s} -lāŋgbá ì-fín \acute{s} 'The good man'
 the-man the-good
 ii. \acute{s} -lāŋgbá í-fín \grave{s} 'The man is good'
 the-man the-good
 b. i. áŋ-rèkà à-bí 'The black paper'
 the-paper the-black
 ii. áŋ-rèkà á-bí 'The paper is black '
 the-paper the-black

These examples show us that the SPEC prefix used in the predication is exactly the same as the SPEC prefix used in the corresponding attributive sentence and that it is segmentally the same as the indefinite SPEC prefix which is appropriate to that SPEC class -- ì-lāŋgbá 'a man', à-rèkà 'a (piece of) paper'. In attribution the SPEC prefix occurs with a low tone but in predications the tone of the SPEC prefix is high.

Since adjectival verbs are verbs they can undergo many verb-like processes. For example, simple predications may be made causative. Corresponding to a sentence

like (205.b.ii) áŋ-rèkà á-bí 'The paper is black' we have

- (206) a. ɔ́-làŋgbá ɔ́-bíɕís áŋ-rèkà
 the-man he-blackened the-paper
 'The man blackened the paper'

and

- b. áŋ-rèkà áŋ-bíɕè
 the-paper it-blackened
 'The paper became black'

and this sentence may also be constructed with the Present Perfective pò

- c. áŋ-rèkà áŋ-pò-bíɕè
 the-paper it-PRES PERF-blackened
 'The paper has become blackened'

and with the Progressive

- d. áŋ-rèkà ŋá-mí-bíɕè-yáŋ
 the-paper it-be-black-ing
 'The paper is becoming black'

The negatives of all of these sentences follow the rules of Negation with verbs proper exactly.

- e. i. ɔ́-làŋgbá ɔ́-bíɕís yé áŋ-rèkà
 the-man he-blackened NEG the-paper
 'The man did not blacken the paper'
- ii. áŋ-rèkà áŋ-bíɕè yé
 the-paper it-blackened NEG
 'The paper did not become black'
- iii. áŋ-rèkà áŋ-pò yé bíɕè
 the-paper it-PRES PERF NEG blackened
 'The paper has not become blackened'
- iv. áŋ-rèkà ŋì-ɕà mí-bíɕè-yáŋ

the-paper it-NEG be-black-ing

'The paper is not becoming black'

The process of causative formation is quite regular in predications concerning things: lólí 'ripe' will yield lólís 'to cause to ripen' and bútí 'sweet' will yield bútís 'sweeten', témpí 'clever' témpís 'to make someone clever (either by teaching or by magical means)'.

While the processes here are clearly parallel to those found with verbs proper, the exact correlations of morpheme shape to semantic content are not. Thus with verbs proper the extension /s/ is iterative while here it is causative as in témpís 'to make someone clever' and bútís 'sweeten'. With verbs proper /t/ and /s/ fill the same position in the series of verbal extensions --either one may be used or the other but not both; with adjectival verbs we see them co-occurring in bítís 'to blacken'.

With a number of adjectival verbs including several which are usually predicated of human beings, the causative is formed by suppletion. For example

- (207) a. i. ś-lāṅgbá í-fínḽ 'The man is good'
 the-man the-good
- ii. áṅ-dínà áṅ-bémpá ś-lāṅgbá
 the-religion it-made good the-man
 '(The) Religion improved the man'
- b. i. ś-wàṅṭ í-bànà 'The child is big'
 the-child the-big
- ii. ś-wàṅṭ ś-bóndà 'The child got fat'
 the-child the-fat

6.0 Conclusion

In the previous five chapters I have tried to present the major facts of Temne phonology and morphology as they are exemplified in the structures of the Noun Phrases and Pronominals and in the structure of the Verb Phrase. The one central theme running through these pages has been the SPEC prefixes, how they are structured; how nouns are assigned to membership in one, or occasionally more than one, SPEC class; the ways in which they are affixed to the verbal complex as subjects and the conditions of pronominalization -- disjunctive, relative, interrogative -- which prevent SPEC prefixes from occurring as a part of the verb complex. Wherever they were relevant, I have referred to individual rules of tone change and tone assimilation but I have not attempted to present a systematic account of the tonal system of Temne. I have also not attempted to do more than occasionally refer to syntactic or semantic rules as they were relevant to the syntax. All of these topics must wait for further study. I plan to try to do some of this work myself. If I am not able to do it, it is at least my hope that the work I have done on the phonology and morphology of Temne will provide a better starting place for future students of the language.

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