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The Shiriana dialect of Yanam (northern Brazil)

Gómez, Gale Goodwin, Ph.D.

Columbia University, 1990

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THE SHIRIANA DIALECT OF YANAM (NORTHERN BRAZIL)

Gale Goodwin Gómez

**Submitted in partial fulfillment of the
requirements for the degree
of Doctor of Philosophy
in the Graduate School of Arts and Sciences**

COLUMBIA UNIVERSITY

1990

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ABSTRACT

THE SHIRIANA DIALECT OF YANAM (NORTHERN BRAZIL)

Gale Goodwin Gómez

Shiriana is a dialect of the Yanam language, spoken by 280 people in the region of the upper Uraricoera River in the state of Roraima in northern Brazil. Other Yanam speakers can be found along the Mucajaí River in Brazil and along the Paragua and Paramoxim Rivers in southern Venezuela. Yanam is one of the four languages of the Yanomami family and has 500 to 600 speakers out of over 20,000 Yanomami Indians living in the Amazon rain forest on both sides of the border between Brazil and Venezuela. The Yanomami are the largest group of unacculturated tropical forest people who still maintain their traditional way of life.

The field work on which the present analysis is based was conducted in the village of Ericó (in Roraima, Brazil) for a total of fourteen weeks during 1985 and 1986. The major portion of the analysis is devoted to Shiriana phonology and morphology. These are presented within a traditional descriptivist framework. In addition to the phonemic inventories, the chapter on phonology describes the distribution of the consonants (/th, p, t, k, c, s, \$, h,

m, n, w, r/) and the vowels. The vowels are divided into dominant (/a, o, i/) and recessive (/I, e/, schwa). The chapter on morphology surveys the pronominal forms and describes in detail kinship terminology, possession, and the noun phrase. The verb and verbal syntax are examined in a separate chapter. Shiriana is a verb-final language with ergative subject-marking and a complex verbal morphology. Attention is also given to derivation and compounding and to a discussion of areal syntactic features found in Shiriana which are shared by other unrelated languages in Amazonia. The framework for the section on Amazonian areal typological features follows that of The Handbook of Amazonian Languages, vol. 1, by Desmond C. Derbyshire and Geoffrey K. Pullum (Berlin: Mouton de Gruyter, 1986). Appendices include a short analyzed text and a lexicon.

The first reference work on all four Yanomami languages is Yanomama Grammar and Intelligibility by Ernest C. Migliazza (unpubl. Ph.D. diss., Indiana University, 1972. University Microfilms #72-30,432). This work is essentially a comparison of the four Yanomami languages. It also contains substantial ethnographic information.

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ABBREVIATIONS AND SYMBOLS

AG	agentive
ADV	adverb
ANIM	animate
ATTVZR	attributivizer
C	consonant
CAUS	causative
COLL	partitive-collective
COMIT	comitative
DAT	dative
DIMIN	diminutive
EVID	evidential
EXIST	existential
HORT	hortatory
INAN	inanimate
IMP	imperative
IMPERF	imperfective
INGR	ingressive
INSTR	instrumental
INTRANS	intransitive
ITER	iterative
NOMLZR	nominalizer
OBL	oblique

OPT	optative
OTRANS	object of a transitive verb
PERF	perfective
PL	plural
POSS	possessive
POT	potential
PROS	prospective
QM	question marker
RES	resultative
SINTRANS	subject of an intransitive verb
sp.	species of (bird, fish, or animal)
STRANS	subject of a transitive verb
SUBORD	subordinator
TEMP	temporal
TER	terminative
V	vowel
VBLZR	verbalizer
3	third person
\$	voiceless dorso-post-alveolar hushing fricative
c	voiceless alveopalatal hushing affricate
@	mid central unrounded vowel; also called <u>schwa</u>
I	high back unrounded vowel
ɔ	high back rounded open vowel
ŋ	voiced velar nasal
ɣ	voiced velar fricative
~	nasalized morpheme follows

=	derivational word boundary
-	inflectional word boundary
:	lengthening of preceding segment
ʔ	glottal stop
∅	zero morpheme
" "	indicates word-for-word translation
{ }	pre- <u>or</u> post-position

ACKNOWLEDGEMENTS

I wish to thank my informants and all of the Ericotheri for their patience, generosity, and hospitality. I would also like to thank my colleagues in Brazil and abroad, especially Carlo Zacquini, Daniel Lévy-Bruhl, and Marco Lazarin for their friendship and support in the field. I am grateful to Claudia Andujar for her invaluable assistance and encouragement and for her inexhaustible dedication to the struggle for the survival of the Yanomami people. To Alcida Rita Ramos, I am deeply grateful for her friendship and encouragement and for her valuable comments on portions of the manuscript.

Field work in Brazil was supported by the Ford Foundation of Rio de Janeiro and the Inter-American Foundation of Rosslyn, Virginia. Their generous financial support is gratefully acknowledged.

I would like to thank Dr. Harriet Klein, my second reader, and the other members of my committee, Dr. Lambros Comitas, Dr. Libbet Crandon de Malamud and Dr. Aili Flint for the reading of the manuscript and for their comments.

I am greatly indebted to my dissertation sponsor Prof. Robert Austerlitz, who has so generously given his time and guidance through the years. Without his support and encouragement this dissertation would no doubt have remained on notecards.

Finally, to my husband, Luis, and my children, Sara and Carlos, I am deeply grateful.

PREFACE

The Yanomami Indians of Brazil and Venezuela have been the subject of a considerable body of ethnographic research over the past twenty-five years. References to various groups within the Yanomami family have been made by means of the following names: Yanomama, Yancama, Yanomamö, Guaica, Waica, Casapare, Ninam, Parahuri, Guaharibo, Shiriana (also written Xiriana), Shirishana, Kirishana, Sanemá, Samatari, Shamatari, and numerous variation of these terms. At the present time, the terms most widely used in a generic sense to name these Indians are Yanomami in Brazil and Guaica in Venezuela. The four major languages are referred to in this dissertation by the names Yanam, Yanomam, Yanomami, and Sanumá, consistent with their current usage by Brazilian anthropologists.

Little linguistic research has been published concerning any of the four languages of the Yanomami family. Much of the data is in the form of unpublished dictionaries or word lists. Linguistic works on Yanomami languages are cited in section B of the bibliography.

The first reference work on all four Yanomami languages is Yanomama Grammar and Intelligibility, an unpublished doctoral dissertation by Ernest Migliazza (1972).

It is essentially a comparison of Yanam, Yanomam, Yanomami, and Sanumá. Complete grammars of the four individual languages have yet to be published. Although genetic relationships have been suggested between the Yanomami family and the Macro-Chibchan family (Voegelin, 1977:348 and Key, 1979:31-33) and between the Yanomami family and the Macro Pano-Tacanan language family (Migliazza, 1982:510), I believe, that more comparative work needs to be done before a strong case for genetic affiliation can be made. For the present I will consider the Yanomami family unaffiliated with any other family.

The paucity of linguistic research concerning the Yanomami language family was an important factor in the decision to conduct this study. Another factor was the impending threat to the isolated Yanomami from the sociedade nacional and my desire to contribute to the struggle against the inevitable destruction of these people, their culture, and their environment.

The Yanam language was chosen because it is the smallest linguistic community, with only 500-600 speakers out of a total of over 20,000 Yanomami Indians (12,000 in Venezuela and 9,000 in Brazil). It seemed likely that because of the small number of speakers and the peripheral location of their communities (less isolated than other Yanomami groups), Yanam was the most threatened of the four languages and, therefore, the most urgently in need of

study.

The purpose of the research was to write a descriptive grammar which would give an overview of the most important features of the phonological, morphological, and syntactic systems of the language. This grammar can serve as a basis for future collection of texts, discourse analysis, comparative work, and it will pinpoint problem areas for further analysis.

INTRODUCTION

0.1 Time and location of field work

The field work was conducted in the village of Ericó during the dry season in two consecutive years, from January to March 1985 and from January to February 1986, for a total of fourteen weeks. In 1985 the author was part of a team including two Brazilian anthropologists, Dr. Alcida Rita Ramos of the University of Brasília and Marco Antonio Lazarin of the University of Goiás, in a project designed to provide a foundation for subsequent programs in health and education. A detailed account of this field trip and an ethnographic description of the community of Ericó can be found in Ramos, Lazarin, and Gómez (1985). In 1986 the author continued her linguistic field work independently, living alone in the same small hut that the Indians had offered to the research team the previous year.

The village of Ericó is located 50 minutes' flying time by single-engine plane northwest of Boa Vista, the capital of the Brazilian state of Roraima. The village is situated on the Uraricaá River, just below the point where it joins the Ericó River. (See maps I-III.) The community is basically that in which Ernest Migliazza lived in the 1960's. It was situated upstream at Boas Novas until

1984. That year the entire community moved to Erico after a tragic incident in which two Indians were killed and a third seriously injured by a FUNAI employee stationed there (for further details see Ramos, Lazarin, and Gómez (1985:28-33)).

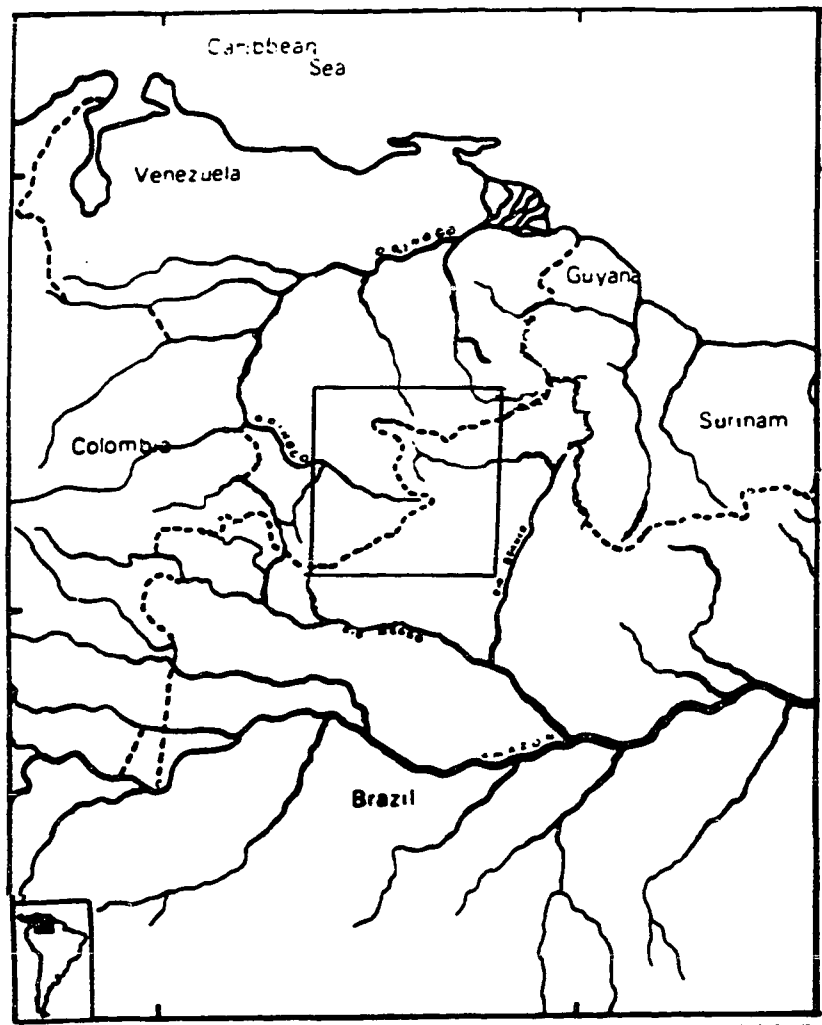
In January 1986 there were sixty inhabitants in the village, which consisted of two conical-shaped and four smaller rectangular dwellings housing both extended and nuclear families. They were of traditional wood and thatch construction. These dwellings were located on either side of a rudimentary landing strip and a short walk from the river on one side and a stream on the other. A FUNAI (the Brazilian National Indian Foundation) vigilance post was located on the side of the landing strip near the river. It consisted of two small wood and tin buildings and was manned by two FUNAI employees, the acting chief of Post and a nursing attendant.

During the field trip of January-March 1985 there was also a detachment of the Second Frontier Battalion of the Brazilian Armed Forces installed at the head of the landing strip a few hundred yards from the FUNAI Post. The detachment, which was composed of five soldiers under the command of a sergeant, rotated with another group every month. The detachment was de-activated on March 12, 1985 and the installations were in ruins and becoming overgrown by the forest in January of 1986.

This dissertation is based primarily on information gathered during tape-recorded interviews with four informants, all residents of the community of Ericó: two young men, about 23 and 28 years of age (each married with small children), a mature man (married with five children and an infant grandchild), and an unmarried woman of 25-30. The female informant was somewhat marginalized in comparison to other women of the community. She had worked in Boa Vista for an extended period and there had learned Portuguese. Although she had relatives in the village her behavior seemed to be that of a visitor rather than a member of the community. The reasons for her stay in Boa Vista and consequently her marginalized status were not determined.

The contact language used was Portuguese. All four informants have visited the town of Boa Vista and can carry on a conversation in Portuguese. The older of the two young men, Renato, is the most fluent speaker of Portuguese in the village. The women, children, and most older men of the community are monolingual. The younger men who speak some Portuguese have learned it from gold prospectors or during sojourns on cattle ranches as adolescents.

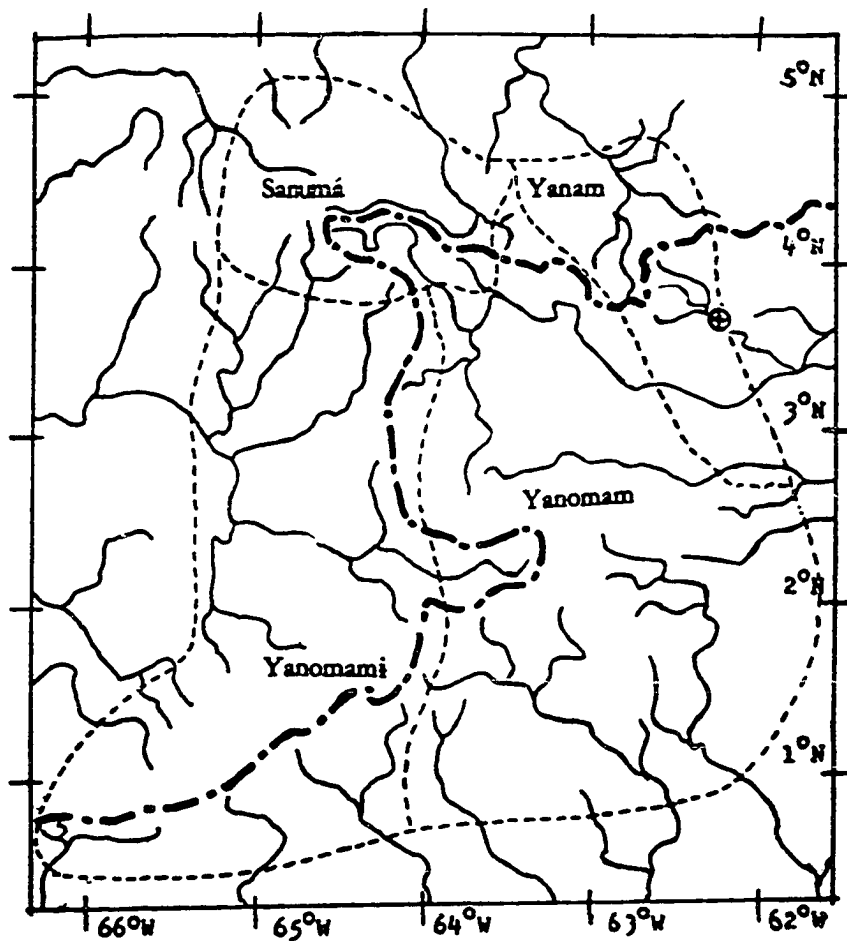
MAP I
THE LOCATION OF YANOMAMI TERRITORY
(Adapted from Migliazza, 1980:96)



MAP II (enlargement of inset of Map I)

THE FOUR YANOMAMI LANGUAGE GROUPS
AND THE LOCATION OF THIS RESEARCH ⊕

(Adapted from Taylor, 1974:17)

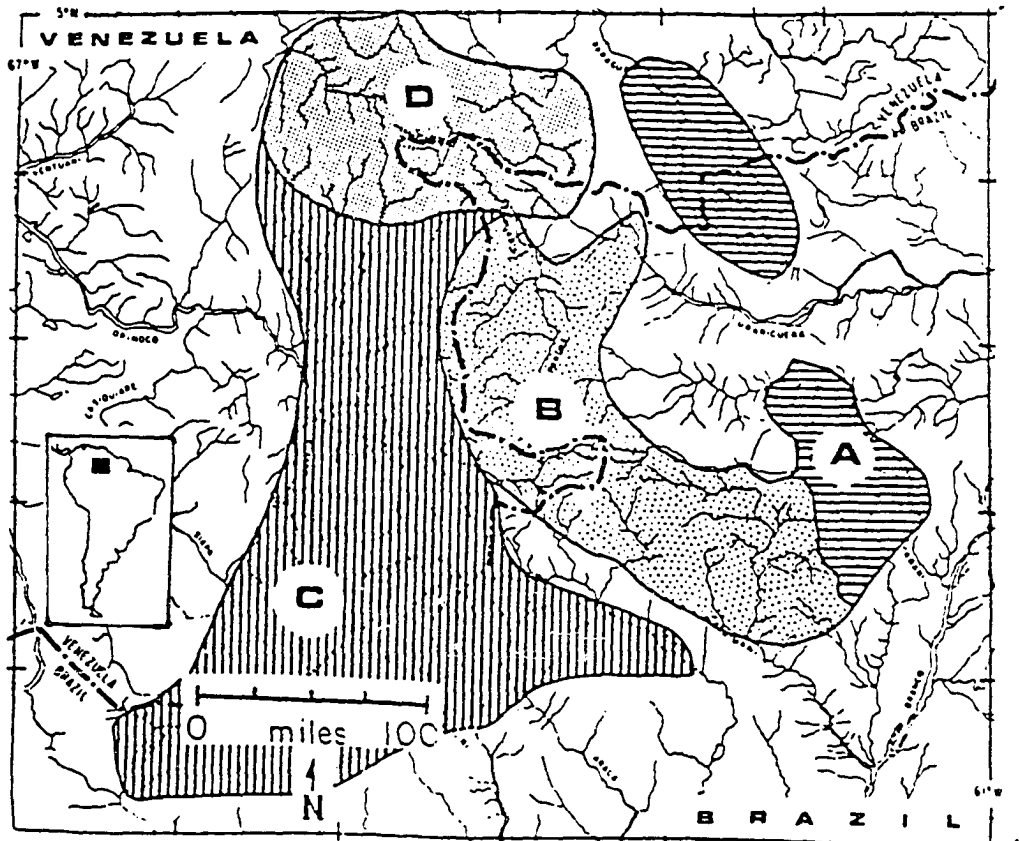


MAP III

THE FOUR YANOMAMI LANGUAGES

(From Migliazza, 1980:102)

A = Yanam; B = Yanomam; C = Yanomami; D = Sanumã



0.2 Summary of ethnography

The village of Ericó (whose inhabitants will henceforth be referred to as the Ericotheri, as is the custom among the Yanam) is slightly acculturated, primarily because of intermittent contact with gold prospectors over the past twenty years. The Ericotheri maintain, for the most part, their traditional way of life. Families cultivate gardens of bitter and sweet manioc (cassava), plantains, bananas, yams, sweet potatoes, and sugar cane. Men hunt with bows and arrows, and large seasonal fishing parties are still conducted by poisoning streams with special vines. Fishing hooks and line, an occasional shotgun or cassette player, and knives and machetes are evidence of contact with whites. In the home aluminum pots, needles and thread, and various articles of clothing are becoming commonplace. Nevertheless, such traditional practices as shamanistic healing ceremonies and large festive gatherings with neighboring groups continue to play an important role.

The Ericotheri have frequent social contact with their kin who live upstream and across the border in Venezuela, with the Yanam of Mucajaí (whose language they call "Shirishana"), and also with neighboring Yanomam-speaking groups, especially those living in the area of Parimiú. In fact, several marriages have taken place between the (Yanomam-speaking) Parimiutheri and the (Yanam-speaking) Ericotheri. Their languages seem to be mutually intelligible.

Two non-Yanomami Indian groups which have influenced the Ericotheri are the Maiongong (also called Yekuana or Maquiritare) and the Macushí (also spelled Macuxí). Both speak Carib languages. The Maiongong are close neighbors of the Sanumá-speaking Yanomami in the region of the upper Auaris River and there are also Maiongong now living in the area known as Waikas. The traditional Carib-style manioc graters used by the Ericotheri women are evidence of trade with the Maiongong.

Contact between the Ericotheri and the Macushí has been more intense. The Macushí live in an area (the so-called lavrado) adjacent to the forest, which has been developed by cattle ranchers. A few of the young men from Ericó have spent months working and living with the Macushí on these ranches. There is also a village in the lavrado called Boqueirão where entire families from Ericó go to live for months at a time. The preparation and consumption of a fermented beverage called caxiri and the use of traditionally Carib palm skirts in men's dances at celebrations are the undoubted influence of contact with the Macushí.

0.3 Historical background

Ernest Migliazza (1972) chronicles the accounts of early explorers and travelers in the Amazon basin from the sixteenth to the twentieth centuries. He notes that among the first names of local Indian groups recorded by Cristóbal Acuña in 1641 are two, Yanma and Guanama, which could

refer to a Yanomami group (Migliazza, 1972:358). The first specific reference which Migliazza found concerning the Yanam of the upper Uraricoera was in 1839 from Robert Schomburgh, who wrote of kirishanas (also called Shirishanas) living on a "tributary of the Uraricuera near the Murutani [today Urutanim] mountains" (Migliazza, 1972:365). Years later during a trip in 1911-1913 the German explorer Koch-Grünberg recorded a group of Shiriana "living on the right bank of the Uraricoera, above Maracá" (quoted in Ramos, Lazarin, and Gómez, 1985:14). Over the next forty years there are several more references to Shiriana groups encountered by traders and government officials along the banks of the Ericó and Uraricaá rivers, tributaries of the Uraricoera. In 1958 under the auspices of the Baptist Mid-Missions Ernest Migliazza began living among the Yanam in the village of Boas Novas on the Coimim River, a tributary of the Ericó River. He lived there until the beginning of the 1970's.

During the late 1960's and early 70's small groups of prospectors came into the area of the upper Uraricoera, going as far as Venezuela in search of diamonds and gold. It was during this time that the Yanam became aware of the value of gold and began learning the rudimentary techniques of gold extraction from these prospectors. After they were expelled from Venezuela, a few of these miners remained in the Yanam area long enough to establish

amicable ties with the Indians. Some of them learned the Shiriana language and one even married a Yanam woman and has lived in one of their communities ever since (see Ramos, Lazarin, and Gómez (1985:41-58) and the Commission for the Creation of the Yanomami Park (May 1986) for more details on gold prospecting and the Yanam).

In 1980 about 2000 prospectors invaded the southernmost portion of Yanam territory and FUNAI (the Brazilian National Indian Foundation) established two vigilance posts, one in Boas Novas and one in Ericó, as an attempt to stop the illegal mining of Indian lands. The Yanam were the first to suffer the effects of a massive gold rush which would hit the isolated communities of the interior (e.g. Paapiú and Surucucus) beginning in August 1987. More details on this current gold rush and its genocidal effects can be found in the reports of the Commission for the Creation of the Yanomami Park (1986-1989) and in recent newspaper articles (see Brooke, 1989-1990).

The Yanam-speaking communities are located on the periphery of Yanomami territory and have also been the group which has had the most contact with whites, especially mineral prospectors. This contact brought diseases, such as respiratory infections, measles, malaria, tuberculosis and venereal diseases to the Yanam much earlier than to most other Yanomami groups. The Yanam linguistic community is the smallest of the four Yanomami languages. One

wonders if there is a relationship between their long contact with whites and their small number.

CHAPTER 1

PHONOLOGY

1.1 Segmental phonological units

In the Shiriana dialect of Yanam (henceforth referred to as SY), there are eighteen phonemes: twelve consonants and six vowels. The twelve consonants are /th/, /p/, /t/, /k/, /c/, /s/, /ʃ/, /h/, /m/, /n/, /w/, and /r/. The six vowels are /i/, /e/, /ə/, /a/, /o/, and /I/. All vowels occur nasalized in nasal morphemes.

1.2 Consonantal phonemic inventory

Tables 1 and 2 portray the Shiriana-Yanam consonant system from two perspectives. Table 1 analyzes the consonant phonemes in terms of articulatory phonetic facts. Table 2 describes the consonant system reduced to its essential phonological parameters.

TABLE 1
 CONSONANT SYSTEM
 (Phonetic Facts)

	labio- labial	apico- alveolar	alveo- palatal	dorso- velar	glottal
Obstruents					
Stops					
Aspirated		th			
Plain	p	t		k	
Affricate			c		
Fricatives		s	ʃ		h
Resonants					
Nasal	m	n			
Oral	w	r			

TABLE 2
 CONSONANT SYSTEM
 (Phonological Parameters)

		Front	Back	
Resonants	Nasal	m	n	Nasal
	Oral	w	r	
Obstruents	Oral	p	t	Pure oral
		s	ʃ	
	Glottal		c	Pure glottal
			h	
		th	Obstruent + Glottal	

1.3 Description of consonants

Of the twelve consonant phonemes, there are eight obstruents: four stops, one affricate, and three fricatives. All obstruents are voiceless. There are four non-obstruent resonants, two nasal and two oral. All resonants are voiced.

1.3.1 Obstruents

There are four stops: /tʰ/, /p/, /t/, and /k/, and one affricate, /c/. All are voiceless. /p/ and /k/ have unaspirated or weakly aspirated allophones, while strong aspiration distinguishes /tʰ/ from /t/.

/tʰ/: aspirated, voiceless apico-alveolar stop, e.g. /ˈtʰomɪn@/ 'knife.' It occurs in all environments except preceding the high front vowel /i/. As a result, [tʰ] is almost in complementary distribution with [s], which occurs almost exclusively before [i]. However, [s] has been found to occur before [a] in 11 lexical items, five of which are obvious borrowings from Portuguese, e.g. [sararop] 'salt' from Port. sal. Two other lexical items reflect modern technology and may also be borrowings from Portuguese or from another indigenous language, e.g. [makosa] 'sewing needle' and [rakapsaa] 'rifle.' [s] also occurs once before [o] in [kasoweri@] 'empty' and once before [e] in [senene] 'type of design.'

Because of the exceptions noted and for the sake of

clarity in this analysis, both /th/ and /s/ will be retained in the phonemic inventory. For the time being it can be said that /th/ and /s/ have partially overlapping distributions. At a higher level of analysis and, perhaps with more data, /th/ and /s/ can be said to belong to the same phonological unit.

/p/: voiceless, labio-labial stop, e.g. /paʂo/ 'spider monkey.' It has unaspirated and weakly aspirated variants which occur in free variation. A partially voiced variant may occur for some speakers in word-initial pre-vocalic position, e.g. /pI Ih/ [bIʔIh] 'wet' and /poʂehi/ [boʂehi] 'white-collared peccary' and in borrowings, e.g. /piʂan thai/ [biʂan thai] 'domesticated cat' from Port. bichano 'a pet kitten.'

/t/: unaspirated, voiceless, apico-alveolar stop, e.g. /totihi/ 'good.' A partially voiced variant may occur in word-initial position preceding a high vowel, e.g. /tIhI/ [dIhI] 'jaguar.'

/k/: voiceless, dorso-velar stop, e.g. /karaka/ 'chicken.' It has unaspirated and weakly aspirated variants which occur in free variation. It never occurs as a voiced [g].

/c/: voiceless, alveo-palatal hushing affricate, e.g. /coco/ 'toad sp.' In word-initial position in nasal morphemes [c] occurs in complementary distribution with a voiced palato-nasal [ny], e.g. /~cano/ [~nyano] 'house.' A

related phenomenon is that of /i/. In post-vocalic position a high, front, unrounded, dorso-palatal glide [y] will be analyzed as an allophone of the vowel phoneme /i/, e.g. /coinam/ [coynam] 'bird sp.' and /~kaia/ [~kaya] 'gnat sp.'

From the point of view of the structure of the language family as a whole, The phoneme /c/ remains closely linked to [y]. With respect to convertibility and comparability with its sister Yanomami languages, /c/ corresponds to /y/ in Yanomam and YanomamI and to /ts/ in Sanuma.

There are three fricative phonemes: /s/, /ʃ/ and /h/. All fricatives are voiceless.

/s/: voiceless, apico-alveolar fricative, e.g. /pisiaw/ 'bird sp.' /s/ has overlapping distribution with /th/ before /i/. It rarely occurs preceding other vowels.

/ʃ/: voiceless, dorso-post-alveolar hushing fricative, e.g. /maʃiap/ 'heart.' It is more like the English voiceless hushing fricative than the French one in that it is accompanied by some rounding.

/h/: voiceless, glottal fricative, e.g. /horoto/ 'gourd.'

1.3.2 Non-obstruents: m, n, w, r

There are four resonant phonemes: two nasal resonants, /m/ and /n/, and two oral resonants, /w/ and /r/.

/m/: voiced, labio-labial nasal resonant, e.g. /mamo/ 'eye.'

/n/: voiced, apico-alveolar, nasal resonant, e.g. /namo/ 'sharp'.

/w/: voiced, labio-labial, oral resonant, e.g. /hewesi/ 'bat.' It usually occurs as a high, back, rounded labio-labial glide. It never occurs before /o/. Since there is no /u/ phoneme in the language, it was not possible to assign the /w/ glide to it. The occurrence of a phonetic [u], however, is discussed below under the phoneme /I/.

/r/: voiced, apico-alveolar, oral resonant, e.g. /rahami/ 'far.' It usually occurs as a voiced, apico-alveolar tap. A pre-nasalized variant [nr] usually occurs in word-initial position in nasal morphemes, e.g. [~nraka] for /~raka/ 'sand.' In intervocalic position in nasal morphemes, the contrast between /r/ and /n/ is neutralized as a voiced apico-alveolar nasal tap, symbolized by [N], for example /~waro/ [~waNo] 'man' and /~cano/ [~nyaNo] 'house,' but /caro/ [caro] 'game (meat).'

The following minimal and quasi-minimal pairs support the distinctiveness of the twelve consonant phonemes:

/pa ari/ 'bird sp.'	: /\$a ari/ 'straight'
/kahik/ 'mouth'	: /pahik/ 'fruit sp.'
/poko/ 'arm'	: /po o/ 'ax'
/~ro oh/ 'housefly'	: /~\$o ohI/ 'river shrimp'
/taa/ 'to see'	: /tha/ 'to make'
/wakaw/ 'seagull'	: /\$akaw/ 'arrow'

/coinam/ 'bird sp.'	:	/coinak/ 'bee sp.'		
/~noha/ 'behind'	:	/~hoha/ 'rabbit'		
/macaw/ 'papaya fruit'	:	/macak/ 'caterpillar sp.'		
/warI/ 'peccary sp.'	:	/wakI/ 'fire'		
/thethehe/ 'thin'	:	/~hethehe/ 'light-weight'		
/\$ama/ 'tapir'	:	/kama/ 'he'		
/pI Ih/ 'wet'	:	/cI Ih/ 'abscess'		
/karaka/ 'chicken'	:	/karatha/ 'banana'		
/pemi/ 'no'	:	/temi/ 'alive'		
/kahik/ 'mouth'	:	/kasik/ 'lips'		
/nak/ 'teeth'	:	/wak/ 'waist'	:	/mak/ 'leg'
/~cami/ 'few'	:	/~cahi/ 'meat'		
/\$ami/ 'dirty'	:	/~cami/ 'few'		
/~nahi/ 'bow'	:	/~cahi/ 'meat'		
/taposi/ 'palm bark'	:	/tarosi/ 'basket'		
/horoto/ 'gourd'	:	/torotho/ 'fish sp.'		
/torotho/ 'fish sp.'	:	/toroko/ 'crooked'		
/~sisikim/ 'grasshopper sp.'	:	/~\$i\$ikim/ 'fruit sp.'		
/pata/ 'big, important'	:	/pa a/ 'fish sp.'		

1.4 Vocalic phonemic inventory

TABLE 3

VOWELS (Model A)

	front	central	back	
high	i		I	
mid	e	@	o	
low		a		

TABLE 4

VOWELS (Model B)

	front	central	back	
high	i	@	I	
non-high	e	a	o	

1.5 Description of vowels

There are six vowel phonemes: /i/, /e/, /@/, /a/, /o/ and /I/. All vowels are nasalized in a nasal morpheme (indicated by the symbol ~ preceding the morpheme, for example, /~waro/ [~waNo] 'man'). Only one vowel, /o/, is rounded; the remaining five vowels are all unrounded. The terms DOMINANT and RECESSIVE will be used to describe the vowel system, where DOMINANT refers to those vowels which occur most often and RECESSIVE refers to those vowels which occur less frequently. The terms DOMINANT and RECESSIVE are

borrowed from discussions of Chukchi vowel harmony (Comrie 1981:244).

In SY the dominant vowels are /a/, /o/, and /i/, which are also the expected, most basic vowels universally. The recessive vowels are /I/, /e/, and /@/. The dominant vowels, thus, are those with the highest functional load. This dual character of the SY vowel system is reflected in tables 15 and 16. Two possible models for the vowel system are suggested in tables 3 and 4. The distinction between rounded and unrounded vowels has been omitted from the tables as there is only one rounded vowel, /o/, in the language. Table 3 (Model A) is intended to reveal phonetic facts, especially the three levels of vowel height. Table 4 (Model B) is based on a minimum number of distinctive features, bringing out the three-by-two structure of the vowel system.

/i/: high, front, e.g. /ipa/ 'my.' In unstressed post-vocalic position /i/ occurs as a high, front, unrounded dorso-palatal glide [y], e.g. /thai/ [thay] 'diminutive.'

/e/: mid, front, e.g. /wehe/ 'dry.' Its variants range from close [e] to open [ɛ].

/@/: mid, central, e.g. /t@p@/ 'anteater.' It varies more widely than the other vowels; its variants often approach the phonetic space of the phonemes /a/ and /I/, sometimes making it difficult to distinguish between them

in a given form by a particular speaker.

/a/: low, central, e.g. /kahik/ 'mouth.' In word-final position unstressed /a/ alternates freely with schwa. Preceding the agentive suffix /-n/, word-final /a/ is raised to /@/, e.g. /kamaca-n/ [kamac@-n].

/o/: mid, back, rounded, e.g. /coco/ 'toad sp.' In a nasal morpheme it is usually more open, e.g. [~həha] 'rabbit,' resembling the vowel in the American English song.

/I/: high, back, unrounded, e.g. /kIrIkI/ 'owl sp.' In the following morphemes /I/ occurs as the high back rounded vowel [u]: [uʂi] 'black,' [uʂi-rim] 'black jaguar', [utiti] 'weak,' and [uema] 'owl sp.' The transcription /Iw/ has been chosen as an abstract solution for rendering [u]; /I/ contributes the high backness and /w/ the roundness. It should be mentioned here that [u] occurs as a phoneme in the neighboring sister-language Yanomam, where the following cognate forms are found: /uʂi/ 'black' and /utiti/ 'weak'. When /I/ is a morpheme indicating the imperfective aspect, it may occur as [ŋ] and [ɣ]; see section 3.3.2 (Aspect) for details.

Besides simple vowels, SY has a limited number of long vowels and vowel sequences. They occur in both oral and nasal morphemes. Long vowels are not common in SY and are limited to the dominant vowels (/a, o, i/) and one recessive vowel, /I/. For example, /waati/ 'cold,' /hooca/ 'bird sp.,' /~hiithak/ 'hair,' and /ma+~II/ 'river' all have

long vowels. Of 21 occurrences of long vowels in distinct morphemes, the most frequently occurring vowel is /aa/ (in ten morphemes) while /ii/ occurs in five morphemes, /oo/ in four. The rarest of the long vowels is the recessive /II/, which occurs in only two morphemes.

A vowel sequence comprising two vowels (either identical or different vowels) is characterized by the re-articulation of these vowels. That is to say, each vowel has its own syllabic pulse. A sequence of two identical vowels differs from a long vowel not in duration but in the fact that a vowel sequence has two syllable beats. These two vowels may also be separated by an optional glottal stop or a glide. (Syllable boundaries are indicated by blank spaces in examples with sequences of identical vowels only.) For example /pa a/ 'fish sp.' and /~aom/ 'bird sp.' are disyllabic vowel sequences, whereas the long vowels in /haaca/ 'deer' and /wiitihi/ 'tree' each form only one syllable. Table 12 in section 1.7.2 describes the distribution of identical and different vowels in vowel sequences.

When the first vowel of a vowel sequence is /i/, there is a tendency for a high front glide [y] to intrude between the two vowels of the sequence, e.g. /ia/ [iya] 'to eat,' and /ti@/ [tiy@] 'to weave.' When the rearticulated vowels of a vowel sequence are identical, a glottal stop automatically separates the second syllable from the first, e.g. [paʔa] 'fish sp.' The glottal stop also occurs

automatically at a morpheme boundary preceding a vowel, e.g. [kaw+ʔik] 'beard' and [tha+~ʔiNa] 'thunder.'

A diphthong is a monosyllabic sequence composed of one of the six simple vowels followed by a non-syllabic glide, [y] or [w]. Of 31 lexical items containing diphthongs, the most frequently occurring simple vowel is /a/, which occurs in 22 items. Of the remaining simple vowels, /e/ occurs three times, /o/ and /i/ each occur twice, and /I/ and /@/ each occur once. The [y] glide occurs 18 times and [w] occurs 13 times. The diphthongs and the number of occurrences in the corpus are: [ay] 13, [aw] 9, [oy] 2, [iw] 2, [ey] 2, [ew] 1, [Iw] 1 and [@y] 1.

The following minimal and quasi-minimal pairs support the distinctiveness of the six vowel phonemes:

/watiri/ 'widow/-er'	:	/watori/ 'wind'
/horetho/ 'bird sp.'	:	/horoto/ 'gourd'
/tihi/ 'tree'	:	/tIhI/ 'jaguar'
	:	/th@h@/ 'when'
/orak/ 'neck'	:	/orIk/ 'snake (gen. venomous)'
/hIre/ 'heavy'	:	/hIri/ 'giant river otter'
/po o/ 'ax'	:	/pa a/ 'fish sp.'
/koritho/ 'bird sp.'	:	/korato/ 'alligator sp.'
/hore/ 'a lie'	:	/here/ 'wet'
	:	/hIre/ 'heavy'
/hooca/ 'bird sp.'	:	/haaca/ 'deer'
	:	/hIca/ 'young man'
/~wari/ 'dark/cloudy'	:	/~waro/ 'man'
/~herama/ 'bird sp.'	:	/~horama/ 'bird sp.'

/mak/ 'waist'	:	/~m@k/ 'face'		
/o\$e/ 'young'	:	/~o\$!i/ 'inside'		
/thatha/ 'fishing line'	:	/thethe/ 'egg'		
/th@/ 'it'	:	/tha/ 'to make, do'		
/~moro/ 'armadillo sp.'	:	/~mora/ 'garlic'		
/temi/ 'alive'	:	/tema/ 'married'		
/haperi/ 'where'	:	/h!p!ri/ 'elderly person'		
/taa/ 'to see'	:	/tae/ 'to bark'	:	/t@ @/ 'daughter'
/waka/ 'armadillo sp.'	:	/wak!/ 'fire'		
/tie-\$o/ 'Let's dig!'	:	/ti@-\$o/ 'Let's weave!'		

1.6 Phonetic regularities and irregularities

The phonological conditioning of the allophones has already been discussed in the sections describing each consonant and vowel phoneme.

An epenthetic vowel (schwa or /I/ if the preceding vowel is /I/) is inserted between a word-final consonant and a suffix consisting of a single consonant, such as the partitive-collective /-k/ and the agentive/-n/. Examples of vowel insertion include /thar!k-k/ [thar!k!-k] 'fire-wood,' /k!p-n/ [k!p!-n] 'they two (+AG),' and /p!k-n/ [p!k!-n] 'they PL (+AG).'

1.7 Phonotactics and distribution of phonemes

The tables in this section (unless otherwise indicated) are based on a list of about 530 Shiriana words. The distinction between oral and nasal morphemes has been found to be unimportant in relation to distribution and has therefore been omitted. A + symbol indicates four or more occurrences of a phoneme and a - symbol indicates non-occurrence. Numbers are used to indicate a limited number of occurrences of a phoneme. The starred (*) exceptions are explained in each particular instance.

1.7.1 Distribution of consonants

All consonant phonemes may occur in word-final position except /th/, /t/, /c/, and /r/. An unreleased [t] may occasionally be heard word finally but this is the result of de-aspiration and the devoicing and loss of a word-final vowel in rapid speech, e.g. [karat] from /karatha/ 'banana.' Likewise, many instances of word-final fricatives (/s/, /ʃ/, /h/) are the result of the same process of devoicing and loss of word-final vowels in rapid speech, e.g. [simos:] from /simosi/ 'stomach' and [~ʃo oh:] from /~ʃo ohI/ 'shrimp.' Table 5 summarizes the co-occurrence of word-final consonants and the vowels which precede them.

TABLE 5
WORD-FINAL CONSONANTS

	-p	-k	-s	-ʃ	-h	-m	-n	-w
-i-	+	+	-	-	-	+	1	1
-e-	1	2	2	-	-	-	-	1
-@-	1	1	-	-	-	-	1	-
-a-	2	+	+	-	-	+	1	+
-I-	+	+	+	-	+	-	+	1
-o-	+	+	+	+	1	+	1	-

All consonant phonemes may occur word initially. Table 6 summarizes the co-occurrence of word-initial consonants and the vowels that follow them. The combination /#wI-/ is found only in the word /wII/ [wIʃ] 'type of basket,' a loan from Yanomam.

Consonant clusters are rare in SY. Initial consonant clusters have been found in the following four lexical items: /krep+Ik/ 'fruit sp.,' /krawkraw/ from Port. lacrau 'scorpion,' /kraiwa/ 'white man,' and /prem+~ʃii/ 'sun.'

TABLE 6
WORD-INITIAL CONSONANTS

	-i-	-e-	-@-	-a-	-I-	-o-
p-	+	+	-	+	+	+
t-	+	+	2	+	+	+
th-	-	2	3	+	2	+
k-	3	3	-	+	+	+
c-	+	1	-	+	2	+
s-	+	1	-	+	1	-
ʃ-	+	1	-	+	+	+
h-	+	+	1	+	+	+

TABLE 6 --Continued

	-i-	-e-	-@-	-a-	-I-	-o-
m-	+	1	1	+	3	+
n-	+	-	-	+	-	3
r-	3	3	2	+	1	+
w-	+	+	-	+	*1	-

Few consonants may follow another consonant medially within a single morpheme. Most frequently /r/ may follow /k/ or /p/ and /k/ may follow /h/ or /m/. /th/ and /r/ never precede another consonant within a morpheme. /s/ never follows another consonant, and /c/ never precedes or follows another consonant. Table 7 summarizes the co-occurrence of consonant sequences word medially within morphemes.

TABLE 7

WORD-MEDIAL CONSONANT SEQUENCES

	-p-	-t-	-th-	-k-	-s-	-h-	-m-	-n-	-r-	-w-
-p-	-	-	-	1	1	-	-	-	3	-
-t-	1	-	-	-	-	-	-	-	-	-
-k-	-	1	-	-	-	-	-	-	+	-
-s-	1	-	-	1	-	-	1	1	-	-
-š-	1	-	-	1	-	-	-	-	-	-
-h-	1	-	1	2	-	-	-	-	-	-
-m-	1	-	-	+	-	2	-	-	-	-
-n-	1	-	1	-	-	-	-	-	-	-
-w-	-	2	-	1	-	1	-	-	-	-

"Word-medial Consonant Sequences" on table 7 refers to those consonants which co-occur at syllable boundaries (but

not morpheme boundaries), as listed below:

pes mak	s/ _m	\$iit porihi	t_ /p
as krema	_k	po\$ po\$kom	\$_
pospos nam	_n	pos posnam	s_
sam pora	m/ _p	ah thak	h/ _th
mam horemak	_h	nah kom	_k
~nam hIs		~rah ko	
ararom ko\$	_k		
cicom kos		hok toma	k/ _t
am kaik+Is			
~cim kak		hIth hIthIma	th/ _h
kom karak			
~torom kona		po\$po\$ kom	\$/ _k
saw tat	w/ _t	han pari	n/ _p
\$iw hirokamak	_h	pon thoo	_th
			\$irap koo p/ _k
			rakap saa _s

The following clusters whose first element is /k/ or /p/ and whose second element is /r/ constitute a clearly definable class. Therefore, they will be analyzed as forming syllable-initial clusters.

as krema	k/ _r	ka prawsik	p_ /r
ha krak		\$i prai	
~a krahi			
po kra Is			
kraw kraw			
\$i krihimak			

This syllable-initial position for medial clusters patterns with the four examples of word-initial clusters:

krawkraw	k/ _r	prem+~\$ii	p_ /r
kraiwa			
krep+Ik			

Table 8 summarizes the occurrence of morpheme-medial intervocalic single consonants. Certain vowel combinations which never occur are: /e-@/, /@-i/, /@-a/, /@-I/, and /@-o/.

TABLE 8
INTERVOCALIC CONSONANTS

	-p-	-t-	-th-	-k-	-c-	-s-	-ʃ-	-h-	-m-	*n-	*r-	-w-
i_i	1	2	-	+	-	+	+	+	3	2	+	-
i_e	-	-	-	-	-	-	-	-	-	-	1	-
i_@	1	-	-	-	-	-	-	-	-	-	-	-
i_a	2	1	2	+	1	-	2	2	+	+	3	-
i_I	-	1	-	1	1	-	-	-	-	-	-	-
i_o	1	-	+	+	+	-	-	1	+	-	+	-
e_e	-	1	3	1	1	-	-	+	-	3	+	1
e_i	-	1	-	-	-	+	-	-	+	-	+	-
e_a	-	-	-	-	-	-	-	-	+	1	1	-
e_I	-	2	1	-	-	-	-	-	-	-	-	-
e_o	-	-	2	1	-	-	1	-	-	-	-	-
@_@	1	-	-	1	-	-	-	2	1	-	2	-
@_e	-	-	-	-	-	-	-	-	-	-	1	-
a_a	+	1	+	+	+	2	1	+	+	+	+	+
a_i	1	3	-	-	-	+	+	+	+	+	+	-
a_e	3	1	-	-	-	-	-	+	-	1	+	-
a_@	-	-	-	2	-	-	-	1	-	-	3	-
a_I	1	2	-	+	2	-	1	+	2	-	+	-
a_o	3	+	2	3	+	1	2	+	+	-	+	-
I_I	1	2	3	+	-	-	2	+	3	-	+	-
I_i	-	+	-	-	-	1	3	-	-	-	2	-
I_e	-	1	1	-	-	1	-	2	-	-	2	-
I_@	-	-	-	-	-	-	-	-	-	-	-	1
I_a	1	1	2	3	2	-	-	-	2	2	3	1
I_o	-	-	-	2	-	-	-	-	-	-	-	-
o_o	+	+	+	+	3	-	2	-	3	2	+	-
o_i	2	2	-	-	-	+	+	+	3	3	+	1
o_e	-	1	1	-	1	-	1	-	-	-	+	1
o_@	-	-	-	1	-	-	-	-	-	-	-	-
o_a	2	-	2	+	1	1	2	3	+	1	+	+
o_I	-	-	-	-	-	-	-	1	1	-	1	-

The individual indices for /n/ and /r/ may be somewhat inaccurate because of the difficulty in distinguishing between them in some words in which /n/ and /r/ neutralize

intervocally in nasal morphemes.

A compilation of the data from Tables 5, 6, and 8 provides a basis for a frequency of occurrence index with respect to consonants. The results were calculated by assigning a value of 1 to each plus sign (which indicates four or more occurrences) for every consonant in each table and a value of 0 to occurrences of three or fewer. Table 9 indicates the totals for each table for every consonant phoneme, with the final total being an overall frequency of occurrence index for each phoneme. The consonants with the highest indices are /k/ and /r/, which are also the components of the most frequently occurring consonant cluster /kr/.

TABLE 9

FREQUENCY OF OCCURRENCE INDEX OF CONSONANTS

	Table 5 (Wd.final)	Table 6 (Wd.initial)	Table 8 (Intervoc.)	TOTAL
p	3	5	2	10
t	-	5	3	8
th	-	2	3	5
k	4	3	8	15
c	-	3	3	6
s	3	2	4	9
\$	1	4	3	8
h	1	5	9	15
m	3	3	8	14
n	1	2	3	6
r	-	2	14	16
w	1	3	2	6

1.7.2 Distribution of vowels

All vowels occur in word-final position. Table 10 summarizes the co-occurrence of word-final vowels and the consonants that precede them.

TABLE 10
WORD-FINAL VOWELS

	-i	-e	-@	-a	-I	-o
-p-	-	2	1	+	1	2
-t-	+	1	-	1	-	+
-th-	-	2	1	+	1	+
-k-	1	-	1	+	1	+
-c-	-	-	1	3	2	3
-s-	+	1	-	2	-	-
-\$-	+	1	-	-	-	2
-h-	+	+	1	+	+	1
-m-	+	-	1	+	+	+
-n-	+	1	-	+	-	-
-r-	+	+	2	+	1	+
-w-	-	-	1	+	-	-

All vowels may occur word initially; however, initial /e/ and /@/ are extremely rare (and recessive). These vowels have been found to occur initially only in four words, three of which are deictic: /ekowap@=i/ 'a purplish color,' /ei/ 'that,' /~@ @h/ [~@?@h] 'yes,' and /~@ @hai/ [~@?@hay] 'Look!' Table 11 summarizes the co-occurrence of word-initial vowels and the consonants that follow them.

TABLE 11
WORD-INITIAL VOWELS

	-p-	-t-	-th-	-k-	-c-	-s-	-ʃ-	-h-	-m-	-n-	-r-	-w-
i-	1	-	2	3	-	-	2	1	-	-	+	-
e-	-	-	-	1	-	-	-	-	-	-	-	-
a-	-	-	1	+	1	3	-	+	+	-	+	2
I-	-	2	1	2	-	-	2	1	1	-	2	-
o-	2	-	-	+	-	-	2	1	-	-	+	-

As is to be expected, the vowels which occur most frequently in word-final and word-initial positions are the dominant vowels (/a, i, o/).

Tables 12 and 13 summarize the co-occurrence of vowels, contiguously and non-contiguously. Non-contiguous vowels are those separated by one or more consonants within one and the same morpheme. Table 12 includes identical and non-identical vowel sequences (including long vowels) and is based on the 71 lexical items which contained vowel sequences from the total list of 530 items. Table 13 is based on the total list of 530 lexical items.

TABLE 12
CO-OCCURRENCE OF CONTIGUOUS VOWELS

V2		i	e	@	a	I	o
V1	i	8	1	3	6	-	1
	e	-	-	-	2	-	1
	@	-	-	2	-	-	-
	a	2	-	-	19	1	1
	I	-	-	-	3	5	-
	o	-	-	-	7	-	9

TABLE 13
CO-OCCURRENCE OF NON-CONTIGUOUS VOWELS

V2		i	e	@	a	I	o
V1	i	70	2	2	38	3	30
	e	15	24	-	9	3	6
	@	-	1	8	-	-	-
	a	71	20	8	114	26	59
	I	9	8	-	18	29	2
	o	40	14	1	51	3	72

A compilation of the data from Tables 5, 6, 8, 10, and 11 results in a frequency of occurrence index for the vowel phonemes, as shown in Table 14. The results were calculated by assigning a value of 1 to each plus sign (which indicates four or more occurrences) for every vowel in each table and a value of 0 to occurrences of three or fewer.

TABLE 14
FREQUENCY OF OCCURRENCE INDEX OF VOWELS

	Table 5 (-VC#)	Table 6 (#CV-)	Table 8 (-VCV-)	Table 10 (Wd.final)	Table 11 (Wd.initial)	TOTAL
i	3	9	27	7	1	47
e	1	4	9	2	-	16
@	-	-	-	-	-	0
a	5	12	33	8	4	62
I	5	5	7	2	-	19
o	5	9	24	5	2	45

The dual dominant/recessive character of the SY vowel

system can be clearly seen in the index totals. Furthermore, a hierarchy within both the dominant and recessive vowel groups suggests itself. Among the dominant vowels, /a/ clearly has the highest frequency index (62), while /i/ (47) and /o/ (45) follow each other closely. Among the recessives, /I/ has the highest index (19), with /e/ (16) coming second and /@/ rating a zero index. The zero index for /@/ in table 14 does not mean that /@/ did not occur at all but rather that there were no + values (four or more occurrences of the phoneme in a given environment) assigned to it in any environments on any of the tables.

Tables 15 and 16, which summarize the totals from tables 12 and 13, also support the dichotomy between the dominant and recessive vowels.

TABLE 15

DOMINANT VOWELS

Totals from		
	Table 12	Table 13
/a/	41	414
/i/	21	280
/o/	19	278

TABLE 16

RECESSIVE VOWELS

Totals from		
	Table 12	Table 13
/I/	9	101
/e/	4	102
/@/	5	20

1.7.3 Syllable types

The canonical shape of the syllable for Shiriana is basically CV. Nevertheless, six syllable types (where C = any consonant and V = any vowel) are described: four

syllable types - CV, CVC, V, and VC - are common, and two types with consonant clusters, CCV and CCVC, occur rarely. The syllable types CV and CCV include the types CVV and CCVV, where VV indicates a long vowel or a diphthong.

a ko pa V CV CV	'fish sp.'
coi nam CVV CVC	'bird sp.'
~ko a mi CV V CV	'bitter'
~a om V VC	'bird sp.'
pI Ih CV VC	'wet'
~i tho tho rip V CV CV CVC	'veins'
po kra Is CV CCV VC	'bird sp.'
~a kra hi V CCV CV	'smooth'
prem+~\$ii CCVC CVV	'sun'
krai wa CCVV CV	'white man'

1.7.4 Reduplication

There are a number of words in SY which reveal the reduplication of certain segments. Reduplication occurs mostly in expressive words, animal names, and in two loan words from Portuguese. This reduplication may involve entire units or only the beginning or the end of words.

The following lists of examples are grouped accordingly.

Reduplication of entire units:

coco	'toad sp.'
kirikiri	'file (for sharpening knives)'
krawkraw	'scorpion (from Port. <u>lacrau</u>)'
nini	'painful'
r@r@; rere	'to run'
thatha	'fishing line'
thethe	'egg'
thokothoko	'helicopter'
war@war@	'fish sp.'

Reduplication of first syllable(s):

hIthhIthIm	'bird sp.'
kakakakahamko\$	'bird sp.'
~kokocom	'bird sp.'
opopin	'slowly'
~pipicanam	'bird sp.'
piripirihimko\$	'bird sp.'
popoho	'fluffy'
~po\$po\$kom	'bird sp.'
posposnam	'bird sp.'
rarahami	'far away'
rerehe	'to open wide (one's mouth)'
\$i\$irithok	'hammock made from tree bark'
~\$i\$ikima	'vine'
~sisikima	'grasshopper'
sisinam	'frog sp.'
thethehe	'thin'
totoro	'doctor (from Port. <u>doutor</u>)'

Reduplication of last syllable:

morothotho	'electric eel'
~raithatha-k	'cord'
ri\$isi	'white'
rothotho	'strong'
senene	'type of design'
~ikiki	'narrow'

It is difficult to say whether reduplication or some other process is at work in the following words:

~haraha	'yellow'
~herekere	'to breathe'
~hetehe	'lightweight'
~hIkIrIhI-@	'near'
~ithothorip	'vein(s)'
karihirimak	'snake sp.'
kIrIkI	'bird sp.'
koroko\$	'gray color'
~koromaro	'bird sp.'
kararawIs	'bird sp.'
tararam	'bird sp.'

The following (mostly tri-syllabic) words have the same vowels throughout:

~asama	'fish sp.'
carakana	'small fish hook'
cawarak	'fruit sp.'
~hIkIrImIk	'fruit sp.'
hokomok	'sweet potato'
horoto	'gourd'
irihi	'forest'
~kahatha	'very'
karaca	'caterpillar sp.'
karaka	'chicken'
manakas	'wood sp.'
mikiti	'wooden seat (in a canoe)'
okoro	'dog'
oropon	'bird sp.'
perehe	'one's head'
~pirihi	'pointed tip (of a canoe)'
rakapsaa	'rifle'
~\$awana	'soap (from Port. <u>sabão</u>)'
~\$ikiri	'bad smelling'
thoropo	'rat'
toroko	'crooked'
wakara	'daybreak'
wiitihi	'tree'

1.8 Suprasegmentals

1.8.1 Length

Vowels have two degrees of length: short and long, e.g. /tha/ 'to make, do' and /taa/ 'to see'. Short, simple

vowels are more common than long vowels (see section 1.3.2 for detailed discussion). Long vowels are rare in SY, occurring in only 21 (or 4%) of a total of 530 lexical items.

Geminate consonants do not occur, although fricatives /s/ and /ʃ/ have lengthened phonetic variants. /s/ and /ʃ/ are lengthened in word-final position, especially as a result of devoicing and loss of a word-final high vowel in rapid speech, e.g. /simosi/ [simos:] 'belly' and /~nihioʃi/ [~nihiyoʃ:] 'cold'.

1.8.2 Stress

Two levels of word stress are distinguished in SY: primary and secondary. The primary stress is on the penultimate vowel when the last syllable of the word is open, e.g. [akópa] 'fish sp.,' and ultimate when the last syllable is closed, e.g. [maʃiáp] 'heart.'

Secondary stress most commonly occurs on the second vowel counting leftward from the primary stress, e.g. [~kòwatóm] 'bird sp.' and [ãrakári] 'fish sp.' While most words are composed of two to three syllables, the placement of secondary stress in longer words is more flexible. In words of four or more syllables, secondary stress is attracted to the first syllable, e.g. [mãmhoremák] 'snake sp.,' [~kêamarI?ín] 'bird sp.,' and [ãraronkóʃ] 'bird sp.' Further investigation may reveal the competing pattern,

namely, secondary stress on alternate syllables.

Word-final long vowels attract stress, maintaining the placement of primary stress on the penultimate vowel (e.g. [š̀rapkóo] 'fish sp.'). This is also true for word-final vowel sequences (e.g. [páʔa] 'fish sp.'). However, since stress and syllabicity conspire, sequences of two identical vowels ([VʔV] /VV/) can be distinguished from long vowels ([VV] /VV/) by syllabizing: [V ʔV] /V V/ versus [VV] /VV/.

As is to be expected, the glides [w] and [y] function consonantly to close syllables (e.g. [š̀ipráy] 'fish sp.' and [pisiáw] 'bird sp.'). Word-final [h], on the other hand, is a glottal fricative vowel coda, which does not close syllables and does not attract stress, e.g. /cí Ih/ [cí ʔIh] 'abscess,' /pí Ih/ [pí ʔIh] 'wet,' /~ró oh/ [~ró ʔoh] 'house fly,' and /~é @h/ [~é ʔ@h] 'yes.'

1.8.3 Prosody

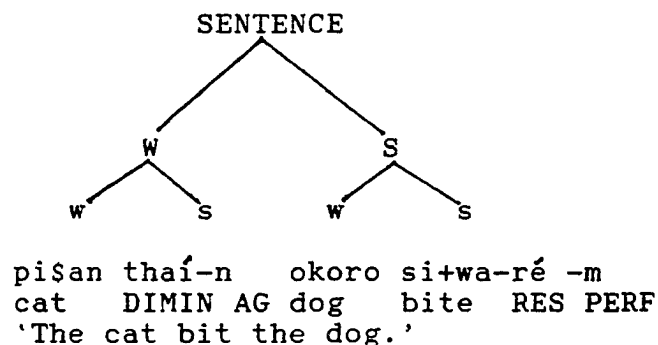
SY does not make a distinctive use of tone. However, stressed elements of a word receive relatively higher pitch than unstressed elements. The syllable receiving secondary stress is accompanied by higher pitch than an unstressed syllable. The syllable with primary stress is accompanied by the highest pitch.

It is my impression that in SY, as in French, stress is placed on the penultimate or ultimate syllable of the last word in each clause, phrase, or other sense group.

Consequently, intervening words are commonly de-stressed and some segments may even be lost in rapid speech, for example:

[wa simos nín o] from /wa simósi níni o/
 you stomach painful QM 'Does your stomach hurt?'
 (Note: A box is drawn around 'simos' and 'nín', with a line connecting them to 'o' in the transcription below.)

(In the sample sentence given below W marks weak and S marks strong prosody. S and W are further subdivided into s and w. The prosodic hierarchy can be continued, as governed by the number of segments. This break-up procedure will not be pursued further here.)



The node with two S's carries the strongest prosody, the node with one S has secondary prosody, and the node with two w's is weakest. The term prosody refers to the cumulative effect of stress, pitch, and intonation.)

From the data collected concerning prosody I have been able to discern two prosodic patterns: falling and sustained.

(1) Falling intonation occurs in the following types of sentences:

Declarative

~cano kami ha ca kĩ-@
house interior OBL I be EXIST 'I am inside the house.'

thIw@ ~Ik -co íthe
woman cry INGR POT 'The woman is about to cry.'

pa ari nia -pI-p -h akín
bird sp. kill DL PROS 3 ADV 'They (2) will kill a bird.'

Polar interrogative

wa ~Ip koa -ré -m
you water drink INGR PERF QM 'Did you just drink water?'

ia -cô -m
eat INGR PERF QM 'Did (he/she) eat?'

Response to polar interrogative

pəmi 'No.' ~@|@h 'Yes.'

Question-word interrogative

karI-wa-t thá -I
what you do IMPERF 'What are you doing?'

haati kI-ó-m
who be V PERF 'Who was (here)?'

Plural imperative

~hak =mó -So
dance CAUS COMMIT 'Let's dance!'

hirí-so
sing COMIT 'Let's sing!'

(2) Sustained or (level) intonation occurs in the following types of clauses:

Subordinate with nominalizer /=wii/

ca ~kea =wii ca-t ~rara =ma -ré -ma
I work NOMLZR I finish CAUS INGR PERF
'(While) I was working, I finished (what I was doing).'

ca taa-re =wii IhI -n th@ wa -ré -p
I see RES NOMLZR that one AG it eat INGR PERF
'I saw what he ate.'

Hortative

hacIríI wa hI imá -I
HORT you go ADV IMPERF 'Come quickly!'

~hamíI carak pik r@ká -so
HORT fish PL catch COMIT 'Hey! Let's go fishing!'

Negative and singular imperatives

wa kirí-n ~maharái
you fear NEG IMP 'Don't be afraid!'

wa ra -kíi maštá -ha
you lie down IMP ground OBY 'Lie down on the ground!'

wa th@ koa -ríi
you it drink IMP 'Drink it!'

CHAPTER 2
MORPHOLOGY AND MORPHOLOGICAL CONSTRUCTS

2.0 Remarks on morphophonemics

The occurrence of the suffix /-n/ (homophonous with the agentive suffix /-n/) on a preceding noun or verb is induced by a number of seemingly unrelated morphemes. These morphemes are mentioned individually throughout the text. They are:

(QUALITATIVES)

~sai	'cold'
~hioši	'hot;' ~nihioši (as a free form)

(NEGATIVE IMPERATIVE)

~maharai	'don't (+VERB)!'
----------	------------------

(EVIDENTIALS)

\$ire	'non-witnessed'
\$in	'witnessed'

(SUBORDINATOR)

iha	'until'
-----	---------

Another /-n/ sometimes attracts the element /ha/. Together they mean 'and then;' see section 5.4 (Subordination and coordination) for more details. It is not clear whether this suffix is related to the one described in the previous paragraph.

Furthermore, the occurrence of still another /-n/, discussed in the following paragraphs, also remains unclear

and may be related in some way to the forms listed above.

The following remain to be settled:

1. While the conditions which govern the distribution of /t/, /n/, and /n@/, as described below, are clear, no phonological or other motivation could be found for the occurrence of: /t/ before nasalized morphemes; /n/ before /c/, /s/, /h/, /k/, /n/, and /p/; and /n@/ before /t/ and /m/, after agentive /-n/.

2. The morphological status of /t/, /n/, and /n@/, i.e. their function -- if any -- can not be determined. For the purposes of clarity in the presentation -- and only for that purpose -- /t/, /n/, and /n@/ are given below as if they were morphemes.

The presumed morpheme /-t/ occurs suffixed to the reduced forms of the singular personal pronouns /ca/, /wa/, and /pa/ when it immediately precedes certain verbs (including qualitatives). The following groups of examples are arranged by phonological shape, specifically, by the initial segment of the word which follows /-t/.

Nasalized morphemes:

pa-t	~Iʒi	'It's dirty.'
pa-t	~i@ caram akIn	'(There's) a lot of blood.'
ca-t	~koatI-I	'I'm searching.'
pa-t	~warihik	'It's bad.'
wa-t	~warina-rei	'Ask him!'
pa-t	~ra a-I	'It's ending.'
ca-t	~rara-ma-re-ithe	'I'll finish.'

Morphemes beginning with /c/, /s/, /h/, /k/, /n/, and /p/:

kamaca-n	ca-t	cia-I	'I'm going hunting, gathering.'
kamaca-n	ca-t	Soa-I	'I beat (e.g. the table).'
	ca-t	hanI-I	'I cut, am cutting (it).'
	ca-t	hIpla-I	'I give.'
	pa-t	horaa-I	'to blow (on a fire)'
casik	ca-t	kathora-I	'I push the door.'
carekep	wa-t	kathora-rii	'Push (it) twice.'
	pa-t	kI-ke-m	'It already began.'
	pa-t	nini ~kahatha	'It hurts a lot.'
	ca-t	nia-ra-~rao-m	akIren 'I didn't kill.'
	ca-t	pihi=po-I	'I'm sad.'
	ca-t	pihi ~mIti-ra-co-m	'I forgot.'
	ca-t	pihi-re-m	'I thought, remembered.'
	ca-t	pihik pemi	'I'm calm, not worried.'
kamaca-n	ca-t	pe\$=ma-I	'I want (it).'
	wa-t	po ima-I	'Bring (it).'

The following two pairs of sentences contrast the presumed suffix /-t/ with (1) the indefinite object of a transitive sentence and (2) the subject of a stative sentence.

(1)	ca-t	pihipI kehe	'I already gave.'
	ca	th@-k pihipI kehe	'I already gave them.'
(2)	pa-t	kI haiki-@	'There's still some left.'
	pa	thatha kI haiki-@	'There's still some fishing line left.'

In the pair (3) /-t/ seems to contrast with /-n/. It may well be that /-t/ indicates that there is an object and that in /ca-n/ the /-n/ is the agentive marker discussed in section 2.3.1.

(3)	tIhI	ca-t	nia-p	akIn	'I am going to kill a wildcat.'
	pa	ari	ca-n	nia-p-akIn	'I am going to kill a bird.'

Just as /-t/ occurs, so /-n/ occurs suffixed to the

pronouns objects /pIk/, /kIp/, /cee/, and /th@/ before verbs with initial /t/ and /m/:

kamaca-n	ca	pIk-n	taa=po-I	'I'm watching them.'		
kamaca-n	ca	kIp-n	taa=po-I	'I'm watching them (2).'		
		cee-n	taa=po-I	'He's watching me.'		
		ca	th@-n	mamo	hIt=po-I	'I'm looking around.'

Finally, /n@/ occurs before verbs with initial /t/ and /m/ following a pronoun or numeral marked by the agentive suffix /-n/:

IhI-n	n@	taa=po-I	'He's watching him.'
IhI-n	n@	mIa-I	'He's looking at him.'

carekep	kIp-n	n@	mIa-pI-I	'The two of them are looking at him.'
---------	-------	----	----------	---------------------------------------

carekep-n	n@	mIa-pI-I	'The two of them are looking at him.'
-----------	----	----------	---------------------------------------

In contrast no suffixes occur on the pronouns in the following sentences:

casik	ca	hiria-I	'I push the door.'	
IhI-n	cee	nihi	~waripo-I	'He is angry with me.'
okoro-n	cee	si+wa-re-ma	'The dog bit me.'	
okoro	ca	si+wa-re-ma	'I bit the dog.'	
kamaca-n	ca	taa-re-m	'I saw him.'	
kamaca-n	ca	wa-p	pemi	'I don't, won't eat.'
watori-n	ca	waati-co-ma	'The wind made me cold.'	
kraiwa-n	wa	te	hIri=wii	'The white man will take you away!'

Two other morphophonemic problems which come up in the analysis are: (1) a word-final /a/ is raised to [@] preceding the agentive suffix /-n/ (section 2.3.1 Noun phrase structure), and (2) /I/ may occur as [ŋ] and [ɣ]

when it indicates the imperfective aspect (section 3.2.2 Aspect). These problems are listed here for the reader's convenience. They are further discussed in the sections indicated because it seemed clearer to discuss them in context.

2.1 Pronouns

There are personal, possessive, demonstrative, interrogative and relative pronouns. The possessives are closely related to the personal pronouns. The reduced forms of the third person personal pronouns, /pa/, /kIp/, /pIk/ and /th@(-k)/, also function as indefinite pronouns. There are no special forms for reciprocals or reflexives.

2.1.1 Personal pronouns

SY distinguishes singular, dual, and plural number in the pronominal system and the personal pronouns have full and reduced forms. The full-form pronoun may co-occur with the reduced pronoun associated with it although the reduced-form pronoun alone is most common. The reduced forms of the first and second person singular pronouns distinguish between subject and object forms. In the third person singular, a distinction is made between animate and inanimate pronouns. A subject in the third person singular need not be explicitly marked. There are no gender or class distinctions.

When they occur, all personal pronouns precede the

verb. A third person suffixal subject marker /-h/ may also occur. The third person dual subject may be indicated by an optional verbal suffix /-pI-/, which may or may not co-occur with /-h/. The conditions governing their co-occurrence are unclear. Contrast the following sentences:

IhI -n kIp \$@ -re -m
that one AG DL fight INGR PERF
'Those two fought.'

caro wa -pI-I
game eat DL IMPERF
'He and she are eating game.'

pa ari nia -pI-p -h akIn
bird sp. kill DL PROS 3 ADV
'The two of them are going to kill a bird.'

/-pI-/ follows the verb stem and precedes an aspectual suffix. /-h/ is followed by one of a class of postpositional adverbials (discussed in section 3.4.1) which are preceded by a thematic vowel (treated in section 2.4.3).

The respective personal pronouns may or may not co-occur with the suffixes /-h/ and /-pI-/, the conditioning of which has not yet been clearly determined. /-pI-/ seems to be obligatory when a dual subject is agentive and the dual pronoun /kIp/ does not occur. In addition to all this, null realization of a third person subject and/or object is common.

EXAMPLES:

kama rere-p
he run PROS 'He is going to run.'

rere-p -h akIn
run PROS 3 ADV 'He/she is going to run.'

henat@h@ pIk hI-p -h akIn
tomorrow they go PROS 3 ADV
'Today they are going to run.'

hemeco koa -re -h akIn
medicine take INGR 3 ADV
'He/she just took the medicine.'

hemeco koa -pI-p -h akIn
medicine take DL PROS 3 ADV
'The two of them are going to take the medicine.'

The reduced forms of the third person dual and plural pronouns (/kIp/ and /pIk/) also function as postpositions to dualize and pluralize animate nouns and pronouns, e.g. /IhI kIp/ 'those two' and /paari pIk/ 'birds sp.' The plural of inanimate nouns is formed by the addition of the partitive-collective suffix /-k/, e.g. /tarosi-k/ 'baskets.' Following a word-final consonant an epenthetic vowel (schwa or /I/) is inserted before the suffix /-k/, e.g. /tharIk-k/ [tharIkI-k] 'firewood.' (See section 1.6 for further discussion.)

/pIk/ and /kIp/ lend themselves to further segmentation. In /pI-k/ the initial /pI-/ (which may be related to the reduced form of the third person singular pronoun /pa/ and the third person possessive pronoun /pe/) seems to carry the meaning 'animacy,' while the final /-k/ is identical to the partitive-collective suffix. In /kI-p/ the initial /kI-/ may be a prefixal form of the partitive-collective /-k/ and the final /-p/ may carry the meaning

'duality' and be related to /-pI-/, the verbal suffix which indicates the third person dual subject.

While the full forms are used to mark emphasis or focus on a referent, the reduced forms are most common elsewhere. When full and reduced pronouns co-occur in one and the same clause, the full pronoun precedes the reduced one, for example:

kamac@-n ca-t cia -p akIn
I AG I marry PROS ADV 'I will marry (someone).'

okoro-n caro pa wa -re -m
dog AG game he eat INGR IMPERF 'The dog ate the game.'
(dog)

TABLE 17
PERSONAL PRONOUNS

	full form	reduced form
1st person:		
singular	kamaca	ca; (obj:) cee
dual	kama cehek	cehek cehe
plural	kama camak	camak campik
2nd person:		
singular	~kaho	wa; (obj:) wee
dual	~kaho wehek	wehek
plural	~kaho wamak	wamak

TABLE 17 -- Continued

	full form	reduced form
3rd person, animate:		
singular	kama	pa
dual	kama kIp	kIp
plural	kama pIk	pIk
3rd person, inanimate:		
singular		th@
plural		th@-k

The reduced forms of the first and second person singular pronouns are often incorporated into the noun complex. They occur between an object noun stem and its suffix or the noun and the postposition or between two stems of a compound noun.

EXAMPLES:

wii -ca-tihi ticI-I
tree I tree cut IMPERF 'I cut down a tree.'

oro -ca-k cia-I
gold I COLL dig IMPERF 'I dig for gold.'

~kaho-n caro wa pIk reka-m hIcate
you AG game you PL fish PERF late
'You fished yesterday.'

\$ama -ca-~cahi pe\$ =mo -I na\$ihi -\$o
tapir I meat want CAUS IMPERF cassava bread COMIT
'I want tapir meat with cassava bread.'

The objective forms of the first and second person

singular pronouns are /cee/ 'me' and /wee/ 'you.' The significance of the co-occurrence of these forms with the agentive suffix /-n/ is discussed in section 5.3.

EXAMPLES:

okoro-n	cee	si+wa-re	kin		
dog	AG	me	bite	INGR	ADV
					'The dog bit me.'
kama-n	cee	taa-ra-	~rao-m		
he	AG	me	see	RES	NEG PERF
					'He didn't see me.'
wee	hiohowa			-I	
you	get	an	injection	IMPERF	
					'You are going to get an injection.'
\$apori	iriha	wee	thIhI	-p	-kii
doctor	DAT	you	examine	PROS	IMP
					'Let the doctor examine you.'

2.1.2 Possessive pronouns

In possessed non-kin noun phrases, the appropriate possessive pronoun immediately precedes the possessed noun (-KIN) stem. For the third person singular only, the clitic /e/ co-occurs with the pronoun /kama/ or with a proper noun possessor. As indicated by the brackets on table 18, /e/ may optionally precede or follow the non-kin noun stem, with no change in the meaning of possession.

EXAMPLES:

kama	karatha	e		'his/her banana'
parimiu	theri	~cano	e	'the Parimiu people's house'
awsici	e	~cano		'Alcides' house'

In the second and first person singular forms, possession of non-kin nouns is expressed by the respective possessive

pronoun, /aho/ or /ipa/, preceding the possessed (-KIN) noun.

EXAMPLES: aho caro 'your game (meat)'
ipa hiTI 'my garden'

The first, second, and third person singular possessive pronouns, /ipa/, /aho/, and /kama e/, may also occur alone. In this case they function as nominals and have the meanings 'mine,' 'yours,' and 'his/hers.'

TABLE 18

CONSTITUENT ORDER OF THE POSSESSED NOUN PHRASE

Singular Person	Poss. Pron.	STEM	Suffix	Cloture	Gener
III	kama proper noun {e}	-KIN	∅	{e}	
II	aho		∅		
I	ipa		∅		
III	pe pe	+KIN	-p	e e	
II	∅		-ho		
I	∅ ipa		-cV -cV	- +	

For the possession of kinship (+KIN) terms in the third person singular, the cloture /e/ always follows the

kinship term and is preceded by an additional suffix /-p/ when the stem ends in a non-front vowel. The choice of the allomorph of the possessive pronoun /pe/ is phonologically determined (see section 2.2 for details).

EXAMPLES: pi ~\$ia-p e 'his/her younger sibling'
 pe te e 'his/her daughter'

Examples of possession of kinship terms are included in this section for purposes of comparison and contrast. The possession of kinship terms is further discussed in section 2.2. For a detailed discussion of the SY kinship system see Ramos, Lazarin, and Gomez, 1985.

Possession of kinship terms in the second person singular is indicated by the addition of the suffix /-ho/ to the kinship stem.

EXAMPLES: Iri-ho 'your son'
 na a-ho 'your mother'

In the first person singular, a distinction is made in the possession of kinship terms according to whether the kinship stem refers to a member of an ascending or descending generation with reference to the speaker (indicated on table 18 by the heading Gener). The first person singular possessive is indicated by the suffix /-cV/ when the stem refers to older siblings and kin of ascending generations. When the stem refers to members of the speaker's generation (this includes spouses but not older siblings) and kin of descending generations, the first person singular possessive is expressed by the possessive pronoun

/ipa/ plus the suffix /-cV/. This is discussed in more detail in section 2.2 (Kinship terms and possession).

EXAMPLES: papa-c@ 'my father'
 ipa thIw@-c@ 'my wife'

Dual and plural possession of non-kin nouns is indicated by the following formula:

Dual or Plural	-KIN	Suffix
Personal Pronoun	Stem	/-p/

which is illustrated by the examples given below.

EXAMPLES: kama camak ~cano-p 'your (PL) house'
 kama kIp ~cano-p 'the house of the two of them'
 ~kaho wamak war@-p 'our peccary'

The possessive /-p/ also occurs suffixed to the morpheme /IrI/ 'son; child; offspring' when it is the second member of a nominal compound. The first member of the compound denotes the progenitor, for example, /war@+IrI-p/ 'peccary's offspring' and even /warecehek+IrI-p/ 'spider's offspring.' This construction is also used metaphorically:

/Sakaw thai+ IrI	-p/
arrow DIMIN offspring	POSS.

Literally, it means 'arrow's offspring' and refers to a small arrow intended for use by a child.

Kinship terms and body parts are inalienably possessed. Possession of a body part is indicated by either a personal or a possessive pronoun preceding the body part. The meaning of possession is the same. If possession of a

body part is not specified, the noun is preceded by the morpheme /piri/.

EXAMPLES:	ipa poko	'my arm'
	ca ~Ithahe	'my finger'
	piri ~Ithahe	'one's finger'
	wa mamō-k	'your eyes'
	piri mamō-k	'one's eyes'
	kama he	'his head'
	pere+he	'one's head'

/pere+he/ 'one's head' contains a rare allomorph of /piri/, probably the result of assimilation of the vowels from the original /piri he/. Because the names of parts of a canoe are derived from analogous parts of the body, parts of the canoe are also accompanied by the inalienable possessor /piri/, for example: /piri kasi-k/ 'the sides of a canoe' (from /piri kasi-k/ 'one's lips') and /piri parIk/ 'the inside floor' (from /piri parIk/ 'one's chest').

2.1.3 Demonstratives

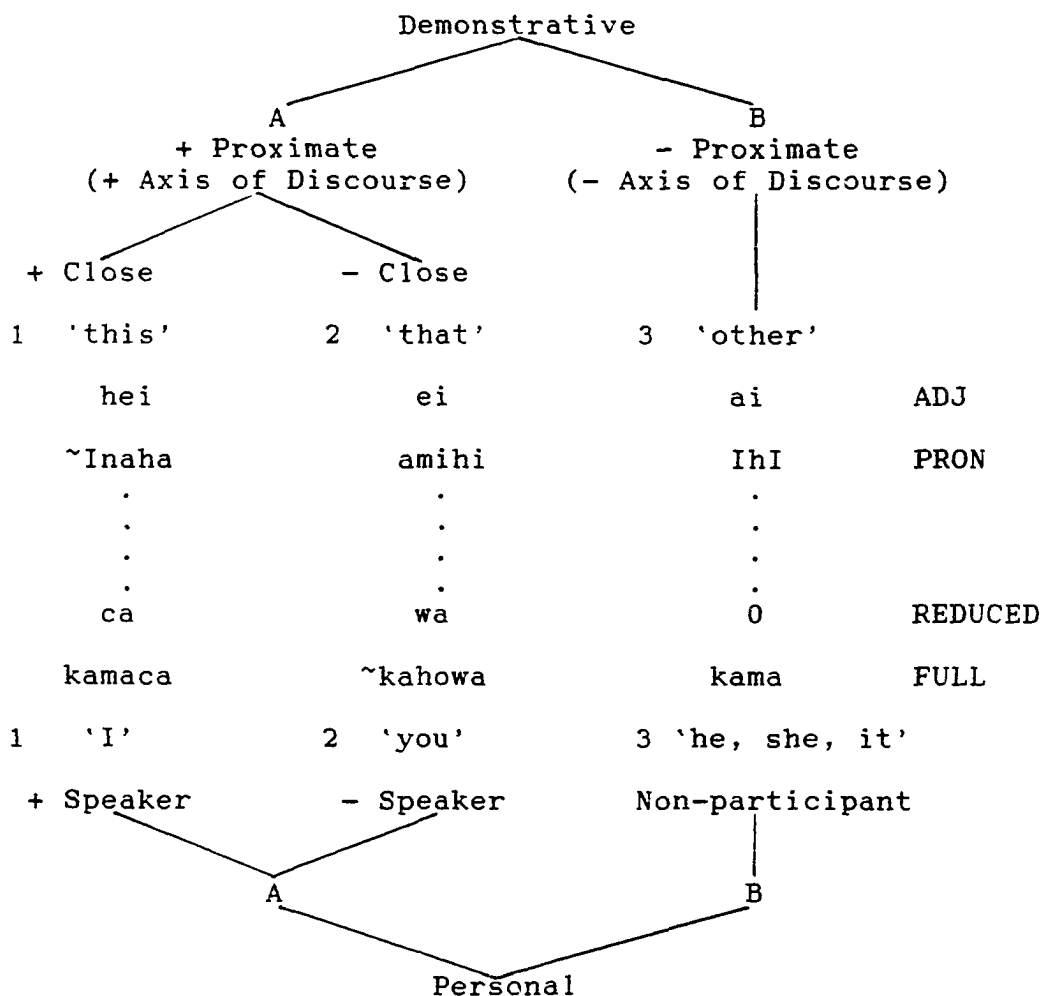
There are six simple demonstratives in SY, three adjectives and three pronouns. A seventh demonstrative, the pronoun /ai=ri/ 'the other one,' is derived from /ai/ 'other' by the addition of the suffix /=ri/. The simple demonstratives are distinguished by the proximity of the referent to the speaker and hearer. /~Inaha/ 'this one' and /hei/ 'this' are proximate demonstratives since they refer to something close to the hearer and speaker, whereas /amihi/ 'that one' and /ei/ 'that' are distal demonstratives since they refer to something far from the speaker

but close to the hearer, and /IhI/ 'that' and /ai/ 'other' are remote demonstratives, which refer to something far from both the hearer and the speaker.

Deixis in SY is illustrated in Table 19, a binary diagram of the demonstrative and personal deictic systems.

TABLE 19

DEICTICS



As pointed out by Austerlitz (1978:15), the bipartiteness of the deictic systems implies a specificity/vagueness dichotomy, where "B would be vague in opposition to A." This is clearly the case in SY, where the non-participant in the discourse (B) is the third person personal pronoun, which is usually unmarked unless expressed as a full noun phrase or expressed by the remote demonstrative pronoun /IhI/. When the remote demonstrative pronoun /IhI/ is used to express a third person subject or object, which might otherwise be unmarked, it may co-occur with suffixes and postpositions associated with nouns and personal pronouns, for example: /IhI kIp/ 'they (dual),' /IhI pIk/ 'they (plural),' /IhI-n/ 'he/she-AG,' and /IhI iriha/ 'to/for him/her.'

EXAMPLES:

amihi hicehe ai th@-k
that here other it COLL 'those things (near hearer)'

IhI ai th@-k
that other it COLL 'those things (far from hearer)'

hei thIw@ totihi
this woman pretty 'This woman (is) pretty.'

~Inaha wa th@-k cia -p \$iha
this one you it COLL take PROS NEG
'You may not take these.'

ei thIw@ pIk hiri-p o
that woman PL sing PROS QM
'Are those women going to sing?'

They may also combine with other morphemes to form noun

phrases which contrast 'this thing or time' from 'another thing or time.'

EXAMPLES:

hei tarosi	'this basket'
ai tarosi=ri	'another basket'
hei th@k	'this thing'
ai th@k	'another thing'
hei th@m ~Iha	'today'
ai th@m ~Iha	'yesterday'

To emphasize closeness in time or space the proximate demonstrative /hei/ may be reduplicated, for example:

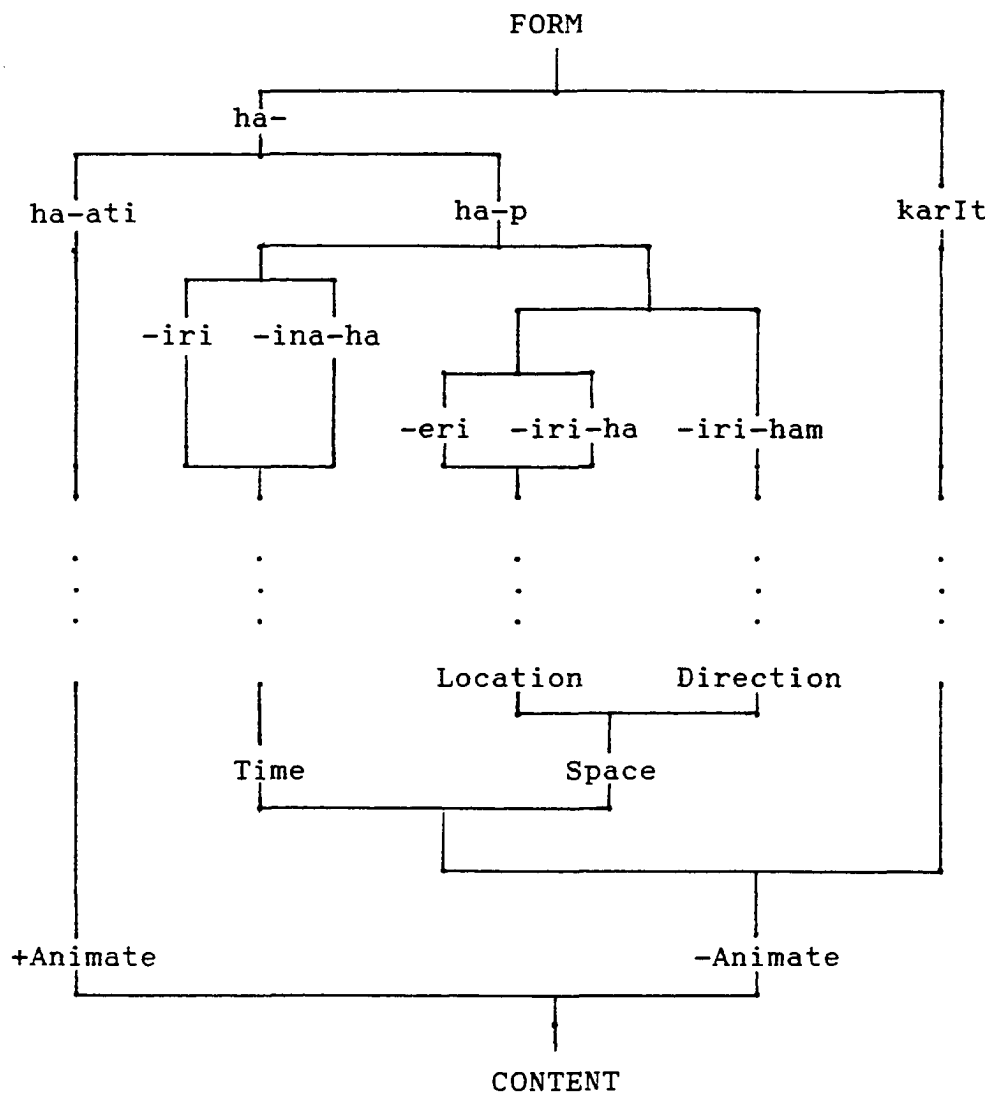
hei hei th@m ~Iha	'today <u>now</u> '
hei hei thIw@ totihi	' <u>this</u> pretty woman'

Two directional deictics are /mana/ 'rearward' and /ora/ 'forward,' for example:

mana ham	'downstream'
ora ham	'upstream'
mana pIp	'the middle at the back (of a canoe)'
ora pIp	'the middle at the front (of a canoe)'

2.1.4 Interrogatives

TABLE 20
INTERROGATIVES



Question-word questions are introduced by three basic interrogative units: /ha-ati/ 'who,' /karIt/ 'what,' and /ha-p/ 'where.' They occur sentence initially. The form

and content of these three interrogatives and their accompanying suffixes are summarized in table 20.

The morpheme /ha-/ seems to be a root with the nuclear meaning '(a question of) time, space or manner.' The form /ha-p/, 'where,' may co-occur with various suffixes and the postpositions /ham/, /th@h@/, and /th@m@/ to produce the following series of question words and phrases:

ha-p-eri		'where?' (further unspecified)
ha-p-iri	ham	'to where?' (direction)
ha-p-iri	ha	'where?' (location)
ha-p-ina	ha	'how, what?' or 'how many? (count)'
ha-p-iri	th@h@	'when?' 'after how much time? (mass)'
ha-p-ina	ha th@m@	'when?' 'after how many days? (count)'

Temporals are further discussed in section 2.4.1 (Other word classes).

The interrogative word /ha-p-eri/ 'where' has three forms: /ha-p-iri/, /ha-p-eri/, and /ha-p-e/, a shortened form of /ha-p-eri/. These three forms occur in free variation. The second vowel in the word /karIt/, 'what,' freely alternates with /i/: /karIt/ and /karit/. Up to this part in the discussion the interrogatives have been broken down into their component parts. From here on they will be written unsegmented.

EXAMPLES in complete sentences:

haati	~waha-ma	
who	speak PERF	'Who was speaking?'
kari-wa-t	tha-I	
what you	do IMPERF	'What are you doing?'

karIt amihi what that	'What is that (near hearer)?'
hapiri wa pIri-@ where you live EXIST	'Where do you live?'
hape aw@ -ho where older Bro your	'Where is your older brother?'
hapiriha wa nini where you painful	'Where (loc) do you feel pain?'
hapiri ham wamak hI-I where DIR you(PL) go IMPERF	'Where (dir) are you going?'
hapinaha Iri -ho pIk kI-ra -@ how many child your PL be RES EXIST	'How many children do you have?'

Interrogation is expressed in SY segmentally, by the sentence-final particle /o/ for yes-no questions and by sentence-initial question words. Both types of questions are accompanied by the normal intonation pattern. In polar (yes-no) questions there is only one morphological marker, the particle /o/, which occurs sentence finally. It is phonetically a very short, unstressed, open, mid, back, rounded vowel, followed by glottal closure. In rapid speech it may be difficult to detect.

EXAMPLES in complete sentences:

\$ama o tapir QM	'(Is it) a tapir?'
t@ @ o daughter QM	'(Is she your) daughter?'
wa ia pemio-m o you eat NEG PERF QM	'Didn't you eat?'

orok cia -ra o
gold take RES QM 'Does (he) extract gold?'

wa ~hak =mo pe\$mo o
you dance CAUS want QM 'Do you want to dance?'

Questions (Q) may be answered (R) by means of "yes" or "no", or by a word, a phrase, or a complete sentence.

Q: hena th@h@ kari-wa-t tha-p 'What will you do
tomorrow what you do PROS tomorrow?'

R: pemi 'Nothing.'

Q: wa carimo-co -m o
you bathe INGR PERF QM 'Did you take a bath?'

R: @ @h 'Yes.'

or

ca carimo-co akIn
I bathe INGR ADV 'I already took a bath.'

Q: wa nini o
you painful QM 'Are you in pain?'

R: pemi 'No.'

or

ca nini pemi
I painful NEG 'I am not in pain.'

Q: hapiri ham wa hI-m
where DIR you go PERF 'Where did you go?'

R: mana ham
rearward DIR 'Downstream.'

Q: kari-wa-t wa -I
what you eat IMPERF 'What are you eating?'

R: \$ama 'Tapir.'

or

\$ama+~cahi 'Tapir meat.'

or

\$ama ca wa -I
tapir I eat IMPERF 'I am eating tapir.'

2.2 Kinship terms and possession

Relatives are classified in SY according to a modified Dravidian system. It is an affinally-oriented kinship system in which only lineal kin in the first and the speaker's own generations are differentiated. A distinctive feature which SY shares with Yanomam is "the equation of second ascending and descending generation terms with affinal terms of first ascending and descending generations, respectively" (Ramos and Albert, 1977:87). This is in contrast to Sanuma where the "grandparents and grandchildren are terminologically equated with kin" [not affines] (Ramos and Albert, 1977:87).

In SY the term "affines" refers not only to relatives by marriage but to the "cross relations" of an individual. These include maternal uncles, paternal aunts, their children (cross-cousins), as well as the children of cross-cousins and so on. The ideal mates are cross-cousins. The SY kinship system is schematized on Table 21 using first person possessor kinship roots only. For further description of the SY kinship system see Ramos, Lazarin, and Gómez (1985:21-27).

TABLE 21

FIRST PERSON SINGULAR POSSESSOR KINSHIP ROOTS

(Adapted from Ramos, Lazarin, and Gómez, 1985:26)

		Male		Female	
		Affines	Kin	Kin	Affines
(Ascending generation)					
2nd		Soa-			cape-
1st			papa-	nape-	
(Older sibling)			aw@-	ami-	
Ego		warima heri-	~caro-		thIw@- warima
(Younger sibling)			~\$ia-	~\$ia-	
1st			IrI-	t@ @-	
2nd			~tarIsi-		ciha-
(Descending generation)					

The category of possession in kinship terms is presented here in the singular because data from the field are available only for the singular. Migliazza lists kinship roots for 1st and 2nd person possessors only (Migliazza, 1972:325).

Terms on table 22 which would be used only by a woman

speaking (W.sp.) or only a man speaking (M.sp.) are so indicated. Vocative forms were not available for all kinship terms.

TABLE 22
KINSHIP TERMS AND POSSESSIVES

	Vocative	Pro	Stem	Possessive		
				1 sg	2 sg	clitic 3 sg
Ascending generation						
1. Mo/ MoSi	nape		nape na a ne	-cV	-ho	e
2. Fa/ FaBro	papa		papa papa ~he	-cV	-ho	e
3. Older Si	ami		ami ami pe amo	-cV	-ho	-p e
4. Older Bro	awa		aw@ aw@ pe a	-cV	-ho	-p e
5. FM/FSi/HuM/ MM/WiM	cape		cape ca a pi c@s	-cV	-ho	e
6. MF/MB/WiF/ FF/HuF			\$oa \$oa pi ~\$e	-cV	-ho	e
Descending generation						
7. Wi (M.sp.)		ipa	thIw@ ipa tI Ipo tI Ipo pe(he) tI Ip	-cV -cV	-ho	e
8. Hu (W.sp.)		ipa	~caro ~caro pi(hi) ~caro	-cV	-ho	-p e

TABLE 22 - continued

		Vocative	Pro	Stem	Possessive suffixes clitic		
					1 sg	2 sg	3 sg
9.	Da SiDa (W.sp.)	tIIIsi	ipa pe	t@ @ t@ @ te	-cV	-ho	e
10.	Son BroSon (M.sp.)	tIIIsi	ipa pI	IrI Iri IrI	-cV	-ho	-p e
11.	Younger sibling	tIIIsi	ipa pi	~\$ia ~\$ia ~\$ia	-cV	-ho	-p e
12.	WiBro/SiHu HuBro/WiSi	warima	ipa pe	heri heri heri	-cV	-ho	e
13.	DaDa/SonDa SiDa (M.sp.) BroDa (W.sp.)		ipa pi	ciha ciha ca	-cV	-ho	-p e
14.	DaSon/SonSon SiSon (M.sp.) BroSon (W.sp.)		ipa pe	~tarIsi ~tarIsi ~tarIs	-cV	-ho	e

Under column Pro on table 22, the form /pe/ has four phonologically determined allomorphs, /me/, /pI/, /pi/, and /pe/. The occurrence of alternate long forms of /pe/ in /pehe tI Ip e/ 'his wife/ and /pihi ~caro-p e/ 'her husband' seem to be morphologically determined. These will be further discussed below.

The kinship terminology for SY is characterized by the irregularity of some of the stem morphemes, which may have two or three allomorphs. A feature of SY kinship termino-

logy which has also been noted in Sanuma is two sets of reference terms: one set for "one's own or the listener's relatives. Another set is used to refer to a third person's relatives" (Ramos and Albert, 1977:73). This is consistent with the data on table 22 where eight of the fourteen kinship terms (including all of the terms for relations of ascending generations) have allomorphs occurring with the third person possessive morphemes which differ substantially from those occurring with the first and second person possessive morphemes.

It is interesting to note that terms #1 and #5 on table 22, /nape/ and /cape/ have three allomorphs each. The stems occurring with the first and second person possessive morphemes, /nape-cV/ : /cape-cV/ and /na a-ho/ : /ca a-ho/, respectively, have similar phonological shapes. However, the stems occurring with the third person possessive morpheme, /me ne e/ : /pi c@s e/, are quite distinct.

The stems of the term for 'wife' have the following semantically related but broader meanings in other contexts: /thlw@/ 'woman; female' as in /karak+thiw@/ 'hen,' (lit. chicken + female) and /tI Ip/ 'wife' from /piri tI Ip-k/ 'one's breasts; milk.'

The first person singular possessives differ according to whether the kinship stem refers to a member of an ascending or descending generation with reference to the speaker. The first person singular possessive is indicated by the

suffix /-cV/ when the stem refers to older siblings and kin of ascending generations, e.g. Mo, Fa, Older Si, Older Bro, FM, MF.

EXAMPLES: papa-c@ 'my father'
 ami-ci 'my older sister'
 \$owa-c@ 'my uncle/grandfather/father-in-law'

When the stem refers to the speaker's generation (including spouses (Hu, Wi) but not older siblings) and to kin of descending generations, e.g. Da, Son, SiDa, SonSon, etc., the first person singular possessive is expressed by the possessive pronoun /ipa/ preceding the stem; this pronoun co-occurs with the suffix /-cV/.

EXAMPLES: ipa ~caro-co 'my husband'
 ipa t@ @-c@ 'my daughter'
 ipa ~tarIsi-ci 'my nephew/grandson'

The vowel of the suffix /-cV/ copies the final vowel of the preceding stem, except for the case of stem-final /a/, in which case the vowel of the suffix is optionally /e/ or /@/. Moreover, the vowel of the first person singular possessive suffix tends to become devoiced and lost before silence, e.g. [ipa ~\$ia-c] 'my younger sibling' (for [ipa ~\$ia-c@], which is also possible).

Possession is expressed in the second person singular forms by the addition of the suffix /-ho/ to the kinship stem.

EXAMPLES: aw@-ho 'your older brother'
 Iri-ho 'your son'
 ciha-ho 'your niece/granddaughter'

The third person singular possessive of a kinship term is expressed by the pronoun /pe/, which precedes the stem and co-occurs with the clitic /e/ as cloture. When the kinship stem ends in a non-front vowel, /-p/ is suffixed to the stem, preceding the possessive cloture /e/.

EXAMPLES:

pe	te	e	'his/her daughter'
pe	a-p	e	'his/her older brother'
pI	IrI-p	e	'his/her son'
pi	c@s	e	'his/her grandmother/aunt/mother-in-law'

The third person possessive pronoun /pe/ has four allomorphs, /me/, /pI/, /pi/, and /pe/, which are phonologically determined by the initial segment of the kinship stems which follow. /me/ precedes a nasal consonant: /me ne e/ 'his/her mother.' /pI/ precedes a stem beginning with the vowel /I/: /pI IrI-p e/ 'his/her son.' /pi/ precedes a stem beginning with an affricate or a fricative: /pi ~\$ia-p e/ 'his/her younger sibling.' /pe/ occurs elsewhere. /pe/ stands in an allomorphic relation to /pehe/ and /pihi/ in the following examples: /pehe tI Ip e/ 'his wife' and /pihi ~caro-p e/ 'her husband.' This same sort of relationship seems to obtain between /pe/ and /pa/, the reduced form of the third person singular indefinite pronoun.

2.3 Nouns

2.3.1 Noun phrase structure

Nouns are divided into two classes: (a) inalienably possessed nouns, which occur with an obligatory possessor /piri/ or with possessive pronouns and/or their accompanying suffixes or clitics, and alienably possessed nouns which can occur without a possessor, for example: /wiitihi/ 'tree.' Most inalienably possessed nouns denote kinship relationships or body parts.

Possessed noun phrases are of two types: those with possessed noun stems denoting kinship relationships (+KIN) and those with possessed noun stems not denoting kinship relationships (-KIN). As Table 18 in section 2.1.3 (Possessive pronouns) illustrates, the possession of kinship stems involves more morphological variation than the possession of non-kin noun stems. Compare the following examples:

(-KIN)	
kama karatha e	'his/her banana'
aho caro	'your game (meat)'
ipa hItI	'my garden'
(+KIN)	
pi ~sia-p e	'his/her younger sibling'
pe te e	'his/her daughter'
na a-ho	'your mother'
papa-c@	'my father'
ipa thIw@-c@	'my wife'

For detailed descriptions of possessive pronouns and the order of constituents in possessed noun phrases see section 2.1.3 and for kinship terminology see section 2.2.

A noun phrase may be composed of a single noun or pronoun, for example /\$ama/ 'peccary' or /ipa/ 'mine.' An expanded noun phrase may be composed of a head noun or pronoun preceded and/or followed by numerous modifiers, suffixes and postpositions. The basic constituent order of an expanded noun phrase is summarized in table 23 and illustrated with examples of noun phrases. The glosses to the entries on the table can be found following it.

TABLE 23

BASIC CONSTITUENT ORDER OF THE EXPANDED NOUN PHRASE

	PRO/NUM	HEAD	POSTP/ SUF/PRO	SPEC	SUF/ POSTP	QUANT
1.	pe	te	e	pata	iriha	
2.	ipa	thIw@	-ce-\$o			
3.	ay pehe	thI Ip	e			
4.	kama {e}	karatha	{e}			
5.	awsici {e}	~cano	{e}			
6.	hei	thIw@		totihi		
7.		kraiwa		thIw@	pIk	
8.		oko		cai	thai	
9.		karatha		tikok		
10.		karatha	pa	riw@		
11.		~waro	pa		pIk	~cami
12.		wiitihi		hIre		~kahatha
13.	pa	tihi		~hethethe		
14.	carekep	pIk		car@h@		
15.	pa	th@	-k			carami
16.	~moni	~waro	-n			
17.	ay	tarosi	=ri			
18.	ay	\$irika	kI-ha			
19.	ay	th@m		tItI	-ha	
20.		~rakamthok	kI-ha			
21.	pa			hototi		
22.	carekep	kIp	-n			
23.	ey			totihi		
24.		~cahi	-k	~i@		

Glosses with word-for-word translations:

1. 'to his/her elder daughter'="his daughter his old DAT"
2. 'with my wife' = "my wife my with"
3. 'wife of another' = "other his wife his"
4. 'his/her banana' = "he his banana his"
5. 'Alcides's house' = "Alcides {his} house {his}"
6. 'this pretty woman' = "this woman pretty"
7. 'white women' = "white person woman PL"
8. 'small common crab'= "crab genuine DIMIN"
9. 'type of banana' = "banana SPECIFIER"
10. 'unripe banana' = "banana it unripe"
11. 'few men' = "man he PL few"
12. 'very heavy wood' = "wood heavy very"
13. 'light-weight wood' = "it wood light-weight"
14. 'two tall ones (e.g. men)' = "two PL tall"
15. 'many things' = "it it COLL many"
16. 'one man (+AG)' = "one man AG"
17. 'another basket' = "other basket ATTVZR"
18. 'last year' = "other year TEMP"
19. 'last night' = "other time dark OBL"
20. 'in a hammock' = "hammock LOC"
21. 'a short one (person)' = "he/she/it short"
22. 'two ones (+AG)' = "two DUAL AG"
23. 'that good (one)' = "that good"
24. 'some raw (or rare) meat'= "meat COLL bloody"

The constituents which may precede the head noun or pronoun are personal and possessive pronouns, demonstratives, and numerals. Demonstratives and numerals precede personal and possessive pronouns, as in example phrases 3, 14, and 22. The third person singular possessive clitic /e/ is mobile when the possessed noun stem is not a kinship term. In this case, as indicated by brackets in example phrases 4 and 5, /e/ may occur either immediately preceding or following the non-kin noun stem.

Suffixes or postpositions immediately follow the head they modify, as in example phrases 2, 3, 15-18, 20 and 22, unless it is followed by another noun or adjectival speci-

fier. In this case the suffixes or postpositions usually follow the specifier, as in example phrases 1, 7, 8, and 19. In example phrase 24, however, the inanimate plural suffix remains with the head noun, preceding the adjectival specifier. Quantifiers occur phrase finally, as in examples 11, 12, and 15. The function of the pronoun /pa/ following the head noun in example phrases 10 and 11 is still undetermined.

A noun phrase is distinguished from a nominal compound by the characteristic secondary-and-primary stress pattern of compounds. In noun phrases both the head noun and its modifier maintain their primary stresses. Compare the noun phrase /~cahi-k ~i@/ 'raw (or rare) meat,' lit. "meat bloody," which has two primary stresses, and the nominal compound /\$ama+~cahi/ lit. "tapir meat," which has one primary stress. For a discussion of nominal compounds see section 4.1.2.

Nouns may be modified in a number of ways. Modifiers may either precede or follow the noun. Modifiers which generally precede the noun include the following:

(a) numerals,

~moni karatha	'one banana'
carekep mamó-k	'two eyes'

(b) personal and possessive pronouns,

ca he	'my head'
ipa ~cano	'my house'
aho war@	'your peccary'

and (c) demonstrative adjectives.

hei thIw@	'this woman'
ey thIw@ pIk	'those women'

However, the reduced form of the third person plural personal pronoun /pIk/ follows a noun when it functions as a pluralizer, for example: /~waro pIk/ 'men.' See section 2.1 for more details on pronouns and section 4.4 for more on numerals.

Quantifiers other than numerals and qualitatives usually follow the nouns which they modify. Quantifiers are further discussed in section 4.4.

EXAMPLES:

IrIt pIk carami	
child PL many	'many children'
~\$iitha ~maro	
bead single	'a single (glass) bead'
wiitihi ~hero	
tree dry	'dry wood'
~cahi-k ~i@	
meat COLL bloody	'raw (or rare) meat'

The word meaning 'big, old, important,' /pata/, seems to form a class by itself. It precedes the word which it modifies when it refers to size, and it is the left member of nominal compounds.


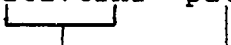
EXAMPLES:

pata namhIs	
big nail; claw	'thumbnail'
pata + po o	
big X	'ax'

However, when it refers to age, /pata/ follows the word it modifies, as in the noun phrase:

pe te e pata iriha
her daughter POSS old DAT 'to her eldest daughter.'

For emphasis, the morpheme /pata/ may even occur twice, before and after the word it modifies, having two possible immediate constituent structures:

- (a) pata + tihi pata 'a big, old tree'

 or
 (b) pata+tihi pata 'The big tree is big.'


In (a) the first occurrence of /pata/ functions as the first member of a nominal compound with a noun phrase as the second member. In (b) the first occurrence of /pata/ also functions as the first member of a compound, but the second occurrence is functioning as a predicate, a qualitative verb.

/pata/ may also occur alone, when it is used pronominally and can be translated as 'the elderly person' or 'the important person.'

Syntactic and semantic functions of noun phrases are indicated morphologically by suffixes and postpositions. The agentive (AG)/instrumental (INSTR) case of a noun is indicated by the addition of the suffix /-n/, as illus-

trated in the following sentences:

wiitihi-n \$@ -ra -re -h akIn
tree INSTR beat RES INGR 3 ADV
'He killed with a stick'

okoro-n cee si+wa-re -ma
dog AG me bite INGR IMPERF
'The dog bit me.'

IhI -n ~thomIn@-n tlohIrI-m
that one AG knife INSTR cut PERF
'He cut with a knife.'

Following a word-final consonant an epenthetic vowel (schwa or /I/) is inserted before the suffix /-n/, e.g. /kIp-n/ [kIpI-n] 'they two (+AG).' (See section 1.6 for further discussion.)

The general oblique (OBL) suffix /-ha/ is a frequent component of noun phrases with a variety of spacio-temporal meanings. It may occur in the following instances.

(a) /-ha/ may occur suffixed to a solitary noun and have a locative function, for example:

~cano-ha	'from the house'
ma\$ta-ha	'on (or to) the ground.'

(b) It may occur with a specific idiomatic combination of morphemes, such as the following temporals:

ay wiripo-ha	'next month'
ay th@m@ tItI-ha	'last night.'

(c) It may be a component of an interrogative word, for example:

ha-p-ina-ha	'how, how many?'
ha-p-iri-ha	'where?'

(d) It may be a component of a dative, locative, or temporal postposition, as in the following noun phrases:

~waro iri-ha	'for/to the man'
~cano kami-ha	'inside the house'
~rakamthok KI-ha	'in the hammock'
ai Sirika KI-ha	'last year'
ai th@m@ ~I-ha	'last year.'

The difference between /KI-ha/ and /~I-ha/ cannot be determined at this time.

The comitative (COMIT) suffix /-So/ is used to express coordination of noun phrases. The suffix occurs at the end of the nominal complex, for example:

pawro pehe tiip e -So kIip hokco -hIri-m
 Paulo Pro wife POSS COMIT DL travel away PERF
 'Paulo and his wife took a trip.'

paa -ca-nak pe\$ =mo -I piri thatha-So
 fish sp. I teeth desire CAUS IMPERF POSS line COMIT
 'I want fish hooks and line.'

The postposition /ham/ is a goal-oriented directional (DIR) indicating movement away from the speaker, for example:

mana ham	'downstream'
teremi ham	'up the mountain'
ipa ~cano ham	'to my house'
mi ham	'Go away! Get out!'

The postposition /esi/ is a benefactive (BEN) indicating the recipient of some action, for example:

thIw@-n tarosi ti@ -ra -re kIn kama esi ~waro esi
 woman AG basket weave RES INGR ADV he BEN man BEN
 'The woman made the basket for him, for the man.'

The following list is a summary of the suffixes and postpositions discussed immediately above which may occur with nouns. A tentative gloss is given for each.

<u>Morpheme</u>	<u>Gloss</u>
/-n/	Agentive or instrumental
/-ha/	General oblique
/iri-ha/	Dative
/kI-ha/	Locative or temporal
/kami-ha/	Interior location
/~I-ha/	Temporal
/-So/	Comitative
/ham/	Directional
/esi/	Benefactive

2.3.2 Number and animacy

As pointed out in section 2.1.1 on personal pronouns, nouns in SY are classified according to animacy, and the plural morpheme of a noun is determined on this basis. Humans, animals, insects, and spirits are animate and the plural of these nouns is formed by postposing the reduced form of the third person plural animate pronoun /pIk/, as in the following:

~canam pIk	'Yanam people'
caro pIk	'game animals, including fish'
pa ari pIk	'birds sp.'
ko\$ina pIk	'ants sp.'
pore pIk	'evil spirits'

The eggs of birds and insects also take the animate plural, for example: /~ro oh+thethe pIk/ 'housefly eggs.'

Plants and inanimate objects usually take the partitive-collective suffix /-k/ as a pluralizer, for example:

hokomo-k	'sweet potatoes'
~mari\$ i hena-k	'medicinal leaves sp.'
~na\$ kiri-k	'flowers'
maama-k	'stones'

Rarely, a noun may take an animate pluralizer on one occasion and an inanimate pluralizer on another as its meaning and the context vary. For example, /\$irika pIk/ refers specifically to the stellar constellation Pleiades which has special significance to the Yanam. However, when referring to the natural passage of time from one appearance of the constellation across the sky to the next, this noun has an inanimate pluralizer, as in /\$irika-k carami/ 'many years.'

Natural phenomena and mass nouns do not take a plural but the former may be modified by a quantifier, such as in the following examples:

koromo\$ carami	'many scabbies (on the scalp)'
ti\$ o\$ carami	'many curves (in the river)'

Quantifiers can also be used to modify a plural noun, for example: /karatha-k carami/ 'many bananas' and /\$ama pa pIk ~cami/ 'few tapirs.'

2.4 Remainders

2.4.1 Other word classes

The basic word classes in SY are: nouns, pronouns, postpositions, modifiers, and verbs. Nouns (see section 2.3) and pronouns (see section 2.1) are discussed in Chapter 2 and verbs are described in detail in Chapter 3. This section will concentrate on the postpositions and modifiers which are not discussed in other contexts.

SY is a postpositional language. Postposed elements include the possessive clitic /e/ (see section 2.1.3), the interrogative marker /o/ (see section 2.1.4), nominal and verbal suffixes (discussed in chapters 2 and 3 respectively), and postpositions. Postpositions differ from suffixes in that they are less intimately connected to the word which precedes them. They are usually longer than suffixes and postpositions have their own stress, whereas suffixes do not. Several of the modifiers discussed below could also be classified as postpositions. The following are some commonly occurring postpositions which are not discussed in other sections:

/thai/ 'diminutive' (DIMIN)

IrI	thai	
offspring	DIMIN	'child'

oko	thai	cai	
crab	DIMIN	true	'small crab of most common variety'

caw	thai		
wildcat	DIMIN		'small wildcat'
pi\$an	thai		
cat	DIMIN		'domesticated cat'
<u>/theri/</u> 'people, inhabitants of (a place)'			
maka\$ai	theri	pIk	
Mucajai	people	PL	'people from Mucajai'
\$oropaI	theri	pIk	
Surubai	people	PL	'people from Surubai'
<u>/cai/</u> 'true, genuine, truly'			
macop	cai		
toucan	true		'common toucan'
~\$awana	cai		
soap	true		'soap for washing clothes (not perfumed bath soap)'
kama	pIk	cai	
he	PL	truly go	PROS
			'Only they will go.' = lit. "They truly will go."

Nominal modifiers are described in detail in section 2.3. Numerals and quantifiers are discussed in section 4.4. There are a number of modifiers of verbs, however, which will be described here. Adverbs such as /opopin/ 'slowly' and /\$iharin/ 'quickly' precede the verbs which they modify, for example:

\$iharin	hI	kIren	
quickly	go	ADV	'He (or she) came quickly.'
opopin	wa	~waha-I	
slowly	you	speak-IMPERF	'You speak slowly.'

Another group of adverbs includes /pemi/ 'not,' /pari/ 'first,' /haiki/ 'already; still,' /haati/ 'soon,' /ima/

'towards' (action of the verb directed towards the speaker), and /hIrI/ 'away' (action of the verb directed away from the speaker). These adverbs occur between the verb stem which they modify and its aspectual suffixes. See table 24 in section 3.2 for example sentences of /pari/ (# 9), /haiki/ (# 11), and /pemi/ (# 14).

EXAMPLES:

ca ~mariʃi mio hatio-p akin
I sleepy sleep soon -PROS ADV
'I am going to sleep soon.'

~waha haikio -h akIren
speak already 3 ADV 'He already spoke.'

maa hI ima -I
rain go towards-IMPERF 'Rain is coming this way.'

ca aheyo hI ima kIren
I stroll go towards ADV 'I came to take a stroll.'

pawro hokco hIrI-m
Paulo travel away-PERF 'Paulo took a trip.'

~cano-ha aco hIrI-ʃo
house OBL leave away IMP 'Let's go out of the house.'

SY has four simple temporal adverbs and numerous complex temporals. The simple temporal adverbs are: /citIhI/ 'long ago; always,' /hena/ 'early; in the morning,' /hIcathe/ 'late; in the afternoon,' /waiha/ 'later, afterwards.' The meaning of a temporal expression may vary according to the aspects of the verb with which it co-occurs. Temporals generally occur either sentence-initially or sentence-finally. However, the simple temporals /hena/

and /hIcathe/ have been found to occur elsewhere, as illustrated in the first two of the following example sentences.

EXAMPLES:

~kaho-n hIcathe caro pIk r@k@ -re -am
 you AG late game PL fish RES PERF
 'You went fishing yesterday afternoon.'

ca ~ra hena -co -ithe
 I wake early INGR POT 'I will wake up early.'

hIcathe ca ~ra -co -kIn
 late I wake INGR ADV 'I woke up late.'

citIhI \$ama ca wa -keere
 long ago tapir I eat ADV
 'It's been a long time since I ate tapir.'

waiha ca ~mari\$ i mio -p -akIn
 later I sleepy sleep PROS ADV
 'I am going to sleep later.'

wei th@h@ ca kope hIri-ithe
 now when I go away PROS 'I am going away now.'

caro-ca-pIk r@ka -I hena th@h@
 game I PL catch IMPERF early when
 'I will go fishing tomorrow.'

hena th@h@ ora ham camak hI-I
 early when forward DIR we go IMPERF
 'Tomorrow we are going upstream.'

kamac@-n ca nohi =ma -p akIn wei th@h@
 I -AG I court=CAUS POT ADV now when
 'I am going to court (her) now.'

The complex temporals are composed of (a) an appropriate morpheme, such as /hena/ or /wei/, followed by the postposition /th@h@/ 'when' or (b) the temporal stems /th@m@/ 'time,' /wiripo/ 'month,' or /\$irika/ 'year,' preceded by a pronoun, usually demonstrative, and/or followed

by the the suffix /-ha/ or the postpositions /~Iha/ or /kIha/. The following is a list of frequently occurring complex temporals which either precede or follow a sentence or clause.

EXAMPLES:

hena th@h@	'tomorrow'
wei th@h@	'now'
tite th@h@	'last night'
maa th@h@	'in the rainy season'
ai th@m@	'once; another time'
ai th@m@ ~Iha	'yesterday'
hei th@m@ ~Iha	'today'
hei hei th@m@ ~Iha	'today, right now'
ai wiripo kIha	'last month'
ai \$irika kIha	'last year'
ai wiripo-ha	'next month'
ai \$irika-ha	'next year'
ai ~\$ii-ha	'next summer'

A special set of temporal postpositions derived from the copula /kI/ is described in section 3.3.4 (Person and number). The temporal morphemes /waiha/ and /th@h@/, functioning as subordinators, are further discussed in section 5.4 (Subordination and coordination).

The temporal stem /th@m@/ may also be followed by the simple temporal adverb /hIcathe/ or an attributive morpheme (specified in the examples below) to refer to a time of day or a kind of weather.

EXAMPLES:

pa th@m@ hIcathe	'later (in the afternoon)'
ai th@m@ tITi-ha	'last night'

th@m@	wakara	'daybreak'
th@m@	~\$ii	'a clear, bright day'
th@m@	tite	'a dark, cloudy day'
th@m@	~wari	'a dark, stormy or rainy day'

2.4.2 Hortatory particles

There are four hortatory particles:

/~hamII/	'Let's (do something)!'
/hacIrII/	'Get going; Let's go home!'
/hic@m/	'Give (it to me)!'
/waiha/	'Wait (for me)!'

/hacIrII/ and /waiha/ generally occur alone. /~hamII/ may precede a clause with a verb in the first person plural imperative (see section 3.4) and /hic@m/ may precede a clause containing the verb /pihi/ 'to give.' The first two particles /~hamII/ and /hacIrII/ seem to be related to the imperative but no other forms of their hypothetical verb stems (~ham-, hac-) have been found in the data. /waiha/ 'Wait!' is homophonous with the temporal morpheme /waiha/ 'later, afterwards;' this is a clear case of polysemy (see section 5.4).

EXAMPLES:

~hamII hiri-\$o	
Let's sing IMP	'Let's sing!'
~hamII hI-\$o	
Let's go IMP	'Let's go for a walk!'
hic@m hei wa-t pihi-i	
Give! this you give IMPERF	'Give this (to me)!'
hic@m na\$ihi	caro+~nahi
Give! cassava bread game meat	
'Give (me) cassava bread and meat!'	

hic@m po o+aka
Give! machete

'Give (me) the machete!'

2.4.3 Thematic vowels

The vowels /o/ and /a/ frequently recur in specific contexts and seem to be in complementary distribution. Migliazza (1972:137) describes them as reflexive morphemes where "[o] appears only when the action of the verb is directed toward the subject." He acknowledges, however, in an extensive footnote on the same page that in the work of missionaries and anthropologists on several of the Yanomami languages "these morphemes were either ignored or vaguely rendered with different meanings. In their published and unpublished lists of morphemes there is no agreement on the meanings of [-a] and [-o]" (Migliazza, 1972:137). These same two vowels may also be components of the causative suffixes /-mo/ and /-ma/, as Migliazza suggests.

The data on which the current analysis is based have also failed to provide an unambiguous interpretation of the role of these two vowels in SY. The following two pairs of sentences seem to support Migliazza's suggestion concerning reflexivity:

1. (a) ma\$ta -ha ca ra -o -I
ground OBL I lie (myself?) IMPERF
'I recline on the ground.'
- (b) kothapa ~hIsmiri ra-a ma\$ta-ha
cockroach dead lie ground OBL
'A dead cockroach is lying on the ground.'

2. (a) ca pIrI-o -I ~rakamthok-Iha
 I lie (myself?) IMPERF hammock LOC
 'I am going to recline in the hammock.'
- (b) hapiri wa pIrI-@
 where you lie EXIST 'Where do you live?'

Other example sentence pairs suggest that something else may be involved, such as continuous (3a and 4a) versus completed action (3b and 4b) or an action (5a) versus a state or result (5b):

3. (a) pa-t kI-a-I
 it be IMPERF 'It is beginning.'
- (b) pa-t kI-ke -m
 it be INGR PERF 'It already began.'
4. (a) ca-t pihi-a -I
 I think; remember IMPERF 'I am remembering.'
- (b) ca-t pihi -re -m
 I think; remember INGR PERF 'I remembered.'
5. (a) casik ca pak ~nahI-a-I
 door I hole close IMPERF 'I close the door.'
- (b) mathohik paka ~nahI-@
 store;possessions hole close EXIST
 'The store is closed.'

In many verb stems, such as /aheo/ 'to stroll,' /aco/ 'to leave,' /ia/ 'to eat,' /Ika/ 'to dig,' /koa/ 'to drink' and /tha/ 'to make; do,' the vowels /o/ and /a/ seem to be an integral part of the stem although this is not always easy to determine. Other verb stems, such as /hI/ 'to walk,' /hanI/ 'to cut,' /h@r@/ 'to swim,' /hiri/ 'to sing,' and /ke/ 'to fall,' never occur with either thematic vowel.

/o/ occurs following the adverbs /pemi/ 'not,' /pario/ 'first,' /hati/ 'soon,' /haiki/ 'still; already,' the negator /-~ra/ (see table 24 in section 3.2 for some examples), and some auxiliary verbs. /a/ precedes the adverbs /kIn/, /kIren/, and /keere/ (see section 3.3.4 for details).

An attempt to solve the problem of /a/ and /o/ will not be made at the present time. It is more complex than it may appear at first and there may be several different morphemes involved. In order not to make a judgement as to their function, the vowels /o/ and /a/ will be referred to simply as thematic vowels and will be included unsegmented in the verb stem or the adverb with which they co-occur.

CHAPTER 3
THE VERB AND VERBAL SYNTAX

Both the morphology of the verb and the syntactic constructions based on the verb in SY, as those of many Amazonian languages, are characterized by their complexity. This section is intended as a sketch of the basic components and characteristics of the verb phrase.

3.1 Verb phrase structure

A verb phrase may be composed of a single unmarked verb stem. The simplest verb phrase consists of a qualitative verb stem, such as /totihi/ 'good; (He/she/it) is good.' The verb stem may occur unmarked for aspect and when it refers to a third person, the subject of the verb is unmarked as well.

The simplest expanded verb phrase is composed of a verb and a single suffix, most often indicating the imperfective or existential aspects or the imperative mood.

EXAMPLES:

wa ia-I
you eat IMPERF 'You eat; are eating.'

~hIkIrIhI-@
nearby EXIST '(He/she/it) is nearby.'

h@r@-So
swim IMP 'Let's swim!'

The verb phrase may be further expanded by the addition of an auxiliary verb and/or numerous verbal suffixes and postpositions, which are summarized on table 24. Complete sentences containing the verb phrases follow the table.

TABLE 24
BASIC CONSTITUENTS OF THE VERB PHRASE

STEM	AUX RES CAUS	INGR/ ADV/ NEG	DL	ASPECT	3	MODAL/ NEG/ ADV
1. cari	mo	co				akIn
2. ~hak	mo			p		\$iha
3. han	ra	co		m		
4. h@r@				I		
5. ~hIkIrIhI				@		
6. ~hIS	ra	ke		m		
7. koa			pI	p	h	akIn
8. nia	ra	~rao		m		akIren
9. ~waha		pario		I		
10. \$@	ra	re			h	akIn
11. rere		haikio				akIren
12. ~rara		co				ithe
13. ti@						\$o
14. hipIa		pemio			h	akIren
15. wa			pI	I		
16. titi	ra	ke				ithe
17. hora		rothotho				rII
18. r@k@		re				akeere
19. ci	~ko	re				ithe
20. aheo	~rara	co				kIn
21. te						n \$in
22. hI						n \$ire

Complete sentences with word-for-word and free translations:

- ca cari=mo-co akIn "I bathed"
'I already bathed (took a bath).'
- wa ~hak=mo-p \$iha "you dance not"
'You will not (or cannot) dance.'

3. ca ~Itahe han-ra-co-m "I finger cut"
'I cut my finger.'
4. wamak h@r@-I "you (PL) swim"
'You (PL) swim (are swimming).'
5. ~cano ~hIkIrIhI-@ "house nearby"
'The house is nearby.'
6. ~hIS-ra-ke-m "died" '(He/she/it) died.'
7. hemeco koa-pI-p-h akIn "medicine drink-they two"
'The two of them will drink the medicine.'
8. ca-t nia-ra-~rao-m akIren "I killed not"
'I didn't kill.'
9. ca ~waha pario-I "I speak first"
'I speak (am speaking) first.'
10. wiitihi-n \$@-ra-re-h akIn "with a club killed-he"
'He killed with a club.'
11. ca rere haikio akIren "I swim already"
'I already swam.'
12. th@ ~rara-co ithe "it finish may"
'It may finish.'
13. ti@-So "weave-let's" 'Let's weave (e.g. a basket)!'
14. hipIa pemio-h akIren "gave not-he"
'He/she did not give.'
15. caro wa-pI-I "game eat-they two"
'The two of them eat (are eating) game.'
16. th@m tIti-ra-ke ithe "time of day dark may"
'It may get (is getting) dark.'
17. wakI wa hora rothotho-rii "fire you blow hard"
'Blow hard on the fire!'
18. IhI=n caro plk r@k@-re akeere "he game PL fished"
'He went fishing for game.'
19. ay ca-k ci ~ko-re ithe "other I take again"
'I may get more.'
20. ca aheo ~rara-co kIn "I stroll finish"
'I finished taking a stroll.'

21. ipa t@ @-c@-n waika te-n \$in
 "my daughter Yanomam marry"
 'My daughter married a Yanomam (witnessed).'
22. citIhI hI-n \$ire "long ago go"
 'Long ago (he/she) went away (unwitnessed).'

The glosses are approximate and fail to reveal the nuances of the individual constituents. This vagueness of the glosses for the verb forms may be due in part to the ill-fitting match between the aspects of SY and the tenses of English and in part to the importance of the context in specifying temporal reference.

3.2 Verbal categories

3.2.1 Tense

Temporal reference in SY is expressed by a combination of aspectual morphemes, temporal adverbs, and the context. Pure tense is not unequivocally expressed by verb forms. The time when an event occurs or occurred becomes clear only after temporal adverbs and the context are fully taken into consideration. Subordinating aspects are described in section 5.4.

3.2.2 Aspect

The aspect distinctions proposed for SY are prospective (PROS), perfective (PERF), imperfective (IMPERF), resultative (RES), ingressive (INGR), causative (CAUS), existential (EXIST), iterative (ITER), and terminative (TER). The morphemes which represent them are discussed below.

The prospective (PROS) aspect describes a situation "where someone is in a state of being about to do something" (Comrie, 1976:64). It is indicated by the suffix /-p/, which may co-occur with a postpositional negator or a temporal adverb, as illustrated on table 24 by example phrases #2 and 7.

The perfective (PERF) aspect is expressed by the suffixes /-m, -ma/. The perfective aspect is assumed in this analysis to "denote a complete situation... all parts of the situation are presented as a single whole" (Comrie, 1976, p. 18). It may be negated by either /~rao/ or /pemio/ and may co-occur with the result and ingressive affixes, as in examples #3, 6, and 8 on table 24.

The term imperfective (IMPERF) aspect "is generally used of an action seen in terms of component parts rather than as a whole" (Everett in Derbyshire and Pullum, 1986, p. 291). It describes an habitual or on-going state or action, as in examples #4, 9, and 15 on table 23. Its marker is a high vowel which agrees in backness to the stem-final vowel. The imperfective aspect of verb stems which end in a front vowel /i/ or /e/ are indicated by the high front vowel /i/ [i]. The imperfective aspect is indicated by the high back vowel /I/ elsewhere. /I/ has two phonologically determined allophones: /I/ becomes a voiced velar nasal [ŋ] when it is suffixed to the final /-mo/ or /-ma/ of a performative verb or to a nasalized verb stem;

/I/ becomes a voiced velar fricative [ɣ] elsewhere.

EXAMPLES:

[okoro-n cawthInwai tae -i]
 dog AG wildcat bark IMPERF
 'The dog is barking at the wildcat.'

[ponthoo-ca-k carI-ɣ]
 cloth I COLL wash IMPERF 'I'm going to wash clothes.'

[ca thok ~caa-ŋ]
 I hammock hang IMPERF 'I hang the hammock.'

[wa hore=mo -ŋ]
 you lie CAUS IMPERF 'You are lying.'

Some qualitative verbs are unmarked for nonpast-imperfective aspect. Out of a list of 80 qualitative verbs, 50 forms (or 62 %) end in the high front vowel /i/. This fact suggests that /i/ may be a morpheme. However, it may also be a mere coincidence.

EXAMPLES:

ca cori	'I am sweating.'
ca waati	'I am cold.'
ca ohi	'I am hungry.'
ca mititi	'I am depressed.'

The resultative (RES) aspect is expressed by the suffix /-ra/). It indicates that the present situation is the result of some past state or action. It frequently co-occurs with the ingressive aspect, which it precedes, as in examples #3, 6, 10, 12, and 16 on table 24. It may also be followed by the negators /-~ra/ and /pemi/, as in example #8 on table 24.

The ingressive (INGR) aspect is expressed by the suffixes /-re, -ke, -co/. The conditioning of these three strikingly different suffixes has not yet been determined. The ingressive describes the "initiation of an action... [or] the beginning of a state" (Everett, in Derbyshire and Pullum, 1986:292). When the ingressive co-occurs with the result affix /-ra/, it can be translated 'become.'

EXAMPLES:

carinas aras kI-ra -co -m
caterpillar sp. butterfly be RES INGR PERF
'The caterpillar became a butterfly.'

carekep \$irika kI-ra -ke ithe
two year be RES INGR POT
'(He's) going to be two years old.'

pa-t kI-ke -m
it be INGR PERF
'It already started.'

IhI =n caro pIk r@k@-re akeere
that one AG game PL fish INGR ADV
'He went fishing for game.'

The markers of the causative (CAUS) aspect are the suffixes /=mo, =ma/. These suffixes are illustrated by examples #1, 2, and 12 on table 24. They function as derivational suffixes to form performative verbs (see section 4.2.2). The question of the homophony of the causative and performative suffixes (/=mo, =ma/) needs to be studied further.

The existential (EXIST) aspect does not carry a notion of temporal reference. It occurs with existential

verbs to express the mere occurrence or location of something. It is indicated by the suffix /-@/, as in example #5 on table 24.

awsice e ~cano ~hIkIrIhI-@
 Alcides POSS house nearby EXIST
 'Alcides's house is nearby.'

The iterative (ITER) aspect represents the reoccurrence of an action and is expressed by the verb /~ko/, literally 'to go back, return' when it occurs as an auxiliary verb, as in example #19 on table 24.

The verb /~rara/ 'to finish' expresses the terminative (TER) aspect, which indicates the termination of the state or action expressed by the main verb, as in example #20 on table 24.

There are two evidential (EVID) postpositions: /\$in/ which indicates that the action of the verb was witnessed by the speaker, as in example #21 on table 23, and /\$ire/ which indicates that the action of the verb was not witnessed, as in example #22 on table 24. Both postpositions are preceded by the verbal suffix /-n/. The function of this suffix has not yet been determined and it is not known whether or not this suffix may be identical to the verbal suffix /-n/ which precedes the negative postposition /~maharai/ (see section 3.4.4.).

The following list is a summary of the aspectual markers posited for SY. The numbers refer to the sentence in table 24 in which a marker occurs:

<u>Aspect</u>		<u>Example</u>
prospective	/-p/	#2, 7
perfective	/-m/	3, 6, 8
imperfective	/-l/	4, 9, 15
resultative	/-ra/	3, 6, 8, 10, 12, 16
ingressive	/-co/	1, 3, 12
	/-ke/	6, 16
	/-re/	10, 18, 19
causative	/-mo/	1, 2
existential	/-@/	5
iterative	/~ko/	19
terminative	/~rara/	20
evidential	/\$in/	21
	/\$ire/	22

3.2.3 Mood

Mood is expressed by means of segmentable morphemes in the imperative (see section 3.4.4) and to express potential. The optative mood is expressed by an inflected verb. The indicative mood is unmarked. Modal and aspectual suffixes do not co-occur.

The potential (POT) is indicated by the postposition /ithe/ 'may,' which occurs in example phrases # 12, 16, and 19 on table 24. It co-occurs with the result (RES) affix /-ra/, may be negated only by the form /-~ra/, and frequently co-occurs with the ingressive affixes.

Certain inflected verbs may also express modal distinctions. The verb /pe\$=mo/ 'to want' expresses the opta-

tive (OPT) mood when it occurs as an auxiliary, for example:

ca tInI=ma pe\$=mo pemi-@
I line CAUS OPT NEG EXIST 'I don't want to draw.'

3.2.4 Person and number

Only the third (3) person and the dual number are indicated by verbal suffixes. These are /-h/ and /-pI-/ respectively. Both suffixes may co-occur, but the conditioning factors determining their co-occurrence are not clear at this time. Person and number are otherwise expressed by personal pronouns. (See section 2.1.1 for further discussion.)

EXAMPLES:

hemeco koa -pI -p -h akIn
medicine drink DL PROS 3 ADV
'The two of them are going to take the medicine.'

hemeco koa -p -h akIn
medicine drink PROS 3 ADV
'He (or she) is going to take the medicine.'

macaw hIpIa-p -h akIn kamaca iriha
papaya give PROS 3 ADV I DAT
'He (or she) will give a papaya to me.'

caro wa -pI-I
game eat DL IMPERF 'The two of them are eating game.'

hiri-p -h akIn
sing PROS 3 ADV 'He (or she) is going to sing.'

3.3 Verb classes

Five classes of verbs will tentatively be proposed in this analysis: intransitive, transitive, qualitative, performative, and existential. It seems that these verb

classes are in complementary distribution. It is likely that further field work will provide information on which to base a more detailed classification.

Intransitive verbs never take a direct object. The subject of an intransitive sentence is unmarked.

EXAMPLES:

maʃta -ha ke -co -ma
ground OBL fall INGR PERF 'He/she/it fell on the ground.'

wa h@r@-I
you swim IMPERF 'You swim, are swimming.'

kIp hI-p -h akIn
They (2) go PROS 3 ADV 'They (2) will go.'

kothapa ~hIʃ-ra -ke -m
cockroach dead RES INGR PERF 'The cockroach died.'

A transitive verb describes an action which potentially has an object. It is common in SY for the direct object, especially if it is indefinite, to be unmarked morphologically. A third person subject and the indirect object, particularly if either is pronominal, are also frequently unexpressed.

EXAMPLES:

macaw ca hIpIa-p akIn
papaya I give PROS ADV
'I am going to give a papaya.'

thIw@-n tarosi ti@ -ra -re kIn kama esi
woman AG basket weave RES INGR ADV he BEN
'The woman wove the basket for him.'

okoro-n si+wa-re -ma
dog AG bite INGR PERF 'The dog bit (him).'

cee si+wa-re kIn
me bite INGR ADV '(He) bit me.'

ca koa -re -m
I drink RES PERF 'I already drank (it).'

wa nohi =ma o
you court CAUS QM 'Are you courting (her)?

nia -ra -~rao -n \$ina
kill RES NEG EVID '(He) did not kill a single (one).'

Qualitative verbs occur in equational clauses and describe the state or condition of the subject. Many qualitative verbs are unmarked for imperfective aspect.

EXAMPLES:

ca ami\$
I thirsty 'I am thirsty.'

ca simosi nini
I stomach painful 'My stomach hurts.'

wa totihi-ra -co -m o
you good RES INGR PERF QM 'Did you get better?'

Performative verbs are formed by adding a causative suffix /=*mo*, =*ma*/ to certain root morphemes. Verbalizing suffixes are described further in section 4.2.2. Verbs of this class often describe a movement of or an action involving the human body.

EXAMPLES:

~hak =mo -\$o
dance CAUS COMIT 'Let's dance!'

wa hore=*mo* -I
you lie CAUS IMPERF 'You are lying.'

ca cari=*mo* -co akIn
I bath CAUS INGR ADV 'I just took a bath.'

citIhI nohi =ma keere
 long ago court CAUS ADV
 'They have been courting for a long time.'

wa ~thaw hira -ma -I
 you language teach CAUS IMPERF 'You teach the language.'

An existential verb indicates the location or mere existence of something. Its subject is frequently indefinite. The most commonly occurring existential verb in SY is /kI/ 'to be; to have.' The thematic vowels /o/ and /a/ have been included in the verb stem /kI/ as stipulated in section 2.4.3. Existential verbs have a special aspect /-@/ (EXIST) which is used when no reference is being made to a specific time.

EXAMPLES:

pa-t kIa-I
 it be IMPERF 'It is beginning.'

pa-t kI-ke -m
 it be INGR PERF 'It already started.'

carekep širika kI -ra -ke ithe
 two year be RES INGR POT
 '(He) is going to be two years old.'

hicehe IhI kIo-m
 here that one be PERF 'He was here.'

himoto kI-@
 bee sp. be EXIST 'There are bee(s).'

wakI pa kI haiki-@
 fire it be still EXIST 'There is still some fire.'

hapiri wa pIri-@
 where you live EXIST 'Where do you live?'

~cano ~hIkIrIhI-@
 house nearby -EXIST 'The house is nearby.'

3.4 Verbal syntax

3.4.1 Some problematic adverbials

Migliazza (1972:108) described "a small class of tenses which have a copula prefix and are considered time adverbials" for Yanomamo (a sister language of Yanam). A similar set of adverbs which potentially begin with the copula /kI/ is found in SY. The forms /kIn/, /kIren/, and /keere/ occur most frequently in the data on which this analysis is based. Each of these forms may be preceded by the vowel /a/. The function of this vowel is unclear. (See section 2.4.3 on thematic vowels.) It has therefore been included as part of the adverb (/akIn/, /akIren/, and /akeere/) when it occurs in examples throughout the text.

In addition to these three common forms, several other similar and perhaps mutually related forms also occur. They will not be further analyzed here but merely listed: /kIran/, /kIre/, /kIra/, /kIrare/, /kIrahe/, /keerahe/, and /kehe/.

It is difficult to provide glosses for /kIn/, /kIren/, and /keere/ as they are only part of a composite meaning of temporal reference of the entire sentence. It is also possible that further study will reveal a spacial or positional component within these forms. Rather than provide a vague and necessarily inaccurate gloss for each form, the adverbs in question are described below in terms of the suffixes and other forms with which they co-occur.

/kIn/ co-occurs with RES, INGR, and FUT suffixes and with the temporal adverbs /henath@h@/ 'tomorrow' and /weith@h@/ 'now', for example:

henath@h@ \$ama ca wa -p akIn
tomorrow tapir I eat PROS ADV
'Tomorrow I am going to eat tapir.'

ca ~Ithahe han-ra -co akIn
I hand cut RES INGR ADV
'I cut my hand.'

/kIren/ co-occurs with NEG and PERF suffixes and manner adverbs, for example:

ca rere haikio akIren
I ran already ADV
'I already ran.'

IhI -n hipIa pemio-h akIren
that one AG give NEG 3 ADV
'He didn't give (it).'

/keere/ co-occurs with CAUS and rarely with INGR suffixes but never with aspectual suffixes. It may occur with manner adverbs, especially with /citIhI/ 'long ago,' in which case the temporal reference is one of remote past time, for example:

citIhI \$ama ca wa keere
long ago tapir I eat ADV
'It's been a long time since I ate tapir.'

3.4.2 Ergativity and transitivity

SY syntax reveals two competing patterns: ergativity and transitivity. SY shows ergative characteristics in marking the subject of a transitive verb (S TRANS) with the

agentive (AG) suffix /-n/ while the subject of an intransitive verb (S INTRANS) and the object of a transitive verb (O TRANS) remain unmarked. Although the better known term "subject" is used here, the term "ergator" might more accurately describe the actual role of the subject of transitive verbs in this language.

EXAMPLES:

S TRANS O INTRANS
 thIw@-n pihi caro -p e \$@ -re -ma
 woman AG her husband POSS beat INGR PERF
 'The woman beat her husband.'

S INTRANS
 thIw@ ~Ik-co ithe
 woman cry INGR POT
 'The woman is about to cry.'

 O TRANS S TRANS
 IhI thIw@ te -n \$in ~\$owaw@-n ca ta=po-I
 that woman marry EVID Joao AG I know IMPERF
 'I know that woman whom Joao married.'

In the reduced forms only, the first and second person singular have objective pronouns, /cee/ and /wee/. These function as objects of transitive verbs.

EXAMPLES:

IhI -n cee cia -I
 that one AG me take IMPERF 'He (wants to) marry me.'

IrI thai -n cee si+wa-re kIn
 child DIMIN AG me bite INGR ADV 'The child bit me.'

wee nihi ~wari=po -I
 you dark VBLZR IMPERF 'I am angry at you.'

\$apori iriha wee thIhIp -kii
 doctor DAT you examine IMP
 'Let the doctor examine you.'

3.4.3 Imperatives

Imperatives occur only in the first person plural and second person singular. The second person singular imperative is expressed by the suffixation of /-rii/, /-kii/, or /-kei/ to the verbal stem. The conditions which govern the selection of these suffixes is unclear at the present time.

EXAMPLES:

casika wa karo-rii door you open IMP	'Open the door!'
karatha wa hoco-rii banana you take IMP	'Take a banana!'
wa tihi tIra-rii you tree cut IMP	'Cut down the tree!'
wa th@ koa -rii you it drink IMP	'Drink it!'
po o+aka thehe-rii machete bring IMP	'Bring the machete!'
wa ra -kei ma\$ta -ha you lie Imp ground Obl	'Lie (down) on the ground!'
wa teceri-ra -kii you squat RES IMP	'Squat down!'

The first person plural imperative is expressed by the addition of the comitative (COMIT) suffix /-\$o/ (see section 4.2.1) to the verbal stem. The hortatory particle /~hamII/ 'let us' often precedes the first person plural imperative verb optionally.

EXAMPLES:

~cano-ha acohIri-\$o house OBL leave COMIT	'Let's leave the house!'
---	--------------------------

~hamII cari =mo -\$o
 HORT wash CAUS COMIT 'Let's take a bath!'

ia -\$o
 eat COMIT 'Let's eat!'

~hamII caraka plk reka -\$o
 HORT small fish PL catch COMIT 'Let's go fishing!'

tIhI nia -\$o
 wildcat killi COMIT 'Let's kill the wildcat!'

hemeco koa -\$o
 medicine drink COMIT 'Let's drink the medicine!'

~hamII ~hak =mo -\$o
 HORT dance CAUS COMIT 'Let's dance!'

The negative imperative (or prohibitive) is expressed by the postposition /~maharai/, which occurs sentence finally. It co-occurs with the verbal suffix /-n/, the significance of which has yet to be determined. Occurrence of the personal pronoun is obligatory. While the examples for the negative imperative from the data collected are only in the second person singular, the possibility of the occurrence of the prohibitive morpheme with the plural pronoun is likely and will be checked in future field work.

EXAMPLES:

wa ~IkI-n ~maharai
 you cry NEG IMP 'Don't cry!'

wa kiri-n ~maharai
 you fear NEG IMP 'Don't be afraid!'

wa wace-n ~maharai
 you angry NEG IMP 'Don't be angry!'

The negative imperative /mamokai/ 'Be quiet! Silence!' was uttered on one occasion in the form /mamokai-h akIn/,

inflected for the third person and followed by the temporal adverb /akIn/. The speaker was admonishing a group of children who were talking in the background during a taped elicitation session. This seems to be a (verbal) free form.

3.4.4 Negation

Negation of a sentence, a clause, or a phrase is expressed primarily by means of the postpositional negator /pemi/ 'no, not, nothing.' It follows the word which it negates. It may occur without any suffixes or it may be followed by the third person suffix /-h/, the past-perfective suffix /-m/, or the temporal adverb /akIren/. When it is followed by one of these, the thematic vowel /-o-/ is added to create the allomorph /pemio/. When it follows an uninflected verb, especially a performative, /pemi/ may take the existential aspect.

EXAMPLES:

ca tapo pemi I know NEG	'I don't know.'
th@m@ wakara pemi time daybreak NEG	'(It's) not daybreak.'
~warihih pemi bad NEG	'(It's) not bad.'
wakI pemi fire NEG	'(There is) no fire.'
\$ama ca wa -p pemi tapir I eat PROS NEG	'I won't eat tapir.'
ca tInI=ma pe\$ =mo pemi-@ I draw CAUS want CAUS NEG EXIST	'I don't want to draw.'

camak ~hak =mo pemi-@
 we dance CAUS NEG EXIST 'We aren't going to dance.'

wa ia pemio-m o
 you eat NEG PERF QM 'Didn't you eat?'

ca ia pemi akIren
 I eat NEG ADV 'I haven't eaten yet.'

It was said in section 3.4 that the negative imperative is expressed by the postposition /~maharai/ following the verb. Similarly, the postposition /~mo\$ahia/ expresses the negative desiderative, for example,

ca ia ~mo\$ahia
 i eat NEG 'I don't want to eat.'

Two other negators are the postposition /\$iha/, which follows the prospective suffix /-p/, and the verbal suffix /-~ra/. /-~ra/ precedes /ithe/ 'may' (the potential mood) and the perfective suffix /-m/. Preceding this /-m/, the allomorph /-~rao/ occurs.

EXAMPLES:

camak ~hak =mo -~ra ithe
 we dance CAUS NEG POT 'We can't dance.'

ca-t pihi -ra -~rao-ma
 I think RES NEG PERF 'I can't remember.'

wa ~hak =mo -p \$iha
 you dance CAUS PROS NEG 'You can't dance.'

~kaho wa hI-p \$iha
 you you go PROS NEG 'You are not going.'

~Inaha wa th@-k cia -p \$iha
 this one you it -COLL take-FUT NEG
 'You cannot take these.'

pa ari nia -ra -~rao-m \$ina
 bird sp. kill RES NEG PERF ADV
 'He did not kill a single bird.'

CHAPTER 4
DERIVATION, COMPOUNDING, AND MODIFIERS

4.1 Compounding

4.1.1 Introduction to compounding

In SY both nominal and verbal compounds occur. All compounds are endocentric; that is to say, the compound has the same distribution as one or more of its constituents. For example, the distribution of the nominal compound /carak + natha/ 'light-weight fishing line' is identical with that of both of its constituents, /carak/ 'a small fish sp.' and /natha/ 'line.'

The criterion used to distinguish compounds from phrasal constructions is suprasegmental. A compound will be (phonologically) defined as a combination of (at least) two potentially free morpheme stems with or without suffixes in which the second member of the compound receives primary stress and the primary stress of the preceding member is reduced to secondary. In contrast, in a phrasal construction both major constituents retain their primary stresses.

4.1.2 Nominal compounds

Nominal compounds are the most frequently occurring

type of compound. A nominal compound is composed of two nouns or a noun and a modifier (+ suffixes). The characteristic secondary-and-primary stress pattern distinguishes noun compounds from noun phrase constructions. In noun phrases (see sect. 2.3.1) both nouns (or noun and modifier) maintain their primary stresses. The following examples of noun phrases are included here for comparison:

kráíwa	thìw@	pík	
Whiteman	female	PL	'White women'
~cahí-k	~í@		
meat	COLL	bloody	'raw (or rare) meat'
hapóka	pa	róke	
pan	it	empty	'empty pan'
~Sowáw	e	co	hám
João	POSS	path	DIR
			'path to João's (house)'

In the nominal compound the constituent on the left specifies or in some way modifies the constituent on the right. This is the reverse of the normal direction of modification in nominal phrases (see examples above) where the modifier follows the head noun. The symbol X indicates that the meaning of a morpheme is as yet undetermined.

EXAMPLES:

hìmo	+	tI	Íp	
bee sp.		breast;	milk	'honey'
caràk		+	nátha	
(small) fish sp.		line		'light weight fishing line'

pà a (large) fish sp.	+ nátha line	'heavy line'
pò o X	+ áka tongue	'machete'
šakàw arrow	+ ~náhi bow shape	'bow'
rep X	+ ~náhi bow shape	'rib (bone)'
pontòo cloth	+ wák leg	'trousers; shorts'
càro game	+ hík support	'platform for roasting game'
nak teeth	+ hík support	'jaw'
parìk chest	+ hík support	'sternum'
~càno house	+ hík support	'framework used in building a house'
nàšI manioc	+ Í -k watery COLL	'manioc juice'
karàtha banana	+ Í -k watery COLL	'banana juice'

When the second member of a nominal compound consists of a single open syllable, the primary stress is placed on the penultimate syllable, according to the normal stress rule for SY. The secondary stress is then placed on the second syllable to the left of the primary. As a result of the process of compound formation in these cases, the original primary stress of the first member of the nominal compound is moved rightward one syllable and the secondary stress is adjusted accordingly. For example, /karátha/

'banana' becomes /karatha+si/ 'banana peel.'

EXAMPLES:

war@	+ si	
peccary	skin	'peccary skin'
wiitihi	+ si	
tree	skin	'tree bark'
thethe	+ si	
egg	skin	'eggshell'
pere	+ he	
someone's	head	'someone's head'
pata	+ I	
big	watery	'river'
piri	+ co	
someone's	path	'a path'
hItI	+ co	
garden	path	'path (leading) to a garden'

In contrast to the nominal compounds exemplified above, another class of nominal compounds, which result from a productive process, is characterized by an unstable stress pattern. The normal secondary-and-primary stress pattern of compounds is in free variation with the primary-primary stress pattern normal to noun phrases. (Therefore, stress is not marked in the examples which follow.)

EXAMPLES:

hIthI	-n + maco	
garden X	footprints	'path leading to a garden'
\$ama	+ maco	
tapir	footprints	'tapir tracks'
haaca	+ maco	
deer	footprints	'deer tracks'

pere + he	+ ~Imaro	
someone's head	bone	'someone's skull'
~hesehe	+ ~koy	
upper lip	body hair	'moustache'
parIk	+ ~koy	
chest	body hair	'chest hair'
tIhI	+ namhIsi-k	
jaguar claw	COLL	'jaguar's claws'
~camaro	+ \$ina	
stingray	tail	'ray's tail'
karaka	+ thethe	
chicken	egg	'chicken's egg'
okoro	+ \$ip	
dog	feces	'dog feces'
war@	+ IrI	-p
peccary	offspring	POSS
		'baby peccary'
okoro thai	+ IrI	-p
dog	DIMIN	offspring POSS
		'puppy'
\$ama	+ ~cahi	
tapir	meat	'tapir meat'
weri	+ ~cahi	
alligator	meat	'alligator meat'
caro	+ ~cahi	
game	meat	'game meat (in general)'
poko	+ ~o\$	
arm; flashlight	interior	'battery'
po o	+ ~hetho	
X	handle	'ax handle'
po o+aka	+ ~\$iak	
machete	handle	'machete handle'

In these compounds the first (or left) member of the compound often refers to the source or destination or location of the second (or right) member. The second

member frequently refers to a body part of the first member.

It is interesting to note that while SY syntax is right-branching, normal compounding is left-branching.

4.1.3 Verbal compounds

A verbal compound is composed of a verb stem with or without suffixes which is preceded by a noun, an adverb or a qualitative verb. It has the characteristic secondary-and-primary stress pattern with the primary stress falling on the verb or verbalizing suffix. The primary stress of the first member of the compound is reduced to secondary.

EXAMPLES:

nàmo + thá		
sharp	make; do	'to sharpen (a machete or knife)'
nāk + thá		
tooth	make; do	'to sharpen (an arrow point)'
~nòha + ké		
behind	fall	'to follow, walk behind'
namhìs + kÍ		
claw; nail	be; have	'to scratch'
màmo + hIt=pó		
eye	+ X VBLZR	'to watch'
sì + wá		
skin	eat	'to bite'

4.2 Derivation

Derivational suffixes in SY include verbalizing, nominalizing and attributivizing suffixes. These suffixes may be attached to nouns and verbs (including qualitatives).

The symbols VBLZR, NOMLZR, and ATTVZR are used to gloss the various suffixes as most have intractable meanings.

4.2.1 Nominalizing suffixes (NOMLZR)

There are three nominalizing suffixes, /=p/, /=rim/, and /=wii/. /=p/ and /=rim/ nominalize qualitatives and may participate in the formation of nominal compounds. /=p/ is homophonous with the possessive suffix /-p/, which is attached to noun stems, as in /kama ~cano-p/ 'his house' and /okoro thai+IrI-p/ "dog DIMIN offspring POSS" 'puppy.'

EXAMPLES:

~i@	=p		
bloody	NOMLZR		'blood'
ma	+ I	=p	
rain	watery	NOMLZR	'water'
oi	+ I	=p	
bee sp.	watery	NOMLZR	'honey'
~haraha	=rim		
yellow	NOMLZR		'yellow-colored one (type of manioc)'
tIhI	wakI	=rim	
wild cat	red	NOMLZR	'puma, cougar'
tIhI	Iw\$	i =rim	
wild cat	black	NOMLZR	'black jaguar'
tIhI	tInI	=rim	
wild cat	line	NOMLZR	'spotted jaguar'
o\$e	=rim		
young	NOMLZR		'youngest one (e.g. child)'

The suffix /=wii/ nominalizes verb stems in subordinate clauses and functions to relate the subordinate verb

to the main verb in the following clause. /=wii/ is further described in section 5.4.

EXAMPLES:

ca ~kea=wii ca-t ~rara -ma -re -ma
I work NOMLZR I finish CAUS INGR PERF
'I was working, then I finished.'

ca taa-re =wii IhI -n th@ wa -re -m
I see RES NOMLZR that one AG it eat INGR PERF
'As I was just watching, he ate it.'

IhI -n th@ wa -re =wii ca taa-ra -pemio-ma
that one AG it eat INGR NOMLZR I see RES NEG PERF
'What (or that) he was just eating, I did not see.'

4.2.2 Verbalizing Suffixes (VBLZR)

There are two sets of verbalizing suffixes, /=po/ and /=mo, =ma/. Verbs formed with the suffix /=po/ refer to the senses or emotions. The symbol X indicates that the meaning of a morpheme is as yet undetermined.

EXAMPLES:

mamo + hIt=po
eye X VBLZR 'to watch'

totihi=po
good VBLZR 'to like'

ta=po
X VBLZR 'to know, understand'

pihi=po
mind VBLZR 'to be sad'

nihi ~wari=po
X bad VBLZR 'to be angry with (someone)'

The suffix /=mo, =ma/ has two functions, causative (CAUS) and verbalizing. It occurs on verbs which form a

class called performatives (see section 3.3). Many of these verbs describe a movement involving the human body or an action affecting the human body. The conditions governing the occurrence of /=mo/ and /=ma/ are not clear. In one case, /pe\$=mo; pe\$=ma/ 'to want,' either suffix may occur.

EXAMPLES:

haarIs=mo X CAUS	'to sneeze'
~thoko =mo a cold; flu CAUS	'to cough'
cari =mo to wash (something) CAUS	'to bathe (wash oneself)
tInI=ma line CAUS	'to draw'
~hak=mo X CAUS	'to dance'
~iri=mo X CAUS	'to play, have fun'
pe\$ =mo; pe\$=ma desire CAUS	'to want'
hore =mo a lie CAUS	'to lie'
~wari + ~hik=mo dark; bad X CAUS	'to hurt, feel bad'
~mo\$ahi=mo a sloth CAUS	'to be lazy (like a sloth)'
hira=ma X CAUS	'to teach'

/=mo/ is productive, as can be seen in the following verbs formed from Portuguese loan words: /peska=mo/ 'to fish' from Port. pescar 'to fish' and /deos=mo/ 'to speak

about God' from Port. deus.

4.2.3 Attributivizing Suffixes (ATTVZR)

There are two attributivizing suffixes, /=i/ and /=ri/. /=i/ describes a color or quality and /=ri/ expresses a change in referent.

EXAMPLES:

~hàrahá=i		
yellow	ATTVZR	'yellowish'
wàhip@	=i	
dark gray	ATTVZR	'dark grayish'
rì\$ì\$í=i		
white	ATTVZR	'whitish'
~si`rip@	=i	
small	ATTVZR	'smallish'

/=ri/ always co-occurs with the demonstrative /ai/ 'other.'

EXAMPLES:

aí	=ri	
other	ATTVZR	'another (one)'
ái	thIw@	=ri
other woman	ATTVZR	'another woman'
ái	thàrosí	=ri
other basket	ATTVZR	'another basket'

4.3 Noun classifiers

There is a tendency for certain nouns to form lexico-semantic classes because they contain certain suffix-like elements. These suffix-like elements may be the remnants of a formerly productive system of noun classifiers. E.

Migliazza (1972:327) lists the following six "associated forms of personal pronouns" which ostensibly express the class to which a noun belongs: /kok/ 'root,' /sik/ 'plant,' /kik/ 'fruit,' /mok/ 'seed,' /si/ 'skin,' and /I/ 'liquid.'

The last three, /mok/ as in /mok+I\$Ik/ 'any seed', /si/ as in /piri si/ 'someone's skin' and /I/ as in /na\$I-k/ 'manioc juice,' will be analyzed as noun stems. Therefore, they are treated in section 4.1.2 on nominal compounds. Other noun stems with these suffix-like elements will be written as one morpheme throughout the remainder of this dissertation. The following is a list of groups of nouns according to suffix-like elements which may be synchronically frozen noun classifiers.

<p><u>-kok</u></p> <p>~ahe-kok 'wrist' mahe-kok 'knee' na\$I-kok 'bitter manioc tuber'</p>	<p><u>-\$ik</u></p> <p>aho-\$ik 'rice' warima-\$ik '@ trees' hokari-\$ik 'inaja palm' homhe-\$ik 'genipap plant'</p>
<p><u>-mak</u></p> <p>hokoro-mak '@ palm fruit' mai-mak '@ palm fruit' paI\$-mak '@ banana' \$ikrihi-mak '@ banana' \$ik\$ik-mak '@ vine fruit'</p>	<p><u>-sik</u></p> <p>hoktom-sik 'sisal plants' kapraw-sik 'wild grass' karatha-sik 'banana plants' manaka-sik 'paxiuba palms' manipa-sik '@ plant' rihima-sik 'inaja palm twigs' ~raithai-sik '@ tree bark' hItI-sik 'manioc plants' maima-sik 'acai palms'</p>
<p><u>-ihi</u></p> <p>ror-ihi 'cacau tree' \$iiitpor-ihi '@ flowering tree' wiit-ihi 'tree (in general)' oro\$I-ihi 'cashew tree'</p>	

The data also seem to suggest a class of words which will be called surrogates. A surrogate consists of the last syllable or the last two syllables of a word which occur in place of the longer, complete word. A surrogate may be identical to a so-called noun classifier as described in the previous paragraph. This class is illustrated by the following words and their surrogates:

~rakamthok	thok	'hammock'
~rai+thatha-k	thatha-k	'cord; twine'
na\$kok	kok	'cassava; bitter manioc'
maa+Ip	Ip	'water'
tharosi	si	'basket'
wiitihi	tihi	'tree; wood'
na\$ihi-k	hi-k	'cassava bread'
warecehek	hek	'spider'

4.4 Numerals and quantifiers

There are only three numerals in SY: /~moni/ 'one,' /carekep/ 'two,' and /~mIhetrai/ 'three or more.' Unlike many modifiers in SY (see section 2.3.1), numerals precede the nouns to which they refer. An alternate interpretation might consider the numeral as the head and the noun as its modifier. The English gloss 'one of (the) beads' more clearly reflects this interpretation than the gloss 'one bead' for /~moni ~\$iitha-k/ "one bead COLL." Such a gloss is also a more accurate reflection of the nature of the

partitive-collective suffix.

While the dual and plural forms of animate nouns are expressed by the pronominal postpositions /kIp/ and /pIk/ (see section 2.1.1), the partitive-collective (COLL) of inanimate nouns is the suffix /-k/. As illustrated in the first four examples below, the co-occurrence of the partitive-collective suffix with a numeral is optional.

EXAMPLES:

~moni ~\$iitha-k one bead COLL	'one of (the) beads'
~moni ~Itha -k one finger COLL	'one of (the) fingers'
carekep ~Itha two finger	'two fingers'
~moni mIapI-k one tear COLL	'one of (the) tears'
~moni ~Itha one finger	'one finger'
carekep mamO-k two eye COLL	'two eyes'
~mIhetrai ~Itha -k three or more finger COLL	'three or more fingers'

Quantifiers usually follow the word they modify (see section 2.3.1), which may be a noun, a pronoun, a verb, or another adverb. Sometimes these quantifiers function as predicates, resembling the qualitative verbs (described in section 3.3). For example, the quantifier /carami/ in sentence (a) and the qualitative verb /ohi/ in sentence (b) both function as predicates.

- (a) wamak carami
we many 'We (are) many.'
- (b) ca ohi
I hungry 'I (am) hungry.'

Other quantifiers include the individualizer /~maro/, the minimizers /~siothai/ and /~siirip/ and the intensifiers /paro/ and /~mahi/. The individualizer /~maro/ 'a single (one),' often co-occurs with the numeral /~moni/ 'one,' e.g., /~moni ~\$ii+tha ~maro/ 'one single bead.'

The minimizers /~siothai/ 'a little bit' and /~siirip/ 'small; fine; a little' may either precede or follow the word they modify.

EXAMPLES:

ca simosi nini ~siothai
I stomach painful a little 'My belly hurts a little.'

~siothai totihi
a little good 'A little better.'

wa ~siirip haro-co -m o
you a little cure INGR PERF QM 'Are you a little better?'

carak + natha ~siirip
small fish sp. line fine
'Fine, light-weight fishing line.'

The intensifier /paro/ induces the occurrence of the suffix /-hi/ which is automatically attached to the preceding word. The primary stress of that word is re-assigned according to the normal SY penultimate stress rule. For example, the primary stress of /níni/ 'painful' is reassigned in /niní-hi páro/ '(It) hurts a lot.'

The intensifier /paro/ may also modify another adverb, for example:

~\$owaw ia ~kahatha-hi paro 'Joao eats very (or too) much.'
Joao eat much very

citIhI-hi paro 'a very long time ago'
long ago very

The quantifier /~mahi/ 'much; many; very' is a borrowing from Yanomam, for example:

ca ta=po ~mahi
I know very 'I know very well.'

The following sentences illustrate some quantifiers which frequently occur in SY.

EXAMPLES:

wa ~thoko=mo carami
you cough CAUS much 'You are coughing a lot.'

\$ama pa pIk ~nami
tapir it PL few '(There are) few tapirs.'

ca Iwtiti ~kahatha
I weak very 'I am very weak.'

ca nini ~komini
I painful all 'I hurt all over (my body).'

ca simosi nini-hi paro
I belly painful much 'My belly hurts a lot.'

IhI totihi-hi paro caro pIk carami nia caro
that one good very game PL much kill very
'He is very good at killing a lot of game.'

CHAPTER 5
REMARKS ON SYNTAX

The discussion of syntactic features in this section is organized according to the areal investigations of Desmond Derbyshire and Geoffrey Pullum described in the introduction to volume 1 of the Handbook of Amazonian Languages and can at the same time serve as areal indices. Derbyshire and Pullum propose a list of ten syntactic features and suggest that "the repeated occurrence of significant subsets of... [these] features might be indicative of an interesting areal confluence of properties" (1986:19). This section will describe some of the features of SY syntax, which for the most part form a subset of the features listed by Derbyshire and Pullum.

5.1 Clause constituent order

The first areal characteristic discussed by Derbyshire and Pullum is the tendency toward object-initial constituent order in clauses with two full noun phrases (Derbyshire and Pullum, 1987:16). Many Amazonian languages favor an OS order in transitive sentences. The dominant constituent order for Yanam, however, is SOV.

EXAMPLES:

S		O		V	
okoro-n		caro	pa	wa	-re -m
dog	AG	game	it	eat	INGR PERF

'The dog ate the game.'

thIw@-n		pihi	~caro	-p e	\$@ -re -ma
woman	AG	her	husband	POSS	beat INGR PERF

'The woman beat her husband.'

An interesting problem arises when one tries to determine the major constituent order of an Amazonian language. Derbyshire admits that clauses with nominals for both subject and object are in the minority (Derbyshire, 1987: 313). It is also true of SY. This should not be surprising if one remembers that pronominal grammar is actually the norm in everyday discourse. People rarely talk in complete sentences with full subject and object nominals.

In my data an overwhelming number of utterances are pronominal and, in the third person, null realization of subject and object pronouns is quite common. Further information from the context is necessary to determine the subject and object of utterances such as the following.

EXAMPLES:

\$@	-ra	-re	-m	
beat	RES	INGR	PERF	'(Someone) killed (something).'

ia	-co	-m	o	
eat	INGR	PERF	QM	'Did (someone) eat (something)?'

Verb agreement with both subject and object is another

feature suggested by Derbyshire and Pullum, which accompanies this null realization of subject and object pronouns. I find no agreement in Yanam, however, and this concurs with findings for Sanuma, another distantly related Yanomami language (Derbyshire, 1987:324). What Migliazza (1972:78) calls agreement in Yanam seems to be stylistic repetition of pronouns.

An OSV (as compared to SOV) constituent order is common when the object is topicalized and the subject is expressed as a reduced pronominal form.

EXAMPLES:

O	S	V	
pa ari bird sp.	I ca-n I AG	nia -p kill PROS	akIn ADV 'I will kill a bird.'
casika door	wa you	karo-rii open IMP	'Open the door!'
kanaw ca canoe I	hiira split	-I open IMPERF	'I split open the canoe.'

The subject pronoun may be incorporated into the object nominal as in the following sentences:

O	S	V	
taro basket	-wa-si you	ti@ -p weave PROS	o QM 'Will you weave a basket?'
wii tree I	-ca-tihi tree	ticI-I cut IMPERF	'I cut down a tree.'

Nevertheless, the basic word order for clauses with full subject and object noun phrases is SOV. Sentences

with pronominal subjects and objects are not strictly relevant in determining basic word order.

5.2 Phrase constituent orderings

Derbyshire describes Greenberg's Type 24 as that "most commonly found among Amazonian languages" (Derbyshire, 1987:314). It is characterized by a combination of SOV transitive clause order and the following three types of phrase constituent orderings: postnominal attributive adjective, prenominal genitive, and nominal postposition. Derbyshire reiterates that these three phrase orders occur "regardless of what the basic order in the clause happens to be (i.e., it does not have to be SOV or even OV)" (Derbyshire, 1987:314). SY is a perfect fit as a Type 24 language. (As already described in section 5.1 its clause order is SOV). The following examples illustrate the three phrase constituent orders.

EXAMPLES:

post-nominal attributive adjective

thIw@	totihi	
woman	good; pretty	'good (or pretty) woman'

rosik	Iw\$i	
snake	black	'black snake'

prenominal genitive

ipa	hItI	
my	garden	'my garden'

aho	~cano	
your	house	'your house'

nominal postposition

~kaho iri-ha
 you DAT OBL 'to you'

~cano kami-ha
 house interior-OBL 'inside the house'

5.3 Ergativity

Ergative subject marking and the lack of an agentive passive, two more Amazonian areal features listed by Derbyshire and Pullum, are both characteristic of SY. They look as if they should be mutually exclusive. One would not expect to find transitivity in a purely ergative language. My data and a footnote by Migliazza (1972:70) confirm that Yanomami languages do not have passive constructions.

Sanuma is described in Derbyshire's article as purely ergative (Derbyshire, 1987:316). Yanam also has purely ergative sentences. Ergativity is marked by the nominal suffix /-n/ on an agent or an instrument, for example:

okoro-n IrI thai si+wa-re kIn
 dog AG child DIMIN bite INGR ADV
 'The dog bit the child.'

The agent can also act as a true agent and instrument, in sentences like the following:

IhI -n ~thomIn@-n tlohIrI-m
 that one AG knife AG cut PERF
 'He cut with a knife.'

Derbyshire mentions an "historical drift from ergative to accusative systems (which) is closely linked with constituent order patterns" (1987:316). There is another feature involved here, however. The issue of ergative versus accusative grammar is tied up with ANIMACY. First and second person pronouns are animate and tend to attract accusative grammar. This is precisely what happens in Yanam.

Accusative forms of the first and second person pronouns suggest a coexistence of ergative and accusative, resulting in a hybrid sentence which has both ergative marking on the agent and an accusative pronoun as the object, for example:

okoro-n cee si+wa-re kIn
dog AG me bite RES ADV 'The dog bit me.'

IhI -n cee nohi =ma keere
that one AG me court CAUS ADV 'He was courting me.'

Purely accusative sentences, however, do not occur. All this seems to indicate that Yanam may be in transition from an ergative to an accusative type of language as Derbyshire suggests.

5.4 Subordination and coordination

The final topic to be discussed is subordination and coordination. Coordination is expressed by two independent clauses; what happened first is expressed in the first

clause. There are no coordinating conjunctions with the meanings "and," "or," or "but." Coordination is indicated morphologically only between noun phrases (see section 2.3.1 on the comitative suffix /-\$o/). This lack of coordinating conjunctions is an areal feature of Amazonian languages described as a "reliance on juxtaposition to express logical coordination" (Derbyshire and Pullum 1986:19).

EXAMPLES:

kamac@-n ca taa-re -m kama-n cee taa-ra -~rao-m
 I AG I see INGR PERF he AG me see RES NEG PERF
 'I saw him (but) he didn't see me.'

pa ari nia -ra -re -n \$in ca taa-re kIn
 bird kill RES INGR EVID I see INGR ADV
 'He killed a bird and I saw him.' = 'I saw him kill a bird.'

kama pIk cai hI-p ~kaho wa hI-p \$iha
 he PL truly go PROS you you go PROS NEG
 'Only they will go, you will not go.'

Subordinate clauses are marked by the postpositional subordinator (SUBORD) /pIha/, by the nominalizing (NOMLZR) suffix /=wii/, and by one of four temporal (TEMP) subordinators, /ha...-n/, /waiha/, /iha/ and /th@h@/.

The postposition /pIha/ follows the verb stem of the subordinate clause. The order of occurrence of the subordinate and main clauses is not significant, and the temporal reference of the subordinate clause agrees with that of the main clause.

EXAMPLES:

tIhI taa-re -h akIn karak wa pIha
 wildcat see INGR 3 ADV chicken eat SUBORD
 'He saw the wildcat that was eating the chicken.'

wiitihi-ha tiwa pIha ke -co -n \$in
 tree OBL climb SUBORD fall INGR EVID
 'From the tree that he was climbing, he fell.'

The nominalizing suffix /-wii/ may be translated as a participle, and I concur with Migliazza's statement that it seems to be "unspecified as to tense and ... generally agrees in tense or aspect with the verb of the second sentence" (Migliazza, 1972:65).

EXAMPLES:

ca taa-re =wii IhI -n th@ wa -re -m
 I see INGR NOMLZR that one AG it eat INGR PERF
 'As I was just watching, he ate it.'

IhI -n th@ wa -re =wii ca taa-ra pemio-ma
 that one AG it eat INGR NOMLZR I see RES NEG PERF
 'What (or that) he was just eating, I did not see.'
 = 'I did not see what (or that) he ate.'

ca ~kea=wii ca-t ~rara -ma -re -ma
 I work NOMLZR I finish CAUS INGR PERF
 'I was working, then I finished.' = 'I finished working.'

There are four temporal subordinators:

(1) A pre-dating subordinator /ha...-n/ 'and then' indicates that the action of the subordinate verb occurred before the action of the main verb. This pre-dating subordinator is composed of a pre-verbal particle /ha/ and a cloture /-n/ which is suffixed to the verb. The particle

/ha/ is frequently suppressed and only the clature /-n/ is expressed.

EXAMPLES:

ha ia -co -n mariʃi mi -ke -i
 SUBORD eat INGR SUBORD sleepy sleep INGR IMPERF
 'He is about to eat and then sleep.'

ca ia -co -n ca ~kea ~koo -p akIn
 I eat INGR SUBORD I work return PROS ADV
 'I am about to eat and then I will return to work.'
 = 'After I eat, I will work again.'

ca ia -co -n ca-t ~rara -ma -re ithe
 I eat INGR SUBORD I finish CAUS INGR POT
 'I am about to eat and then I will finish (e.g. working).'
 'After I eat, I will finish.'

(2) The postpositional subordinator /iha/ 'until' co-occurs with a temporal interrogative and induces the occurrence of the verbal suffix /-n/ which precedes it. /iha/ indicates that the termination of the action of the subordinate verb is dependent on the action of the main verb, for example:

hapinaha th@m@ kI-ra -co -n iha wa ~koo -p
 how many days be RES INGR SUBORD you return PROS
 'How many days remain until you return?'

(3) The post-dating subordinator /waiha/ 'later, afterwards' indicates that the action of the second clause, which it precedes, occurs after the action of the first clause, for example:

kamaca-n ca nohima waiha ca cia -p akIn
 I AG I court later I take PROS ADV
 'I am courting (her), later I will marry (her).'

(4) The contemporary subordinator /th@h@/ 'when' indicates that the action of the subordinate clause occurred at the same time as the action of the main clause. /th@h@/ is a postposition which follows the verb in the subordinate clause, for example:

IhI -n kaman-n cee taa-re kIn irihi-ham ca hI th@h@
 that one AG he AG me see INGR ADV forest DIR I go when
 'That one, he saw me walking in (or towards) the forest.'

In conclusion, I will summarize the four points discussed in this chapter. The first point is that the dominant constituent order for the Shiriana dialect of Yanam is SOV. Second, this order fits perfectly Greenberg's type 24 with its combination of SOV clause constituent order with prenominal genitive, postpositional, and postnominal adjective phrasal constituent orderings.

Third, there is a new dimension to take into consideration in the question of ergativity and accusativity. This is ANIMACY in pronouns. The occurrence of hybrid sentences with both ergative marking and accusative pronouns suggests that SY may be in transition from an ergative to an accusative system.

Finally, coordination is expressed by two independent clauses; SY has no coordinating conjunctions, as such. Subordination is indicated by the postpositional subordinator /pIha/, by the nominalizing suffix /=wii/, and by one of four temporal subordinators, /ha...-n/, /waiha/, /iha/

and /th@h@/.

By pointing out some of the syntactic features of the Shiriana dialect of Yanam, I have intended to contribute in some small way to the areal study of the languages of Amazonia and, by extension, to the valuation and preservation of the Amazonian peoples and their cultures (most especially the seriously threatened Yanomami), without whom the languages are mere artifacts.

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APPENDIX I
TEXT AND ANALYSIS

The following text was recorded on March 1, 1985. It describes the celebration following the attainment of puberty of a 25-year-old female informant when she was about 13 years old. The celebration took place in Boas Novas, the former location of the village of the Ericotheri, on the Coimim River. The text is divided into three parts: (1) the arrival of the guests, (2) the beginning of the celebration and (3) the informant's parents' contribution and the continued celebration.

As presented, the text is given in three lines: phonemic transcription, word-for-word translation, and free translation. Occasionally a fourth line is added; it contains ethnographic information provided spontaneously by the informant.

(Part 1)

1. pIk carami warowaro-ra -re -m
they many arrive RES INGR PERF
'Many people arrived and arrived.'

2. ai \$ama theri pIk waro ~ko -ke -i
other tapir people PL arrive ITER INGR IMPERF
'The Shamatari people kept arriving.'
[Sanumá-speaking]

3. ai waika pIk waro ~ko -ke -i
 other Waika PL arrive ITER INGR IMPERF
 'The Waika people kept arriving.'
 [Yanomam-speaking, from the Parima mountains]
4. ai maitha pIk waro ~ko -ke -i Inaha
 other Maita PL arrive ITER INGR IMPERF this one
 'The Maita people kept arriving.'
 [Shiriana-speaking, from near Parimiu]
5. \$ama thari pIk waro ~ko -ke -i hei
 tapir people PL arrive ITER INGR IMPERF this
 'The Shamatari people kept arriving.'
6. \$iriana pIk paroi theri pIk waro ~ko -ke -i
 Shiriana PL Paragua people PL arrive ITER INGR IMPERF
 'Shiriana people, the Paragua people kept arriving.'
 [Shiriana-speaking, from the Paragua River]
7. paroi theri pIk ~Inaha pIk waro kIrao-ke -m
 Paragua people PL this one PL arrive ADV INGR PERF
 'The Paragua people, this people arrived.'
8. ay pIk nahkom pIk ~rara -co -m
 other PL finished they finished INGR PERF
 'Others...(It's) finished; they finished (arriving).'
9. ah kasI rapai pIk waro ~ko -ke -i
 oh... lip long PL arrive ITER INGR IMPERF
 'Oh...the KasIrapai people kept arriving.'
 [Shiriana-speaking, from Mucajaí River]
10. mara\$ theri pIk waro ~ko -ke -i
 Marashteri people PL arrive ITER INGR IMPERF
 'The Marashteri people kept arriving.'
 [Yanomam-speaking from Couto de Magalhães River]

11. nah nahkom
'(It's) finished.'

(Part 2)

12. našihi -kIm paa =ma =wei
cassava bread COLL take CAUS NOMLZR
'As much cassava bread was being taken,
[for the Parimiutheri people]

hi -k te-hIrI kIrahe
bread COLL carry away ADV
much bread was carried away.'

13. hi -kIm paa =ma keerahe
bread COLL take CAUS ADV
'Much bread was being taken,

pIk manat pooroo piha
they at dawn sit SUBORD
while the people were sitting around at dawn.'

14. pIk manat pIk himo=wii
they at dawn they sing NOMLZR
'They were singing at dawn,

našihi -k cihico te -hIrI kIrahe
cassava bread COLL carry carry away ADV
then much cassava bread was carried away.'
[They stopped singing to carry the cassava bread.]

15. pIk nihi-ra ~ko -ke =wii
they food RES ITER INGR NOMLZR
'As they kept (taking) food,

kanaw@-p hira -ma keerahe pIk kowa=wii
canoe POSS leave PERF ADV they bring NOMLZR
their canoes left to bring more people.'
[for Parimiú]

16. maitha pIk kowa ~ko-o keerahe
Maita PL bring ITER ADV
'More Maita people were brought.'
[to the village of Boas Novas]
17. kasI rapai pIk pirico-ha pIk pooroo-m
lip long PL path OBL they sit PERF
'The KasIrapai people sat on the path.'
[waiting for canoes]
18. pIk waroke pIk -n karo -co =wii henahi piha
they arrive they AG build INGR NOMLZR forest hut SUBORD
'They arrived, then they started building forest huts.'
19. henahi piha pIk kI-ra -ke -m
forest hut REL they be RES INGR PERF
'They stayed in the forest huts.'

(Part 3)

In response to the investigator's question: "And what did your mother do?"

20. nape -ce-n
mother my AG
'my mother'
21. nape -ce-n hik hari-ke-e
mother my AG cassava bread bake INGR
'My mother started baking cassava bread.'
22. nape -ce-n hik hari-ke =wii
mother my AG cassava bread bake INGR NOM
'As my mother was baking cassava bread,
- hik te -hIrI kIrahe
bread take away ADV
the bread was being taken away.'

23. papa -ce-n hi =kim paa=ma -ke -m
 father my AG bread COLL put CAU INGR PERF
 'My father was taking a lot of bread.'
 [from the big pile on the ground]
24. carop@h hi -k wa =wii
 game bread COLL eat NOMLZR
 'Meat and bread were eaten.'
25. ~waahe+Ik p@m paa =ma -ke -m
 yam drink take CAU INGR PERF
 'Yam drink was taken.'
26. makašera =Ik ~mahi pik ~mahi koa ~mahi
 sweet cassava drink much they many drink much
 'Sweet cassava drink - many people were drinking a lot
 of it.'
27. pik ~komini-n hIca-t pik-n moko-t pik-n
 they all AG young man PL AG young woman PL AG
 'Everyone: young men, young women,

 IrI-t pik-n
 child PL AG
 children.'
28. nah nahkom
 finished
 '(It's) finished.'

APPENDIX II
ORGANIZATION OF THE LEXICON

A. Kinship terms (otherwise discussed in section 2.2)

<u>Shiriana</u>	<u>English gloss</u>
1. ami amo	'older sister'
2. awa aw@ a	'older brother'
3. cape ca a c@s	'maternal grandmother; paternal grandmother; paternal aunt; mother-in-law'
4. ~caro	'husband'
5. ciha ca	'grandaughter; niece (sister's daughter - man speaking; brother's daughter - woman speaking)'
6. heri	'brother-in-law; sister-in-law'
7. IrI Iri	'son; brother's son - man speaking'
8. nape na a ne	'mother; maternal aunt'
9. papa ~he	'father; paternal uncle'
10. ~\$ia	'younger sibling (male and female)'
11. \$oa ~\$e	'grandfather; maternal uncle; father-in-law'
12. ~tarIsi ~tarIs	'grandson; nephew (sister's son - man speaking; brother's son - woman speaking)'

13. t@ @ 'daughter; sister's daughter -
te woman speaking'
14. thIw@ 'wife'
tI Ipo
tI Ip
15. tIIIsi vocative for 'son; daughter; niece;
 nephew; younger sibling'
16. ~warima vocative for 'brother-in-law;
 sister-in-law'

B. Body parts and parts of a canoe

The following should all be preceded by the inalienable pronoun /piri/, except in the case of /piri+si/, /piri+hi/, and /pere+he/ where the pronoun has become the first member of a nominal compound. Two entries listed for a single gloss were given as synonyms by the informant(s).

<u>Shiriana</u>	<u>English</u> (body part; canoe part)
1. ~ahekok	'wrist'
2. ahthak	'throat'
3. aka	'tongue'
4. amok	'liver'
5. amok+hesik	'stomach'
6. caIp	'back; bottom on the outside'
7. ~cImkak ~ciwmkak	'ear(s)'
8. ~coIk	'feather (of a bird)'
9. ~hakami rep ~nahi	'rib; outside edge or rim'
10. hakrak	'shoulders'
11. harasip	'shoulder blade'

12.	he pere+he	'head'
13.	hemak	'back of head or upper neck'
14.	~hesahe	'are between nose and upper lip'
15.	~hesahe+~koi	'moustache'
16.	~hii+thak	'hair'
17.	~hiik	'stiff hair (like a peccary's fur)'
18.	hinimotho	'spine'
19.	~hIkak+paka	'nostrils'
20.	~hIko wicok	'forehead; the two sides inside'
21.	~hI\$Imp	'nose'
22.	~Imaro	'bone'
23.	~Ithahe(-k)	'finger(s)'
24.	~Itak	'hand'
25.	~Itak+parIk	'palm of the hand'
27.	~ithothorip	'veins'
28.	~i@=p	'blood'
29.	kahik	'mouth'
30.	kami	'inside floor (of canoe)'
31.	kana+~Ip	'saliva'
32.	kas(ik)	'lip(s); the outside edges'
33.	kawIk	'beard'
34.	kIrIkIp	'tracheia'
35.	~koi	'body hair'
36.	komok	'buttocks'
37.	~korona+\$ihip	'calf of the leg'

38.	~koşak	'thigh'
37.	mahekok	'knee'
38.	~mahehek	'toes'
39.	~mahI	'foot'
40.	mak	'hips'
41.	makosi wak	'leg'
42.	mamo	'eye'
43.	mana	'the back (of a canoe)'
44.	mana+pIp	'the middle (of a canoe) in back'
45.	maşiap	'heart'
46.	masina+~Işi	'heel'
47.	mIapIk	'tears'
48.	mitaşi şitama	'umbilicus'
49.	mospIk+~koi	'eyelashes'
50.	moşok	'hip bone'
51.	~m@k	'face'
52.	~na are	'chin'
51.	nak	'teeth'
53.	nak+hik	'lower jaw (including teeth)'
54.	nak+hik+~Imaro	'jaw bone'
55.	namhIs	'nails or claws'
56.	ora	'front end (of canoe)'
57.	orak	'nape of the neck'
58.	~oramihi ~oramis	'neck or throat'

59. ora+pIp 'the middle (of the canoe) in front'
60. parIk 'chest; floor inside'
61. parIk+hik 'sternum'
62. parIk+~koi 'chest hair'
63. pere+he+~Imaro 'skull'
64. pIp 'the middle (of the canoe)'
65. pIpI+hik 'the lower spine'
66. ~piri+hi 'the very end point (of the canoe)'
~piri+hi+~noka
67. pIs 'lower abdomen or skin of abdomen'
pIsik
68. poko 'arm'
69. poko+~Imaro 'elbow'
70. si 'skin'
piri+si
71. simosi 'belly or abdomen'
72. \$ik 'intestines'
73. \$ina '(animal's) tail or (human) tail bone'
74. \$ip 'feces'
75. thethe 'egg (of a bird)'
76. tI IpIk 'breasts'
77. ~wayamop 'ankle'
78. wicoma\$ik 'eyebrows'

C. Portuguese loan words

	<u>Shiriana</u>	<u>Portuguese</u>	<u>English</u>
1.	~ahiaw	<u>avião</u>	'airplane'
2.	ahoşik	<u>arroz</u>	'rice'
3.	arikotho	<u>helicóptero</u>	'helicopter'
4.	asokak	<u>açucar</u>	'sugar'
5.	~camanthe	<u>diamante</u>	'diamond'
6.	deos=mo	<u>deus</u>	'to speak about God'
7.	kamiša	<u>camisa</u>	'shirt; clothing'
8.	kaporaw	<u>tambor de gasolina</u>	'gasoline drum'
9.	kape kape+Ik kape KI iši	<u>café</u>	'coffee' 'coffee drink' 'coffee powder or coffee-colored'
10.	kaša	<u>caixa</u>	'box'
11.	kawari	<u>cavalo</u>	'horse'
12.	~kawsaw	<u>calção</u>	'underpants'
13.	kopehe	<u>cobertor</u>	'blanket'
14.	kIiee-k [kIyee-k]	<u>colher(es)</u>	'spoon(s)'
15.	krawkraw	<u>lacrau</u>	'scorpion'
16.	mikaw+Ik	<u>mingau</u>	'porridge'
17.	orok	<u>ouro</u>	'gold'
18.	paka	<u>vaca</u>	'cow'
19.	parato	<u>plato</u>	'plate; dish'
20.	parito	<u>palito</u>	'match'
21.	pawci	<u>balde</u>	'bucket'
22.	peska=mo	<u>pescar</u>	'to fish'

23.	pirata	<u>pirata</u>	'coin'
24.	pişan thai	<u>bichano</u>	'domesticated cat'
25.	şa+Ik	<u>chá</u>	'tea (drink)'
26.	sambora	<u>tambor</u>	'drum (musical instrument)'
27.	sapatok	<u>sapato(s)</u>	'shoe(s)'
28.	sararop	<u>sal</u>	'salt'
29.	~şawana	<u>sabão</u>	'soap'
30.	sawtat(pIk)	<u>soldado(s)</u>	'soldier(s)'
31.	şire	<u>Gillette</u>	'razor'
32.	totoro	<u>doutor</u>	'doctor'

D. Verb roots

	<u>Shiriana</u>	<u>English gloss</u>
1.	aco-	'to leave'
2.	ahéo-	'to take a stroll'
3.	amişi	'to be thirsty'
4.	~ca-	'to tie up (e.g. a hammock)'
5.	carI- cari-	'to wash'
6.	catito-	'to shake; shiver; tremble'
7.	ci-	'to take; get; marry'
8.	cori-	'to be sweaty'
9.	hanI-	'to cut (e.g. with a knife)'
10.	haro-	'to cure'
11.	~haro	'to be wrapped up'
12.	~haşimi	'to be tired'

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|-----|---------------|--------------------------------|
| 13. | ~heha- | 'to sew' |
| 14. | h@r@- | 'to swim' |
| 15. | ~hia- | 'to tie up (e.g. a hammock)' |
| 16. | hi ira- | 'to cut open (e.g. a canoe)' |
| 17. | hI IhI- | 'to scratch (e.g. with claws)' |
| 18. | ~hIkakIw- | 'to snore' |
| 19. | hI- | 'to walk; go' |
| 20. | hipI-
hIpI | 'to give' |
| 21. | ~hiri- | 'to learn' |
| 22. | hiri- | 'to sing' |
| 23. | ~hi\$ra- | 'to be dead; dying' |
| 24. | ~hIthani | 'to have a bad odor' |
| 25. | ~hIkIrIhI- | 'to be located nearby' |
| 26. | hI\$I- | 'to wash (e.g. gold)' |
| 27. | hoco- | 'to take' |
| 28. | hokco- | 'to travel; go' |
| 29. | hora- | 'to blow air (e.g. on a fire)' |
| 30. | ia- | 'to eat' |
| 31. | IkI- | 'to cry' |
| 32. | Ika- | 'to dig (from the ground)' |
| 33. | ikoka- | 'to cut (e.g. vines)' |
| 34. | ~i\$ia- | 'to burn' |
| 35. | kahikI- | 'to kick' |
| 36. | (pak) karo- | 'to open' |
| 37. | kathora- | 'to push' |

38.	~kea-	'to work'
39.	ke-	'to fall'
40.	kI-	'to be; have'
41.	kiri-	'to fear'
42.	~ko-	'to go back; return'
43.	koa-	'to drink'
44.	~koa-	'to search for'
45.	komo-	'to shout'
46.	kope-	'to go home'
47.	koroša-	'to spit'
48.	(~mariši) mio-	'to sleep'
49.	~maiha-	'to kick (a ball)'
50.	mititi	'to be depressed'
51.	(pak) ~nahI-	'to be closed'
52.	~nanoši	'to itch'
53.	nia-	'to shoot with a bow and arrow'
54.	nia-ra-	'to kill with a bow and arrow'
55.	~nihioši	'to be hot'
56.	nini	'to be painful'
57.	~noma-	'to be drunk'
58.	ohi	'to be hungry'
59.	pihi-	'to think; remember'
60.	pihi-	'to give'
61.	pIri-	'to recline; live'
62.	pIti	'to have a full stomach'
63.	ra-	'to lie on (something)'

64.	~ra a-	'to finish; to run out of (something)'
65.	~raco-	'to wake up'
66.	~ramahI-	'to hunt'
67.	~rara-	'to finish; stop (doing something)'
68.	reka-	'to fish with hook and line'
69.	r@r@- rere-	'to run'
70.	rothotho	'to be strong; hard'
71.	ro-	'to sit down'
72.	si+wa-	'to bite'
73.	\$ico-	'to fight'
74.	\$Ia-	'to fish by poisoning the water'
75.	\$@- \$I- \$o-	'to hit; beat'
76.	\$@ra- \$Ira- \$ora-	'to kill'
77.	\$iwti	'to be itchy'
78.	tae-	'to bark (e.g. a dog)'
79.	taa-	'to see'
80.	te-	'to take; marry'
81.	tecerira-	'to squat'
82.	tha-	'to do; make'
83.	tI-	'to cook with water'
84.	ticI-	'to cut down (e.g. a tree)'
85.	ti@-	'to weave'
86.	tIra-	'to cut down (e.g. a tree)'

87.	tIisi-	'to dry up (e.g. an abscess)'
88.	tItI- tIti-	'to get dark'
89.	totihi	'to be good'
90.	thIra-	'to vomit'
91.	waati	'to be cold'
92.	wa ato-	'to clear land'
93.	wace-	'to be angry'
94.	wa-	'to eat'
95.	~waha-	'to speak'
96.	~warihik	'to feel bad; to be bad, ugly'
97.	~warira-	'to ask a question'
98.	waro-	'to arrive'
99.	~waška-	'to chew'
100.	wathotho-	'to boil (e.g. water)'

E. Other semantic fields

E.1 Colors

	<u>Shiriana</u>	<u>English gloss</u>
1.	ekoap@	'purple'
2.	~haraha	'yellow'
3.	Iwši	'black or dark'
4.	korokoş	'gray'
5.	parahi	'blue or green'
6.	rişişi	'white'
7.	~şii	'light or bright'

8. wah@h@ 'transparent, golden or shiny'
 9. wakĪ 'red' (also means 'fire')

E.2 Animals

As much information as possible is given in this section in order to identify the animals referred to by the Shiriana names. The abbreviation N.A. (not available) is used where no Portuguese or English gloss or binomial was found by the author. When two names are listed, they refer to the same variety. Each separately numbered listing indicates a different variety (according to the informant's classification), even though two or more listings may have identical glosses.

E.2.1 Reptiles, crustaceans, and amphibians

E.2.1.1 Snakes

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	~arearem@k hetIk	<u>jibóia</u> (<u>Constrictor constrictor</u>)	'a boa'
2.	hokomasik rosik Iw\$ĩ rosik paraha	<u>muçurana</u> (<u>Pseudoboa cleolia</u>)	'a large harmless blue-black snake'
3.	karihirimak mamhoremak	<u>surucucu</u> <u>pico-de-jaca</u> (<u>Lachesis muta</u>)	'a bushmaster - the largest of the poisonous snakes in Brazil'
4.	komkarak ~okarimthok Siwhirokamak	<u>sucurijú</u> or <u>sucurí</u> (<u>Eunectes murinus</u>)	'South American anaconda or water boa'
5.	~maImak	N.A.	'a water snake'

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|-----|-------------------------|---|---------------------------------------|
| 6. | ~narik | N.A. | 'a large red or red and black snake' |
| 7. | orIk | | 'any venomous snake (in general)' |
| 8. | patharimak
~\$omarik | <u>cascavel</u>
(<u>Crotalus terrificus</u>) | 'a rattlesnake' |
| 9. | po o+~hethok | N.A. | 'a small, harmless white snake' |
| 10. | rosik | | 'any non-venomous snake (in general)' |
| 11. | rosik hawatho | N.A. | 'a harmless, tan snake' |
| 12. | warok | <u>cobra papagaio</u>
(<u>Bothrops lineatus</u>) | 'a green arboreal pit viper' |

E.2.1.2 Other reptiles, crustaceans, and amphibians

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	arasi weri aras+weri	<u>jacaré</u>	'any alligator or caiman'
2.	carIwe	<u>jacaretinga</u> (<u>A. palpebrosus</u>)	'a large docile alligator'
3.	coco	<u>sapo do mato</u> (genus <u>Bufo</u>)	'a large toad'
4.	korato korato thapata	<u>jacare-açú</u> (<u>Melanosuchus niger</u>)	'the large black Amazon caiman'
5.	poroporoam	N.A.	'a frog that sings'
6.	sisinam	N.A.	'a small frog'
7.	sitipas	<u>caramujo</u>	'a small edible fresh-water snail (periwinkle)'
8.	to oro	N.A.	'a small frog that sings on the riverbank'
9.	~waiamonihi	<u>jabutí</u> (<u>Testudo tabulata</u>)	'a fruit-eating Brazilian land turtle'

E.2.2 Fish

<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1. akopa	<u>pescado</u>	N.A.
2. arahaw	<u>piranha preta</u> (genus <u>Serrasalmo</u> (caribe) family <u>Characinidae</u>)	'a large black piranha'
3. arakari	<u>pirá-andira</u> (<u>Ogcocephalus</u>)	'a batfish'
4. arašari	N.A.	
5. arikoto	<u>jandiá</u>	'a fresh-water catfish'
6. ~asama	<u>pirapitinga</u>	N.A.
7. ~camaro	<u>raia</u> (<u>Dasyatis guttatus</u>)	'a stingray'
8. carakaš pIk	<u>piapio</u>	'minnows'
9. carak pIk	<u>piaba</u>	'any small edible fresh-water fish (in general)'
10. hanpari	<u>curima</u> (<u>Mugil cephalus</u>)	'a common striped mullet'
11. ~hImIw	<u>peixe sapo</u> (<u>Antennarins scaber</u>)	'a frogfish'
12. konoa	<u>mandí</u>	'a fresh-water catfish'
13. ~kahIama	<u>aracú</u> (<u>Leporinus sp.</u>)	N.A.
14. korari	N.A.	'looks like <u>surubim</u> '
15. manišapa warišapa	<u>cará</u>	N.A.
16. ~mamori	<u>mamori</u>	'any large fish (in general)'
17. ~morothotho	<u>puraqué</u> (<u>Electroplorus electricus</u>)	'a large electric eel'

18. oko
oko cai carangeijo 'a fresh-water crab'
19. oko pItirem caranguejo 'a small type of fresh-water crab'
20. pa a traira N.A.
(Macrodu sp.; Hoplias Malabaricus)
21. pakoheaw pacu N.A.
(Myteles sp.)
22. pakamo pacamú
(? perhaps pacamão 'any poison toadfish')
23. po okosi pata tucunare N.A.
(Chichla sp.)
24. po okosi thai cará N.A.
25. rahoka casculo 'any mailed catfish'
(family Loricariidae)
26. ~raithahi N.A. 'looks like a small electric eel'
27. rapaw peixe sapo 'a large frogfish'
28. ~šo ohI camarão 'a fresh-water shrimp'
29. ~sikaima N.A. 'looks like a catfish'
30. \$iprai piranha caju 'a small piranha
(genus Serrasalmo (caribe)
family Characinidae)
31. \$irapkoo pirapucú N.A.
(? maybe pirarucú)
32. tIhI+si surubim 'a large edible fish
(Platystoma fasciatum (weighs up to 20 kilos)')
33. torotho bodó 'a mudfish'
34. warasi acarí N.A.
(Chaldeus macroleptodus)
35. war@war@ casculo 'any mailed catfish'
(Loricariidae)

36. wathahi mamori N.A.
 37. waitaw pacu N.A.
 (Myteles sp.)

E.1.3 Mammals

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	~amota	<u>paca</u> (<u>Agouti paca</u>)	'a paca, spotted cavy'
2.	carimi	<u>macaco prego</u> (<u>Cebus appella</u>)	'a capuchin monkey'
3.	caro\$@n@	<u>coati</u> (<u>Nasua</u>)	'a tropical carnivore related to the raccoon'
4.	caw thai	<u>maracajá</u> (<u>Felis pardalis</u>)	'a wild cat'
5.	~cokoši	N.A. may be (<u>Alouatha seniculus</u>)	'a very noisy monkey' 'a howler monkey'
6.	haaca	<u>veado</u>	'a deer'
7.	~hašo	<u>macaco-da-noite</u> (<u>Aotus</u>)	'a night ape'
8.	hewesi	<u>morcego</u>	'a bat'
9.	hIri hIri	<u>ariranha</u> (<u>Pteroneura brasiliensis</u>)	'a giant river otter'
10.	~hoha	<u>coelho</u>	'a rabbit or hare'
11.	hop@hi	<u>porco espinho</u> (<u>Hystrix cristata</u>)	'a porcupine'
12.	howari	N.A.	probably 'a wolverine'
13.	iro	<u>guariba</u> (<u>Alouatta seniculus</u>)	'a howler monkey'
14.	kaacI	<u>capivara</u> (<u>Hydrochoerus capybara</u>)	'a capybara or water cavy'

15. kara\$Ina acuti-puru 'a small palm squirrel'
(Sciurus aestuans)
16. ~ka\$Ira mucura-xixica 'a small opossum'
(Philander)
17. kawari cavalo 'a horse'
18. kIarimo
kearImo macaco-da-noite 'a night ape'
(Aotus)
19. kosisi macaco-de-cheiro 'a squirrel monkey'
(Saimiri sciurus)
20. ~moro tatu canastra 'a smaller type of
the rare giant armadillo'
21. mo\$a+~ahi
~\$ImI preguiça 'a three-toed sloth'
(Bradypus tridactylus)
22. mathona rato coró 'a type of forest
rodent'
23. ~naro mucura 'a large opossum'
24. okoro cachorro 'a dog'
25. oposi tatu 'a small armadillo'
26. paca vaca 'a cow'
27. pakIk acuti-puru 'a large palm squirrel'
(Sciurus aestuans)
28. pa\$o coatá 'a spider monkey'
(Ateles)
29. pi\$an thai bichano 'a domesticated cat'
30. po\$ehi caititu 'a white-collared
(Pecari angulatus peccary'
or P. tajacu)
31. \$ama anta 'a tapir'
(Tapirus terrestris americanus)
32. ~\$ihIna cutia 'the agouti, a rabbit-
(S. Dasyprocia aguti) sized rodent'
33. t@p@ tamanduá 'an anteater'

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|-----|----------------------------|---|
| 2. | carinasik Iw\$i | 'a harmless black (or dark-colored) caterpillar' |
| 3. | carinasik ri\$isi | 'a harmless white (or light-colored) caterpillar' |
| 4. | hamasik | 'a poisonous, pink and black-colored furry caterpillar' |
| 5. | ~ho\$anasik | 'a harmless white (or light-colored) caterpillar' |
| 6. | karaca | 'a poisonous, yellow or orange-colored furry caterpillar' |
| 7. | koperinasik
koparinasik | 'a harmless black caterpillar' |
| 8. | macak | 'a poisonous blue or green-colored caterpillar' |
| 9. | ~mamoaha | 'a caterpillar commonly found on cassava plant cuttings' |
| 10. | ~rahI | 'a small black striped caterpillar' |
| 11. | ~\$a a\$ | 'a poisonous, black (or dark-colored) furry caterpillar' |
| 12. | ~\$ImI | 'a poisonous caterpillar' |
| 13. | wacowacom | 'a harmless, small orange caterpillar' |
| 13. | ~watoram | 'a harmless, black-headed caterpillar' |

E.1.4.2 Other insects and spiders

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	~amoathaw	N.A.	'a small singing fly'
2.	arasi	<u>borboleta</u>	'any butterfly (in general)'
3.	askrema	<u>formiga</u> <u>preta</u>	'a small harmless, black ant'

4.	awiaim	<u>formiga voador</u>	'a flying ant'
5.	cicomkos	<u>grilo preto</u>	'a common black cricket'
6.	~hihop	<u>pulga</u>	'a common flea'
7.	himoto	<u>abelha</u>	'a harmless bee'
8.	himo+~thona	<u>caba</u>	'a harmless wasp'
9.	~hIrIIna	<u>bicho-de-pé</u> (<u>Tunga, syn. Sacropsylla, penetrans</u>)	'a chigoe'
10.	~honore	<u>besouro d'agua</u>	'a water beetle'
11.	~horahesi	<u>besouro</u>	'a black beetle'
12.	~horemak	<u>minhoca</u>	'a large worm'
13.	ikoroamasi	<u>minhoca</u>	'a worm used for fishing'
14.	~ikoši	<u>pium</u>	'a small biting gnat'
15.	~irik	<u>jandaíra</u>	'a bee which makes sweet-smelling honey'
16.	iroši	<u>borrachudo vermelho</u> (<u>Simulium pertinax</u>)	'a reddish-colored buffalo gnat'
17.	~kaya	<u>pium</u> (<u>Simulium pertinax</u>)	'a large buffalo gnat'
18.	kopina	<u>caba</u>	'a large wasp'
19.	koromoš	<u>mosca-pica-boi</u> (<u>Dermaiobia</u>)	'a botfly'
20.	korošakahi	<u>formiga</u>	'a biting ant that lives underground'
21.	košišina	<u>formiga</u>	'a harmless ant'
22.	kothapa	<u>barata</u>	'a cockroach'
23.	~mamoahana pIk	<u>formiga</u>	'a stinging red ant'
24.	mapI	<u>maruim</u> (family <u>Chironomidae</u>)	'a punkie or biting midge'
25.	moštoro	N.A.	'a small fly'

26.	~noma	<u>pioelho</u>	'a louse'
27.	oina	<u>abelha arapuá</u>	'a small stingless bee'
28.	~pašierima	<u>grilo</u>	'a cricket'
29.	patasik	<u>embua</u>	'a millipede'
30.	pIkhiri	N.A.	'a fly that sings'
31.	potoma	<u>carapanã</u> (<u>Culex quinquefasciatus</u>)	'a large mosquito which transmits filariasis'
32.	rerimina	<u>kopina</u>	'a yellow wasp'
33.	~ro oh	<u>mosca</u>	'a common house fly'
34.	~ro oh parahi	N.A.	may be 'a green-bottle fly'
35.	~sisikima	<u>gafanhota</u>	'a large grasshopper'
36.	šio	<u>formiga tucandeira</u>	'a large ant'
37.	tIhI ~morIp	<u>cigarra</u>	'a cicada or locust'
38.	tIhI+si	<u>gafanhoto</u>	'a tiger-colored grasshopper'
39.	tori	<u>carrapato</u> (genus <u>Amblyomma</u>)	'a tick'
40.	~toromkona	<u>cigarra</u>	'a cicada'
41.	thohi krawkraw	<u>lacrau</u>	'a scorpion'
42.	waramo	N.A.	'a type of ant'
43.	warecehek	<u>aranha</u>	'a large spider'
44.	wareceri	<u>aranha</u>	'a small spider'
45.	warapkohik	<u>pioelho de cobra</u>	'a centipede or millipede'

E.1.5 Birds

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	caro ~coIk pIk game feather PL		'birds in general'
2.	~coIk theri feather people		'birds in general'
3.	ai ~para pIk ai ~kora pIk	<u>japu</u> (<u>Xanthornus decumanus maculosus</u>)	'The pied crested oropendola' (a bird of the Oriole family)
4.	~aom	<u>galo da serra</u> (<u>Rupicola rupicola</u>)	'a cock-of-the-rock'
5.	arari pIk	<u>arara vermelha</u> (<u>Ara chloroptera</u>)	'a red-blue-and-green macaw'
6.	araromko\$	<u>tucaninho</u>	'a small toucan-like bird'
7.	arasi	<u>arara</u>	'any macaw (in general)'
8.	aras cai aras kohais	<u>arara vermelha</u> (<u>Ara macao</u>)	'a scarlet macaw'
9.	~arima	<u>papagaio</u>	'a small green and blue parrot'
10.	~capihi	<u>jacamim</u> (<u>Psophia peucotera</u> or <u>Psophia crepitans</u>)	'a large trumpeter'
11.	coinam	<u>inhambu</u> (of the genera <u>Tinamus</u> , <u>Crypturellus</u> or <u>Nothura</u>)	'a small partridge: one of the tinamous'
12.	corokoamasi	N.A.	'a black and white bird'
13.	~ha\$imi coritim hoImas	N.A.	'a small bird with a bright blue body and a fuschia throat'

14. ~ha\$imo marotho inhambu 'a small partridge:
one of the tinamous'
(of the genera Tinamus,
Crypturellus or Nothura)
15. ~hereko\$ tucaninho 'any small toucan-like
bird (in general)'
16. ~herama pica-pau 'a small woodpecker'
~herama thai
17. ~hiomo\$ passarinho do mato 'a small black
~hiomo\$ thai forest bird (does not
fly)'
18. hIthItIma N.A. 'a blue-headed bird'
19. hooCa juriti 'a type of dove'
20. ~horama inhambu 'a small partridge:
one of the tinamous'
(of the genera Tinamus,
Crypturellus or Nothura)
21. horetho juriti 'a type of dove'
22. i\$aro japini 'a small bird of Oriole
family'
23. Iwema coruja 'a small owl'
24. kakakakahamko\$ tucaninho 'a small toucan-like
bird'
25. karaka frango 'a chicken'
26. kararawIs arara amarela 'a yellow macaw'
27. ~keamarI In Tucano-de-peito-amarelo 'the sulphur
macop ~keamarI In and white-breasted toucan'
28. kIremi jacu 'a guan'
29. kIrIkI corujão 'the spectacled owl'
(Pulsatrix p. perspicillata)
30. kiri thai 'any small bird
(in general)'
31. koce ~ahI 'a toucan-like bird with
orange feathers'

50.	pošpoškom	<u>juriti</u>	'a type of dove'
51.	posposnam	<u>coruja</u> (<u>Otus c. choliba</u>)	'a small owl' (may be the Choliba screech owl)
52.	~rahko	N.A.	'a small trumpeter-like bird'
53.	sawas	<u>papagaio</u>	'a large type of parrot'
54.	simotho	<u>ariramba</u> <u>Martim-pescador</u> (<u>Chloroceryle Amazona</u>)	'an Amazon kingfisher'
55.	širipari	<u>andorinha</u>	'a type of swallow or swift'
56.	šišinam	N.A.	'a small bird'
57.	~šitaroma	<u>ticoá</u> may be a <u>tico tico</u>	'a Brazilian sparrow'
58.	~šo ohI	<u>socó</u>	'a type of heron or bittern'
59.	šorori	<u>passaro do rio</u>	'a white and gray river bird'
60.	tararam	<u>passarão</u>	'a heron-like bird'
61.	~tešo	<u>beija flor</u>	'a hummingbird'
62.	waapa	<u>pica-pau</u>	'a large woodpecker'
63.	wapakas	<u>pica-pau</u>	'a small woodpecker'
64.	wakara	<u>garça</u>	'a heron'
65.	wakaw	<u>gavião</u>	'a type of hawk or falcon'
66.	watIpa	<u>urubu rei</u> (<u>Sarcorhamphus papa</u>)	'a king vulture'
67.	wirihikok wirihikok cai	<u>papagaio</u>	'a green parrot'

E.2 Plants

E.2.1 Trees

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	~amahi	N.A.	'a tree with narrow leaves'
2.	aorasisi	<u>ubim</u>	'a tree whose leaves are used for roofing'
3.	hokarişik	<u>inajá</u> (<u>Maximiliana regia</u>)	'the inaja palm'
4.	~hokoromasi	<u>bacaba</u> (<u>Oenocarpus bacaba</u>)	'the bacaba palm'
5.	~homheşik	<u>jenipapeiro</u> (<u>Genipa americana</u>) genip tree' (has edible drupaceous fruit and is a source of a black dye)	'the marmalade box
6.	horoto	<u>cabaceiro</u> <u>Crescentia cujete</u> or <u>Lagenaria siceraria</u>)	'a calabash tree'
7.	Iri Iri	<u>tucumã</u> (<u>Astrocaryum tucuma</u>)	'the tucuma palm'
8.	karathasik	<u>bananeira</u> (<u>Musa sapientum</u>)	'any banana tree'
10.	krep+~Ik	<u>ingazeiro</u> (<u>Inga</u> - mimosa family) (yields useful timber and edible fruit)	'any inga tree'
11.	macawIk	<u>mamaoeiro</u> (<u>Carica papaya</u>)	'a papaya tree'
12.	~maimasi	<u>açaizeiro</u> (<u>Euterpe oleracea</u>)	'the assai euterpe palm'
13.	manakasik	<u>paxiúba-manjerona</u> (<u>Aiphanes caryotaefolia</u>) rufflepalm' (strong, flexible wood used to make bows for hunting)	'the caryota
14.	manipasik	N.A.	'looks like a banana tree with red flowers'

- | | | | |
|-----|--------------------|---|---|
| 15. | ~narašik | <u>urucuzeiro</u>
(<u>Bixa orellana</u>)
(fruit provides a red dye) | 'the annatto tree' |
| 16. | ~orošihi | <u>cajueiro</u>
(<u>Anacardium</u>) | 'any cashew tree' |
| 17. | parakošihi | N.A. | 'a tree with edible fruit' |
| 18. | parokoi | N.A. | 'a large hardwood tree' |
| 19. | ~rahamahi | N.A. | 'a hardwood tree (good for firewood) |
| 20. | ~raithaisik | N.A.
(fruit and bark are used for medicinal purposes) | 'a tree with sweet-smelling wood' |
| 21. | ~rakonahi | | 'any hardwood tree' |
| 22. | rasas | <u>pupunheira</u>
(<u>Guilielma speciosa</u>)
(yields highly-valued edible fruit) | 'the spiny peachpalm' |
| 23. | rorihi
roronahi | <u>cacau</u>
(<u>Theobroma cacao</u>) | 'the cocoa tree' |
| 24. | šitporihi | N.A. | 'a tall tree with blue flowers (good for firewood) |
| 25. | ~thokohi | N.A. | 'a tree with medicinal leaves' |
| 26. | warimahi | <u>samaó</u> | 'a type of cedar tree' (used for canoes) |
| 27. | warimaši | <u>samaó</u> | 'a type of cedar tree' (the bark is used for fiber to weave hammocks) |
| 28. | wiitihi | | 'any tree or wood (in general)' |

E.2.2 Edible fruits, tubers, and other plants

	<u>Shiriana</u>	<u>Portuguese</u> (or binomial)	<u>English</u>
1.	akwakIrima	<u>mandioca</u>	'a type of manioc plant with reddish leaves'
2.	~arom@k	<u>ave-do-paráiso</u>	'the bird of paradise plant'
3.	cawarak	N.A.	'a fruit that looks like an olive'
4.	cowarikoIk	<u>cana-de-açúcar</u> (<u>Saccarium officinarum</u>)	'a sugar cane plant'
5.	cowithos	N.A.	'a sweet-smelling vine'
6.	~haraharima	<u>mandioca</u>	'a type of manioc with yellowish-colored tubers'
7.	~hIkIrImIk	N.A.	'a palm fruit'
8.	hItIsi	<u>mandioca brava</u> (<u>Manihot esculenta</u>)	'a bitter manioc plant (also called bitter cassava)'
9.	hokomok	<u>batata doce</u> (<u>Ipomoea batata</u>)	'a sweet potato'
10.	~hokoromak	<u>bacaba</u>	'the fruit of the bacaba palm'
11.	kaprawsik	<u>capim</u>	'any wild grass'
12.	karatha	<u>banana</u>	'any banana'
13.	karat+oŞek	<u>plátano</u> <u>banana da terra</u> (<u>Musa paradisiaca</u>)	'the plantain banana'
14.	(karat+) Şikrihimak	N.A.	'a long sweet green banana'
15.	(karat+) tikok	<u>banana maçã</u>	'a type of banana'
16.	macaw	<u>mamão</u>	'a papaya fruit'
17.	~maimak	<u>açai</u>	'a fruit of the assai palm tree'

18. mašitI Ik algodoeiro 'a cotton plant'
19. na\$kok mandioca brava 'a bitter manioc tuber'
20. pa ari cawIk banana da terra 'a plantain banana'
21. paI\$imak N.A. 'a type of green-skinned banana'
22. ~painori abacaxi 'a pineapple'
~mainori (Ananas sativus)
23. pahik N.A. 'a wild forest fruit'
24. rIrimos pé de milho 'a maize plant'
25. rorok cacau 'the cocoa fruit'
roronak
26. sakaw@si flechal 'an arrow cane plant'
27. sinaimi N.A. 'a shrub or small tree used for firewood'
28. \$i\$ikima cipó 'a type of vine or liana'
29. ~wa ahe cará 'a kind of yam'
(Dioscorea spp.)
30. ~wa ahe ri\$iši cará branco 'a white yam'
(Dioscorea spp.)
31. ~wa ahe Iw\$irim hek cará roxo 'a reddish yam'
(Dioscorea spp.)
32. wana cará-inhame 'a kind of yam'