

THE LANGUAGE OF THE APURINÃ PEOPLE OF BRAZIL
(MAIPURE/ARAWAK)

by

SIDNEY DA SILVA FACUNDES
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Dedication

Popukarīwakorumonhi Popūkarowakoropakunu, para os meus pais and hāi Kade.

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AN ABSTRACT OF THE THESIS OF

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Title: THE LANGUAGE OF THE APURINÃ PEOPLE OF BRAZIL
(MAIPURE/ARAWAK)

A somewhat typologically informed grammatical description of the Apurinã language is provided, including historical, socio-cultural, demographic and geographic information about the Apurinã society. The Apurinã communities spread along tributaries of the Purus River, in western Brazilian Amazon. The grammatical analysis consists of the phonology, morphology and syntax, with appendixes on language variation and the design of the Apurinã orthography, a text sample, a vocabulary list, and a preliminary reconstruction of Proto-Apurinã-Piro-Iñapari. The grammatical analysis is based on language internal factors, though with some typological observations on major aspects. The segmental phonology is simple; morphophonemic alternations are restricted to pronominal subject/possessor markers and a few other bound morphemes. Stress is predictably penultimate, though with exceptions that need further investigation. Although a preliminary analysis of prosodic structures is suggested, more work is required in this area. The morphology is complex and includes special bound forms which are partially distinguishable from typical affixes. Nouns and verbs are clearly

distinct syntactic categories; however, property-referring words are describable as a subclass of intransitive verbs. Classificatory nouns are used as part of productive noun compounding and a subset of them can be verb-incorporated and refer back to physical and shape properties of participants previously mentioned in the discourse—in this way resembling verb incorporated classifiers of North American languages. The description of the syntactic organization of the language involves, to a great extent, examining the functions and behavior of bound morphemes, and reaches its highest complexity in the system of relative clauses. A subset of property-referring words, called objective descriptive verbs, presents a morphologically marked split intransitivity system which is partly based on the semantic class of these verbs. Such a system is typical of Arawak languages. The constituent order is semi-free; the VO order is the most frequent in texts, but the patterns of word order correlations point to OV. Overall, the Apurinã language constitutes a laboratory for examining the interplay between morphological forms and syntactic structure and functions, providing certain grammatical and semantic categories and structures that resemble only in part those attested in other languages.

List of Abbreviations and other Conventions Used

A	more “agent”-like argument
ADV	adverbial
AFFECT	affectedness marker
ALIEN	alienable noun
APFTV	anti-perfective marker
ATTR	attributive marker
AUGM	agumentative
AUX	auxiliary
BRt	bound root
C.SOURCE	causal source
CAUS	causative marker
CAUS	causative marker
CN	classificatory noun
COLTV	collective action marker
CONTIG	contiguous marker
DEM	demonstrative
DEM	demonstrative
DESID	dessiderative marker
DIM	diminutive
DISC	discourse
DIST	distal
DISTR	distributive event marker
EMPH	emphatic marker
F	feminine
FOC	focus marker
FRt	free root
FRUSTR	frustrative marker
FUT	future marker
GER	gerund marker
HAB	habitual aspect marker
HORT	hortative
HYPOTH	hypothetical marker
ICN	incorporated classificatory noun
IMMIN	imminent aspect marker
IMPER	imperative marker
IMPFTV	imperfective aspect
INAL	inalienable noun
INFER	inferential marker
INST	instrument
INT	interrogative marker
INTENS	intensifier

INTR	intransitive verb
LOC	locative
M	masculine
MIX	mixed (double-marked) noun
N	noun
NA	non-applicable
NEG	negation
NMLZ	nominalizer
NON-CL	non-classificatory inalienable noun
NP	noun phrase
NRt	noun root
NSt	noun stem
NStM	noun stem marker
NUM	numeral
-o	object pronominal marker
OBJ	object
P	more “patient”-like argument
-p	pronominal marker encoding more “patient”-like argument
PASS	passive marker
PFTV	perfective aspect
PFTVT	perfectivity
PL	plural
POS	positive polarity marker
POSSED	possessed noun
PRED	predicate marker
PRIV	privative marker
PRO	independent pronoun
PROCL	subject/possessor pronominal marker
PROG	progressive marker
PRON	pronoun
PROX	proximative
PROX	proximative
PTC	particle
R	“recipient”-like argument of ditransitive verbs
-r	pronominal marker encoding “recipient”-like argument
RECIPR	reciprocal marker
REFL	reflexive marker
REL	relativizer
RESTR	restrictive marker
REV	privative reversal marker
RS	reported speech
Rt	root
S	single argument of an intransitive in 8.3.1.3, subject otherwise
s-	subject pronominal marker
SG	singular
SPEC	specific question marker

St	stem
SUBORD	subordinator
SUBORD	subordinator particle
T	theme argument of a ditransitive verb
-t	pronominal marker encoding theme argument
T.CAUS	transitive causative marker
TEMP	temporal marker
TRANS	transitive verb
UNPOSS	unpossessed noun
V	vowel in chapter 2 and 3 and verb in other chapters
VBLZ	verbalizer
VP	verb phrase
WH	wh-question marker
INV	inverse-like marker
Cl	clause
APPOS	appositive construction
-subord	subordinator marker
IPA	International Phonetic Alphabet
1	first person
2	second person
3	third person

“ ” are used for non-technical use of linguistic terms, and for non-English words in free translation of Apurinã examples.

‘ ’ are used to used to mark free translations.

marks word boundaries

- marks morpheme boundaries in examples.

Except for chapters 2, 3 and appendices, where Apurinã examples are written with a special font, in all other chapters Apurinã examples (and those of other non-English languages) are written in italics.

Chapter 1

Introduction

1.0. Introduction

The purpose of this dissertation is to present a preliminary grammatical description of the Apurinã language. Apurinã is spoken by the Apurinã indigenous people of the Northwestern Amazon region of Brazil. The Apurinã population may vary in number depending on the parameters used to identify as Apurinã a person of Apurinã ancestry living out of contact with an Apurinã community. Intra-culturally, these parameters may be determined by the extent to which this person (and/or others in his/her environment) is aware of his/her Apurinã ancestry. Sometimes, a person may claim the Apurinã ancestry for potential government help (poorly) provided to indigenous peoples.

The dissertation is organized as follows: Chapter 1 is the introduction, where some general information on the language and the people who speak it is presented; chapter 2 presents the phonemic inventory, articulatory phonetics and phonological analysis of the language, in addition to the orthographic system for the language; chapter 3 presents an introduction to Apurinã morphology where the major concepts used in chapters 4-7 will be introduced; chapters 4-6 present the morphology of the noun, verb and closed word classes in that order, and the their relevant syntactic properties; chapter 7 presents a special set of bound morphemes that share properties of affixes as well as of independent words in a clitic-like fashion; chapter 8 presents the constituent structure

analysis of phrases and the clause, an analysis of grammatical relations, predicates and the syntactic properties that operate at the level of simplex sentences; chapter 9 presents the structure of complex sentences; the conclusion summarizes the major aspects of the Apurinã grammar covered in this work and points to parts of the grammar that deserve further investigation. Appendix A summarizes some general information on issues involved in the design of the Apurinã orthography and on a general picture of dialectal variation. Appendix B provides a text sample consisting of an Apurinã traditional story. Appendix C provides a vocabulary sample of the language. Finally, appendix D presents a summary of a lexical comparison involving Apurinã and its closest extant languages, Piro and Iñapari to arrive at a preliminary phonological reconstruction of Proto-Apurinã-Piro-Iñapari.

1.1. The Apurinã Society: Some Socio-Cultural Factors

The aim of this section is to introduce some preliminary information on the language, its speakers and the society they live in. The information concerning aspects of the Apurinã culture is NOT intended to constitute a systematic anthropological analysis of the Apurinã people and their society. Instead, it simply describes informally some basic properties I have observed during various visits to the Apurinã villages, and during conversations with various Apurinã individuals from different villages. Since it was never my aim to develop a systematic anthropological or sociological investigation of the Apurinã culture and society, the non-linguistic information provided below should be

taken as informal comments which will hopefully give a rough idea about the people, culture and the society where the Apurinã language is (or used to be) spoken.

1.1.1 Auto-Denomination

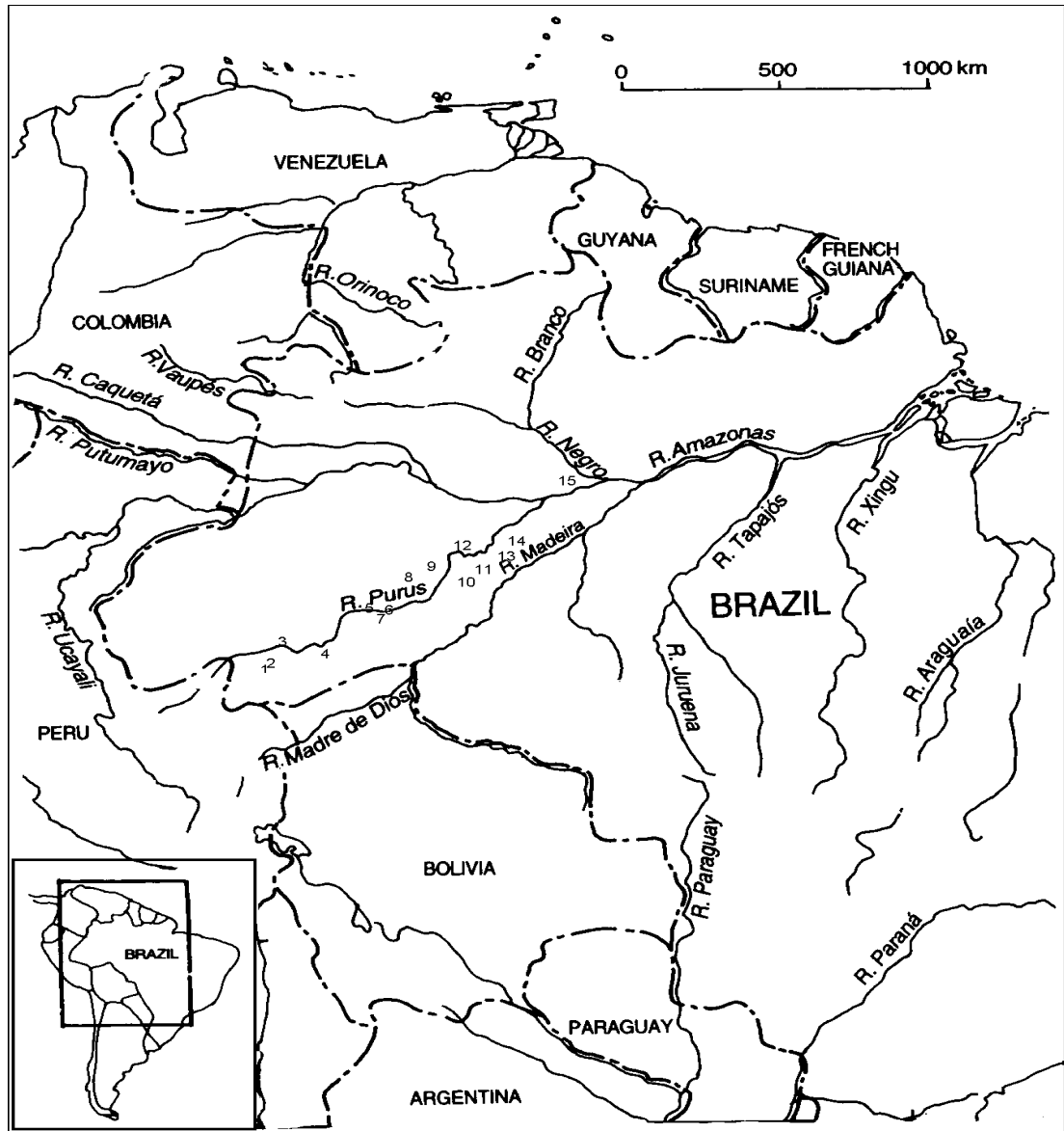
“Apurinã” is the name used in Brazil to refer to the *Popĩkariwakori* people and the language they speak. The singular forms *Popĩkari* and *Popĩkaro* refer respectively to the male and female members of the *Popĩkariwakori* society. Ehrenreich (1891:109) mentions the possibility that the name “Ipuriná” was a denomination given by the Katawixi people, a putatively distinct and unrelated indigenous group of the same region. If that really is the case, it constitutes just one more example of an indigenous group being named on the basis of how it was called (generally depreciatively) in the past by a neighboring group. *Popĩkari* or *Popĩkaro* is also sometimes used in many of the Apurinã communities to refer to non-“White” people, and, in others, to refer exclusively to the members of the Apurinã society. In only one or two communities I have heard people referring to themselves as “Ipurinã”, and those were all elders. Ehrenreich mistakenly says that “Kangiti” is their true name. This term, pronounced /kãkĩtĩ/, simply means ‘person’. Other names found in the literature, newspapers etc. to refer to the same group of people include “Ipurina”, “Ipurinás”, “Ipurinã”, “Ipurinan”, “Ypurinás”, “Ipurynans”, “Hipurinás”, “Hypurinás”, “Hypurina”, “Tiupurina”, “Tupurinã”, “Jupurina”, “Kankite”, “Kankutu”, “Kankiti”, “Kankete”, “Cangiti”, “Canguite”, or “Kaxarari”.

The denomination “Apurinã” is currently the one used by the Apurinã speakers when speaking Portuguese. Thus, the term “Apurinã” can be more properly considered (in the present time) as a Portuguese word referring to the *Popĩkariwakori/ro* people and

their language, and the terms *Popĩkari(wakoru)* and *Popĩkaro(wakoro)* are, respectively, the masculine and feminine (plural) forms that these people use to refer to themselves when talking in Apurinã. I will use the term “Apurinã” in this work to refer to both language and people as a matter of convenience, though one should bear in mind that this is not their name in their language.

1.1.2 Apurinã Villages: Geography, Demography and Other Information

The Apurinã speakers are located in the western Amazon region of Brazil, along the tributaries and streams of the Purus River in the southern part of the State of Amazonas and northern part of the State of Acre. They live in family groups in the villages listed in the map in Figure 1 —where their approximate location is given. The distance between these villages may be as close as 30 minutes of walking distance or as far as 1,000 km or more. There are over 2,000 Apurinã people (including those living in cities rather than in villages), but, roughly speaking, less than 30% still speak the language fluently. Except for the Tumiã and Tawamirim villages (i.e. Areas 11 and 14), in all other villages children are no longer learning the Apurinã language, and the fluent speakers still alive are usually elders. (I do not know about the Mahaã village, i.e. Area 12.) It is impossible to be precise about the Apurinã population due to their strong (but scattered) presence in the peripheries of small towns all along the Purus River. The population in the Apurinã villages may vary from around 30 to a little over 200 people in each village. As will be seen in the next paragraphs, there are a few other Apurinã villages in addition to those represented in the map in Figure 1, but about which I still lack detailed information.



1. Area Km 124 (BR 317, Rio Branco, AC), 2. Area Km 45 (BR 317, Boca do Acre, AM), 3. Areas Camicuã and Monte Verde (Purus River, Boca do Acre, AM), 4. Area Peneri (Nova Vista and Jagunços, on the Peneri river, Pauini, AM), 5. Area Água Preta (including Castanheira and S. Francisco, on the Água Preta stream, Pauini, AM), 6. Area Mipiri and Inhari (including Mipiri on the Purus River, and Inhari on the Inhari River, Pauini, AM), 7. Area Guajahã (Purus River, Pauini, AM), 8. Area Catipari (Cacuri and S. Jerônimo both on the Cacuri and Catipari lakes, Pauini, AM), 9. Area Mamoriá (Mamoriá River, Pauini, AM), 10. Area Seruini (Including Bom Jesus, Marienê, and Mixiri, on the Seruini River, Pauini, AM), 11. Area Tumiã (Tumiã River, Lábrea, AM), 12. Area Marahã (Marahã Lake, Lábrea, AM), 13. Area Japiim (Paciá River, Lábrea, AM), 14. Area Tawamirim (Ipixuna River, Tawamirim AM), 15. Area Jatuarana (Manacapuru River, Manacapuru, Amazonas)

Figure 1: Approximate Location of some Apurinã villages

Most of the information provided in the next paragraphs was gathered during a field trip at the end of 1990 and beginning of 1991, occasion in which I visited most of

the Apurinã communities for brief a stay in each village during a period of two months. Only some of the information were updated in later trips I made to a few of those communities. As a result, part of the information provided here has certainly changed due to migration, births, deaths, or other phenomena that happened in the last years. During the first field trip I was concerned with surveying various pieces of information that would allow me to gain future access to the various villages in order to develop linguistic research in the following years. All the Apurinã villages I had contact with or gathered information about had permanent contact with outsiders, except for the Tumiã village. At the present time, however, there are indications that even the people from the Tumiã village already have permanent contact with outsiders. The next paragraphs provide some brief information about each of the Apurinã areas listed in the map above.

Areas 1 (i.e. villages Km 124 and Km 137) and 2 (i.e. village Km 45) are the only areas located along a road, namely BR 317. In Area 1 there were approximately 130 people. I had contact with three fluent Apurinã elderly speakers. I was not able to verify how many other Apurinã speakers there were in the community. It appears that all members of these communities speak Portuguese. Some of the members of those villages had been converted into Protestantism and others into Catholicism. I was not able to visit the village Km 137. The people in these communities lived of hunting and farming. In village Km 45 there were approximately 109 people. I was not able to verify the number of speakers there. Aside from hunting and farming, the members of this community also raised cattle. The village is located in an area that was confiscated from a farmer in the past, after several years of conflict. As in most Apurinã villages there are conflicts that keep groups of families living apart in the same indigenous area. I had contact with two Apurinã speakers in this community. The first speaker,

Esmeralda, was fluent and had taught the language to the second speaker, Zé Miranda (her husband), who was the chief of the community.

Area 3 (i.e. Camicuã: Terra Firme and Monte Verde) is the first Apurinã area one finds going downstream (toward the north) on the Purus River, starting in the city of Boca do Acre. In this area there were two villages, Terra Firme and Monte Verb. I visited only the first of them, and had brief contact with one speaker from the second community. Based on the information gathered during my stay in the community, there were 36 active speakers and 51 passive speakers only in the Terra Firme community. The total population of the Camicuã area was around 215. Their productive activities involved hunting, fishing, rubber tapper, and production of manioc flour.

Area 4 (i.e. Peneri) is several hours by boat going down the Purus River, before reaching the city of Pauini. The first village in Peneri, i.e. Nova Vista, is one to two walking hours from the right margin of the river. In Peneri I visited only the community of Nova Vista. The two other villages in that area were Jagunços e Tacaquiri. The total population in Peneri was of roughly 216 people. In Nova Vista there were 13 active speakers of Apurinã and 29 passive speakers. Productive activities involved hunting, fishing, rubber tapping, production of manioc flour, and gathering of Brazil-nut.

In Area 5 (i.e. Água Preta) there were three villages, Bananeira, Camucim, and Inhari, which together would give a total of approximately 146 people, with 11 active and 29 passive speakers. Their productive activities consisted of rubber tapping, production of manioc flour, farming, fishing and hunting. Having returned to Area 5 in another trip in 1995, I noticed several changes in that area. The Camucim village was abandoned after the elderly woman of the village was deceased. What was a temporary hut in the mouth of the Água Preta river in 1991 became a whole new community, now

called the Mipiri village, where cattle has been now introduced. Mipiri is represented in the map above as Area 6 (Mipiri and Inhari). Most people living in the Mipiri village in 1995 had migrated from the Inhari village (where I first met them in 1991).

Area 7 (i.e. Guajahã) was the only one where, apparently, nobody spoke Apurinã anymore. The village was situated on the right margins of the Purus River (going downriver), about two hours by boat from the city of Pauini, although people spent much time in temporary huts farther into the jungle where they would do their work. There were roughly 40 people in that area. Activities in these communities involved farming, fishing, production of manioc flour, and hunting. Area 8 (i.e. Catipari) consisted of the Catipari (also called São Jerônimo) and Cacuri villages and Area 9 consisted of the Mamoriá village. There were approximately 90 people in Areas 8 and 9, with 6 active speakers and 12 passive speakers. Productive activities in these villages involved gathering of Brazil-nut, rubber tapping, “copaíba” oil, tobacco, fishing, some pottery, and sporadic hunting. Having returned to the villages in Area 8 in 1995, I learned that cattle had also been introduced in the Catipari village and that the eldest Apurinã speaker in the village had passed away. Moreover, the Mamoriá village, in Area 9, had suffered an outbreak of Hepatitis D, where around 9 people died and, as a consequence, most people moved to other areas. The Mamoriá village was the only place where I found inter-marriage involving Apurinã and Jamamadi —the latter constituting an unrelated group that belongs to the Arawá linguistic family.

Area 10 (i.e. Seruini) consisted of three villages, Bom Jesus, Marienê, and Michiri, located, respectively, in the Seruini river, Marienê stream, and Michiri stream. I only had the chance to visit the Bom Jesus village, although I had some contact with some people from the other two villages. In 1991 the population of Area 10 was of

approximately 52 people, with at least 28 active and 12 passive speakers. In this area productive activities involved hunting, fishing, farming, rubber tapping, gathering of Brazil-nut, and production of manioc flour. In this area there were strong conflicts involving the Apurinã people and one outsider who insisted he was the owner of the land where the Apurinã people lived. Some months after I visited Area 10, the conflicts exploded into gun fighting where at least one Apurinã died. In 1995, when I had again contact with some members of Area 10, I learned that the situation in the area had improved and conflicts had been reduced after some interference of Brazilian authorities and efforts from an indigenous organization in the region.

Area 11 (i.e. Tumiã) used to be the only village where speakers were monolingual in Apurinã. Unfortunately I was never able to reach that village, which is located in the Tumiã River, a branch of the Purus River. Tumiã was the most isolated of all the Apurinã villages. I only had contact with speakers of this village in 1995, when a family was in the city of Pauini for medical treatment. Sadly, the people from that community have been dying in the last years, apparently due to Malaria. As happens when people start dying from specific diseases in an Apurinã community, some (or all) of the members of that community migrate to a different area. This seems to be what has been happening in the Tumiã village in the last years.¹ Area 12 (i.e. Marahã) is located in the Marahã lake. I was never able to visit that area, where some Apurinãs live with people of Arawá groups, such as Paumari. The information about this area was gathered from a person working for FUNAI (the branch of the Brazilian government for Indigenous

¹ In a visit to the region in May-June/2001, I learned that the health situation in the Tumiã village has improved with the arrival with government assistance to that area, including the presence of a non-Indian medical assistant in the area. The contact with non-Indian has also increased considerably.

matters) in the city of Lábrea, and from other Apurinãs who have visited the area. It is in Area 12 where 2 missionary linguists from the Summer Institute of Linguistics still develop missionary work, having converted the members of that area into Protestantism. The Apurinãs who live in Area 12 stay pretty much out of contact with other Apurinãs. I have no population number for the Tumiã village. Information from FUNAI, however, from 1993, report a total population of 487 people living in Marahã, including Apurinãs e Paumari.²

Area 13 is where the Japiim village is located, in the Pacia River, several hours by boat from the city of Lábrea. Although I was not able to visit this village in 1991, Japiim turned out to be the place where I gathered most of the linguistic data used in this work during trips in later years. Also, it was from the Japiim village that I was able to bring two speakers (Agostinho Santos and Chagas) to the city, where I worked with them on the analysis of the language. The Japiim village includes people that, although having some family ties, used to live in different communities. In the first trip I made to the village in 1993, there were two elders and a whole family (mother, two sons and a daughter), one adult female, and one adult male who were fluent in the language, out of a population of approximately 50. When I returned to the village in 1994, the family consisting of fluent speakers (formerly constituted of the mother, two sons and a daughter) had migrated to another place, following the death of the mother. In 1994,

² I was finally able to visit the Marahã area in June/2001. The Apurinã village in the area is called Fortaleza and is located in a region which was (and still is) traditionally Paumari. Some Apurinãs live in separate houses as far as one hour of walking distance from the Fortaleza village. Among the latter are a few Apurina individuals who moved out from the Tumiã area, some of them barely know Portuguese. The two missionaries who worked in the village have now moved out into the village of Itaboca much farther down in a lake area connected to the Purus River. Inter-marriage with Paumari occurs but was only observed in two families. Some Paumari of the Crispim village (a Paumari community in the Marahã area) show some resentment for the presence of Apurinã in what they consider to be their land.

however, I learned that one of the adult women, called Raimunda, in the village actually not only spoke the Apurinã language but, also, she originally lived in the Tumiã village (where all speakers were monolingual in Apurinã). Raimunda had left the Tumiã village with her family when she still was very young. In the Japiim village the primary commercial activities were gathering of Brazil-nut and production of manioc flour. Occasionally, some members of the community hunted games for internal consumption or in order to sell the meat in the city of Lábrea. Survival activities consisted primarily of hunting, fishing and some farming.³

Area 14 (i.e. Tawamirim) is another village which I have not been able to visit yet. The information I have gathered from the Apurinãs who have been to the Tawamirim village, nevertheless, indicate that this is the second (after Tumiã) village where the Apurinã language is most preserved. This village is located in the Ipixuna river, close to a city also called Tawamirim. In the Tawamirim Apurinã village there is a leader, called Adriano, whose strong leadership has helped to keep the community together and preserve their culture and language. As was the case with the Tumiã village, I was not able to visit this Tawamirim village for lack of funding that would allow me to reach the village and stay there for a reasonable period of time. The information I have received from other villages indicate that Tawamirim is one of the few villages (aside from Tumiã, São Igarapé João, Fortaleza and Itaboca) where children are still systematically learning Apurinã as their first language. Reports from other Apurinãs state that those

³ In recent contact I had with members of the Japiim village in May-June/200, I learned that the village was moved a bit farther upstream in the Pacia River (following the death of one of the sons of the chief) and that the number of inhabitants increased. However, some of the members of this village nowadays spend more time in the city of Lábrea.

from Tawamirim discriminate the Apurinãs from other villages for not speaking their language and, as they say, thus, no longer being truly Apurinãs.

Area 15 consists of the Jatuarana village (also called São Sebastião), which is a relatively recent settlement (perhaps less than 40 years old), consisting of people who migrated from other areas in the Purus region. Jatuarana is located in the Jatuarana River, a tributary of the Rio Negro, one hour by speedboat from the city of Manacapuru, which is a few hours by car from the city of Manaus. Jatuarana is the northernmost Apurinã settlement, where currently there are seven adults, including five elders, who still speak Apurinã fluently, and at least two adults with some passive knowledge of the language. The total population was of approximately 45 people. In 1991 I visited this village for only a couple of hours, having returned there in 1997 for a nearly three month visit. In 1997 the people from this village had basically no economical activity; their farming was restricted to internal consumption, hunting was practiced but often with little success (since game was almost unavailable in the area), and a great part of their diet came from fishing—which itself was scarce, and from their field farm.

Other Apurinã areas that are not described here and about which I do not have any detailed information are as follows: Area São Pedro/Sepatini, where information from FUNAI (from 1991) indicates that there are 41 Apurinã people, and, also, Area Paumari do Lago Paricá where, according to information from FUNAI (from 1987) there are 29 people, including Apurinã, Katukina and Paumari.⁴

⁴ Most recently, in June/2001, I made a short visit to three other villages: Itaboca, Igarapé São João and Fortaleza. Itaboca is where the missionaries Cathie Aberdour and Judith King have moved to to continue the evangelization of the Indians; there everybody speaks the Apurinã language. I spent only a couple of hours on the Igarapé São João village, just across the city of Canutama, but enough to hear children speaking Apurinã. On the village of Fortaleza see footnote 2.

Aside from the villages above there is an unknown number of Apurinãs living in the surrounding areas of cities such as Pauini, Lábrea, Manacapuru, Tapauá and probably in Boca do Acre and Tawamirim. The scattered distribution of the Apurinã is certainly one that requires some explanation, since the Apurinã communities are probably the most widely scattered ones in Brazil. There are three reasons that I have identified as independently motivating factors involved in some cases of migration of the Apurinã groups: **internal conflicts, epidemics, and death of a family member.**

Internal conflicts permeated the Apurinã communities in the past and can still be identified in some places, though less frequently. The reasons behind such conflicts may vary from accusing or being accused of witchcraft to fights that happened under the influence of alcohol. Whatever the initial reason is, the conflicts tend to be resolved through revenge. The usual way an Apurinã avoids being a victim of revenge is by moving into another area, normally bringing the family together. Shamans play an important role in these conflicts, since they may, for example, find reasons for a disease that suddenly strikes one village in witchcraft performed by somebody in that or in another village nearby. Cases such as these have been identified in the Mipiri village (Area 6) and in the Seruini village (Area 10).

Epidemics may also lead most members or a whole community to migrate into another area. The belief is that by leaving the area where a disease outbreak took place, the survivors may be able to avoid getting the disease. This was the case of the Mamoriá village (Area 9) where an outbreak of Hepatitis D killed several people in the early 90s, and the survivors moved into other areas. This seems to have also happened even more recently in the Tumiã village (Area 11), where some deaths due to Malaria happened,

and where some people appeared to have decided to move into other areas —though in this case I have not yet gathered the information on the final outcome of that village.

Finally, the death of a member in the family appeared to have been an important reason for some people (relatives of the deceased one) to migrate into different areas —although this may be less true now than in the past when more of the Apurinã culture was still alive. Several cases have been identified for this kind of migration. There appears to be a tendency, however, for this third fact to cause people to move shorter distances than the other two factors just described. So, for example, when the wife and one of the sons of Agostinho, leader of the Japiim village, died some years ago the whole village moved into another area, but just a few hundred meters from its original location. Although this third fact can, in principle, only be characterized as a significant migration over a long period of time, it is nevertheless the case that this third factor may also lead a whole family to move much farther if no suitable area to move into is available anywhere nearby. For example, in the same Japiim village a whole family, after the mother died, moved to a rubber tapping area (owned by a “White” man) somewhere in the Purus River and completely outside the place where they lived before. Moreover, most people in the Jatuarana village (in Area 15) migrated originally from the Mamoriá village (in Area 9). At least one of the elders currently living in Jatuarana, namely Artur, reported to me that the primary reason for him to move there was the death of his wife. Artur decided to move into Jatuarana (hundreds of kilometers from Mamoriá; see Figure 1), rather than to another village, because it was there where his sister and her family had been living. An anthropological analysis of this third factor for migration still needs to be done.

In concluding this section, it is worthy pointing out that ubiquitous Apurinã migration, at least in the last century, has been characterized by people moving down the Purus River, moving from one tributary of this river to the next always going north. This would suggest that the Apurinã people have been moving during the last century from the upper-middle to the lower Purus, thus going north (see sections under 1.1.5). Whether this means that the Apurinã civilization originated in the upper-middle or farther upper somewhere along tributaries of the Purus River remains to be seen.

1.1.3 Brief Comments on The Apurinã Cosmology and Material Culture

The following subsections present a brief description of major aspects of the Apurinã cultural world.

1.1.3.1 Marriage Practice

There is a system of incest rules in the Apurinã society and, overall, this might indicate that the Apurinã people traditionally were organized into CLANS within which people were stimulated to marry (i.e. **endogamy** or in-marriage), though this system is not much used in some communities at the present time. The Apurinã society is organized into two moieties: A person is either *xiwaporimri* or *meetmaneti*. A person from one half can marry another person from the other half, but not a person from the same half (i.e. **exogamy** or out-marriage). As was first noticed by Juliana Schiel (p.c.), the people who most often break this rule belong to the *xiwaporimri* half. This happens when there is no partner from the other half easily available. Also, the situation in which

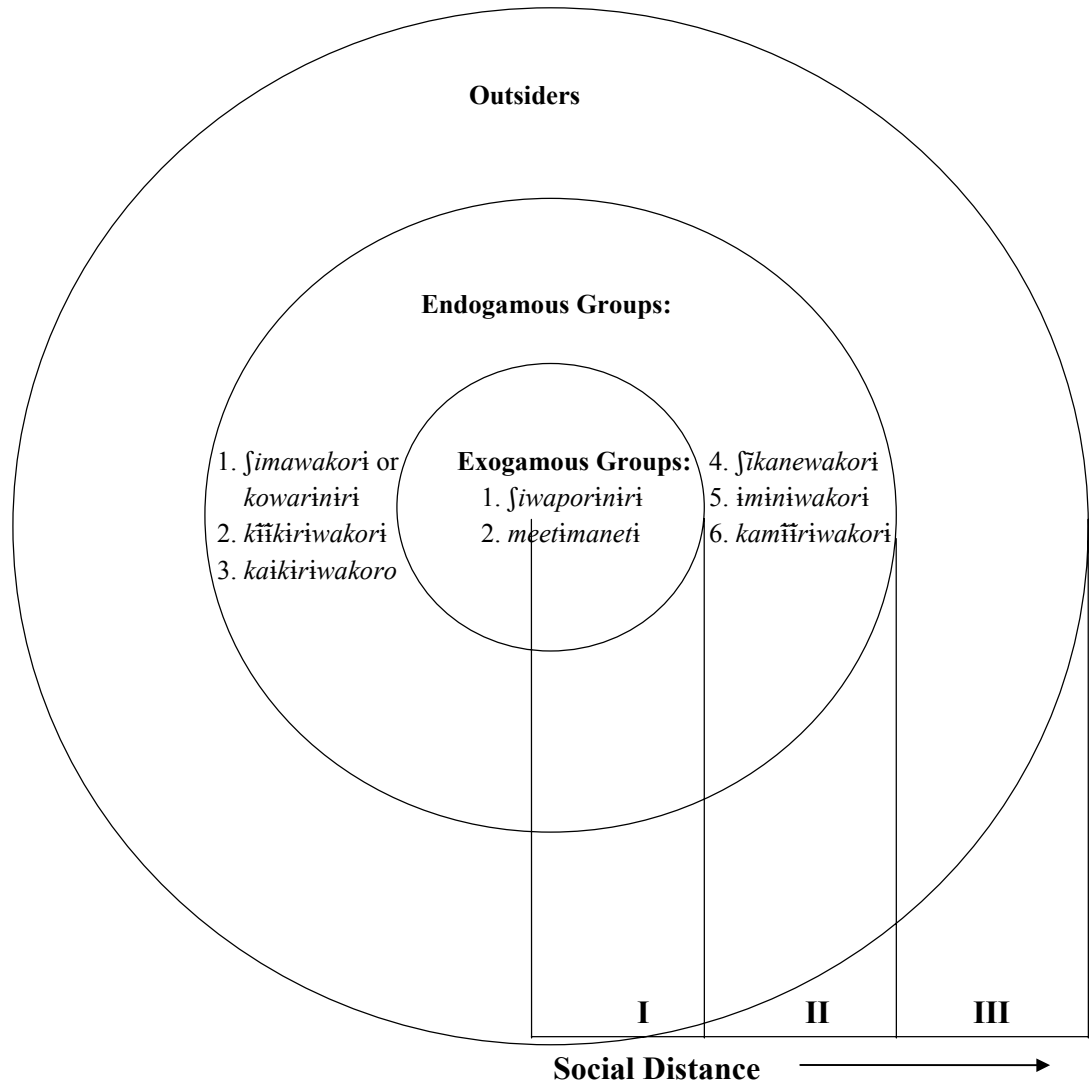
no partner from the opposite half is available is a common “excuse” used to marry a “White person”.

The moiety one belongs to is inherited from the father, who is the one to name the children. The name a person acquires already indicates his/her half. For example, the name I was given is *Yōyāpo*. This name indicates that I belong to the *xiwaporɨmɨɨ* half, and, not by coincidence, was given to me by a *xiwaporɨmɨɨ* person. Also, such an indication is reflected in things a person is allowed or not allowed to eat. The major food indicator of the half one belongs to is a type of wild bird (i.e. “nambu” bird) that *xiwaporɨmɨɨ* are not allowed to eat, and a type of wild pig (i.e. peccary) that *meetɨmanetɨ* are not allowed to eat. What is forbidden for one half to eat can be eaten by the opposite half. Apurinã people also appear to have a second name; it is not clear to me yet whether this second name is part of the person’s full name or if it is one that, traditionally, used to be known only by the closest relatives.

Under one specific view, the relationships involved in marriage taboos that can be associated with linguistic endogamy and exogamy can be seen as determined by ranges of social distance. As represented in Figure 2, the inner-most circle includes the two moieties following rules of exogamy, the middle circle includes the six clans that would follow rules of endogamy, and the outer-most circle, including the “Whites”, in relation to which traditional Apurinã individuals also used to follow rules of endogamy.

Nowadays, to marry a “White” person appears to be something desirable in some communities, especially in the case of Apurinã women. In the Japiim village, one mother made public her decision of not allowing her daughter to marry a “caboco” (i.e., an Apurinã individual; Brazilian Portuguese colloquial form derived from “caboclo” in

formal Brazilian Portuguese) —a decision which, however, was not maintained later, since her daughter did marry an Apurinã member of the community, though one already mixed with “White” blood.



I. Inner circle of close relatives with whom marriage is forbidden. **II.** Intermediate range of relatives, associates, and allies with whom marriage relations are encouraged. **III.** Outer range of outsiders with whom marriage or forms of interaction was generally avoided in the traditional Apurinã society.

Figure 2: Ranges of Relationships Associated with Linguistic Endogamy and Exogamy⁵

⁵ The diagram representation used here and some of its wording were adapted from those used by Schwimmer (1996) to illustrate marriage patterns on the basis of social distance.

1.1.3.2 The Apurinã Creation Mythology and Other Stories

The Apurinã creation mythology is commonly referred to as the story of */tsora/*. */tsora/* is the most ingenious and gifted of four brothers who survived the death of their mother in the form of birds that are raised by an old woman. Aside from */tsora/*, the other brothers are */iporõkì/*, */arotã/* and */iʃirõkì/*. Their mother was called */jakonero/*. The story starts telling of */majoripero/*—an entity described as an old woman who sent the fire to kill all of the Apurinã ancestors. The bones of the burned people would be gathered by */majoripero/*, and those belonging to people who had a lot of wrong doings in life would be eaten up, while those belonging to the ones who had done good things in life would be planted into the ground. From the planted bones of the good people the manioc tree would have been originated.

Only two women escaped from the fire, by climbing on a tree. Eventually only */jakonero/* survives, going through many adventures, including escaping from */majoripero/* and her detached-head (i.e., head without a body) son, getting pregnant from the bone used to sniff “rapé” (as this bone became human during the night), and so on, until she is killed by human-like creatures, one of which had formerly asked to marry */jakonero/* in the past and had been rejected by her. In the belly of his mother */tsora/* already showed special abilities, managing to survive with his brothers as they were taken out of their mother’s belly and thrown out into the jungle. By becoming birds, */tsora/* and his brothers managed to get an old woman living with the human-like creatures to raise them. Much of the rest of the story is about the ingenious ways these brothers find to get revenge on the people who killed their mother. The story is constructed at a period when the Apurinã people still did not exist, and it is during */tsora/*’s adventures before, during

and after successfully avenging his mother's death that various aspects of Apurinã culture are portrayed and, to some extent, motivated. The technological advantage of "White people" over the Apurinã people is also motivated in the story.⁶

In the past, as was reported to me by an elder, the youngsters were awakened in the middle of the night to be told this story. Generally, only elders are able to tell the whole story nowadays, which is hours long and would generally take more than one night to be told. With the arrival of Christianity in some communities, */tsora/* is generally associated with the figure of the Christian god. There is still much to be known about the extent to which the presence of Protestantism (through missionaries from the Summer Institute of Linguistics) and Catholicism (through missionaries from CIMI, i.e. Missionary Indigenous Council) has affected the Apurinã cosmological world.

A great number of other stories make part of a beautiful and very interesting cosmological world that still has not undergone any in-depth anthropological study. In association with the anthropologist Juliana Schiel, I have recorded all the stories various Apurinã elders were able to recall. Most of these stories, however, still need to be transcribed.

1.1.3.3 The Present State of the Apurinã Culture

The contacts the Apurinã people had with outsiders at the end of the 19th and throughout the 20th century have produced various changes in the original Apurinã culture. In general the Apurinãs lost part of their traditional culture with the tragic contact with outsiders in the western Amazonia during the most intense period of commercialization of rubber. This cultural transformation was intensified later, first,

⁶ There are some variations in the details of this story, which can be associated with speakers from distinct areas.

through the constant exchange with the people from the Northeastern region of Brazil, and, second, through the interactions with the “caboclo”—i.e. descendent of the people who were born from the intermarriage of some of the natives and the outsiders. As a consequence, nowadays what we find in most villages is a mixture of the Apurinã tradition and the “caboclo” tradition —itself derived in part from indigenous traditions. It is rather common, for example, for some Apurinãs to take a break off work in days that are dedicated to specific Catholic saints, following the Catholic calendar. Or, where there are Protestants, it is also common for some Apurinãs to go to the church during the weekends. Also, some communities no longer plant the tobacco whose leaves (mixed with other elements) they used to prepare the “rapé” (a powder traditionally used for inhaling), while in other communities the “rapé” is still commonly used. The same is true for the coca leaf which (mixed with other elements) is used for chewing.

In fact, in some villages it is difficult to distinguish the customs specific to the Apurinã people from the customs of outsiders. It usually takes some time before an outsider can see the difference, in part because certain customs will only be revealed once the members of the community feel comfortable with the outsider. However, the degree to which original traditions are maintained varies across the different Apurinã communities. While there are communities that still maintain their traditional festivals, where people sing and dance from the afternoon until the morning after, others no longer have anybody who still remembers the traditional songs and dances —which are obligatory parts of these festivals. (See Netto do Vale 1986, where she describes some aspects of the Apurinã songs.) With respect to the language, it is possible to find one village (i.e. Guajahã, in Area 7) where nobody speaks the Apurinã language, while in

another village (i.e. Tumiã, in Area 11), at least until few years ago, everybody was monolingual in Apurinã.⁷

Although Apurinãs never seem to have had a very rich material culture (see why in the next paragraphs), they have certainly lost some of their traditional manufactured elements, as well as the knowledge to craft them. For example, from those attested by Einrenreich (1891), and reproduced in Fig. 3 from Metraux 1948, only 3b, i.e. the tobacco container and the inhaler are still preserved by the Apurinã people. Even the inhaler, however, now is different, having only one bone-tube (which sometimes can be replaced with a hollow pen) to sniff through, not the two shown in Fig. 3b.

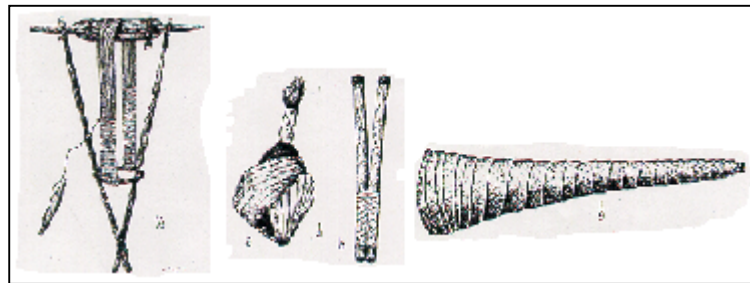


Figure 3: (a) loom, (b) tobacco container and inhaler, (c) bark trumpet (Metraux 1948, pp. 672, 678 and 680, Fig. 98, 101 and 100. Redrawn from Ehrenreich 1891, Fig. 42, 41, 47)

In most (if not all) Apurinã communities all the devices used in the past for fishing (as reported by the elders) are no longer made and, in general, the knowledge to manufacture such devices was also lost. Nowadays fishing is done by means of fishing net, fish-hooks, arrows or harpoons. In small streams some Apurinãs still use two types of plants (*konã* and *paikomã*) that, once smashed and put into the water, will kill or

⁷ See footnote 1.

intoxicate the fish and make it easy for the catch. The tips of the arrows used nowadays are all made with industrialized iron, bought from “Whites”. In general, arrows are used for fishing but no longer for hunting. Arrows with poisoned tips which were commonly used in the past are also no longer used. Instead, shotguns are used for hunting and fighting. Other material culture that survived from the past includes certain types of traditional baskets, the “tipiti” (or “tapiti”, used to squeeze the poisonous juice out of the manioc tuber), and, in one or another community, some pottery. The traditional canoe made of the bark “jatobá” tree is no longer used, and very few are those that have the knowledge of how to dig a canoe out of a tree trunk. Traditional hammocks are also no longer made; instead, the hammocks they use are bought from the “Whites”. Sometime in the first half of this century, the Apurinãs also stopped building their traditional communal house. The original Apurinã architecture illustrated in Fig. 4 was replaced by a hut (usually consisting of a front area open on three sides, a somewhat private room for sleeping, and a back area for cooking and eating) of the type made by the “caboclo”, each

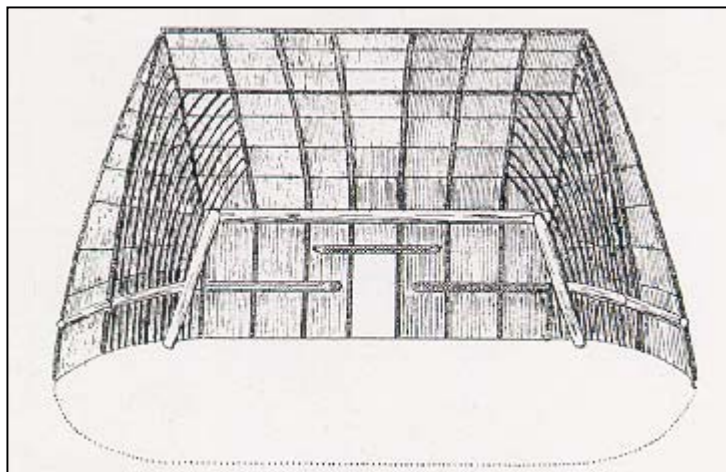


Figure 4: The old traditional Apurinã house (Metraux 1948, Fig. 96. Redrawn from Ehrenreich 1891, Fig. 38)

generally inhabited by a single family. One reason given for not building the traditional Apurinã house anymore was that the house made it too easy for the people inside to be attacked and killed by the enemy. Since this traditional house had only one door on each of its longest sides, the enemies would first tear the house on fire from the outside, then they would wait for the people inside the house to come out through the doors; as these people came out they would then get easily shot at.

It is easy to get an idea of some of the cultural features the Apurinãs that were lost if we talk to the elders (of course, after some time is spent solidifying their trust). Reports from various elders indicate that the Apurinãs of the past spent most of their time involved in conflicts with other Apurinã communities or with Arawá groups, especially Jamamadi. One elder described to me one type of war training they had to go through in the past, in which the men would learn how to avoid being hit by the enemy's arrow. This warrior-like behavior might explain in part why there is so little material culture left, and why agriculture is not an activity Apurinãs are very specialized in (in comparison with, for example, Arawá groups). After all, it is expected that, as groups of people who spent so much time involved in tribal wars, the Apurinãs took great time and effort in making arms to be used in the fights, i.e. bows, arrows and so on (see Gonçalves 1991, where reference is made to the travel of Serafim Silva Coutinho in the Purus River in 1862).

This warrior-like behavior may also account for the fact that still nowadays Arawá groups are not very trustful of the Apurinãs, as well as for the fear that Paumari people still have of the Apurinãs. In fact, Apurinãs are generally infamous for their aggressive behavior even in the towns closest to their villages. Part of the fear that other groups had in relation to the Apurinãs may also be partly related to something few Apurinãs are

willing to talk about. Some reports found in the literature (Labre 1872, Polak 1891:3, Steere 1903), as well as reports made by few of those Apurinãs willing to talk about it, indicate that they practiced anthropophagy in the past, when the enemies losing the wars would be consumed. This warrior-like behavior was explored by outsiders in the past, throwing one Apurinã community against another. One massacre of a whole village, stimulated by outsiders, happened around the area where nowadays is the Camicuã villages (i.e. Area 3). This massacre, which must have happened several decades ago, still survives in the memory of many elders, as well as in a beautiful song composed by */tokatʃi/* (an elder from the Mipiri village) and sung in every festival in the Mipiri or in other villages nearby. In fact, regardless of the tribal wars they had with other groups native to the Purus region, the Apurinãs were not known to attack “Whites”. The clearly documented cases of conflicts involving Apurinãs and “Whites” happened usually because the latter were trying to invade the Apurinã areas. Exceptions to this may apply to conflicts that happened more recently under the influence of alcoholic beverages in small towns. In the many trips that I made to most of the Apurinã villages, I never had any problem whatsoever with the Apurinã people. No such problem has been reported by the other people that spent a certain length of time in the Apurinã communities early in the nineteenth century (e.g., Polak) or in the last century (e.g., Wilbur Pickering, Kathie Aberdour, Judith King, Netto do Vale, and Juliana Schiel).⁸

⁸ Recently I learned that over a year ago the aircraft in which two missionaries from SIL traveled was shot by an arrow as the aircraft took off from an Apurinã village. While visiting the village of Fortaleza where this happened I (and two anthropologists) interviewed the members of the community. The explanation given by the community states that the Apurinã youngster shot the plane because earlier that day he had been pushed and scorned by one of the missionaries (called Judith King). In the same village, various other reports were given describing how the missionaries (especially Judith) mistreated the Indians. The two missionaries are the ones who moved out to the Itaboca village.

One of the most beautiful expression of the Apurinã culture that still survives in some villages is the /*kiiniri*/, a festival organized by one village and to which people from the neighbor villages are invited. Since the hosts are supposed to serve plenty of food and beverages to their guests, it is not every community that can afford to host the festival. Generally, in order to organize the festival, the hosts need to spend some time hunting and fishing in order to provide food for their guests. Aside from that, the hosts need to provide the beverage and, hence, have plenty of fruits and roots out of which the beverage is made. When talking Portuguese the Apurinãs refer to this festival as “xingané”. This word derives from the Apurinã word *xikane* ‘toucan’, and probably refers to what once was one specific type of festival. Reports by elders (and by Ehrenreich 1891) reveal that in the past they had several types of festivals, usually named after an animal. I have not been able, however, to assign a translation to the word /*kiiniri*/. Nowadays, there are two types of festivals: Roughly speaking, one in which people celebrate a welcoming event, and another that may be done a few days after the death of a family member. The latter kind, however, may have some of its motivation influenced by Catholicism, following the tradition of Catholics to hold a mass some time after the death of a family member. Instead of holding a mass, however, the Apurinãs organize the festival, with much dancing and singing of Apurinã traditional songs. A special event that is part of the festival is the ritual of arrival, in which the visitors arrive screaming and giving shots with their guns pointed upwards. They go in line around the village with firm steps and screaming in a thick voice, until a leader in the host village comes to confront a leader among the guests in a fast-speaking ceremonial speech. Since this fast speech is an obligatory part of the ritual and since it seems to follow certain conventions in terms of

asking and answering questions, there usually are only a few people in the villages that can do it. In fact, the people responsible for this sort of ceremonial speech specialize in it in the same way that some Apurinãs also specialize in carrying the singing through the night. The difficulty in getting good quality recordings of this ceremonial speech has not allowed me yet to analyze it and verify whether the language used in such a special occasion is significantly different from the language used in everyday speech.

Apparently, the original function of such a ritual was to assure the hosts of the festival that their guests were indeed who they said they were, and not, for example, spirits disguised as people. The content of such a ceremonial speech would appear to consist of a description of family ties, and events that will assure the hosts that the guests really are who they claim to be. Much of the ceremonial speech as well as the whole ritual of arrival are purely symbolic nowadays, thus having lost some of their original meaning and, to some extent, perhaps some of their shape. Nonetheless, both the ceremonial speech and the ritual of arrival are required parts of the */kiiiri/* and a community that lacks people able to perform those activities will usually NOT be able to hold the festival.

In sum, despite all the changes that the Apurinãs and their culture have undergone, they still preserve unique ways of interacting and construing the world. Although such interactions and ways of viewing the world are in some ways comparable to other (distinct) cultures, they also make the Apurinãs one people with a specific set of practices and its own belief system.

1.1.4 Language Variation

Notes on language variation are made throughout the dissertation, and a brief phonological analysis of the major features attested as varying across communities is

presented in Appendix A. On the basis of this phonological analysis, it is, in principle, possible to determine speech variants that may be systematic enough to constitute dialectal variants. However, the constant migration into and out of different communities produces villages where different variants are present. Due to this migration factor more research will be necessary before current or past isoglosses can be identified. In the lack of a more systematic and in-depth variation study of the language, the words “dialect” and “dialectal variation”, as they apply to the Apurinã speech varieties, have been avoided in this work. The more neutral term “speech variety” is used instead.

While visiting different villages, I played recordings of other villages and the reaction tended to be one where Apurinãs in one village would make jokes about the speech of other villages. Most speakers also had a notion of what was the “correct” language, which (not surprisingly) generally turned out to be the closest variety to their own speech variety. There was, however, a sense in which the speech of Tumiã (in Area 11) was considered superior by some speakers. This is also not surprising, since these speakers were aware that most people living in the Tumiã village were probably the only community of monolingual Apurinã speakers. Other factors that may play a role in distinguishing speech variety, such as gender and generation have not yet been systematically investigated.

1.1.5 Language Contact

Overall, the most common type of long term linguistic contact with another language that pervades across the Apurinã villages in modern times is the contact with Brazilian Portuguese speakers. Even the Apurinãs from the Tumiã village (11 in Fig. 1), who always had a strong tradition of avoiding any type of contact with the “Whites” (see

Schiel n.d:7), have had frequent contact for over 15 years with the people from one boat of the type called “regatão” (in northwestern Amazonian Portuguese). “Regatões” are found throughout the Brazilian “Amazônia”, owned by individuals who travel the farthest distances looking for people to buy their goods (e.g., salt, sugar, pans, clothes, tobacco, gun powder, etc.) or exchange such goods for products such as latex, dried fish, “copaíba” sap, manioc flour, Brazil-nuts, among other natural products. The few instances of Apurinã communities found to be in permanent contact with other (non-“White”) ethnic groups are those where Apurinãs live in the same village as speakers of Paumari, Jamamadi e Katukina. Of all the Apurinã communities that I have had direct contact with, only the Mamoriá village had inter-ethnic marriage (in which one of the spouses is not a “White” person. See, however, footnote 2). In Mamoriá (9 in Fig. 1) the intermarriage involved Apurinãs and Jamamadi. Furthermore, information from FUNAI’s documents indicates that in the village São Pedro/Sepatini/Terra dos Macacos, which I have not yet visited, Apurinã, Katukina and Paumari also live in the same community. I suspect that, most likely, the permanent inter-ethnic contacts in these particular villages have taken place only recently, partly, as a consequence of attempts by the Brazilian government to gather different ethnic groups in the same area, perhaps, for facilitating the logistics of the government’s work, and, also, perhaps by influence of the activities carried out by missionaries —as might be the case of the village of Marahã.⁹ I do not deny, however, that permanent inter-ethnic contacts MUST have happened in a

⁹ A most effective means used by missionaries to attract individuals to the area where they work is by offering him/her the medicines which s/he generally does not have access to where s/he lives. Unfortunately, the disregard of the Brazilian government for the indigenous populations leaves the latter without much choice about their future. The price for receiving the medicine or medical service of missionaries will be the conversion into Christianity and, generally, the consequent loss of many of the traditional cultural features of the indigenous individuals being

more remote past, despite the difficulties imposed by the warlike features of the Apurinã society and the possibility that endogamy was part of their marriage practices in the past. Both the evidence (from historical reports or from linguistics) for permanent contact involving Apurinãs and other ethnic groups and the warlike spirit embedded in the Apurinã culture will be discussed in the next subsections.

1.1.5.1 Reports on Contact with Other Languages

Although it is possible that the Apurinã group was mentioned in the literature under a different name which I am not aware of, the first mention of Apurinã I have so far attested in the (scientific) literature was made by Chandless (1866), where the author describes his journey on the Purus River from June 1864 to February 1865. A few years before Chandless, however, Manoel Urbano da Encarnação had already made contact with the Apurinãs (perhaps in his first trip to the Purus, in 1860)¹⁰. Chandless described Manoel Urbano as “a mulatto, a man of slight education, but great natural intelligence.” In fact, Chandless’ description of Apurinã is partly based on information provided by Manoel Urbano, from his previous contact with the Apurinã groups. Chandless (1866:94) seems to imply that Manoel Urbano’s son, who accompanies Chandless during part of the journey, could speak Apurinã. Earlier travelers such as de Acuña (1639:107-108), who mentioned names of indigenous groups of the Purus River (also referred to as Cuxiwara or Cuchiguará) in the reports of their journeys, make no reference to the Apurinã group.

converted. I have gathered reports from Apurinã individuals speaking of the motivation they had to move into the area where the missionaries lived because there they would have access to medicines.

¹⁰ Aside from Manoel Urbano’s trips, Chandless also refers to two other explorations of the Purus River ordered by the Brazilian government. The first, “many years ago, conducted by one João Cometá, reached only the mouth of the River Ituxy, about 700 miles up[...] [t]he second, in 1852, conducted by one Serafim, a Pernambucano, [...] ascended the [Purus] river for about 1300 miles [...]” (1866:86). At least the second of these two earlier explorers had any contact with the Apurinãs (see Gonçalves 1991:114, 117, 126, 128, 130, 133-34, 136).

The fact that the Apurinã groups start being mentioned in the scientific literature only after the work of Chandless (1866) is not surprising since Chandless was the first explorer to provide detailed and systematic information (in print) about the geography and demography of the Purus region. As was mentioned in the report of Colonel Labre's Exploration in the Region between the Beni and Madre de Dios and the Purus, "[t]he first explorer of the Purus and its tributaries, it will be remembered, was [...] Mr. W. Chandless" (Labre 1889:496). Furthermore, "[s]ince the date of Mr. Chandless' journey (1865) these rivers ha[d] become the seat of the most thriving indiarubber trade in South America" (Labre 1889:497). This constitutes an important piece of information for understanding the type of contact the Apurinã groups were to have at the end of the 19th and most of the 20th century, and for understanding when and why the Apurinã groups started to live in permanent contact with the "Whites". Here, some crucial information is provided by Polak: "It is only during recent years, since traders began to ascend the Upper Purús, with a view to collect the rubber-milk and manufacture india-rubber growing here and there on its banks, that the Ipurinás have peeped out of their seclusion; a few of them, when they choose, prepare a few pounds of india-rubber to barter with the traders for farinha, or native meal, some odd vestment, or a little of the most ordinary hardware, and ardent spirits[...]; fortunately, owing to their natural reserve and taciturnity, the mischievous influence has up to now been experienced by only a minimum of the tribe" (1894:iv).

In 1887 Colonel Labre made one of his main trips in the Purus region and visited Apurinã villages on the Aquiri (or Acre) river. During that time, however, the Apurinãs still would flee at the unannounced arrival of "Whites" in their villages: "Between Cannarana and Brejo da Ponte we passed two villages of the Hypuriná tribe, the

inhabitants of which fled at our approach” (Labre 1889:500). Labre would eventually have the aid of Apurinãs during his journey on the Ituxi river. Moreover, that permanent contact between some Apurinãs and “Whites” had already started is attested by the fact that “[i]n 1879, three youths of the [Hypuriná] tribe were entrusted to him [Colonel Labre] for education” (Labre 1889:501).

In the report of his journey on the Purus tributaries, occasion in which he came into contact with Apurinã groups, Labre reports no indication of permanent contact involving Apurinãs and other indigenous groups. However, according to Chandless, the Canamari indigenous group living along the Yaco river were in friendly terms with the Apurinãs living on their borders, and “intermarriages between them [we]re common” (1960:100). Chandless (perhaps following Manoel Urbano) is, so far, the only earlier author who has clearly attested intermarriage between Apurinã and another tribe. Moreover, this intermarriage was restricted to the Apurinã people who lived near the borders of the Canamari area. The Canamari group cited in Chandless must correspond to the Kanamaré or Kanamirim people referred to in Loukotka (1968:141, where the author cites Spix in Martius 1867, vol. 2, pp. 325-326 as source of information on this group) and in Chamberlain (1913:477). Also, as Ehrenreich (1897:59-60) pointed out, the Canamari (spelled by him as Kanamari or Kanamirim) from the Purus must not be confused with the Panoan group from the Juruá river that goes by the same name (or, also, Kanawary). Ehrenreich, Chamberlain and Loukotka believed that the Canamari from the Purus River belonged to the Arawak family. Loukotka (1968:141), who listed 11 words for the Canamari from the Purus, stated that this group, however, is “now probably extinct”. Therefore, on the face of the lack of the data from the former Canamari from the Purus River, it might not be possible to determine the extent to which

the contact between this group and the Apurinã group who lived nearby may have affected either of the languages. However, since it is unlikely that any influence from Canamari on Apurinã would have spread to all other Apurinã communities, more detailed studies of the Apurinã speech varieties may allow some inferences to be made about linguistic changes in Apurinã that might have resulted from contact with Canamari (see 1.1.4).

The first person to spend a reasonable time living among the Apurinãs while studying their language was Rev. Jacob Resyek Polak (1894). Polak lived for two consecutive years, around the end of the 19th century. He reports no inter-ethnic long term contact involving Apurinãs and other groups. Wilbur Pickering, the first linguist to work on the Apurinã language, started his field activities among the Apurinãs in 1958. Working also as a missionary for the Summer Institute of Linguistics, he continued his work on the language until around the late seventies, being replaced later by the missionaries Kathie Aberdour and Judith King. In none of his various manuscripts, nor in the few articles he published, Pickering makes any mention of permanent inter-ethnic contact involving Apurinã and other ethnic groups of the Purus region.

1.1.5.2 Preliminary Linguistic Evidence of Contact with Other Languages

Polak (1894:107) listed 34 words in Apurinã which he identified as similar to the Língua Geral Amazônica (Nheengatu). However, I can only confirm the words /*yōkîra*/ ‘salt’ (vs. “*yukîra*” in Nheengatu) and /*tamakore*/ ‘chameleon’ (vs. “*tamaquarê*” in Nheengatu) as probable loans from Nheengatu. Other words, such as “*mangucáwa*” ‘a partridge’ and “*puçánga*” ‘medicine’, which he gives for Apurinã, I have not been able to attest in modern Apurinã. Finally, other words compared by Polak are either very

different semantically from the words compared in Nheengatu (e.g., /*meriti*/ ‘peccary’ in Apurinã vs. “*miriti*” ‘type of palm tree’ in Nheengatu, /*ata*/ ‘1st person plural’ in Apurinã vs. “*ata*” ‘type of fruit’ in Nheengatu), or they are likely to be onomatopoeic names of birds (e.g., /*kurukuru*/ ‘type of bird’ in Apurinã vs. “*corocoró*” in Nheengatu, and /*tarara*/ in Apurinã vs. “*carará*” in Nheengatu). A true loan from Nheengatu found in modern Apurinã is /*kariwa*/ ‘white people’. The variant /*karió*/ (pronounced [*kariú*]) is also found in some communities. Other cases which deserve to be checked to determine whether they also constitute loans from Nheengatu are /*anana*/ ‘pineapple’ (vs. “*nãñã*” in Nheengatu), /*konã(ã)*/ ‘timbó, i.e. *paullinia pinnata*’ (vs. “*kunambi*” ‘poisonous plant used for fishing, i.e. *Baillera aspera*’) in Nheengatu. Chandless (1966:118) reported that no more than 10 or 8 Apurinãs spoke Nheengatu during the time of his journey on the Purus River.

In addition to Nheengatu, Apurinã shares some vocabulary items with at least three of its neighbor languages of the Arawá family. A quick look at the vocabulary lists provided by Ehrenreich (1897:63-71) for Paumari, Jamamadi and Arawá reveals a number of shared vocabulary between these three languages and Apurinã. Table 1 lists the attested lexical forms shared by Apurinã and these other languages. In Table 1, the shared lexical items for Apurinã, Paumari, Jamamadi, Arawá and Nheengatu are given, respectively, in the second, third, fourth and fifth columns (from left to right). The second to last column gives the corresponding proto-forms that were reconstructed by David Payne (1991) for Proto-Arawak, whereas the last column gives the proto-forms that I have reconstructed (see Facundes 2000) for P(oto)-A(purinã-)-P(iro)I(ñapari). Ignoring for the moment the Apurinã lexical forms shared with Nheengatu, there are 14 items shared by Apurinã and by either Paumari, Jamamadi or Arawá: 4 names for

domesticated fruits, 2 for manufactured elements, 7 for fauna and 1 kin term. Out of these 14 items, 5 have already been reconstructed for Proto-Arawak and/or P-API, and, therefore, must have been borrowed either from Apurinã or from another Arawak language (or proto-language) into the Arawan languages, rather than the other way around. The words for ‘banana’ and ‘potato’ have cognate forms in Iñapari (namely, *xipátʃi* ‘plantain’) and Piro (namely, *xipali*), respectively, and, thus, most likely were borrowed from Apurinã (or other Arawakan language or proto-language) into the Arawá languages. The vocative word for ‘father’ has also a cognate form in Piro (*pati*) and, by the same token, could have been borrowed from Apurinã (or other Arawak language or proto-language) into Jamamadi. The words that require further verification as to whether they were borrowed from Arawá languages into Apurinã are then those given in Table 1 for “‘pupunha”, corn, machete, river dolphin and chicken’.

As was mentioned above, the words for ‘salt’, ‘chameleon’ and ‘White person’ are the clear cases of borrowings from Nheengatu, probably acquired during trading with “Whites” that spoke the Língua Geral Amazônica. The words for “‘timbó” and ‘pineapple’ deserve further verification. Therefore, on one hand, it is a fact that loanwords originated in Apurinã (or in other closely related Arawak (proto-)language) are found in at least some of the Arawá languages; moreover, further work might confirm that loanwords originated in Arawá languages are also found in Apurinã. On the other hand, all reports about long term contacts between Apurinãs and other ethnic groups of the Purus region for the last 140 years only attest contacts that are restricted to one or another of the many Apurinã villages, never to various of them at the same time. Since the loanwords (proved and putative) that are listed in Table 1 are used by speakers of all

Table 1: Sample of Shared Vocabulary between Apurinã and Other Languages

Gloss	<i>Apurinã</i>	<i>Paumari</i> Ehrenreich 1897	<i>Jamamadi</i> Ehrenreich 1897	<i>Arauá</i> Chandless 1969	<i>Nheengatu</i> Polak 1894, Grenand & Ferreira 1989	<i>P-Arawak</i> Payne 1991	<i>P-API</i> Facundes 2000
canoe	<i>kanawa</i>	<i>kanaua</i>					* <i>kanawa</i>
potato	<i>kĩpari</i>	<i>ϕipari</i>					
banana	<i>tʃipari</i>	<i>ipāti</i>					
“pupunha” palm fruit	<i>kawiri</i>	<i>kauiri</i>					
river dolphin	<i>pesori</i>	<i>baϕōri</i>					
tapir	<i>kema</i>	<i>dama</i>				* <i>kema</i>	* <i>kema</i>
type ant	<i>maɲĩ</i>	<i>manéi</i>				* <i>manatsi</i>	
vulture (“urubu”)	<i>mayori</i>	<i>maiuri</i>					* <i>mayoCV</i>
corn	<i>kemi</i>		<i>kemi</i>				
worm	<i>tsomi</i>		<i>soomi</i>				
father	<i>pati</i> (vocat.)		<i>pati</i>				
piranha fish	<i>(h)oma</i>		<i>uma</i>			* <i>uma</i>	* <i>homa</i>
chicken	<i>patari</i>		<i>bātari</i>				
machete	<i>sa(r)asara</i>			<i>sara-sara</i>			
“Whites”	<i>kariwa</i>	<i>kariwa</i>			<i>kariwa</i>		
salt	<i>yōkĩra</i>				<i>yukĩra</i>		
chameleon	<i>tamakore</i>				<i>tamaquaré</i>		
?“timbó” plant	<i>konã</i>				<i>kunambi</i> ‘plant used in fishing’		
?pineapple	<i>anana</i>				<i>nãnã</i>		* <i>hanana</i>

Apurinã villages, there are four hypotheses that deserve further investigation. (i) Either all loanwords (except for those that originate in Nheengatu) originate in Apurinã, or (ii) they do not all originate in Apurinã but result from remote contacts that preceded the split of the Apurinãs into the many villages which exist today, or (iii) they do not all originate in Apurinã but in another Arawak language which was closely related to (and shared the relevant lexical items with) Apurinã, or (iv) they do not all originate in Apurinã but in a proto-language which Apurinã descends from (directly or indirectly). These hypotheses need to be investigated as part of a much more detailed study on the whole of the linguistic consequences of long term contacts involving Apurinã and other indigenous languages of the Purus region.

1.1.5.3 Some Socio-Cultural Factors and Their Putative Roles in Inter-Ethnic Contacts

There are also reasons to believe that certain aspects intrinsic to the Apurinã culture and social organization may also have played a role in allowing (or not) the Apurinãs to develop any pacific long term contact with their neighboring groups from Arawan, Panoan, or Tupian language families. A brief discussion of some of these socio-cultural factors will be presented in the next paragraphs.

One aspect of the traditional Apurinã world that is likely to have created difficulties for them to develop pacific long term relationships with other ethnic groups is their strong warlike mind. Chandless describes the Apurinãs as “the most numerous, warlike, and formidable on the Purûs” (1966:96). Polak described the Apurinãs as “one of the largest of the thirty-four or more tribes inhabiting the giant river, are warlike among themselves, but both distrustful of, and recoiling from, civilized people”

(1894:iii). Reports made by Apurinã elders suggest that a few generations in the past, Apurinã and Jamamadi were enemies. This would explain why the two ethnic groups, each having villages in the jungle located in opposite sides of the Purus River, inland, have not generally had long term contact during the last 140 years historically attested (except for those living in the Mamoriá river). Some Apurinãs use the term */kapinamari/* to refer to the Jamamadi people. As it turned out, Ehrenreich (1897:61) gives Kapinamari as an alternate term to name the Jamamadi people. At this stage I do not know whether */kapinamari/* is a Jamamadi word or an Apurinã word that was used in the past by the Apurinã people to name the Jamamadi people and which “Whites” heard and started also to use.

There is also plenty of evidence that the Apurinãs spent a great part of their time in internal conflicts involving Apurinã subgroups. Some descriptive properties as well as preliminary anthropological analysis of internal conflicts in the Apurinã communities are presented in Schiel n.d., where the author analyzes a narrative summarizing the life story of Corina (*/miriero/*), a former inhabitant of the Tumiã village who now lives in the São Jerônimo community of the Catipari villages (8 in map of Fig. 1). Life history such as Corina’s are easily attested in most of the Apurinã villages. In the Japiim village of the Pacia river (13 in map of Fig. 1), for example, there are at least two Apurinã individuals, Raimunda and Mirá, who only ended up living in that community after running away from their original villages (in the first case, like Corina, from the Tumiã village, and, in the second case, from one of the Seruini villages (10 in map of Fig. 1) due to conflict internal to their original communities. As discussed at the end of 1.1.2, there cannot be

any doubt that internal conflicts have been a major factor determining the geographic spread of the Apurinãs in so many communities along tributaries of the Purus River.

Until nowadays it is possible to hear in any of the Apurinã villages the story of a massacre of a whole community of Apurinãs in the area where today the community of Camicuã is located, on top of a hill close to one of the margins of the Purus River, across the city of Boca do Acre, southern part of the State of Amazonas. The story says that only one person, an elderly man, survived to tell the story of the massacre of his village. Apparently one of the attackers decided to spare the elder and, instead, allowed him to escape during the fight. The story of the massacre is now told in a beautiful, though very sad, chant sung by /*tokatʃi*/ (Otávio), the shaman from the Mipiri village. The massacre resulted from an earlier conflict between two Apurinã subgroups. The virtual extermination of one Apurinã community, however, might not have happened if “Whites” had not stimulated as well as served the attacking group with the guns used in the fight. The same warlike temper of Apurinãs that caused so many internal conflicts must have created difficulties for pacific contacts with other ethnic groups in the region.

The time spent fighting internal or external conflicts would explain why Apurinãs had some sort of war training, as described to me by Chaga Tereza (*/mipa ʃirĩkaya/*, from the Japiim village), one of the elders still alive. One of the drills for fights, for example, involved learning to avoid getting hit by arrows. In this drill, an arrow made of the soft stem of a plant was shot at the person closer and closer so that the person being shot could develop quick reflexes and be able to avoid getting shot by the enemy’s arrows.

That the warlike was also reflected in external conflicts involving Apurinã and other groups in the region is registered in the reports of the first explorers of the Purus

River. “The Hypurinás seem to delight in war, and to be constantly engaged in it (chiefly on those of their own tribe), with or without cause—frequently, indeed, sending a challenge. I have seen many among them with fresh arrow-wounds” (Chandless 1866:96). “The Manetenerys would gladly trade down the Purûs but for fear of the Hypurinás—and not without cause. In 1863, as we learnt from the Lower Hypurinás, two Manetenery canoes coming down loaded with cloth, were attacked, and the whole party killed by the Upper Hypurinás (1866:101)”. Until today the Paumari and Jarawara people fear the Apurinãs and, generally, want no business with them.

Another aspect of the Apurinã society that, in principle, could have created difficulties for them to mix with other ethnic groups is the rules of marriage that were part of the traditional Apurinã socio-cultural organization, as described earlier in 1.1.3.1. The fact that marriage was encouraged to happen within each of the Apurinã clans would, in principle, discourage marriages with outsiders. It is true that this rule of endogamy could eventually lead to great reduction in the Apurinã population if it were followed too strictly. And the reason for this would be that, as noted by Chandless (1966:97), the continuous wars among Apurinãs may have caused a disproportion between the sexes. Interethnic marriage would then be expected to resolve this disproportion. In fact, however, except for the case of interethnic marriage with Apurinãs and Canamari reported by Chandless, there is no indication that such a resolution was adopted by the Apurinãs. To the contrary, as Chandless (*ibid.*) implicitly suggests, the polygamy that was common in the older Apurinã society is what in fact must have resolved disproportion of sex in the villages. Evidence for the limited role that inter-ethnic marriage must have played in the past in increasing the Apurinã population is the fact that

during the Apurinã wars “when one party [wa]s completely victorious, neither woman nor child [wa]s spared” (ibid.).

Finally, if the warlike characteristics of the Apurinã people were likely to create difficulties for long term pacific interactions to occur involving Apurinãs and other ethnic groups, and if interethnic marriages were not common at all in most of the Apurinã villages, it would be of interest to inquire into the conditions that allowed both for the types of interethnic contact that are reported in the literature, and for some cases of interethnic marriages in a limited basis. Further research in this area is required.

1.1.6 State of Endangerment of the Language

The current status of the endangerment of the Apurinã language in terms of language maintenance and shift towards Portuguese is very advanced. Only recently, activities have been started on the teaching of the Apurinã writing in some villages. This work has been started by myself, after completing the design and test of an orthographic system for the language, and after having completed a reading and a handwriting book for Apurinã. A lot more work is necessary in this area. Children in most villages are no longer learning the language and most of the fluent speakers are elders. Other educational activities going on in some Apurinã villages are restricted to the Portuguese language, including basic disciplines from the “White’s” primary school. Some of this educational work has been carried out by members of the Comissão Pro-Índio, from the State of Acre, with some success. Work using the Apurinã language, however, is still almost non-existent. The first professional linguist to investigate Apurinã, Wilbur Pickering, working for the Summer Institute of Linguistics, prepared some reading material in Apurinã. However, an attempt to teach writing in Apurinã for Apurinã

individuals stopped as Pickering interrupted his work on the language. The other missionary linguists who replaced Pickering have not continued the work of literacy in Apurinã initiated by Pickering, except in which concern their religious agenda.

At the end of 1990 and beginning of 1991, when I visited 11 Apurinã villages in a single field trip, the clear perception at that time was already that language shift was taking place, with shift advancing toward Portuguese. Ten years later this scenario has not improved. In the Tumiã village, where basically everybody was monolingual in Apurinã in 1990, many people have recently died from malaria; the contact with outsiders has increased, and many people have left the village to places closer to cities. Those people, as they move closer to the cities, start replacing Apurinã with Portuguese.

The domains of use of the language may vary across different communities. While in communities like Tumiã, Tawamirim, Igarapé São João and Itaboca Apurinã was (at least until recently) used as the everyday language, the domain of use is, in general, more restricted in other communities. In some communities the language is mostly used in the conversation among the elders. In others it is used whenever a group of people gather together, usually at night, to chew the */katsoparu/* (preparation with coca leaf plus other ingredients) or inhale the “rapé”. The community of Japiim, where most of the data used in this work was gathered, the language was used by elders when talking to one another, to chat and tell stories when a group of speakers gather in the house of the chief of the village or in an open area at the center of the village. The domain of use of the language has been reduced in most villages, as the elders die and the language is not passed on to the children. There may easily be other domains of use that I am not aware of, however. It took me three visits to the Japiim community to find out that there were two other fluent speakers in the village, aside from those I had known about before. In

fact, that these two (female) speakers were fluent in Apurinã was also a surprise to most other people in the village as well. Since I visited some many communities only once, there is a good chance that there may be not only other domains of use, but also other fluent speakers that I currently have no knowledge of.

1.2. Genetic Affiliation

The Apurinã language is one of the approximately 170 languages native to Brazil. Apurinã has been clustered within the Southern Purus branch of the Maipuran linguistic family (known in Brazil as Aruak); its closest extant relative is called Piro or Mantinéri. According to Rodrigues (1986:68), Piro is represented in Brazil by the varieties spoken by the Manitenéri and the Maxinéri people. Matteson refers to Manchineri as an “endogamous division of the Piro tribe” (1994:278); according to Matteson, the Manchineri people live “on the Yaco and Acre rivers in Brazil”, and they speak a language that is closely related to Piro. (See Appendix D.)

Although a genetic group of Maipuran (named after the Maipure language) languages was first suggested in 1782 by the Italian missionary Filippo Salvatore Gilij, while working in Venezuela (Noble 1965:1, Payne 1991:363), the number of languages that belong to such a group has varied to a great extent depending on the author of the classification. There were 67 languages included in Goeje (1928), 122 in Mason (1950), 89 in Noble (1965), and 154 in Loukotka (1968). According to Aikhenvald (1999:73), it was Brinton (1891) and Von den Steinen (1886) that renamed the linguistic group as Arawak, after the Arawak (or Lokono) language spoken in the Guianas. Later some linguists started using the name Maipuran or Maipurean to refer uniquely to the group of

languages which were undoubtedly genetically related. The term Arawak(an) was reserved to refer to a supposed higher genetic group of languages that would include the groups Maipuran, Arawá, Guahibo, Puquina, and Hakakmbet (see Payne 1991:365, and discussion in Aikhenvald 1999:73-75 and references there cited).

Most recently, as the description of more languages have become available, it has become more and more clear that there is no tenable linguistic evidence to postulate a higher genetic group that would include Maipuran, Arawá, Guahibo, Puquina, and Hakakmbet. The classifications by Goeje (1928), Mason (1950), and Loukotka (1968) were primarily based on geographical distribution of languages rather than in any linguistic methodology (see Taylor 1961, Valenti 1986, Payne 1991, appendix A in Dixon 1995, introduction in Dixon and Aikhenvald 1999, Aikhenvald 1999, and Dixon 1999). As has been pointed out by Tovar and Tovar (1984), Rodrigues (1986), and, more recently, by Dixon (1995:89) and Aikhenvald (1999:73-74), there is no linguistic grounds to postulate that Maipuran (i.e. Arawak) languages form a genetic group with the Arawá. Earlier attempts to reconstruct the proto-language that would comprise Proto-Maipuran and Proto-Arawá, such as Matteson (1972), did not make use of the methodology of comparative method that is accepted by historical linguists.

Western

- Amuesha
- Chamicuro

Central

- Parecis
- Waurá

Southern

- Bolivia-Parana
 - Terena
 - Bauré
 - Ignaciano
- Purus
 - Piro
 - APURINÁ**
- Campa
 - Machiguenga
 - Ashéninca

Eastern

- Palikur

Northern

- Wapishana
- Caribbean
 - Garífuna
 - TA-Arawakan
 - Lokono
 - Guajiro
- Inland
 - North-Amazon
 - Resígaro
 - Rio Negro
 - Achagua
 - Cabiyari
 - Curripaco
 - Piapoko
 - Tariano
 - Yucuna
 - Yavitero

Figure 5: Internal classification of Maipuran languages

The first comparative linguistic study of Maipuran languages following the accepted methodology of the comparative method was done by Payne (1991:489), reproduced below in Figure 5 (emphasis is mine):

Payne reconstructed 203 items for Proto-Maipuran, making use of 24 Maipuran languages from all the main branches of the family. Only very recently a detailed comparative study was done for the Arawá languages by Dixon (1999) (see also appendix A of Dixon 1995). Dixon reconstructed 370 lexemes for Proto-Arawá and, by comparing the reconstructed forms for Proto-Arawá and Proto-Maipure, reached the following conclusion: “Three possible cognates can be recognized between these lists, none of them fully convincing. The grammatical morphemes of Proto-Arawá are also quite different. It must be concluded that there is no evidence whatsoever that (despite their similar names and geographical proximity) the Arawá and Arawak language families are genetically related” (Dixon 1995:290). The most recent classification of the Arawá family is given in Dixon (1999:294), and is given in simplified form in Figure 6:

Paumarí
Madi (with three dialects: Jarawara, Jamamadi, and Banawá)
Sorowahá
DENI-KULINA
 Deni
 Kulina (or Madiha or Madija)
†Arawá

Fig. 6: The Arawá language family (†= extinct; DENI-KULINA is a subgroup of the Arawá family)

Unfortunately, as noted by Tovar and Tovar (1984), Dixon (1995:289) and Aikhenvald (1991:73-74), it is unsubstantiated classifications such as Noble (1965), Matteson (1972), among others, that have been generally adopted by scholars outside the field of linguistics, including anthropologists, archeologists and geneticists. Moreover, as

Aikhenvald (1999:73-74) notes, this “deeply flawed” studies of “Arawakan” languages “influenc[e] ideas on putative proto-home and migration routes for proto-Arawakan”. Therefore, to the extent that linguistic evidence is used in investigating the history and culture of the so-called Arawakan people, it is the case that Maipuran and Arawá groups are better treated as genetically unrelated language groups.

As confirmed by two of the most recently published detailed works on the classification of Arawak languages (i.e. Payne 1991 and Aikhenvald 1999), there is general agreement about which languages belong to the Arawak family. However, as pointed out by Aikhenvald (1999:73), the internal genetic relationships within Arawak still are problematic. Figures 7a-b present a simplified version of the internal classifications suggested by Payne and Aikhenvald, respectively. Various factors underlie the lack of agreement about the internal classification within the Arawak family. To some extent, the differences are likely to reflect the appearance of newer data and descriptions of Arawak languages (e.g., Aikhenvald 1994, 1995, 1998 and Parker 1995, among others). After all, as pointed out by Aikhenvald (1999), the difficulties in doing comparative analyses of Arawak languages as well as of determining its internal classification come from the lack of adequate data for many languages and from the geographical expansion and linguistic diversity within the family. However, the problems with the subgroupings of Arawak languages also reflect a general trend that, until recently, was present among Arawak linguists, namely to attempt to reconstruct and classify Arawak languages only in relation to the general Arawak family (or in relation to the putative larger group that would include Arawá languages, among others) rather than in relation to how these languages related to one another inside the family. This trend derives historically from the fact that “[r]esearch on American Indian languages has been

dominated from the beginning by a desire to determine the origin and relationships of the languages of the New World. This has tended to put an emphasis on distant relationships before the details of the closer relationships were worked out[...]" (Campbell and Goddard, 1990:18). A notable exception to this trend (as acknowledged by Payne 1991:371) among earlier Arawak scholars was the work of Douglas Taylor (e.g., Taylor 1977).

More recently, however, new attempts to resolve some of the problems with, or (dis)prove earlier suggestions about, Arawak subgroupings have started to appear (see Aikhenvald Forthcoming). Another attempt at resolving an Arawak subgrouping is briefly illustrated in Appendix D, where I provide a preliminary segmental phonological reconstruction involving the languages Apurinã, Piro and Iñapari.

1.3. Previous Literature

The earliest systematic linguistic references to the Apurinã language can be found in the notes on the phonology and grammar of Apurinã in J. E. R. Polak (1894), in the anthropological notes in Ehrenreich (1897), and Steere (1901), and in the vocabulary plus notes on phonology in Koch-Grünberg (1919). More recently, three linguist missionaries from the Summer Institute of Linguistics, namely Wilbur Pickering, Ida Pickering, and Kathy Aberdour, have done some studies on Apurinã. Pickering and Pickering (1964) and Wilbur Pickering (1971, 1973a, 1973b, 1974, 1977a, 1977b, 1978) have done a preliminary description of the phonology, morphology and syntax of Apurinã. Pickering (and Pickering) attempted to present a preliminary description of the phonology and morphology of the language, and make some theoretical points about the syntax.

However, except for the manuscript on phonology, the written reports of their research lack data illustrating their analysis. Aberdour (1985) published one article focusing on a discourse analysis of referential devices in Apurinã. The recent linguistic works on Apurinã based on original data were done by myself (Facundes To appear, 1998a-b, 1997a-c, 1995a-b, and 1994a-b). Any other mention of Apurinã (e.g. Derbyshire & Pullum 1981, Derbyshire 1986) has been based on the data from the authors mentioned above.

Juliana Schiel (p.c.) has been doing anthropological research on Apurinã history, told from the perspective of the Apurinã people. Schiel is currently in the process of concluding her M.A thesis at the Universidade de Campinas (UNICAMP), in Brazil, on this topic. She and I have done fieldwork together, having also done some teaching of an introduction to the Apurinã writing system in a few villages, and have taped all the stories the Apurinã people from these villages were able to recall. At least two of these speakers (as well as several I have recordings from which were done in earlier trips) is no longer alive. These stories were taped both in Apurinã and in Portuguese and constitute the most complete oral database documenting the Apurinã language and culture both in Apurinã and in Portuguese. Only a very small portion of these tapes has already been transcribed. One of my goals for the near future is to teach Apurinã writing well enough to a number of Apurinã speakers so that, among other things, they can help me with the transcription of the tapes. Copies of some of these tapes were also left in some of the villages. The contents of these transcriptions, aside from being valuable sources for scientific studies, will be used in pedagogical materials in the Apurinã language.

1.4. Methodology and Theoretical Framework

The methodology used in this study belongs to the field of descriptive linguistics. In its major parts, however, the description is theoretically informed. By “theoretically informed” I mean that the concepts used in the analysis as well the results of parts that are considered major pieces of the grammar are discussed in light of what is known in the general linguistic literature. In this sense, the description is also, in general, somewhat typologically informed. Where concepts not generally used in the literature are presented, they are defined on the basis of evidence found in the language. I have attempted to ensure that important concepts whose definition may tend to vary according to authors and/or linguistic theories/frameworks/models be always defined, and that references be made to other places in the literature where such concepts (or analogous ones) can be found.

As no descriptive work can be completely atheoretical, this study also has its biases. On the definitions of categories based on functional, behavioral or discourse-pragmatic properties, the tendency is to follow ideas developed in functional, typological and cognitive linguistics. On the other hand, the definitions based on structural properties are generally influenced by the methodology used in the field of structuralist linguistics (without much of the more theory-specific machinery more recently introduced in generative linguistics). The motivation for using ideas from one or the other field is based on where the best definition is found which best accounts and explains the data. It happens that, in my view, the methodology for the analysis of functional, behavioral or discourse-pragmatic categories is generally best developed in functional, typological and cognitive linguistics; whereas the methodology for the

analysis of structural properties (such as constituency) are best developed in structuralist linguistics. This difference should follow from the distinct emphases and assumptions of each approach. Authors representing one or the other field are cited in the relevant sections. For every major analytical case, the references are also made to indicate which approach the methodology may be more akin to. What is avoided in this study, however, is the use of assumptions restricted to very specific theories (such as GB, Principles and Parameters, Minimalism, Optimality Theory etc.). This avoidance results from the general ephemeral character of such formal theories, what would tend to lead this study to become obsolete in the same way that these formal approaches tend to—sooner rather than later. Instead, the grammar is described in terms of what are clearly important parts of the Apurinã grammar and that any theory that attempts to describe such a grammar will be likely to need to account for. Moreover, not much concern is shown in this work for comparing the Apurinã language grammar to other Arawak languages. The reason is that, as a first detailed grammatical treatment of Apurinã, the linguistic analysis presented in this work is meant to be language internally based. That is, there is no instance where a phonological or grammatical category is posited on the basis of its being attested in other Arawak languages. While this may seem frustrating for some scholars of Arawak languages, it constitutes an attempt to portray the language as it can be seen looking at it from inside out. Once this analysis has been made available, typological studies within (or outside) Arawak can obviously be more easily done without the risk that the description of Apurinã is heavily biased by our knowledge of other Arawak languages. As it turns out, it is naturally possible that certain aspects of the linguistic analysis presented here may be changed once comparisons have been made with other Arawak languages. This, however, remains to be shown on an empirical basis.

In a review of a descriptive grammar, Dixon (1998) referred to the general framework appropriate to the development of a linguistic description as “Basic Linguistic Theory”. Such a theory is defined by Dixon as “the cumulative theoretical framework for linguistic description as it has developed over the last two thousand years and more” (507). Although, some theory specific theoretical biases may still be found in some places in this work, especially in determining what deserves less or more attention in the language grammar, my general aim is to work with this “cumulative theoretical framework for linguistic description” that Dixon refers to, and portray the Apurinã language, as much as possible, on the basis of language internal motivating factors.

1.5. The Apurinã Database

The data presented here were gathered in trips to the field in the years 1990-91, 1993-95, and 1997. In the first field trip I collected data from 11 different villages (1-10, 13 and 15 in Figure 1), which allowed me to first observe language variation. In other visits I focused on different aspects of the language until I finally arrived at the current database which is used here. The database consists of nearly five hours of various texts from different genres, as well as of a large body of elicited data. During the gathering of the data I also made use of questionnaires for investigating grammatical as well as lexical semantic properties.

The data given as examples are generally from text material, except where the structure is unattested in texts. In the case of morphological structures non-textual data are generally used. However, for the major syntactic structures, preference is given to textual data. Also, when major syntactic structures are only attested in elicited material, a

note about that is made. The same is true of major grammatical properties that may be restricted to a specific speech variety. Obviously, after the years of work on Apurinã I have acquired a degree of fluency in the language. Although this knowledge of the language proved very useful in doing the analysis, transcription, glossing and so on, all the descriptive points made in this work are based on text material produced by native speakers of the language and/or on their grammatical judgment of elicited material.

1.6. Apurinã and Linguistic Typology

Apurinã has typical properties of a polysynthetic language insofar as it has a rich system of grammatical functions expressed by means of bound morphemes—not only the functions typologically expressed by grammatical morphemes across many languages but also functions typologically expressed by lexical morphemes. Different, however, from many of the polysynthetic languages of North America, Apurinã is more of an agglutinative (rather than fusional) type language; the language has a (C)(V)V syllable structure, and morphophonological alternations are basically restricted to proclitic-like pronominal markers and to a few other verb bound forms.

The language has characteristics of a head-marking type language in having, for instance, cross-referencing markings on verbs and possession markers on the head possessed noun. The rich morphology of this language does not at all imply the lack of syntactic operations; instead, it simply means that many grammatical functions are formally encoded in the morphosyntax, i.e. they are expressed by forms that partially obey morphological rules as to their distribution, but syntactic conventions as to their use and allocation in the clause. As to clausal constituent order, the language is

predominantly OV in terms of its word order correlations, although the most frequent order in text is VO. The language also has a gender system based on the feminine-masculine grammatical distinction, a morphologically marked noun class system based on alienable versus inalienable possession, and an incipient noun classification system consisting of nouns with classificatory functions that recur as part of a productive noun compounding system.

Chapter 2

Phonology

2.0. Introduction

This chapter describes the sounds and their organization within the phonological system of the language. The speech variety described here is primarily the one spoken in the Japiim Community of the Pacia River (13 in Fig. 2, chapter 1). It is by focusing on one speech variety that a general description of the language will be given. Relevant information from other speech varieties will be provided in contrast to the Japiim speech variety so that a general picture of language variation can also be drawn.

An important feature of the Japiim village is that it has more than one speech variety, but the differences are generally restricted to the allophonic variations of the same basic set of phonemes. As happens to other Apurinã villages, the **speech community**¹ from the Japiim village consists of people who migrated from different locations (in this case, Seruini, Peneri and Tumiã), as described in 1.1.2. I have found no evidence, however, that the presence of distinct speech varieties in the Japiim community causes any kind of dialect mixture. All the Apurinã speakers moved into the Japiim as

¹ The term “Apurinã speech community” is loosely defined here as any group of Apurinã speakers who share certain systematic speech properties not shared by other Apurinã speakers. Due to the fact that in the recent past there has been constant migration from one community to another, it is nowadays possible to identify specific linguistic features in one linguistic community or another, but it is difficult to determine with precision their general geographic distribution. Until we understand the Apurinã migration patterns, this will continue to be a problem. Although such an understanding is important, it is beyond the scope of the present work.

adults, and, when they talk in Apurinã, they preserve their particular speech variety. The data used here are primarily based on the speech of the cousins Augustinho Mulato and Chagas Tereza (both called *mipa širĩkaja* in Apurinã) who originally lived in the Peneri river.

2.1. The Phonemic Inventory

Apurinã has a total of 34 phonological segments comprising 5 short oral vowels, 5 long oral vowels, 5 short nasal vowels, 5 long nasal vowels, and 14 consonants. Two major segmental elements characterize speech distinctions among the Apurinã speech varieties so far attested, marking what may be (arguably) different dialects: /ɲ/ and /h/ do not have phonemic status in some of the speech varieties, while in others they do. [ɲ] can be a variant of /n/ preceding /i/, and /h/ can be totally absent in the speech of some individuals. A general picture of speech variation involving the Apurinã phonological system is given in Appendix A. The following subsections survey and describe the segmental and suprasegmental phonological system of the language.

2.1.1 Vowels

The language has a system of five vowel qualities that can also contrast for nasality and lengthening. Since there are five basic vowel melody distinctions that can contrast (binarily) both for nasality and lengthening, we find that the language has a total of 20 possible vowel distinctions (i.e. $5 \times 2 \times 2$). Table 1 illustrates the vowel distinctions, where the placement of each vowel in the chart follows the phonetic quality of the vowel chosen to represent the underlying phoneme, i.e. this vowel chart disregards

how the vowels pattern phonologically in natural classes:

Table 1: Vowel Distinctions and Their Articulatory Phonetic Properties

	SHORT VOWELS			LONG VOWELS		
	FRONT	CENTRAL	BACK	FRONT	CENTRAL	BACK
	Oral/Nasal	Oral/Nasal	Oral/Nasal	Oral/Nasal	Oral/Nasal	Oral/Nasal
HIGH	i / ĭ	ɨ / ĩ		iː / ĭː	ɨ / ĩ	
MID	e / ě		o / ɔ̃	eː / ěː		o / ɔ̃
LOW		a / ǣ			a / ǣ	

The following subsections describe the phonetic properties and the phonological evidence for arriving at the inventory of phonemes listed in the table above.

2.1.1.1. Short Oral Vowels

As seen in Table 2, in terms of the horizontal position of the tongue, short vowels can be **front**, **central** or **back**; in terms of their height they can be **high**, **mid** or **low**:

Table 2: Short Vowel Distinctions and Their Phonetic Articulatory Properties

	FRONT	CENTRAL	BACK
HIGH	i	ɨ	
MID	e		o
LOW		a	

The vowels given in Table 2 to represent underlying segments are pretty much pronounced as indicated by their articulatory properties in the table, except that some speakers (perhaps of specific speech varieties to be determined) tend to pronounce the high, central vowel /i/ a little further back. The examples listed in (1-6) provide minimal and/or near minimal pairs for oral short vowels:

1a. /i/	[ikija ¹ nari]	‘poison’
b. /e/	[ikija ¹ nare]	‘his poison’
2a. /e/	[¹ ase]	‘type of frog’
b. /a/	[¹ asa]	‘we go’
3a. /a/	[a ¹ nika]	‘we eat’
b. /o/	[o ¹ nika]	‘she eats’
4a. /i/	[¹ iri]	‘father of’
b. /i/	[¹ iri]	‘to fall’
5a. /e/	[¹ mepa]	‘one of the stars’
b. /i/	[¹ mipa]	‘man’s name’
6a. /e/	[o ¹ seko]	‘her bunch (of bananas)’
b. /o/	[o ¹ soko]	‘her genitalia’

The next subsections present the kinds of variation that apply to the vowel system, variations which are either conditioned by specific phonetic environments, rate of speech, or that are free of any such conditionings. In one way or another these alternations motivate the allophones found in the language.

2.1.1.1.1. [e] Lowering into [ɛ]

/e/ tends to be realized as [ɛ] whenever the vowel of the following syllable is oral,

back and non-high (i.e. [o, a] ε), and it is realized as [e] elsewhere. This can be seen in the underlined vowels in (7): a vs. b, c vs. d, e vs. f, g vs. h):

- 7a. [ke-¹ri-pa] ‘Who is he?’
WH-3M-INT
- b. [ke-¹ro-pa] ‘Who is she?’
WH-3F-INT
- c. [ip¹pe-ka] ‘to die’
die-VBLZ
- d. [koseka-¹pe-ri] ‘to pull it out’
pull-PFTV-3M.O
- e. [n-oka-¹pe-ri] ‘I’ve killed him.’
1SG-kill-PFTV-3F.O
- f. [n-oka-¹pe-ro] ‘I’ve killed her’
1SG-kill-PFTV-3F.O
- g. [¹k^jeko] ‘hammock’
- h. [¹meko] ‘paddle’

Moreover, if two syllables with /e/ precede a syllable with /o/ or /a/, both instances of /e/ will lower, as the examples in (8) illustrate:

- 8a. [he-¹re.ro] ‘She’s pretty.’
be.pretty-3F.O
- b. [te-¹re.ta] ‘to love, to like’
to.love-VBLZ

The segmental phonological rule can be represented as follows:

9. /e/ → [ɛ] / _C[o, a]

Although the tendency illustrated in (7) is very consistent, it is more of a general tendency than a general rule, as there are some variations in the pattern wherein the /e/ → [ɛ] alternation is not attested in spontaneous speech. Such variations may be due to the fact that overall [e, ɛ] are free variants of /e/. Nevertheless, if the environment of such an alternation is restricted to the vowels in contiguous syllables (i.e. CV.CV) where the rightmost vowel is /o/ or /a/, then it is always the case that IF the second vowel is /o/ or /a/ THEN the first vowel /e/ realizes as [ɛ], as in (7b, f-h); and that IF the second vowel is NOT /o/ or /a/ THEN the first vowel /e/ realizes as [e], as in (7a, d-e). The data then indicate that the lowering of /e/ only occurs in contiguous syllables and that, moreover, it is **regressive** (or **anticipatory**), that is, the spreading of the vowel feature only occurs right-to-left. For instance, additional examples can show that the /e/ → [ɛ] and converse alternations do NOT ALWAYS occur in spontaneous speech when the vowels /o/, /i/ or /i/ precede [ɛ] or [e] as seen in (10a-d):

- | | |
|---------------------------------|-------------|
| 10a. [i-ti ¹ ʃi-nɛ] | ‘his land’ |
| 3M-land-POSSED | |
| b. [o- ¹ p̄ipɛ] | ‘She died.’ |
| 3F-die | |
| c. [¹ kɔnɛ] | ‘no, not’ |
| d. [i-tʃipɔ ¹ ko-re] | ‘his food’ |
| 3M-food-POSSED | |

The fact that the /e/ → [ɛ] alternation has been attested in spontaneous speech in some

environments but not in others is NOT taken here as motivation for treating these two vowels as distinct phonemes whose contrast is neutralized in some environments, since, in elicited speech, speakers do accept the same alternation which they do not actively use in spontaneous speech. That is, despite the distribution of these vowels, they do not appear to show yet the “psychological reality” which phonemes are assumed to have.

2.1.1.1.2. [o] ~ [u] ~ [ʊ] Free Variation

The phoneme /o/ can be freely realized as either [o], [u] or [ʊ], as the following examples illustrate in (11):

- 11a. [s¹ɪt_o] ~ [s¹ɪt_u] ~ [s¹ɪt_ʊ] ‘woman’
- b. [ɪ¹p_ot_o] ~ [ɪ¹p_ut_u] ~ [ɪ¹p_ut_o] ~ [ɪ¹p_ot_u] ‘lips of’
- c. [opĩ¹nã:rɪ] ~ [upĩ¹nã:rɪ] ‘deep water’
- d. [it_o¹rot_a] ~ [it_u¹rut_a] ~ [it_u¹rot_a] ~ [it_o¹rut_a] ‘chest of’
- e. [n_o¹] ~ [n_u¹] ~ [n_ʊ¹] ‘1SG’
- f. [so¹kōtʃi] ~ [su¹kūtʃi] ~ [su¹kōtʃi] ~ [so¹kūtʃi] ‘female genitalia’

The free alternation illustrated by the words in (11) can be represented as in (12):

12. /o/ → [o] ~ [u] ~ [ʊ]

2.1.1.1.3. Final Vowel Devoicing

One last sound alternation worth mentioning can be described as the final vowel devoicing in unstressed word final position, which is common throughout the Apurinã speech varieties, not only in the Japiim community. The final vowel devoicing is related

to fast speech and does not bear on the phonological analysis, at least insofar as it is not as systematic across different speakers in the same way as the alternations described above are. In other words, final vowel devoicing is associated with factors external to the grammar (here, including the phonological domain as part of the grammar). This is not to say, however, that such vowel alternation need not be accounted for, but, rather, that is beyond the scope of the present work. (Occlusive stop consonants may be aspirated when preceding a voiceless vowel, but this is described under 2.2.1.2.) The following are examples of vowel devoicing:

- 13a. [ka¹ʃat^hɬ] ‘paca (large rodent)’
- b. [o¹ʉp^hɬ] ‘her bone’
- c. [ka¹ʃat^hʉ] ‘caterpillar (1)’
- d. [na¹marit^hɛ] ‘my son’
- e. [a¹nãp^hɔ] ‘dog’
- f. [mapo¹ʉatsɔ] ‘caterpillar (2)’
- g. [tõ:¹gatʃi] ‘cough’

The segmental phonological rule can be represented as in (14), where “()” represents a FOOT, “x” is the HEAD (i.e. stressed part) of the foot and “.” is the unstressed part of the foot: (See 2.3.3.3 for a tentative description of the Apurinã foot structure.)

$$14. [+vowel] \rightarrow [-voice] / \left[\begin{array}{c} \underline{\quad} \\ | \\ (x \cdot) \end{array} \right] \#$$

2.1.1.2. Long Oral Vowels

Aside from the five quality distinctions presented above, vowels can also contrast for lengthening in the form of **short** and **long** vowels. As listed in Table 3, the lengthening distinction applies to all five vowel qualities:

Table 3: Lengthening Distinctions for Vowels

	FRONT	CENTRAL	BACK
HIGH	i:	ɨ:	
MID	e:		o:
LOW		a:	

The examples listed in (15-19) provide minimal and/or near minimal pairs for the long oral vowels:

- 15a. /i/ [ʰiri] ‘fruit’
b. /i:/ [ʰi:] ‘yeah’
- 16a. /o/ [po¹mama] ‘be black’
b. /o:/ [ʰpo:ma] ‘be hot’
- 17a. /a/ [a¹poka] ‘He arrived.’
b. /a:/ [a:po¹kotʃi] ‘village’
- 18a. /e/ [ate¹reta] ‘we envy/feel jealous of’
b. /e:/ [ate:¹neka] ‘That’s right.’

19a. /i/	[pa ¹ kini]	‘plus’
b. /i:/	[ki: ¹ niri]	‘traditional festival’

2.1.1.3. Short Nasal Vowels

As already anticipated above, long and short vowels can also contrast in nasality.

Table 4 lists the 5 short nasal vowels that contrast in the language:

Table 4: Short Nasal Vowels

	FRONT	CENTRAL	BACK
HIGH	ĩ	ĩ	
MID	ẽ		õ
LOW		ã	

The examples listed in (20-24) provide minimal and/or near minimal pairs for the oral versus nasal vowels:

20a. /e/	[ta ¹ tape]	‘“umari” pulp’
b. /ẽ/	[tata ¹ pẽ]	‘“umari” juice’
21a. /a/	[i ¹ uɸa]	‘he/him/it/his/its’
b. /ã/	[i ¹ uɸã]	‘there’
22a. /i/	[i ¹ titi]	‘jacamim bird’
b. /ĩ/	[ĩpo ¹ rã]	‘water’

23a. /i/	[o ¹ piti]	‘her genitalia’
b. /ĩ/	[i ¹ pĩti]	‘yard’
24a. /o/	[¹ toti]	‘male elder/grandpa’
b. /õ/	[¹ tõti]	‘"jacu" bird’

I must add, however, that the nasalization contrast is neutralized before nasal consonants. As a result of this neutralization, oral and nasal vowels alternate when preceding nasal consonants, shown in (25):

25a. /ã/	[₁ ama ¹ rite] ~ [₁ ãma ¹ rite]	‘son of’
b. /ẽ/	[hɛnɛ ¹ mã] ~ [hɛnẽ ¹ mã] ~ [hẽnẽ ¹ mã] ~ [hẽnɛ ¹ mã]	‘saliva of’
c. /ĩ/	[ʃi ¹ maki] ~ [ʃĩ ¹ maki]	‘fish’
d. /ĩ/	[¹ ʃãmĩna] ~ [¹ ʃãmĩna]	‘fire’
e. /õ/	[ku ¹ meri] ~ [kũ ¹ meri]	‘manioc’

The free variation involving oral and nasal vowels preceding a nasal consonant can be represented as in (26):

$$26. V \sim \tilde{V} / \text{---} \begin{bmatrix} +\text{consonant} \\ +\text{nasal} \end{bmatrix}$$

Note that the rule above does not necessarily imply that all nasal vowels preceding a nasal consonant are derived from underlying oral vowels. In fact, there are a few cases of vowels also preceding a nasal consonant that are almost invariably nasal, as

the words in (27) are illustrative of:

27a. /ã/	[^l akã _ɪ ni] ~ ?[^l ak _ɪ ni]	“piquiá” fruit’
b. /ẽ/	[^l ẽm _ɪ] ~ ?[^l em _ɪ]	‘son of’
c. /ĩ/	[na ^l wi _ɪ ni] ~ ?[na ^l wi _ɪ ni]	‘my house’
d. /õ/	[jõ ^l ma _ɪ kɪ] ~ ?[jo ^l ma _ɪ kɪ]	‘beak of’

It is not the case that the underlined vowels in the words in (27) cannot ever be pronounced without nasalization, but rather that they would sound a bit odd to some speakers when not nasalized.² Nevertheless, since there is no minimal pair involving nasal versus oral vowels in environments where the vowel precedes a nasal consonant, and notwithstanding the examples in (27), the most plausible analysis is that the phonological contrast for nasality is neutralized in such environments. Hence, the nasal versus oral contrast would then be restricted to the instances in which the vowels do not precede nasal consonants. (See also 2.2.5 for a discussion specifically on the phonotactic constraints in Apurinã). I should also note that vowels —except for those whose examples in (27) are illustrative of— that are nasalized when preceding nasal consonants sound generally less nasal than the underlying nasal vowels. At the present time this perception is impressionistic, since I have not yet done acoustic measurements of nasality, and have found no evidence to posit a phonemic contrast between derived and

² In a way, nasality in these words might turn out to be like nasality in some Portuguese words. Although there is a general rule of Portuguese phonology stating that vowels become nasalized when preceding a nasal consonant, some words do not follow this rule. In some dialects (including mine, from Northeastern Amazon) it sounds odd, for example, to nasalize some word initial unstressed vowels in words such as *América*, *amado* ‘loved’, *amigo* ‘male friend’ etc., whereas the opposite is true of some word initial stressed vowels in words such as *Ana* ‘Anne’, *ano* ‘year’, *âmago* ‘core’ etc. In other words, while the former words sound better when NOT nasalized, the latter ones sound better when nasalized. However, whether an analogous rule would apply to Apurinã remains to be verified.

underived nasal vowels.

A slightly different nasalization process is conditioned by pre-nasal vowel environments: Vowels become nasalized when preceding nasal vowels. Notice that this second type of vowel nasalization is different from the one conditioned by pre-nasal consonants environment above insofar as in the first case oral vowels are obligatorily nasalized, whereas in the second case oral and nasal vowels alternate in that specific environment. The examples in (28) are illustrative of oral vowels becoming nasalized when preceding nasal vowels:

- 28a. /a/ [k¹k[̃]ẽm[̃]a] ‘tapir’ + [ã] ‘liquid of’ = [k[̃]ẽ¹mã:] ‘tapir stream’
- b. /e/ [is¹i¹fĩnẽ] ‘his ball’ + [ĩ] ‘round’ = [is¹i¹fĩ¹nẽĩ] ‘his round ball’
- c. /i/ [serepi¹tʃĩ] ‘arrow’ + [ã] ‘INSTR’ = [serepi¹tʃĩã] ‘with an arrow’
- d. /i/ [o¹kĩ] ‘eye of’ + [ã] ‘liquid of’ = [o¹kĩã] ‘eye ball’
- e. /o/ [a:¹pok[̃]o] ‘village of’ + [ã] ‘INSTR’ = [a:¹pok[̃]oã] ‘in the village of’

An eye-catching recurring property of the examples in (28) is also a potentially misleading one. All the vowels that are nasalized preceding nasal vowels in (28) occur in morpheme final or morpheme initial environments. By itself this recurring property would suggest that the process of vowel nasalization would be also morphologically conditioned (in addition to being phonologically conditioned by the pre-nasal vowel environment). However, the fact is that there is no direct way to verify whether vowel nasalization also occurs morpheme medially. Being as they are, the data can be analyzed in at least two ways: One can assume that, on the basis of no evidence to the contrary (e.g. [V[̃]]), vowel nasalization in pre-nasal vowel environment CAN potentially occur

morpheme medially, although this possibility is not actually manifested in the language; or, one can assume, also on the basis of no counterexample (e.g. [V+ \tilde{V}]), that vowel nasalization in pre-nasal vowel environment is restricted to morpheme boundary environments and, hence, constitutes a type of morphologically conditioned phonological rule. I will choose the first of the two analyses for three reasons: first, for assuming that phonologically (but not morphologically) conditioned rules are generally preferable because they are dissociated from lexical restrictions; second, because (from a purely representational point of view) they are more simply describable, as in (29), without any reference to a morpheme boundary environment; and, third, because they are phonetically natural in constituting a straightforward case of assimilation: (See also section on the phonotactic restriction (125) in 2.2.5)

$$29. [+vowel] \rightarrow [+nasal] / \text{---} \begin{bmatrix} +vowel \\ +nasal \end{bmatrix}$$

Finally, see the next section for more on the phonetic status of the output of rule (29) when applied to identical adjacent vowels.

2.1.1.4. Long Nasal Vowels

As anticipated earlier, long vowels can also contrast in nasality. Long nasal vowels can be inherently long or result from the clustering of two identical vowels. Where the distinction is relevant, inherently long vowels are hereafter called **underlying long vowels**, and long vowels resulting from vowel clustering are called **derived long vowels**. Table 5 lists the vowels that result from nasality contrast for long vowels:

Table 5: Long Nasal Vowels

	FRONT	CENTRAL	BACK
HIGH	ĩ:	ĩ:	
MID	ẽ:		õ:
LOW		ã:	

The examples in (30-34) illustrate minimal or near minimal pairs (except for (34)) for underlying oral long vowels and underlying long nasal vowels:

30a. /a:/	a:po ¹ kotʃi	‘village’
b. /ã:/	ã: ¹ pitsa	‘liana’
31a. /e:/	pa ¹ ʉe:ro	“aruanã” fish’
b. /ẽ:/	pa ¹ ʉẽ:ri	‘pretty’
32a. /i:/	ki: ¹ niri	‘traditional festival’
b. /ĩ:/	¹ kĩ:ri	“coró” rat’
33a. /i:/	¹ i:	‘yeah’
b. /ĩ:/	^h ĩ:	‘fat of’
34a. /o:/	¹ po:ma	‘be black’
b. /õ:/	o ¹ tõ:	‘her face’

The examples in (30-39) illustrate pairs of examples for underlying short nasal vowels and for underlying long nasal vowels:

35a. /ã/	pa ¹ komã	“tingui” root’
b. /ã:/	ke ¹ mã:	‘tapir stream’
36a. /ẽ/	tẽ ¹ teri	‘type of electric eel’
b. /ẽ:/	¹ tẽ:	‘seagull’
37a. /ĩ/	kĩ ¹ tori	‘cicada’
b. /ĩ:/	¹ kĩ:ri	“coró” rat’
38a. /ĩ/	ĩpiti	‘communal house’
b. /ĩ:/	ĩ:pe	‘(paste) fat’
39a. /õ/	¹ tõti	“jacu” bird’
b. /õ:/	¹ tõ:	‘face of’

Derived long nasal vowels result from a general phonological process whereby two adjacent identical underlying short vowels other than /i/ (for reasons explained later in 2.1.3.3) are pronounced as a long nasal vowel. An example of a derived long nasal vowel was given in (28a). Further examples follow in (40):

40a. /a+a/	[a] ‘1PL’ + [apa] ‘fetch’ = [¹ ã:pa]	‘we fetch’
b. /o+o/	[o] ‘3F’ + [¹ oka] ‘to kill’ = [¹ õ:ka]	‘she kills’
c. /i+i/	[ka ¹ tʃiti] ‘ant’ + [ĩ] ‘roundish’ = [katʃi ¹ tĩ:]	‘ant nest’

The same arguments presented in arguing that the nasalizations in (28), hence the rule in (29), are phonologically (rather than morphologically) conditioned also apply to the nasalization observed in (40). The lengthening and nasalization of short oral vowels (other than /i/) can be represented as in (41):

$$41. \begin{bmatrix} \text{-high} \\ \text{-central} \\ \alpha \end{bmatrix} \rightarrow [+nasal] / \text{---} \begin{bmatrix} \text{-high} \\ \text{-central} \\ \alpha \end{bmatrix}$$

As it follows from the rule stated in (41), there are no derived oral vowels in the Apurinã speech varieties in which such a rule is applicable.

2.1.2. Consonants

When consonants are surveyed and their phonetic and distributional properties are analyzed, we find that there are 14 contrasting consonants in Apurinã, as listed in Table 6. In the phonological chart given in Table 6, the consonants are placed in accord with the phonetic quality of each of the consonantal sounds chosen to represent the (underlying) consonantal phonemes. In this table the approximant consonant /ɥ/ is phonetically realized as a sound that involves raising of the back of the tongue in the direction of the velar region. As can be seen from the table below, voicing is not a phonological property of consonants, since there is no contrast which is solely based on voicing. While plosives, fricatives and affricates have voiceless underlying forms, nasals, flap, and approximants have voiced underlying forms:

Table 6: Consonantal Sound System

	BILABIAL	ALVEOLAR	PALATO- ALVEOLAR	PALATAL	VELAR	GLOTTAL
PLOSIVE	p	t			k	
NASAL	m	n		ɲ		
FLAP		r				
FRICATIVE		s	ʃ			h
AFFRICATE		ts	tʃ			
APPROXIMANT				j	ɥ	

No significant aspiration is involved in the pronunciation of voiceless plosives listed above, except for the one conditioned by the environment described in 2.1.2.4. Among the consonants, the approximants deserve some notes. The symbol “ɥ” (rather than “w”) is used here so as to highlight the velar property involved, which is perceptually more salient in Apurinã than its bilabial property. /j/ and /ɥ/ can be considered approximant consonants because both of them involve a movement of one articulator towards another but without the production of a turbulent airstream (Ladefoged 1993:10). In the case of /j/ the articulators involved are the front of the tongue and the hard palate, thus approaching an [i]. As to /ɥ/, it involves the articulators back of the tongue and the soft palate, thus approaching an [u]. Other consonants are pronounced as indicated by their placement in the chart given in Table 6, except for the sound alternations described in the next subsections.

The examples listed in (42-54) provide minimal and/or near minimal pairs for consonants:

42a. /p/	[¹ epi]	‘two’
b. /m/	[¹ ẽmi]	‘son’
43a. /t/	[¹ toti]	‘old man’
b. /s/	[¹ soti]	‘type of deer’
44a. /tʃ/	[tʃi ¹ kari]	‘type of bird’
b. /ʃ/	[ʃi ¹ kari]	‘song’
45a. /s/	[¹ ase]	‘type of frog’
b. /ʃ/	[aʃe ¹ piti]	‘small’
46a. /h/	[¹ hɛɛ-]	‘be pretty’
b. /s/	[¹ sɛɛ]	‘toy’
47a. /h/	[¹ hõkari]	‘kill it’
b. /ʃ/	[¹ ʃõkari]	‘fart’
48a. /h/	[ha ¹ rɛka]	‘be good’
b. Ø	[a ¹ ripa]	‘wild dog’
49a. /t/	[¹ tĩma]	‘wind’
b. /tʃ/	[itʃĩma]	‘He eats (fruit)’

50a. /t/	[ʃã ¹ mita]	‘to find firewood’
b. /n/	[ʃã ¹ mina]	‘fire’
51a. /t/	[¹ tata]	‘"umari" (fruit)’
b. /ts/	[¹ tsata]	‘to tie’
52a. /t/	[i ¹ tari]	‘brother’
b. /r/	[i ¹ rari]	‘type of wild pig’
53a. /r/	[he ¹ rero]	‘she’s pretty’
b. /n/	[he ¹ rēno]	‘I’m pretty’
54a. /j/	[i ¹ jaku]	‘"entaúba" tree’
b. /ɲ/	[i ¹ ɲako]	‘thorn’

The following subsections describe the kinds of sound variations that are pertinent to consonants, and that support the phonemic inventory presented above.

2.1.2.1. Voicing Alternation

In the speech variety considered here voiced and voiceless are indubitably in free variation but, still, the following observation is in order: While voiced plosives may or may not occur following nasal vowels in natural (spontaneous) speech, they almost never occur in environments other than after a nasal vowel, except for the following six words which are generally pronounced with a voiced plosive:

55a. [do ¹ rouʔa]	‘type of frog’
b. [be ¹ sori]	‘river dolphin’
c. [dãmo]	‘type of lizard’
d. [ʔgesi]	‘rainbow’
e. [bã ¹ kota]	‘stool’ (from Portuguese: "banco")
f. [aga ¹ õ]	‘type of fruit’

Whether these six words are loans or what other reason may cause speakers to generally use voiced plosives in them remains to be determined.

The most general and easily noticeable sound variation related to consonants is the free variation of voiced and voiceless plosives when the plosives follow nasal vowels. However, although voiced and voiceless plosives are in free variation in such an environment, the voiced forms are much more frequent than the voiceless ones in post-nasal environments. The examples in (56) illustrate this free variation:

56a. [a ¹ nãpa] ~ [a ¹ nãba]	‘dog’
b. [ika ¹ nõkɛ] ~ [iɣa ¹ nõkɛ] ~ [iɣa ¹ nõga]	‘heart of’
c. [õta ¹ niri] ~ [õda ¹ niri]	‘her spouse’
d. [serẽ ¹ katʃi] ~ [serẽ ¹ gatʃi]	‘blood’
e. [iɸo ¹ rã] ~ [iɸo ¹ rã]	‘water’

³There is a speaker in the Japiim who calls the same kind of frog as doraro, in which, interestingly, the initial consonant is also voiced.

f. [ãpo¹rã] ~ [ãbo¹rã]

‘rain’⁴

This conditioned voicing rule can be represented as follows:

57. [+consonant] ~ [+voice] / ____ $\begin{bmatrix} +\text{vowel} \\ +\text{nasal} \end{bmatrix}$

Although most of the cases of voiced and voiceless variations can be found in the environments described above, it is the case that the same variation can occur in a non-nasal environment. The variation in the latter environment, however, is only found in elicitation. In his analysis, Pickering (1964) shows that, in the speech variety that he studied, voiced and voiceless plosives are completely in free variation.

As I have already observed elsewhere (Facundes 1994), speakers seem to be more aware of voiced consonants the more bilingual they are in Apurinã and Portuguese. It is not surprising to find this to be true in the Japiim community where Portuguese currently is the major language. This might not have been true in the village where the speech variety described by Pickering was spoken (in the early 60s); there, Apurinã was the major language, and, as reported by Pickering (1964), one of the difficulties speakers had while learning Portuguese was that they would transfer such phonetic properties of plosives from the former language into the latter. Hence, Portuguese words such as *pato* ‘duck’ and *bato* ‘I beat’

⁴The words for ‘rain’ and ‘water’ are both *ĩporã* in other communities, but in this community one speaker insisted on this distinction (i.e. 62e vs. 62f).

would be homophones for the Apurinã speakers of the village Pickering visited.⁵

Therefore, while in (56) the examples represent the fact that any voiceless plosive may or may not be voiced following nasal vowels, the examples in (55) are all the cases currently attested in the Japiim speech varieties which have invariably voiced plosives not following nasal vowels. The general voicing process can be represented as follows:

$$58. \left[\begin{array}{l} +\text{consonant} \\ -\text{voice} \end{array} \right] \sim [+voice]$$

2.1.2.2. “Backing” of /t/

/t/ can be phonetically realized as the apical alveolar plosive [t] or as the laminal alveolar plosive [t[>]] (where the pointer “>” is the symbol used here to represent “backed” sounds, Pullum and Ladusaw 1986:210). [t] alternates freely with [t[>]] when preceding /a/ (as in 59a-d). [t[>]] then sounds as a postalveolar, pre-palatal consonant, sometimes slightly retroflex. The [t] ~ [t[>]] variation does not occur in other environments (as shown in (60)). The [t] ~ [t[>]] variation preceding [a] is common in normal speech as well as in elicited data:

59a. [ko¹tari] ~ [ko¹t[>]ari] ‘basket’

⁵ This village was roughly where nowadays is village 10 (in the map in Fig. 2, chapter 1), Tawamirim. I say “roughly” because the norm was for Apurinã to migrate to other villages or to other areas where new villages would be formed. The reasons for this migration are briefly discussed in chapter 1.

- b. [pa¹tari] ~ [pa¹t[>]ari] ‘chicken’
- c. [ipi¹tari] ~ [ipi¹t[>]ari] ‘to drive tarred oakum into the seams of a ship’
- d. [l¹nota] ~ [l¹not[>]a] ‘I, me, my’
- 60a. [ti¹kaku] ‘basket’
- b. [l¹toti] ‘chicken’
- c. [nite¹reta] ‘I feel pity/like’
- d. [pi¹teti] ‘small flat pan made of clay’

This “backing” rule can be represented as follows:

61. /t/ → [t[>]] / __[a]

2.1.2.3. Palatalization

/k/ changes to the palatalized [k^j] when preceding [ɛ], as seen in (62a-d):

- 62a. [k^jeta] ‘shoot’
- b. [i¹g^jeta] ‘night’
- c. [k^jɛ¹ropa] ‘Who is she?’
- d. [k^jɛ¹kotfi] ‘hammock’

This palatalization rule can be represented as follows:

63. /k/ → [k^j] / __[ɛ]

The process represented by the palatalization rule in (63) requires an observation about the [e] → [ɛ] alternation illustrated in (7) and represented in (9). One problem that arises when we consider [e] ~ [ɛ] as consisting of free variation is that the [k] → [kʲ] alternation is conditioned by an environment in which [k] precedes [ɛ]. How can we then condition the realization of [kʲ] to the presence of [ɛ], the former immediately preceding the latter, if [ɛ] itself has its audible realization conditioned by the presence of [o, a, or ɛ] in the immediately following syllable? This analytic problem can, nevertheless, be solved if we postulate sequential rules in which the [e] → [ɛ] takes place before [k] → [kʲ].

In the analysis above, [e] is chosen to represent the underlying form because [ɛ] is the allophone that has its occurrence restricted to the [kʲ]_ environment, (while [e] occurs everywhere else); thus, [ɛ] is distributionally more restricted than [e]. Following the **elsewhere condition** (Kiparsky 1973, Kenstowicz 1994:216-219), [e] is then the optimal phonetic candidate for the underlying form.

2.1.2.4. Plosives Aspiration

One last consonant allophonic variation important to mention consists of plosives becoming aspirated in unstressed word final syllables when preceding devoiced vowels. Examples of aspirated consonants were given in (13). This aspiration process can be represented as in (64):

$$64. \begin{bmatrix} +\text{plosive} \\ -\text{voice} \end{bmatrix} \rightarrow [+aspirated] / \text{---} \begin{bmatrix} +\text{vowel} \\ -\text{voice} \\ -\text{stress} \end{bmatrix} \#$$

2.1.3. **Morphophonology**

Morphophonology (or **Morphophonemics**) can generally be defined as the “branch of linguistics which analyses the phonological or grammatical factors that determine the form of phonemes” (Crystal 1992:258). The factors described in the next subsections are presented from a phonological perspective, namely by describing sound alternations involving distinctive phonemes. The description of sound alternations from a morphological perspective, namely by describing sound alternations involving morphemes (i.e. **allomorphy**) will be described in chapters 3-6, along with the morphological description of the relevant morphemes. Since the next subsections will describe alternations between phonemes (rather than between allophones), a phonemic transcription will be used. Moreover, since the status of stress has not yet been described, stress marking will be maintained in these subsections. (See 2.3 for the description of stress.)

2.1.3.1. **/i/ ~ /i/ Variation**

/i/ and /i/ are in variation when following [r] in unstressed word final environments, as the following examples illustrate:

65a. /pa¹tari/ ‘chicken’

b. /pa¹tari/ ‘chicken’

- 66a. /ʃapa¹kori/ ‘type of opossum’
 b. /ʃapa¹kori/ ‘type of opossum’
 67a. /a¹wiri/ ‘tobacco’
 b. /a¹wiri/ ‘tobacco’

The segmental phonological rule for this vowel alternation can be represented as follows:

68. /i/ ~ /i/ / [r]__#
 (x .)

2.1.3.2. Fronting of /i/ into /i/

In the fronting alternation /i/ changes to /i/ when preceding any palatal or palatalized consonant. See, for example, the underlined vowels in (69a) vs. (69b-c), as well as in (70a) vs. (70b), and (71a) vs. (71b):

- 69a. /i-mi¹teka/ ‘He runs.’
 3M-run
 b. /i-¹ɲika/ ‘he eats’
 3M-eat
 c. /i-¹keta/ ‘He shoots’
 3M-shoot
 70a. /o-¹piti/ ‘her genitalia’
 3F-genitalia.of
 b. /pi¹ti-tʃi/ ‘genitalia’
 genitalia.of-UNPOSS

- 71a. /^hkiki/ 'man'
 b. /ki^hkĩ-ni/ 'deceased man'
 man-AFFECT

Although the alternations in the examples in (69) happen to occur in morpheme boundary environments, the fact that [i] never occurs adjacent to a palatal or alveo-palatal (or vice-versa) in morpheme internal (i.e. within, rather than at the margins of, the morphemes) environments suggests that these alternations are not restricted to morpheme boundary environments. (I will return to this discussion with respect the forms of pronominal markers in 3.2 of chapter 3. See also 2.2.5 for more on phonotactic constraints). In other words, the phonological contrast between /i/ and /i/ is **neutralized** (i.e. distinctive features are lost) in morpheme internal contexts where the underlying form /i/ precedes a palatal consonant. The segmental phonological rule for the vowel alternations illustrated in (69) can be represented as in (72):

72. /i/ → /i/ / ___[+palatal]

2.1.3.3. [i]-Deletion

Here the alternations consist of /i/ being deleted before another vowel, as seen in (69a-c) vs. (73a-b):

- 73a. /i/ + /imarota/ → [ø-ima^hrota] 'he knew'
 3M know
 b. /i/ + /apoka/ → [ø-a^hpoka] 'he arrived'
 3M arrive

- c. /i/ + /oki/ → [ø-¹oki] ‘his eye’
 3M eye.of
- d. /i/ + /etika/ → [ø-e¹tika] ‘he saw’
 3M see

An observation analogous to the one made for the fronting alternation in 2.1.3.2 applies to the examples given in (73); that is, the fact that [i] never occurs before [i] suggests that the deletion of /i/ before /i/ is not restricted to morpheme boundary environments. (See also 2.2.5 and 3.6 of chapter 3.) The segmental phonological rule for the examples in (73) can be represented as follows:

74. /i/ → ø / ___[+vowel]

2.1.3.4. Nasal Palatalization

/n/ changes to /ɲ/ before /i/, as in (75a-d). Although in all the examples in (75) the nasal palatalization occurs in morpheme boundary environments, the process can also occur morpheme internally. The evidence for this comes from the phonotactics of [n], namely that [n] never occurs before /i/, as shown under 2.2.5 below.

- 75a. /ni/ + /ajata/ → [n-a¹jata] ‘I hunt’
- b. /ni/ + /ima¹rota/ → [ɲ-ima¹rota] ‘I know’
- c. /ni/ + /ni-sa/ → [¹ni-sa] ‘I go’
- d. /ni/ + /ɲika/ → [ɲi-¹ɲika] ‘I eat’

This palatalization rule can be represented as follows:

76. /n/ → [ɲ] / _/i/

2.1.3.5. /h/-Deletion

/h/ is deleted whenever it is immediately preceded by a vowel within the same word, as in (77b, d), except when following {no-}, as in (77c). {no#} is a reduction of the independent pronoun for first person singular {nota}, as seen in (77a), where “#” is used to indicate that certain phonological rules do not apply in that boundary: (See also Phonotactic Constraints in 2.2.5 and allomorphic variation in chapter 3, section 3.6)

- | | |
|--|-------------|
| 77a. [nota hīma ¹ rota] | ‘I know’ |
| b. /nota/ + [hīmarota] → [no#hīma ¹ rota] | ‘I know’ |
| c. /ni/ + /imarota/ → [ɲī-īma ¹ rota] | ‘I know’ |
| d. /o/ + /imarota/ → [ō-īma ¹ rota] | ‘she knows’ |

This deletion process can be represented as follows:

78. /h/ → ø / [+vowel]___

2.1.4. *Brief Remarks on the Natural Classes of Vowels*

The inventory of vowels described in the various subsections under 2.1.1 was listed in Table 1 (repeated for convenience below as Table 7), where their placement in

the phonological chart followed the phonetic quality of the allophone chosen to represent the underlying vowel.

Table 7: Vowel Distinctions and Their Articulatory Phonetic Properties

	SHORT VOWELS			LONG VOWELS		
	FRONT Oral/Nasal	CENTRAL Oral/Nasal	BACK Oral/Nasal	FRONT Oral/Nasal	CENTRAL Oral/Nasal	BACK Oral/Nasal
HIGH	i / ĩ	ɨ / ĩ̃		iː / ĩː	ɨː / ĩ̃ː	
MID	e / ě		o / õ	eː / ěː		oː / õː
LOW		a / ă			aː / ăː	

On the basis of the types of variation involving vowels, we can now revise Table 1 to incorporate the way these vowels pattern together as natural classes. A natural class can be motivated on the following grounds: Vowels A and B are considered to form a natural class if they can alternate with one another following any of the variation rules described in the previous sections.

The most obvious vowels that can be argued to pattern as a natural class on the basis of their neutralization rules in Apurinã are /i/ and /ĩ/. These two vowels are neutralized in two different environments: first, in word final environment after [r] (as described in 2.1.3.1), and, second, after palatal consonants (as described in 2.1.3.2). To the extent that /ĩ/ changes /i/ (but not the reverse) in both environments, we can conclude that /ĩ/ forms a natural class with /i/ in the phonology of Apurinã. Although I have presented no evidence so far indicating that any other set of vowels may also form a natural class, there is some indication that /a/ forms a natural class with /e/ in the speech of some speakers. At least some speakers change /a/ into [ɛ] in fast speech. Since [ɛ]

was shown in 2.1.1.1.1 to vary with [e], it is possible to say that /a/ and /e/ may also form a natural class. So, words such as /ata/ ‘1PL’ or /kona/ ‘no, not’ can be pronounced in fast speech as [ʰatɛ] or [ʰkunɛ], respectively. Thus, if these natural classes are taken into consideration, the following chart in Table 8 can be used to represent the clustering of vowels in natural classes in Apurinã:

Table 8: Vowel Natural Classes

	FRONT	BACK
HIGH	i, ɨ	
MID	e, a	o

Notice that /o/ does not form a natural class with any other phoneme, since it does not alternate with any of the other phonemes in the language.

2.2. Syllable

The first of the two subsections below describes the phonetic and phonological properties of the Apurinã diphthongs. The second subsection describes the types and general structure of syllables.

2.2.1. Diphthongs

The monosyllabic vowel clusters that can be described as **diphthongs** are /ai, ei, oi, ao, eo, and io/. They are diphthongs insofar as, phonetically speaking, they consist of “movements from one vowel to another within a single syllable” (Ladefoged 1993:30), i.e. they are **tautosyllabic** (rather than **heterosyllabic**, Kenstowicz 1994:46). Hence, all

diphthongs are **falling diphthongs** insofar as for all of them the **glides** /i/ and /o/ follow the vocalic core (i.e. [a, e, i, o] only occur as **offglides**, and not as **onglides**, Kenstowicz 1994:45). /ai, ei, oi, ao, eo, and io/ are also diphthongs in phonological terms.

Following Kenstowicz 1994:45-66, diphthongs can be defined in Apurinã as any sequence of tautosyllabic vowels where the increment of length is required to be an offglide marked as [+high]. Table 9 lists the falling diphthongs in the language:

Table 9: Diphthongs

	FRONT	CENTRAL	BACK
HIGH	io		
MID	ei		oi
LOW		ai / ao	

In 2.2.2, in the discussion of syllabic structure, I will provide some arguments in favor of treating diphthongs in Apurinã as phonologically consisting of two vowels, rather than of a complex vowel. One of the logically possible diphthongs, *(ii), will be blocked from occurring by a morphophonemic rule which states that /i/ is realized as [i] before palatal sounds. Such a rule will be illustrated and formally stated in 2.1.3.2 (see (72)). Other, also logically possible, diphthongs where the vocalic core is formed of long vowels (i.e. ?/aai/, ?/aao/, ?/eei/, ?/eeo/, ?/iio/ and ?/ooi/) do not occur in the language. Finally, diphthongs such as ?/ii/, ?/io/, ?/eo/ and ?/oo/ are phonologically possible, but simply are not found in the language. The following examples in (79-83) illustrate the oral diphthongs found in the language:

79a. /ai/	[ụa ^h ka ^j]	‘You are here; Hi there’.
b.	[o ^h pa ^j]	‘duck’
80a. /ei/	[^h e ^j]	‘answering to call’
b.	[^h te ^j , ^h te ^j , ^h te ^j]	‘sound of "chief pineapple" (in a story)’
81a. /oi/	[ku ^h ku ^j]	‘hawk’
b.	[u ^h pa ^j]	‘duck’
82. /ao/	[ŋa ^w ŋa ^w]	‘"garça" bird’
83. /io/	[ki ^h ki ^w]	‘field plantation’

Although less frequent, nasal diphthongs can also be found in the language. The examples in (84) illustrate the nasal diphthongs attested so far:

84a. /ãĩ/	[ɲĩmã ^h karo]	‘I caught her’
b. /ãõ/	[^h gã ^w]	‘"agaú" fruit’
85. /ẽĩ/	[mo ^h sẽ ^j]	‘big cooking pan’
86. /õĩ/	[ĩga ^h mũ ^j]	‘fruit of a type of liana’

2.2.2. Syllable Types and Structure

Overall, the syllable templates in Apurinã (across speech varieties) are simple. There are no complex onsets (e.g. CC_) or codas (e.g. _C). There are four syllable types:

CV, CVV, VV, and V, as illustrated in (87-90). The vowels in CVV and in VV are pronounced as long vowels when they (the vowels) are phonetically identical, as in (88a-b) and (89a-f), or as falling diphthongs when such vowels are distinct from each other, as in (88c-d):

- | | | |
|---------|--|---------------------|
| 87. CV | a. [sĩ. ¹ pi.ri] | ‘turtle’ |
| | b. [mã. ¹ ni.ti] | ‘type of deer’ |
| | c. [¹ si.to] | ‘woman’ |
| | d. [¹ ki.ki] | ‘man’ |
| 88. CVV | a. [kĩ. ¹ ni.ri] | ‘traditional party’ |
| | b. [ma. ¹ pã.na] | “irara” (animal) |
| | c. [ki. ¹ kĩ ^w] | ‘farm’ |
| | d. [ka ^j . ¹ kiri] | ‘alligator’ |
| 89. VV | a. [ã. ¹ tso.pa] | ‘(long) leaf of’ |
| | b. [¹ tẽ:] | ‘white heron’ |
| | c. [¹ ĩ:] | ‘fat of’ |
| | d. [¹ ĩ.ɰĩ] | ‘flower of’ |
| | f. [a:po. ¹ ko.tʃi] | ‘city’ |
| 90. V | a. [a. ¹ ĩ.ko] | ‘house’ |
| | b. [¹ ĩ.ri] | ‘father of’ |

c. [o.¹si.pe] ‘She's gone.’

d. [e.¹tã.ma] ‘to look’

Examples of vowel sequences with non-identical (oral or nasal) vowels are the diphthongs described in the previous subsection.

The phonetic sequences [jV], [ɥV] and others in which the vowel is preceded by the palatal or by the velar bilabial glide are here analyzed as CV, rather than VV, sequences. The first piece of evidence for this treatment is the fact that the language (across speech varieties) does not have the sequence CjV or CɥV —consistent with a CVV template— even though the sequence with long vowel nucleus CV_xV_x (where "x" marks identity of form, as in 88a-b) and those with diphthong nucleus CVo and CVi (as in 88c-d) are commonly found in the language in every speech variety. The second piece of evidence is based on the consonantal rather than vocalic behavior of /j/ and /ɥ/ in word initial position. Normally, when a vowel is attached to a word form which starts with another vowel, either the first vowel is dropped (if it's /i/ or /i/) or both vowels are nasalized (in the case of vowels other than /i/ or /i/) —as described under 3.6 of chapter 3.) However, if the word form starts with /j/ or /ɥ/, no nasalization or dropping occurs, as the following examples illustrate:

91a. [a] + [jãna] [a.¹jã.na] ‘we walk’
 1PL-walk

b. [i] + [ɥako] [i.¹ɥa.ko] ‘his hand’
 3M-hand.of

- c. [i] + [jotipanare] [i.jo.ti.pã.¹na.re] ‘he sits down’
 3M-sit
- d. [o] + [uʔako] [o.¹uʔa.ko] ‘her hand’
 3F-hand.of

The diphthongs are also analyzed in this work as a sequence of two vowels, or, more specifically, tautosyllabic vowels in which the second vowel is obligatorily [+high, -central], i.e. Vi or Vo. Although /j/ and /uʔ/ pattern as consonants, there is no positive evidence that the offglides of diphthongs can be analyzed as consonants. In fact, if offglides were described as consonants they would constitute the only elements to occur in coda position in Apurinã. While there are plenty of languages that highly constrain the consonants that can occur in coda position (e.g. in most dialects of Brazilian Portuguese, including mine, only /h/ or /s/ occurs in coda position), I will maintain that offglides are vowels (not consonants) in Apurinã. In doing so, and on the basis of the lack of any evidence to the contrary, I will be able to also maintain the general statement that this language has the (C)(V)V syllable template. Another general statement that can be made if diphthongs are phonologically described as consisting of two vowels is that Apurinã has no **triphthongs**, i.e., this language has no syllable types such as (C)VVi or (C)VVo.

Syllables can be divided into two types on the basis of weight considerations manifested in the stress marking patterns found in the language. Since this division is overtly expressed in the way stress behaves in the language, it is described along with the description of stress in the next section.

2.3. Stress

This section describes the stress marking patterns in the language. Stress is one of the areas of the Apurinã phonology that varies across speech varieties and whose workings across speech varieties are still under investigation. The data presented here, more than any other part of the phonology described in this work, are concentrated on the speech variety spoken in the Japiim village. Nevertheless, where particularly relevant, a few comparisons among speech varieties are made. The first subsection comments on the phonetic nature of stress and how stress can be defined in the language; the second subsection describes the types of stress marking patterns found; finally, the third subsection covers the alternations in stress positions, the conditioning factors and a preliminary analysis of the structure of the prosodic word.

2.3.1. Preliminaries

In terms of the most general definition, the term **stress** is here used to refer to the perceived prominence associated with one (or more) syllables in a morpheme, word or in larger units, and which can also be systematically associated with a cluster of phonological phenomena. An in-depth description of stress marking patterns in Apurinã is no simple matter and would require a more detailed analysis than the one I propose to present here. In fact, the description of **prosody** (which includes stress and other rhythmic structures) is still part of an on-going research and, as such, is the piece of the Apurinã phonology that requires further investigation the most. The results presented here constitute the generalizations that have been attested so far in the language, and are restricted to the **word stress**, i.e. the perceived prominence associated with syllables at

the level of the prosodic (i.e. phonological) word. (The distinction between grammatical and phonological words is discussed in chapter 3). Therefore, unless noted otherwise, the term “stress” is hereafter used to refer only to the word stress.

Word stress is one manifestation of **culminativity**, i.e. the assumption that “each word has a single strongest syllable bearing the main stress (Hayes 1995:24, where Liberman and Prince 1977:262 is cited as earlier source). Further research on stress in clausal and phrasal units may reveal that additional rules and constraints are required in order to account for stress marking patterns in contexts larger than words. By narrowing the scope of the stress marking properties described here I intend to highlight the most consistent results, presenting as preliminary any conclusion on properties of larger units which only further research will clarify.

Before presenting the stress properties of Apurinã, one note about the definition of stress is in order. It is apparent in the current linguistic literature that no agreement has been reached as to an invariable phonetic correlate of stress cross-linguistically (Hayes 1995:5-8, Kenstowicz 1994:549-550). Hayes cites references on experimental research in phonetics to state that “no one physical correlate can serve as a direct reflection of linguistic stress levels” (Hayes 1995:5). Although Ladefoged still states that “[s]tressed sounds are those on which the speaker expends more muscular energy” 1994:249, it is not clear to me whether he believes “the increase in the flow of air out of the lungs” to be a distinctive invariant cue of stress, or whether it is one of the stress properties that can also be found to correlate with other phonological phenomena and that does not constitute sufficient condition to define stress. The acoustic correlates of stress in Apurinã are still under investigation. As a consequence, the “perceived prominence” used here to phonetically define stress consists of the increase in the pitch and in the flow

of air out of the lungs, as they can be observed by the trained ears of linguists. The putative acoustic correlates of higher pitch and increase in the air flow would be, respectively, higher frequency and higher amplitude; but these still require confirmation from instrumental measurements and/or other experimental research methods.

2.3.2. Culminative Stress and Stress Levels

The most general statement to be made here about stress in the language is that stress is not contrastive. To declare that stress is not contrastive means to say that highest prominence is never used as the only distinctive element of words which, otherwise, would be indistinguishable (i.e. minimal pairs), and, also, that the distribution of the highest prominence is largely (if not completely) predictable. The culminative position of stress, that is, the position of highest prominence in a word, is the **penultimate** syllable. That is, ignoring for the moment the changes in stress position described below as the results of the addition of bound forms to a word or as the result of phonological rules, the highest prominence falls on the second to last syllable. For reasons that will soon be clear, the examples in (92) are restricted to disyllabic and trisyllabic words. In all of the word forms in (92) the stress falls on the penultimate syllable:

- 92a. [p̄a.ma] "pama" fruit'
b. [ta.ka] 'put'
c. [si.to] 'woman'
d. [ki.ki] 'man'
e. [i.ko] 'its/his horn'

f. [i.ɥa]	‘he/it/him; his/its’
g. [kẽ.ma]	‘tapir’
h. [pa.ta.ro]	‘chicken’
i. [mɛ.ka.ro]	‘snail shell’
j. [e.ʃi.ɥa]	‘aardvark’
k. [ka.ta.tʰɪ]	‘butterfly’
l. [tso.pa.ta]	‘cockroach’
m. [ma.ʃi.tɪ]	‘deer’
n. [ʃi.ju.kɪ]	‘bat’

Trivial exceptions to the culminative penultimate stress are the rare instances of monosyllabic words found in the language, as shown in (93), are stressed:

93a. [tẽ:]	‘seagull’
b. [tʰi:]	‘his/its fat’
c. [i:]	‘yes; it is’
d. [ɥa]	‘here’

The long vowels and diphthongs found in the examples in (93) are not idiosyncratic features of these words. In fact, in 2.4 I suggest that the lengthening and diphthongal properties of monosyllabic words follow from a general constraint on minimal word size in Apurinã. (See 2.4 for details)

The assignment of the culminative penultimate stress to polysyllabic words as well as also of the ultimate stress to monosyllabic words can be represented as the following rule in (94) (where σ =syllable). (94) states that a syllable is stressed if it is penultimate or a monosyllabic word.

$$94. \sigma \rightarrow {}^1\sigma / \left[\begin{array}{c} \sigma \\ \# _ \end{array} \right] \#$$

A distinction needs to be made between **primary** and **secondary** stress in the language. The primary stress refers to the highest prominence associated with a syllable and is the one that falls on the penultimate syllable, as seen in (92). Since I will only describe word stress in this work, for our purposes, primary stress will always coincide with the culminative stress. Hence, hereafter, I will use the term “primary” stress to refer to both the culminative and the non-secondary stress. The secondary stress, on the other hand, refers to the lower prominence (but higher than that of unstressed syllables) associated with every other successive syllable to the left of the primary stress. Since the primary stress is normally penultimate, the tendency is for the secondary stress to occur in each even (i.e. fourth, sixth, eighth...) syllable to the left of the primary stress, as illustrated in (95):

- 95a. [t̩a.k̩a.ˈta.r̩] ‘manioc frying pan’
 b. [a.ˌnã.pa.ˈna.r̩] ‘dog’
 c. [a.ˌn̩.r̩.ˌmã.n̩.ˈka.ta] ‘with our relatives’

d. [ʃi.ᵛᵛa.pu.ᵛᵛi.ni.ᵛᵛi.ᵛᵛi] ‘Xiwapo people’

e. [ᵛᵛa.pa.ᵛᵛi.ga.ᵛᵛa.ti.ᵛᵛi.ᵛᵛã] ‘in our working’

As in (92), all examples in (95) show the primary stress on the penultimate syllable. The difference between the examples in (95) and those given in (92) is that in the former the words, aside from having more than three syllables, have secondary stresses (marked with “ᵛᵛ” preceding the stressed syllable) in addition to the primary one. In (95a) there is a four-syllable word with a secondary stress on the second syllable to the left of the syllable where the penultimate stress falls; in (95b) there is a five-syllable word with a secondary stress also on the second syllable to the left of the syllable with the primary stress; in (95c-d) there are seven-syllable words with a secondary stress on the second and fourth syllable to the left of the syllable where the primary stress falls; finally, in (95e) the secondary stress falls on the second, fourth and sixth syllable to the left of the syllable where the primary stress falls.

The generalization that the secondary stress falls on every even (but not odd) syllable to the left of the primary stress can be represented as in (96):

96. $\sigma \rightarrow \text{ᵛᵛ}\sigma / \text{ᵛᵛ}\sigma \left[\begin{array}{c} \text{ᵛᵛ}\sigma \\ \text{ᵛᵛ}\sigma \end{array} \right]$ where the rule applies iteratively

Here is a good place to note that Polak 1894:3 stated that stress was predominantly ultimate in Apurinã at the time he had contact with the language, late in the 19th century. Nonetheless, his statement that “[o]wing, however, to the yet barbarous state of the language, to locality, or mere individual caprice and rambling mode of speaking, there is much irregularity both in pronunciation and **accentuation**” (Idem; emphasis is mine)

makes me think that (among other things) his informal description was overly impressionistic, lacking a systematic observation of the data. My particular view is that Polak's observations in general can only be linguistically useful if accompanied of supporting evidence from other sources. A historical comparative research may reveal that there indeed was something to Polak's impression that stress in Apurinã fell predominantly on the ultimate syllable. Evidence for this comes from the Mamoriá Apurinã village (9 in the map in Fig. 2 of chapter 1), where speakers systematically put the higher prominence on the ultimate syllable for some words which take penultimate stress in other villages, as illustrated in (97a-g) vs. (97h-n). The examples in (97a-g) are illustrative of the Mamoriá village, whereas the ones in (97h-n) are illustrative of the Japiim (13 in Fig. 2 of chapter 1) and other villages (the segmental distinctions across villages notwithstanding):

97a. [kẽ.¹mã]	h. [¹kẽ.ma]	‘tapir’
b. [so.¹tɪ]	i. [so.¹tɪ]	‘brown deer’
c. [i.rã.¹ga]	j. [i.¹rã.ga]	‘"mutum" bird’
d. [mã.jni.¹tɪ]	k. [mã.¹jni.tɪ]	‘deer’
e. [ka.¹i.ki.¹ri]	l. [kaɪ.¹kɪ.rɪ]	‘alligator’
f. [ɟi.¹pi.ti.¹ri]	m. [jũ.bi.¹ti.rɪ]	‘squirrel’
g. [sĩ.pi.ti.¹ri]	n. [jũ.bi.¹ti.rɪ]	‘squirrel’

However, the speech variety of the Mamoriá village is unique in showing a group of words that take ultimate stress. All other villages show (nowadays) a clearly dominant

pattern where the highest prominence falls on the penultimate syllable. Further, it is not the case that in the Mamoriá village the ultimate position is the dominant position for the primary stress; that is, it is not the case that ultimate stress is the culminative one in that specific speech variety. As the words in (98) illustrate, words with penultimate stress are also commonly found in the Mamoriá speech variety:

- 98a. [ʃu.ˈtu.ju] ‘turtle’
 b. [ma.ˈpã.na] “‘irara”
 c. [i.ʃi.ˈtʃa.ta] ‘aardvark’
 d. [ka.ju.ˈtʃã.nã] ‘armadillo’
 e. [a.ˌnã.pã.ˈna.rɪ] ‘dog’
 f. [ˌka.ba.sã.ˈnɪ.kɪ] ‘wild dog’

The data I have available from the Mamoriá village do not allow me to conclude whether one stress position is overwhelmingly more dominant than the other in the Mamoriá speech variety. What is possible to say is that in this village disyllabic words are more likely to take a ultimate primary stress, whereas longer words are not.

One would certainly want to consider the possibility that the dominant penultimate stress pattern in Apurinã may result from the influence of Portuguese, since in this latter language the stress (though contrastive) is predominantly penultimate. However, evidence against this view comes from Pickering 1964:30, 1971:7-8, where the author already notes on the basis of a rich amount of data that the dominant stress position is penultimate. At the time Pickering had contact with Apurinã, the speakers were mostly

monolingual (in Apurinã) and hence could not yet have adopted the Portuguese penultimate stress pattern. The most likely possibility then is that any influence of Portuguese could only have happened more recently, and, to the extent that such an influence took place in some (but not necessarily all) communities, it could only have REINFORCED the already dominant penultimate pattern noticed by Pickering. Moreover, the fact that the Mamoriá speech variety shows some deviations from the general dominant stress marking pattern can perhaps be explained through a historical comparative analysis of the data—for which the information provided in Polak 1894 may actually be crucial. Such a study, however, is beyond of the scope of the present work. It may also be of relevance the fact that the Mamoriá is the only village where Apurinã individuals used to have contact with speakers of the Jamamadi language, an unrelated language of the Arawan linguistic family.⁶

2.3.3. *Shifts in the Position of the Culminative Stress*

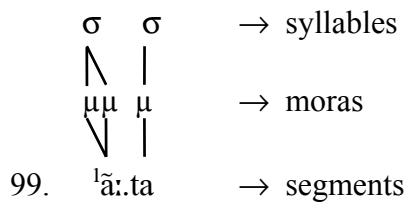
The following subsections describe the kinds of alternations in stress positions that can be motivated by syllable weight and by the addition of bound forms to the words.

2.3.3.1 Stress Assignment Motivated by Syllable Weight

As was briefly mentioned at the end of 2.2, syllables can be divided in two types on the basis of weight factors. The syllable weight is here defined in terms of the number of **moras** a syllable has. A “mora” is a unit of quantity which, as an abstract phonological construct, expresses the notion of metrical time (i.e. duration) of a syllable

⁶ Sadly enough, a few months following my visit to the Mamoriá village, in 1990, an attack of Hepatitis Delta killed several members of that community, causing a dispersion of the group. Now some of them live in a smaller group close to the mouth of the Inari River, and others moved to other Apurinã villages.

(see Hayes 1995:52, Kenstowicz 1994:293, and references there cited). Syllables with one mora are labeled **light** syllables, and syllables with two moras are labeled **heavy** syllables. So, in (99) (where μ =mora) the first syllable of the word for ‘canoe’ is made of a long nasal vowel that counts as two moras, whereas the second syllable is made of a consonant plus a short vowel that counts as one mora. For having two moras, the first syllable is heavy, whereas the second syllable, for having only one mora, is light:⁷



The reason to appeal to syllable weight in analyzing stress alternations comes from the fact that the primary stress occurs on word-final syllables when such syllables have a nasal (short or long) vowel or a diphthong. The examples below illustrate stress attraction to a syllable with a short nasal vowel in (100), to a syllable with a long nasal vowel in (101), and to a syllable with a diphthong in (102):

- 100a. [i.¹tʰã] ‘there, then’
- b. [ã.nã.na.¹pẽ] ‘pineapple juice’
- c. [tse.¹rĩ] ‘tooth of’
- d. [a.ga.¹ũ] ‘“bacuri” fruit’
- 101a. [kẽ.¹mã:] ‘tapir stream’

⁷ In the tree representation below only the relevant levels of the syllable structure are represented.

- b. [o.¹kẽ:] ‘scissors’
- c. [ja.¹ɲi:] ‘fog’
- d. [ɬ.¹tõ:] ‘his/its face’
- 102a. [kɬ.¹ta¹] ‘ax’
- b. [ko.¹ko¹] ‘hawk’
- c. [ki.¹ki^w] ‘field farm’
- d. [ĩ.gã.¹mũ^ĩ] ‘type of jungle fruit’

It follows from the use of mora counting that nasal vowels and diphthongs behave as heavy syllables, whereas other syllables behave as light ones in the language.

Syllables having nasal vowels or diphthongs have two moras, while other syllables have only one mora. The primary stress can be assigned to the ultimate syllable if heavy and to the penultimate syllable elsewhere. The next examples in (103) confirm this general rule in the language for the assignment of the primary stress. These examples show that the primary stress is not assigned to the left of its penultimate position even in the cases of antepenultimate heavy syllables:

- 103a. [ã.¹tso.pa] ‘leaf; paper’
- b. [tũ.¹pa.rɬ] ‘"pacu" fish’
- c. [pẽ.¹tso.tɬ] ‘electric eel’
- d. [ka.¹ʃi.ti] ‘hill’

Thus, the fact that the stress can be assigned to an ultimate heavy syllable but not to an antepenultimate heavy syllable gives rise to the following generalization: namely, that primary stress in Apurinã can be assigned first to the ultimate syllable if heavy, otherwise to the penultimate position. The stress assignment to the ultimate heavy syllable can be represented as in (104). (104) states that bi-moraic syllables will carry primary stress in word final position:⁸

$$104. \quad \sigma \rightarrow \begin{array}{c} \text{'}\sigma / _ \# \\ \text{N} \\ \mu\mu \end{array}$$

The absence of syllables with long oral vowels among the heavy syllables that carry stress is noteworthy. This can be understood as a consequence of the phonotactics of long oral vowels (which, in its turn, is likely to result from diachronic changes no longer transparent synchronically). In other words, the lack of examples in which a syllable with a long oral vowel attracts the primary stress would result from the absolute absence of long oral vowels word finally. (See also section on the phonotactic constraint in (126), under 2.5.)

I leave unexplored here the theoretical problem that arises from defining mora as a timing unit and, at the same time, providing evidence that $C\tilde{V}$ syllables (i.e. syllables with nasal vowels) behave as two-mora syllables. I can only anticipate that there is no unambiguous synchronic evidence that there actually is a nasal segment occurring in coda

⁸ As an alternative account for stress assignment on the basis of its placement in relation to specific syllables, a slightly more abstract analysis can be constructed on the basis of the placement of stress in relation to specific moras. If mora is taken to be the relevant unit for stress assignment, stress placement in Apurinã can be captured in a single generalization, namely, stress is assigned to the penultimate mora. Further investigation would need to be done in

position in any of the Apurinã dialects, although there are interesting nasal phenomena in the language that deserve further research. (See also section 3.2 of chapter 3.)

2.3.3.2. Stress Assignment and the Addition of Bound Forms

The foregoing discussion has provided evidence that the inherent position of the primary stress (i.e. the culminative stress position) is penultimate, and that this inherent position can be overridden by weight factors. This subsection will show that the culminative stress pertinent to a bare word form can also have its position changed as a result of the addition of bound forms to this bare word form. This can be seen in (105):

- | | | |
|-------|--|------------------------------|
| 105a. | [¹ ta.ka] | ‘to put/plant’ |
| b. | [nɪ. ¹ ta.ka] | ‘I put/plant’ |
| c. | [₁ nɪ.ta. ¹ ka.rɪ] | ‘I put/planted it’ |
| d. | [nɪ. ₁ ta.ka. ¹ rɪ.ko] | ‘I will put/plant it’ |
| e. | [₁ nɪ.ta. ₁ ka.pe. ¹ rɪ.ko] | ‘I will have put/planted it’ |
| f. | [nɪ. ₁ ta.ka. ₁ pe.ka. ¹ rɪ.ko] | ‘I’ll put/plant it’ |
| g. | [a. ₁ nɪ.rɪ. ₁ mã.ne. ¹ ka.ta] | ‘I’ll have been put him/it’ |

In (105a) the lexical entry for the verb ‘to put/plant’ is given with the default penultimate pattern assigned by the general phonological rule given in (94). In (105b) the pronominal subject form referring to first person singular is added for the form for ‘put/plant’, and the primary stress remains over the penultimate syllable [ta]. In (105c), when the

order to verify the consequences of describing stress assignment solely on the basis of moraic (rather than syllabic)

pronominal object form for third person masculine is added to the form for ‘I put/plant’, the primary stress moves from [ta] to the new penultimate syllable [ka], and the secondary stress is added to the second syllable preceding the one where the primary stress falls on. In (105d), when the future form [ko] is added to the word for ‘I put/planted it’, the primary stress moves to the new penultimate syllable [ti], and the secondary stress falls on the second syllable preceding the syllable where the primary stress falls on. In (105e), when the perfective form [pɛ] is added to the form for ‘I will put/plant it’, the stress remains on [rɪ] and the secondary stress falls both on the second and fourth syllables preceding the syllable where the primary stress falls on. The additional examples in (106- 107) are given just to show that the alternation in the position of the primary stress is equally possible in nouns undergoing the addition of bound forms:

- 106a. [ni.rɪ.^lmã.ne] ‘relatives of’
 b. [ã.₁ni.rɪ.^lmã.ne] ‘our relatives’
 c. [ã.₁ni.rɪ.₂mã.ne.^lka.ta] ‘with our relatives’
- 107a. ^lta.ta “umari” fruit’
 b. ta.^lta.pe “umari” pulp’

The assignment of both primary and secondary stresses, as observed in the examples above, when bound forms are added to the word base, follow naturally from the

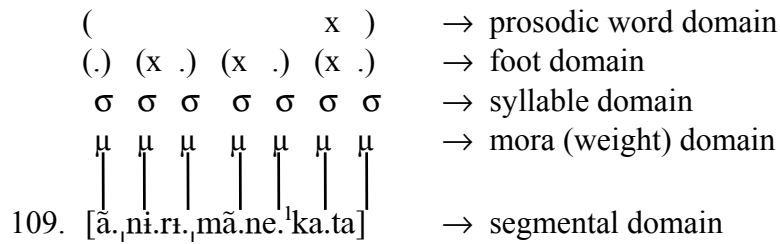
generalizations represented earlier as rules (94) and (96). The rule in (94) accounted for the assignment of the primary stress, while the rule in (96) accounted for the assignment of the secondary stress. Moreover, the assignment of stresses when bound forms are added to a word base only confirms, first, the culminative penultimate stress pattern (i.e. that primary stress occurs predominantly as penultimate), and, second, that the secondary stress falls on even syllables to the left of the primary stress. The only systematic exceptions to the generalization that penultimate stress is maintained during the addition of bound forms to the word consist of the words with final heavy (bi-moraic) syllables, in which case the primary stress attraction to heavy syllables overrides the general rule assigning the primary stress to the penultimate syllable. This can be seen if we contrast (108a) to (108b), and (108c) to (108d). Such examples follow from the rule given in (104):

108a. [ta. ¹ ta.pe]	“umari” pulp’	b. [, ₁ ta.ta ¹ pẽ]	“umari” juice’
c. [kẽ.ma]	‘tapir’	d. [kẽ. ¹ mã:]	‘tapir stream’

2.3.3.3. Brief Remarks on the Structure of Prosodic Words

In this subsection, I can only briefly mention the sort of analysis of intonation structure that the information presented so far leads to. As I anticipated earlier, a detailed analysis of prosody in Apurinã is still part of an on-going investigation and, thus, cannot yet be conclusively described in this work. Nevertheless, the data provided so far are very suggestive as to the kind of organization of prosodic words the language has. The [$\overset{x}{\sigma}\sigma$] stress pattern (where $\overset{x}{\sigma}$ represents any syllable taking primary or secondary stress) that arises from the culminative penultimate stress plus the rule assigning secondary

stress to even syllables to the left of the primary stress can be used to motivate a **syllabic trochaic foot** structure. A **foot** is defined as the minimal bracketed constituent of a prosodic word (Hayes 1995:40-41). A “syllabic trochaic foot” (or syllable trochee) is a “disyllabic [foot] (...) with prominence on the initial syllable” (Hayes 1995:63). So, the prosodic word for ‘with our relatives’ can be represented (partly following the Hayesian representational system (1995:39)) as in (109), where “x” marks stressed while “.” marks unstressed syllables: (The intermediary structure between syllabic and moraic domains are ignored in the representation below.)



In the prosodic structure suggested for the Apurinã prosodic word in (109), the word initial (.) would be interpretable as the so-called **degenerate foot**, i.e. a foot consisting of a single syllable (Hayes 1995:86). This analysis, however, is still rather preliminary and its consequences for the overall description of the language prosody are still under investigation. In fact, as was made clear above, a detailed picture of the Apurinã prosodic system still requires further investigation. One of the problems with the syllabic trochaic analysis is that it does not account for the prosodic structure that arises when words with an ultimate heavy syllable are considered. Words with an ultimate heavy syllable have an iambic (rather than moraic) structure, i.e. $[\sigma\sigma^x]$. Another reason to only sketch here the analysis of the language prosodic structure follows from the problems summarized next.

2.3.3.4. Problems Related to Stress

As the previous subsections show, the data on stress examined so far allow for interesting and reasonably clear-cut generalizations (even constituting nice examples to be used in introductory courses to Phonology). However, it would be perhaps too good if there were no noteworthy deviations to the general patterns described above for stress marking. The problems noted in the next paragraphs partly reflect the on-going nature of the research on prosody summarized in this work, and they are the major reason to classify the analysis presented here as a preliminary one.

The first reason to be cautioned about generalizing the analysis presented above for the whole language has to do with language variation. The data used here for the analysis of stress, in spite of being detailed, are mostly based on the speech variety found in the Japiim village of the Pacia River (13 in Fig. 2 of chapter 2). This means that a more systematic examination of data from other Apurinã speech varieties still needs to be done.

The second reason is related to some cases of variation in the culminative stress marking pattern found among speakers of the same speech variety or even in a single speaker. That is, some individual speakers allow for some variation in the position of the primary stress in a group of words in a way possibly analogous to the way that allophones in free variation can fluctuate. This can be illustrated with the following words in (110). In each of these words the same speaker pronounced the same words, repeating one after the other, alternating the prominence between the penultimate and the ultimate syllable:

110a. [kɪ.¹pa.tʃi] ~ [kɪ.pa.¹tʃi] ‘earth, clay’

b. [i.¹tu.pa] ~ [i.tu.¹pa] ‘jungle’

- c. [pa.rĩ.¹ga.tʃi] ~ [pa.rĩ.ga.¹tʃi] ‘work, labor’
- d. [ã.pɪ.¹kɪ.ri] ~ [ã.pɪ.kɪ.¹ri] ‘"urucum" fruit’
- e. [¹pa.pa] ~ [pa.¹pa] ‘go fetch (it)’
- f. [i.¹ki.ri] ~ [i.ki.¹ri] ‘nose of’

Although it is true that the words in (110) are more often expressed with higher prominence on the penultimate syllable, the fact that the alternation above is possible is nonetheless worth noting. The words in (110) are the only attested instances where the same speaker uttered the same words, repeating one after the other, alternating the stress position. In contrast to (110), the words in (111) exemplify cases where the stress alternation between penultimate and ultimate syllables also occurs, but in these latter cases the words were either uttered by different speakers (from the same village) or by the same speaker in a time interval of several hours or days between each occasion in which the words were uttered. These examples in (111) then show that it is NOT the case that the stress shift from penultimate to ultimate position only happens when the words are repeated one after the other at short time intervals:

- 111a. [¹se.re] ~ [se.¹re] ‘toy’
- b. [ka.¹pi.ʃi] ~ [ka.pi.¹ʃi] ‘squirrel’
- c. [¹ʃi.ju] ~ [ʃi.¹ju] ‘bat’
- d. [me.¹ri.ti] ~ [me.ri.¹ti] ‘peccary’
- e. [¹ge.sɪ] ~ [ge.¹sɪ] ‘rainbow’

f. [ã. ¹ ni.ju] ~ [ã. ₁ ni. ¹ ju]	‘mosquito’
g. [e. ¹ pi] ~ [e. ₁ pi]	‘two’
i. [ɥi. ¹ ri] ~ [ɥi. ₁ ri]	‘"coró" rat’
j. [ni. ¹ si.ka] ~ [ni. ₁ si. ¹ ka]	‘I give (it)’
k. [ɥi. ¹ wɔ] ~ [ɥi. ₁ wɔ]	‘its flower’

If I knew nothing else about the Apurinã language, the first thing to come to mind would be that I might be hearing (with ears trained by a stress based Romance language) as prominence what could be best characterized as pitch, and that I might be possibly dealing with a tonal language. However, knowing by now that amplitude and frequency (i.e. pitch) normally combine to characterize prominence in the language, and that frequency cannot be independently used as a distinctive phonological property, I have no choice but search for an alternative account of the data above. In building such an account, I can start by underscoring the fact that for all the instances of stress alternations listed in (110) and (111), in addition to the 33 other attested cases (out of a total of 50 in a database of over 1,000 Apurinã words from the Japiim village), and with the rare exceptions noted below, the norm is for the word to take penultimate, not ultimate, stress.

The first of the rare exceptions to the predominant penultimate primary stress is the name of the most sacred Apurinã mythical entity, i.e. [tsu.¹ra] (briefly described under 1.1.4.4). The second exception is made of a few trisyllabic compound words that take the bound form [-mɪna] ‘log’ (see 4.1.1.2.2 for a more precise semantic description of [-mɪna]). In (112a) the word for ‘firewood’ is an instance where invariably the primary

stress is penultimate; and in (112b) the generic word for ‘tree’ is more often antepenultimate, although I have also attested rare instances of speakers making it penultimate. That is, the words in (112) are exceptional in that the first of them NEVER takes penultimate stress and in that the second takes more often antepenultimate stress:

- 112a. [ˈã:.mĩna] ~ *[ã:.ˈmĩna] ‘tree’
 b. [ˈʃã.mĩna] ~ [ʃã.ˈmĩna] ‘firewood’

The example in (113) is given to show that it is NOT the case that the bound form [-mĩna] necessarily triggers the antepenultimate stress in the word form it attaches to:

113. [ˌjɛ.jɛ.ˈmĩna] ‘bat’

Although Pickering (1971:7-8), having confronted what appear to be analogous problems, doubted whether the exceptions to the general culminative penultimate were predictable, there are good reasons to believe that most (if not all) of them are. If one took for granted Pickering’s perception of the data, the result would then be to consider stress as phonemic —although Pickering mentioned a low functional load of stress, in the language. Most of the arguments I have presented above lead to the conclusion that, to the contrary, stress is not phonemic. There are two ways that I will consider in accounting for the exceptional examples presented in this subsection; one consisting of a general functional principle and the other consisting of various independent phonological processes and grammatical processes.

The first account follows from the simple fact that, as already mentioned earlier, stress is never used as the only phonetic or phonological property to distinguish two or

more words in the language and, also, that stress is easily predictable for the overwhelming majority of the cases. From a naive point of view one may suggest that if stress is not used to distinguish words then it is likely to carry very little functional load in the language; and if it carries little functional load speakers may feel free to vary as to the position where the highest prominence falls. That is, speakers/hearers would not detect distinct levels of prominence —as they also do not detect the phonetic properties of allomorphs that are in free alternation. Following this account, whatever is the functional-cognitive principle that explains why speakers normally cannot distinguish among allomorphs in free variation, this same principle would explain why Apurinã speakers would not hear degrees of prominence in their language. The first problem with this account, however, is that I am not aware of any description of a language that suggests that stress can work in this manner; another, more serious, problem is that the culminative penultimate stress itself is a good evidence that speakers can actually hear the difference in prominence. One way to try to salvage the analysis, nevertheless, would be to argue that speakers do hear the prominence distinctions but that they can simply disregard it at times simply because there is very little functional load to it in the language. The problem with this addendum to the naive functional approach, however, is that the trochaic foot analysis suggested in the previous section indicates that stress position is essential for the structure of prosodic words and, as a consequence, to define the Apurinã rhythmic structure.

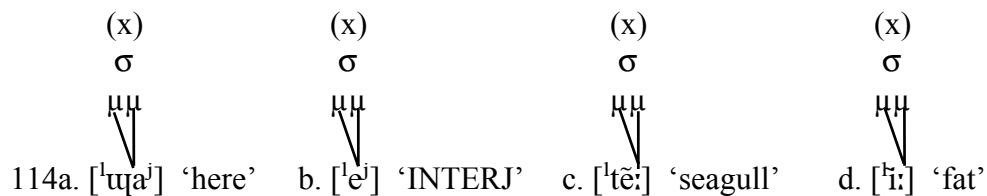
The second account to the exceptions to the culminative penultimate stress is that there actually are phonological and, in very few cases, perhaps, grammatical, conditioning, factors that determine the variation in the position of the primary stress. That is, the exceptional examples described in this subsection would result from

phonological (or grammatical) rules in ways analogous to the way that word final heavy syllables determine the ultimate stress. It is this cluster of phonological and grammatical rules that are still under investigation and, hence, cannot yet be fully described in this work. To mention some of the mechanics used in this second account, let me provide some examples. Consider the variation in stress for the words for ‘bat’, [ʰi.ju] ~ [ʰi.ˈju], and for “‘coró rat’”, [k̄i:ri] ~ [k̄i:ˈri]. Each of these pair of words can be replaced with [ʰi.ˈju.kɪ] and [k̄i:ˈri.kɪ], respectively, where [kɪ] is used with things of a smallish and roundish shapes. (The semantics of [kɪ] is described under 4.1.2.2 of chapter 4.) For some speakers the bound form [kɪ] behaves as an unremovable part of the name of these animals. It would appear that either the potential presence of [kɪ] would trigger the ultimate stress or that [kɪ] is actually an obligatory part of these names, and that such noun forms have been shortened by one syllable (a process independently found in the language, as seen under 4.4.8, in chapter 4), but that the original position of the stress is maintained. This shortening process would account for a number of the exceptions given above. Following the same path, other phonological processes, sometimes interacting with grammatical ones, (both types still under scrutiny) suggest that the exceptional cases to the general stress marking patterns are deviations that do not occur at random, but that can be predicted in most (if not all) the cases.

2.4. Minimal Word Requirement

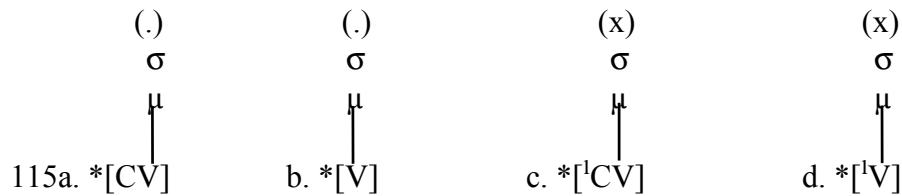
Until recently, the phenomenon described in this section had been considered by me as just a simple idiosyncrasy of the phonotactics of the language, thus not deserving a

place in the language grammar. However, after noticing that analogous processes have also been described for other languages, I decided to describe it here in its own subsection. Once closer examination was taken over the phenomenon, it became obvious that it is motivated by a constraint on the prosodic word structure briefly described in 2.3.3.3. This constraint, here called **minimal word requirement**, can be stated as follows: A prosodic word can minimally consist of a bi-moraic (i.e. heavy) syllable. (A summary of and earlier references to minimal word phenomena in other languages can be found in Kenstowicz 1994:640-646, Hayes 1995:47-48.) The examples in (114) illustrate the four types of minimal prosodic words allowed in the language, namely the ones having CV₁V₂, V₁V₂, CV₁V₁, and V₁V₁ syllable templates (where the subscript numbers are indexed to the melody of the preceding vowel):

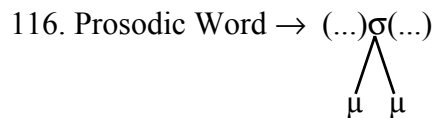


Under 2.3.2 I have already noted that Apurinã lacks both unstressed monosyllabic words and monophthongal words containing a short vowel. Now we can conclude that both the absence of unstressed monosyllabic words and of monophthongs containing a short vowel follow naturally from the minimal word requirement. That is, if a word in Apurinã needs to have a minimal size of two moras, and if a two-mora syllable needs to be stressed (following the rule given in (104)), then every monosyllabic word in the word will always be stressed. On the other hand, if a monosyllabic word is necessarily bi-moraic the only monophthongal words allowed in the language will be those containing

long vowels or diphthongs. The following types of prosodic word forms in (115) are, thus, ruled out by the minimal word requirement. The word types ruled out in (115a-b) represent the unstressed monosyllabic words, whereas the word types ruled out in (115c-d) are the stressed monosyllabic words:



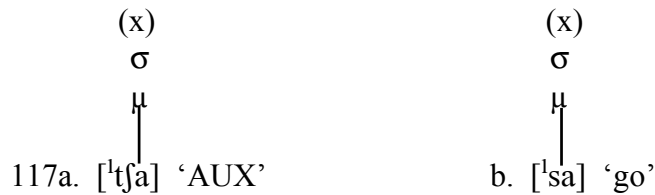
The minimal word requirement can be represented as in (116), which states that a prosodic word can consist either of a polysyllabic word form or of a bi-moraic monosyllabic one:



The stress property of the minimal (monosyllabic) word is independently accounted for by the rule given in (104) (for primary stress attraction to word final heavy syllable) and, thus, need NOT be expressed as part of the minimal word requirement.

Finally, the reason to restrict the minimal word requirement to prosodic words is that there are scarce instances of grammatical words made of monosyllables containing a short vowel. The two grammatical words in (117) are the only attested instances of stressed monosyllabic words (there is no attested case of unstressed monosyllabic words). Even these words, however, when used without additional morphology (in natural discourse contexts) tend to cliticize to the preceding word form. The cliticization

happens in spite of such words constituting clear cases of independent grammatical (as opposed to phonological) words (as discussed in chapter 3.2).



2.5. Phonotactic Constraints

As the title above suggests, this section deals specifically with the **phonotactic constraints** found in the language, i.e. the limitations on the distribution and combination of sounds and sound sequences within the phonological word (Burling 1992:134, Kenstowicz 1994:250). Some of these constraints will provide further evidence for a few of the general phonological processes already mentioned in previous sections, helping to determine more precisely the scope/context of occurrence for such processes. All the phonotactic constraints described here are stated in prose, and those that follow from phonologically or morphologically conditioned rules, are cross-referenced with the respective section where the rule representation was provided.

The first segmental distributional constraint can be stated as in (118), and is illustrated in (119-121):

118. /h/ only occurs word initially, except when preceded by the reduced form of the pronoun for first person singular, [nu#], which cliticizes to the verb. (See subsection 2.1.3.5 above for the rule representation expressing the limited distribution of /h/.)

119a.	[hɛ ¹ rɛ̃ga]	‘blood of’
	b. [nɛ ¹ rɛ̃ga]	‘my blood’
	c. [nuhɛ ¹ rɛ̃ga]	‘my blood’
120a.	[hɛ̃nɛ ¹ mã]	‘saliva’
	b. [nĩ̃ɛ̃nɛ ¹ mã]	‘his saliva’
	c. [nuhɛ̃nɛ ¹ mã]	‘his saliva’
121a.	[hĩ ¹ wãga]	‘name’
	b. [ũĩ ¹ wãga]	‘her name’
	c. [nuhĩ ¹ wãga]	‘my name’

The second segmental distributional constraint is as given in (122):

122. /i/ does not occur following or preceding a palatal sound, i.e. /tʃ, ɲ, ʃ, j/ or the high front vowel /i/. (See subsection 2.1.3.2 above for a rule representation that partially expresses the limited distribution of /i/.)

The third segmental distributional restriction is as given in (123):

123. /j/ does not occur preceding /i/.

This phonotactic constraint can be perhaps associated to the presence of the long vowel /i:/ in the language, and explained as a result of a neutralization between /i:/ and /ji/. The

fourth segmental distributional restriction is as stated in (124):

124. /ɥ/ never occurs preceding /o/.

This phonotactic restriction, analogous to the one in (123), can be associated to the presence of the long vowel /o:/, and, perhaps, also explained as result of a neutralization between /ɥo/ and /o:/ —since [o] and [u] are not distinguishable phonologically in the language. The fifth segmental distributional restriction is as stated in (125) and follows from the phonological rule given in (29):

125. Oral vowels do not occur immediately preceding a nasal vowel.

The sixth segmental distributional restriction is as stated in (126):

126. Oral long vowels do not occur word finally in polysyllabic words.

2.6. The Apurinã Orthographic System

The sole purpose of this section is to briefly present the orthographic system currently in use for the Apurinã language, and which is also the system of transcription used throughout the remaining chapters of the dissertation. The Apurinã orthographic system is as listed in Tables 10-13:

Table 10: Short Vowels

ORTHOGRAPHY	IPA	EXAMPLES	PORTUGUESE
a	a	<u>ata</u>	'we, us, our'
e	e	<u>epi</u> <u>keropa</u>	'two' 'Who's she?'
i	i	<u>ifirata</u>	'down hill'
o	o	<u>okomuna</u> <u>Tsora</u> <u>kokoi</u>	'oko tree' 'Tsorá' 'hawk'
u	i	<u>uku</u> <u>kuku</u> <u>oku</u>	'seed, kernel' 'man' 'eye of'
ã	ã	<u>tãta</u>	'bark of'
ẽ	ẽ	<u>tatapẽ</u>	'"umari" juice'
ĩ	ĩ	<u>ĩtopa</u>	'jungle'
ũ	ũ	<u>ũtanoro</u>	'his wife'
õ	õ	<u>õtanoru</u>	'her husband'

Table 11: Long Vowels

ORTHOGRAPHY	IPA	EXAMPLES	PORTUGUESE
aa	a:	<u>aapokotxi</u>	'village'
ee	e:	<u>ateeneka</u>	'so, then'
ii	i:	<u>anhiiro</u>	'tumor'
oo	o:	<u>pooma</u>	'hot'
uu	u:	<u>kuunuru</u>	'seed, kernel'
ãã	ã:	<u>ããta</u>	'"jatobá" canoe/bark'
ẽẽ	ẽ:	<u>tẽẽ</u>	'white heron'
ĩĩ	ĩ:	<u>ĩĩtxi</u>	'fat'
ũũ	ũ:	<u>kũũru</u>	'"coró" rat'
õõ	õ:	<u>otõõ</u>	'her face'

Table 12 Diphthongs

ORTHOGRAPHY	IPA	EXAMPLES	GLOSS
ai	a ^j	opa <u>i</u>	‘duck’
ao	a ^w	nh <u>a</u> on <u>h</u> ao	‘type of sea-gull’
io	i ^w	kiki <u>o</u>	‘field plantation’
oi	o ^j	ko <u>o</u> i	‘hawk’
ãi	ã ^j	nmã <u>i</u> kar <u>o</u>	‘I caught her’
ãõ	ã ^w	gã <u>õ</u>	‘"agaú"’
ẽi	ẽ ^j	mos <u>ẽ</u> i	‘big cooking pan’
õi	õ ^j	ĩgam <u>õ</u> i	‘"cipó" fruit’

Table 13: Consonants

ORTHOGRAPHY	IPA	EXAMPLES	GLOSS
p	p	p <u>i</u> te	‘you/your’
t	t	t <u>a</u> ta	‘"umari" fruit’
k	k	k <u>e</u> ta ser <u>ẽ</u> kat <u>x</u> i	‘shoot’ ‘dance’
m	m	p <u>a</u> ma	‘"pama" fruit’
n	n	n <u>o</u> ta	‘I/me/my’
nh	ɲ	kin <u>h</u> a	‘"guariba" monkey’
ts	ts	u <u>t</u> sa	‘liana, string’
tx	tʃ	t <u>x</u> iparu	‘banana’
s	s	s <u>o</u> tu	‘brown deer’
x	ʃ	x <u>a</u> muna	‘fire’
h	h	h <u>ã</u> tu	‘one’
r	r	ir <u>a</u> ru	‘wild (big) pig’
w	ʋ	w <u>a</u> txa	‘today, now’
y	j	y <u>a</u> pa	‘capybara’

The Apurinã orthography consists of the phonemic inventory of the language plus the morphophonemic alternations. This system was designed so as to produce minimal ambiguity and, at the same time, to be reasonably easy to be taught and learnt independently of the speech variety attested for Apurinã.

A brief description of the reasons that led to the elaboration of the Apurinã writing system is given in Appendix A. A detailed presentation and justification of the

Apurinã orthography on the basis of the phonological analysis of the language, language variation factors, and of a discussion of the general issues and principles involved in the design of ortographic systems, particularly as they are relevant to the context of the Amazon region of Brazil, are presented in Facundes 1997.

Introduction to Morphology

3.0. Introduction

The purpose of this chapter is to introduce the general background information required for a detailed description of the Apurinā morphological structures to be presented in chapters 4-7, and, in addition to that, to describe the processes determining the phonetic realization of the various morphological forms found in the language.

3.1. The Domain of Morphology

The domain of morphology in a language is intrinsically associated with how ‘word’ is defined in such a language. Incidentally, the same can also be said of the domain of morphology in one’s theory of morphology (Anderson 1985:150, Spencer 1991:453). As a very general definition, the morphology of a language can be argued to consist of “the description of word structure” (Spencer 1991:4), or, more specifically, “the study of the structure of the words, and of the ways in which their structure reflects their relation to other words —both within some larger construction such as a sentence and across the total vocabulary of the language” (Anderson 1988:146). In more structuralist terms, the morphology of a language can also be argued to consist of “the study of morphemes and their arrangements in forming words” (Nida 1982:1). In all these definitions it is clear that the object of morphology is the structure of words. For

the purpose of a morphological description, words can be studied in terms of their meaning and form. However, before specifying how meaning and form of words can be morphologically described we need a definition of the notion “word”.

3.2. The Definition of Word

Due to the problematic nature of the definition of the notion “word” in the morphological literature, I decided to make explicit the criteria involved in the definition of word in Apurinã. The two classes of criteria involved are phonological and grammatical, and they motivate two types of words: **phonological (or prosodic) word** and **grammatical word** (Anderson 1985:150-158). Although both types of words can be independently motivated in the language, they overlap in most respects.

3.2.1 *Phonological Word*

The phonological (or prosodic) word is defined on the basis of pause, phonological processes and phonotactic constraints. A phonological word will allow for a pause to occur at both of its boundaries between two words. For example, the form *nusupekako* ‘I’ll get going’ in (1a) is translated as a full sentence in English; however, as seen in (1b), this same form can occur between two words with a pause (represented here as blank spaces) at both of its boundaries. Moreover, as seen in (1c), the pause phenomenon affecting a phonological word is also manifested in the possibility of such a word to shift its position in a sentence without affecting the propositional interpretation of the sentence:

- 1a. *nu-su-pe-ka-ko* ‘I’ll get going.’
 1SG-go-PFTV-PRED-FUT

- b. *watxa nu-su-pe-ka-ko* *nota* ‘Now I’ll get going.’
today 1SG-go-PFTV-PRED-FUT 1SG
- c. *nu-su-pe-ka-ko* *nota watxa* ‘I’ll get going now.’
1SG-go-PFTV-PRED-FUT 1SG today

A phonological process that can also generally serve as a criterion to define a phonological word is stress. As described in 2.3.2, some Apurinā speech varieties show a culminative penultimate stress pattern. This penultimate stress pattern (as well as its variations that are phonologically predictable) can be used as another cue for a phonological word. So, if stress markers (ignored in the orthographic writing of Apurinā) are added to the forms in (1b), the result is as shown in (2), where, for example, the first disyllabic word in any sentence, in this case *watxa* ‘today’, will be automatically identifiable as a phonological word on the basis on its penultimate stress:

2. ‘*watxa nu-su-pe-’ka-ko* ‘*nota* ‘Now I’ll get going.’
today 1SG-go-PFTV-PRED-FUT 1SG

Another phonological process relevant for identifying a phonological word is the minimal word requirement described under 2.4 of chapter 2, and which is repeated in (3) for convenience. This requirement states that any prosodic (i.e. phonological) word in the language is minimally bi-moraic. Illustrations of this requirement were given under 2.4.

3. Prosodic Word → $\begin{matrix} (\dots)\sigma(\dots) \\ \diagup \quad \diagdown \\ \mu \quad \mu \end{matrix}$

Other phonological processes that can be used for identifying and helping to define a phonological word include the final vowel devoicing described in 2.1.1.1.3 and the plosives

aspiration described in 2.1.2.4. Finally a set of phonotactic constraints applies to the same word forms as those that arise from pause, stress phenomena and from the minimal word requirement. These constraints were described (and illustrated) under 2.5 of chapter 2. They include the fact that /h/ only occurs word initially, that /r/ never occurs word medially, and that long oral vowels do not occur word finally. All of these phonotactic constraints cannot be properly described without mentioning the notion of phonological word.

3.2.2 Grammatical Word

The grammatical word is defined on the basis of morphological and syntactic processes that operate on specific word bases which do not necessarily match the phonological word. Various morphological categories that are restricted to one or another word class serve as morphological criteria for a grammatical word. A good example of this is the plural markers (here illustrated in of one its masculine forms), as the examples in (4) show:

- 4a. *kuku-wako-ru* 'men'
 man-PL-M
- b. **uwa muteka-wako-ru* (They ran.)
 3M run-PL-M
- c. *nu-su-pe-ka-ko nota watxa* 'I'll get going now.'
 1SG-go-PFTV-PRED-FUT 1SG today

In (4) the plural marker *-wako-ru* is a morphological category specific to the word class nouns (to be properly defined under 3.4.), and, as a morphological property restricted to a subset of the parts-of-speech found in the language, serves as a morphological criterion to define a grammatical word. Analogous to *-wakoru* (aside from many other forms described

in chapter 4), the verbal progressive form *-nanu* (aside from many other forms described in chapter 5) can also be used as an example of a morphological category that defines a grammatical word:

- 5a. *uwa muteka-nanu-ta* 'He's running.'
 3SG.M run-PROGR-VBLZ
- b. #*kuku-nanu* (being a man, "manning")
 man-PROGR

While *-wako-ru* was shown to be restricted to nouns, *-nanu* is shown in (5) to be restricted to verbs. To the extent that such morphological forms need to make reference to grammatical words (or to different grammatical classes of words) in order for their distribution to be accounted for, they serve as evidence for the notion of grammatical words.

In addition to the morphological criteria described above there are at least three syntactic criteria that can also be used to define a grammatical word. The first of them is that some grammatical words are generally permutable with one another. This can be illustrated with the same examples that were given in (1c, d) to illustrate the pause phenomenon, where *watxa* and *nu-su-pe-ka-ko* alternate positions. The second syntactic criterion is based on the distribution of the word: A grammatical word can generally be inserted between two other words. This can be seen by contrasting (5) and (6); in the latter example the word form *owa-kata* 'with her' is inserted between two grammatical words:

6. *uwa owa-kata muteka-nanu-ta* 'He was running with her.'
 3SG.M 3SG.F-ASSOC run-PROGR-VBLZ

The third syntactic criterion used to distinguish grammatical words in Apurinã is that a grammatical word is the “minimal free word form”, i.e., “[it] is the smallest unit that can exist on its own” (Spencer 1992:43). This criterion can be illustrated in Apurinã as a possible answer to what probably is the question I have asked most often in Apurinã. The question is as given in (7a), and the relevant type of answer to this question is illustrated in (7b):

- 7a. *kanhipa nhi-txa-ru* “man”? ‘How do I say “man”?’
 how 1SG-say-3M.O
- b. *kuku* ‘man’
 man

Notice that, unless the speakers are properly trained in linguistic methodology, they will not be able to answer satisfactorily a question such as “How do I say a plural masculine marker?”. Here is one clear instance where speakers clearly distinguish words from their internal components (introduced later in this section and in the other chapters).

3.2.3 Phonological versus Grammatical Word: Where Do They Differ?

As I briefly mentioned above, the phonological and grammatical criteria defining words produce word forms that almost always coincide. There are only two criteria I have attested so far where there is a potential disagreement between a phonological and a grammatical word: The first is the result of the minimal word requirement, and the second is the type of boundary separating phonological/grammatical words.

The result of the minimal word requirement is that a word cannot have less than two moras; or, in other words, that a word has a minimum of two syllables or one heavy syllable.

The problem is with the verbs *sa* ‘to go’ and *txa* ‘AUX; say; do; be’. These two verb forms can potentially be used without any additional bound form —as, for example, in its citation form. Although this particular use of these two verbs has not been clearly attested in natural speech, their occurrence in elicited text justifies maintaining the distinction between phonological and grammatical words. For the purpose of the grammatical description of the language it is the grammatical, not the phonological, word that is relevant, although the notion of phonological word is also an important one.

As to the boundary factor, there is one clear instance where phonological rules that apply at the boundary of phonological words but not at the boundary of a particular type of grammatical words. This is the case of the shortened form of the independent pronoun for first person singular *nota*, i.e. *no#*. As was described in chapter 2, subsections 2.1.2.5 and under 2.5, /h/ is deleted in postvocalic environments. As was illustrated in 2.1.2.5, and repeated below in (8), the /h/-deletion rule only fails to apply when /h/ is preceded by the shortened form of the independent pronoun *nota*, i.e. *no#*:

- | | |
|-----------------------|-------------|
| 8a. [¹nota hĩma¹rota] | ‘I know’ |
| b. [jĩ-ĩma¹rota] | ‘I know’ |
| c. [no#hĩma¹rota] | ‘I know’ |
| d. [õ-ĩma¹rota] | ‘she knows’ |

I should also note that although it is the case that all independent pronouns can also be shortened, *no#* is the only shortened pronominal form that occurs systematically enough and independently of speech rate.

In the notion of phonological words used here I do not include phrasal phonological words, that is, phrasal constructions that are pronounced as a single phonological chunk. Further studies in these larger phonological chunks need to be done. Finally, there is a set (with subsets) of special bound forms that will require certain qualifications to the properties of words presented here. These special bound forms will be described in 7.3.

3.3. The Morphological Description of Words

Having defined the object of a morphological description as the (grammatical) word, I can now proceed to show how such a description is to be done. As mentioned above, words can be morphologically described in terms of their form and meaning; this is done by specifying the range of meaning and formal properties that interact among themselves to define the function of each of the elements internal to words, and that characterize the various morphological processes and categories found in the language. In other words, the morphological description of the language is performed by examining (i) morphological processes, (ii) morphologically pertinent grammatical categories, and (iii) the ways that morphological processes may relate to one another (Anderson 1985b:162).

Insofar as (i-iii) involve “the arrangement of morphological elements into larger structures” they are traditionally described as part of the domain of the **morphotactics** of a language (Anderson 1988:147). In contrast, the study of “variations in the shape of the ‘same’ unit” is, also traditionally, dealt with within the domain of **allomorphy** (Idem). Before either morphotactics or allomorphy can be described, however, the concepts described next need to be introduced and the procedures for their identification in the language established.

3.3.1 *Morphemes, Morphs, Formatives, Allomorphs*

Perhaps the second issue where morphologists diverge the most, after the definition of “word”, is as to how to define the notion of a “morpheme” (for those who believe there is such a thing). Instead of going through attempts to establish an independent definition of the term (and at the risk of some circularity), I will simply refer to **morpheme** as an abstract morphological construct that is particularly useful in describing word structure in Apurinã. A word may have one or more morpheme in an analogous way that it can also have one or more phoneme. Since a morpheme is an abstract morphological unit, it requires a phonetic shape in order to be audibly expressed. The phonetic expression of a morpheme is a **morph**, analogously to phone (i.e. the phonetic expression of a phoneme). Moreover, since it is a common assumption in the morphological literature that “the term ‘morph’ implies the realization of a morpheme” (Bauer 1994), so much so that a morph that does not realize a morpheme is called an **empty morph**, I will reserve the term **formative** to refer to both morphs that do and morphs that do not realize a morpheme; also, I will use the term formative when I want to be intentionally vague (or neutral) as to whether a form realizes or not a morpheme (Idem, Anderson 1985:150, 161). “Formative” will then be the superordinate term for morph and empty morph (in a way roughly similar to the term **exponent/exponency**, also found in the literature, Bauer 1994:243 and Spencer 1991:41). Finally, morphs that do realize a morpheme and that are conditioned by a phonological, lexical or grammatical context will be called **allomorphs** of that morpheme (Bauer 1994:15, analogously to allophone in phonology). The difference between the notion ‘allomorph’ and the notion ‘morph’ is that it is part of the definition of the former that its phonetic realization

is conditioned by the phonology, lexicon or the grammar of the language. Such conditioning factors are not part of the notion ‘morph’.

Having introduced the labels above, I will now summarize the sort of properties that will be considered relevant for the identification of formatives in the language. As was the case for words, morphemes can also be described in terms of their form and meaning. In the ideal cases each morphemic form will correspond to a specific meaning, so that the ideal morphemes will consist of a particular form that is consistently associated with one specific meaning. This is the so-called one-to-one mapping between form and meaning (Anderson 1988:151-153). If, however, all there was to a morphological description was the description of one-to-one mappings between the forms and meanings of various formatives there would probably be no reason to even describe morphology separately from syntax. In some cases it is not easy to decide whether certain forms constitute allomorphs of the same morpheme, different morphemes, or whether they even are segmentable formatives at all. It is precisely because many other factors may be involved in the identification of formatives, aside from the form-meaning mapping, that I will make use of a list of factors which will constitute useful guidelines in the identification of morphemes. The list of factors used here follows partly from an extrapolation of the properties described in Bauer 1994, chapter 8, as those identifying affixes and bases. The properties to be considered in the identification of formatives are then as in (9):

- 9a. meaning of a putative formative;
- b. function of a putative formative (verbalizer, nominalizer etc);
- c. (phonological) form of a putative formative;
- d. part of speech of the word base (noun, verb etc.) that a putative formative attaches to;

- e. phonological, grammatical or semantic restrictions on the word base that a putative formative attaches to;
- f. range of allomorphs displayed by a putative formative;
- g. form a putative formative imposes to the word base;
- h. whether a putative formative is required before another formative can occur in the same word base, i.e. whether it potentiates a subsequent formative;
- i. degrees of productivity of a putative formative;
- j. whether a putative formative occupies a position class in the base;
- k. whether a putative formative is in complementary distribution with another one;
- l. recurrence of a putative formative.

No single property in (9) is used here as a necessary and sufficient condition for the identification of a formative; rather, the list constitutes a range of properties commonly associated with formatives that can be analyzed as morphemes or allomorphs or empty morphs. When used in combination these properties will serve as a set of procedures to identify not only the general morphological unit formative (as opposed to morphologically inconsequent phonological chunks), but also the sub-type of formative in question, i.e. allomorph, morpheme or empty morph. The data to be represented in chapters 4-7 will provide examples where some of the decisions on whether a formative constitutes a morpheme or not will be, ultimately, a theory-driven judgment. However, the properties listed in (9) will (hopefully) provide completely consistent results. Table 1 lists the values for each of the relevant properties that will determine whether a putative formative realizes a morpheme, allomorphs of a single morpheme, or an empty morph, or whether the putative formative is just a morphologically inconsequent phonological chunk:

Table 1: Defining Properties of Formatives

Property	Formatives			Non-Formatives
	Morpheme	Allomorph	Empty Morph	
I- Meaning	YES	YES	NO	NO
II- Function	YES	YES	NO	NO
III- Form	YES	YES	YES	NO
IV- P.O.S of base	YES	YES	YES	NO
V- Restrictions on base	YES	YES	YES	NO
VI- Range of allomorphs	YES	YES	YES	NO
VII- Form imposed on base	YES	YES	YES	NO
VIII- Potentiation of other formative	YES	YES	YES	NO
IX- Degree of productivity	YES	YES	YES	NO
X- Position class	YES	YES	YES	NO
XI- Complementary distribution	NO	YES	YES	NO
XII- Recurrence	YES	YES	YES	NO

Table 1 reads as follows:

I- Meaning: Morphemes and allomorphs will normally have a meaning systematically associated with them, whereas both empty morphs and non-formatives will not;

II- Function: Morphemes and allomorphs may have a function associated with them (e.g. nominalizer, verbalizer, etc.), whereas both empty morphs and non-formatives will not;

III- Form: Morphemes, allomorphs and empty morphs will normally have a constant shape with predictable variations, whereas non-formatives will not;

IV- Part of Speech of base (P.O.S.): Morphemes, allomorphs and empty morphs may be restricted to a specific word category, whereas this may not happen to non-formatives;

V- Restrictions on base: Morphemes, allomorphs and empty morphs may also be restricted to bases with specific phonological or semantic properties, whereas this does not happen to non-formatives;

VI- Range of allomorphs: Morphemes and empty morphs may not only exhibit allomorphic variants, but also different morphemes and different empty morphs may exhibit distinct allomorphic variants, whereas non-formatives may not exhibit such variants at all;

VII- Form imposed on base: Morphemes, allomorphs and empty morphs may cause systematic changes in the underlying form of a base, whereas non-formatives will not;

VIII- Potentiation of other formative: Morphemes, allomorphs and empty morphs may

“create a suitable base for” another formative, whereas non-formatives will not;

IX- Degree of productivity: Morphemes and empty morphs may exhibit degrees of productivity that may be used to distinguish between two morphemes or two empty morphs, whereas non-formatives may not;

X- Position class: Morphemes, their allomorphs, and empty morphs may occupy a position class in the word it occurs within, whereas non-formatives will not;

XI- Complementary distribution: Allomorphs of the same morpheme will always be mutually exclusive, whereas morphemes, empty morphs or non-formatives will not;

XII- Recurrence: Morphemes, allomorphs and empty morphs will recur in the word bases they are allowed to occur, whereas non-formatives will not;

Therefore the list given in Table 1 works as sort of tests to determine whether something is a formative or not, and what type of formative it is. As seen in this table, every positive value assigned to the category morpheme implies a positive value to the category allomorph. This follows from the assumption that every morpheme is necessarily realized as at least one allomorph. Thus wherever there is a morpheme there will necessarily be at least one allomorph, whereas the converse does not hold. The application of the tests given above will be illustrated as they are applied in chapters 4-6.

A necessary initial step in the description of the structure of words is to establish (preliminarily) the classes of words found in the language. Some introductory notes on the major classes of words found in the language are in order and are presented next.

3.4. Parts-of-Speech System

The system of parts of speech consists of the classes of words found in the language, where ‘word’ is the grammatical (rather than phonological) notion described above.

Throughout this and the next chapters ‘word’ will be used to mean grammatical word. In the presentation that follows I draw a distinction between **open** and **closed** classes of words

(Schachter 1985, Fabb 1994:60). Open word classes include the words that belong to a large category where, in principle, new members can be easily added. Closed word classes (whose morphology is described in chapter 5) include the words that are part of a limited set wherein, in principle, new members are much more difficult to add. So, in Apurinã words such as *pāko-ta* ‘stool-round.edge’ and *paraka* ‘hut’ are instances of words of the open class that were borrowed into the language, the first from the Portuguese word *banco* ‘stool, bench’, and the second from the word *barraca* ‘hut’, also from Portuguese. In contrast to the fact that there are clear instances of loanwords of the open class introduced in Apurinã, there is absolutely no instance of any loanword of the closed class.

This division of words into open or closed classes may not work very well when subclasses of nouns and verbs are compared to closed word classes. Some of the subclasses of nouns and verbs form a restricted set in a way rather similar to closed word classes. Nevertheless, when the super-ordinate class noun and the super-ordinate class verb are compared to closed word classes, the distinction is maintained. Although the distinction between closed and open word classes approximates that between lexical/content and grammatical/functional words, the former distinction is the one used because there the criteria for membership is (in my understanding) more straightforward.

3.4.1 Open Classes

Two major word classes are found in the language, **nouns** and **verbs**. The morphological properties (e.g., the one illustrated in (4)) of each individual word category of the open class are described separately: in chapter 4 for nouns and in chapter 5 for verbs. An in-depth discussion of the syntactic properties of these words will not be presented until chapter 8 —where the syntactic relevance of morphological properties is examined.

As a result of having only two open classes of words, the language presents a rather rich variety of subclasses for each of the open classes. Each of these subclasses will also be described in detail along with their super-ordinate class. Finally, three notions that are directly relevant to open classes of words are **base**, **root** and **stem** —introduced next.

3.4.1.1 Base, Root and Stem

The terms “root” and “stem” are probably among the most traditional words found in the morphological literature. Implicitly or explicitly, “**root**” is generally used to name the minimal lexical **base** (where ‘lexical’ means pertinent to the open class of words, and “base” is a any word form to which formatives attach) which (sub)category changing bound morphemes can attach to, or as the lexical base that expresses the core meaning of an open class word; whereas “**stem**” is generally used to name the morphological base which (sub)category maintaining bound morphemes attach to (Anderson 1985a:6, 1992:71, Spencer 1991:5). The use and definition of these terms follow from the general tendency for (sub)category maintaining bound morphemes/processes to occur outside (sub)category changing bound morphemes/processes, and vice-versa; or, in other words, the tendency for (sub)category changing morphemes to occur closer to the root, and for the (sub)category maintaining morphemes to occur farther from the root.

In this description of Apurinã, the notions of “root” and “stem” are particularly useful for the morphological description of nouns; they will be defined over the types of bound forms that attach to them. The types of bound forms attaching to a root nominal base and of bound forms attaching to a stem nominal base will roughly correspond to those associated with derivational and inflectional morphology, respectively. However, since the closest the modern theories of morphology have come to when trying to distinguish

derivation from inflection has been to argue that such notions can only be defined on a theory internal basis, I will avoid such labels here. Instead, I will make use of the more neutral terms **(sub)category changing** and **(sub)category maintaining bound forms**, and make some brief comments about the extent to which they translate into the notions of derivation and inflection, respectively.

A brief illustration of the notions just introduced can be seen in (10). The form *nhipoko* ‘food’ in (10a) is shown to be the minimal base a word can be decomposed into, i.e. a root. (10b) shows that the category changing nominalizer (and possessed marking) suffix *-re* can attach to the root base to form another noun form. In (10c), we can see that a category maintaining suffix, in this case the instrumental marker *-ã*, can attach to the root+*re* word base to form a noun “inflected” as an instrument. The base root+*re* which the instrument marker attaches to is then an instance of a stem.

- | | |
|--|--------------------|
| 10a. * <i>ata</i> [<i>nhipoko</i>] _{ROOT}
1PL food | (our food; we eat) |
| b. <i>ata</i> [<i>nhipoko</i>] _{ROOT} <i>-re</i>
1PL food-POSSED | ‘our food’ |
| c. <i>ata</i> [<i>nhipoko-re</i>] _{STEM} <i>-ã</i>
1PL food-POSSED-INSTR | ‘in our food’ |

The examples in (10) are a simplified illustration of the way the morphological notions introduced here help to describe the grammar internal to word forms. A much more detailed description is presented in chapters 4-7, including subtypes of root and stem forms not discussed here.

3.4.2 Closed Classes

The morphology of the classes of closed words is described in chapter 6. Closed classes of words include **pronouns, demonstratives, particles, interrogative words, and numerals**. With rare exceptions, words of the closed classes take no inherent morphology; in other words, generally, all the morphology they take is a subset of the morphology that nouns and verbs also take.

3.5. Affixes and Other Bound Formatives

The various morphological categories found in the language are formally expressed as two general types of bound formatives. The first type consists of the bound formatives that behave as typical **affixes** in other languages. The second type consists of **special types of bound formatives** that behave somewhat differently from typical affixes.

3.5.1 Affixes

Affixes are the bound formatives used individually or as part of a paradigm to encode grammatical categories generally associated with a specific word class. Different affixes can precede (as **prefixes**) or (exclusively) follow (as **suffixes**) the word base they attach to, but no affix can interrupt (as an **infix**) a formative. The plural suffix *-wako-ru* illustrated in (4) and the nominalizer suffix *-re* illustrated in (10b) are instances of typical affixes. There is one instance of an affix combination that may be analyzed as a **circumfix** (or a **discontinuous morpheme**), namely the forms involved in marking third person plural, *u-... -na*; however, I will also consider the possibility of describing this potential case of circumfix as an instance of **discontinuous dependencies** (Spencer 1991:210), a notion

independently motivated in the language by a specific subset of verbal formatives.

Conceivably, in discontinuous dependencies two forms may work together to encode a lexical meaning or grammatical function without necessarily constituting a single morpheme. (E.g., the verb plus particle combinations in English, as in *call him up*.)

3.5.2 Other Special Types of Bound Formatives

Apart from the forms that behave as typical affixes in the language, there are various bound formatives that show a behavior distinct from typical affixes in the following ways: They occur outside of typical affixes, some of them “float” in the clause, and they tend to interact in special ways with syntactic phenomena. The special bound formatives that occur with different word classes can be illustrated by the associative oblique marker *-kata*, as in *nota-kata* ‘with me’, *ata-kata* ‘with us’, *unawa-kata* ‘with them’ etc.

The special bound formatives that occur with different word classes and that fluctuate in the clause can be illustrated by the future marker *-ko* in (11), where *-ko* occurs either attached to the pronoun or to the verb without any change in the propositional meaning of the clause:

- 11a. *nota muteka-ko* ‘I’ll run away.’
1SG run-FUT
- b. *nota-ko muteka* ‘I’ll run away.’
1SG-FUT run

The detailed description of the properties of these special types of bound formatives and the extent to which they relate to cliticization phenomena is done in chapter 7, in 7.3.

3.6. Allomorphy

Different from the previous sections where a set of conceptual notions and methodological issues were discussed, the purpose of this section is to describe the various conditions that determine the way a specific set of morphemes is pronounced in the language, i.e. the processes involved in shaping these morphemes. In a way, the information provided here will also serve as background for the next sections, but a sort of background that already makes explicit a series of descriptive and analytical information about the morphological organization in Apurinã, more specifically, the systematic processes governing the phonetic realization of the pronominal markers which will be referred to again and again in chapters 5 and 7. The phonological shapes of morphemes other than pronominal markers will be described along with the morphological description of these morphemes. The reason to describe the allomorphy of pronominal markers in a separate section is motivated by the high complexity involved in accounting for each of the phonetic forms these markers may take.

3.6.1 *General Comments*

There are two classes of properties conditioning the shape of morphemes that are relevant here: **phonological** and **grammatical**. The phonological properties are those that were described in chapter 2. All cases of the phonologically conditioned allomorphy result from the properties described in chapter 2, and they are entirely accountable on phonological grounds. For example, a morpheme which is realized with a word initial nasal vowel before a nasal consonant, but with a word initial oral vowel elsewhere will be

phonologically conditioned if the vowel nasalization before a nasal consonant is a general process in the language.

Grammatical properties, on the other hand, need to make reference to some particular word (or class of words) or morpheme involved. For example, a morpheme which is realized as [-tʃi] plus the nasalization of the preceding vowel when attached to a subset of noun bases, but just as [-tʃi] (without any such nasalization) everywhere else will constitute a case of grammatically conditioned allomorphy, insofar as the first of the two forms are restricted to a subset of a word class. The class of allomorphy (whether phonologically or grammatically conditioned) will be identified for each of the morpheme alternations described below, as they need to be taken into consideration in order for the morpheme's shape to be properly described.

Since the processes determining the phonologically conditioned allomorphy consist of the rules already described in chapter 2, the focus of this section will be on grammatically conditioned allomorphy, in which case I will make reference to the phonologically conditioned rules of chapter 2, and will do so only where it is important to present all the allomorphs of specific morphemes in the same place.

Let me note that it is not part of the goal of this section to present a description of the grammatical functions of the morphemes whose allomorphy is described below. Only a rough idea of their structure and function is provided here. The place and function of such morphemes are properly described in chapters 4-7.

3.6.2 Allomorphy of Pronominal Markers

Pronominal markers are bound forms inflecting for person, gender, and, under one specific analysis, subject or possessor. They assume different shapes that are determined by phonological processes taking place at specific morphemic boundaries and which may or may not generalize to other environments (depending on whether the shapes are phonologically or grammatically conditioned). Table 2 lists the first set of pronominal markers (underlined for emphasis). They always occur when the word form that they attach to starts with a non-palatal consonant: (I will use a partial phonemic transcription in the remaining of this chapter so as to be able to present the relevant phonetic information. I will not mark the secondary stress, but will mark nasality even for non-inherently nasal vowels.)

Table 2: Set 1 of Subject/Possessor Forms

SUBJ. / POSS.		/napa/ ‘to pass’	/taka/ ‘to put’	/míteka/ ‘to run’	/sika/ ‘to give’	/nama/ ‘mouth of’	/wako/ ‘hand of’
S	1 /ni-/	/nĩ- ¹ napa/	/nĩ- ¹ taka/	/nĩ-mi ¹ teka/	/nĩ- ¹ sika/	/nĩ- ¹ nāma/	/nĩ- ¹ ʉjako/
I	2 /pi-/	/pĩ- ¹ napa/	/pĩ- ¹ taka/	/pĩ-mi ¹ teka/	/pĩ- ¹ sika/	/pĩ- ¹ nāma/	/pĩ- ¹ ʉjako/
N	3M /i-/	/ĩ- ¹ napa/	/ĩ- ¹ taka/	/ĩ-mi ¹ teka/	/ĩ- ¹ sika/	/ĩ- ¹ nāma/	/ĩ- ¹ ʉjako/
G	3F /o-/	/õ- ¹ napa/	/õ- ¹ taka/	/õ-mi ¹ teka/	/õ- ¹ sika/	/õ- ¹ nāma/	/õ- ¹ ʉjako/
P	1 /a-/	/ã- ¹ napa/	/ã- ¹ taka/	/ã-mi ¹ teka/	/ã- ¹ sika/	/ã- ¹ nāma/	/ã- ¹ ʉjako/
L	2 /hĩ- /	/hĩ- ¹ napa/	/hĩ- ¹ taka/	/hĩ-mi ¹ teka/	/hĩ- ¹ sika/	/hĩ- ¹ nāma/	/hĩ- ¹ ʉjako/
	3 /i...-na/	/ĩ-na ¹ pã-na/	/ĩ-ta ¹ kã-na/	/ĩ-mite ¹ kã-na/	/ĩ-si ¹ kã-na/	/ĩ-nāma-na/	/ĩ-ʉjako-na/

Notice that the nasalization of vowels preceding nasal consonants in the paradigms for ‘to pass’, ‘to run’, and ‘mouth of’ are accountable by the phonologically conditioned rule given in (29) of chapter 2. As was noticed in chapter 2, nasalization fluctuates in such an environment. Because nasal and oral vowels are in free variation when preceding a nasal consonant, pronominal markers that appear nasalized in such an environment will not be

taken to constitute a separate set of pronominal allomorphs. The first set given above can be argued to constitute the elsewhere cases, thus representing the **basic/underlying forms** out of which other forms can be derived as a result of the rules presented at the end of this subsection. The fact that in Table 2 (as well as in the next tables) the form for third plural subject/possessor is realized as the (putative) discontinuous formative /ɪ...-na/ in verbs is here analyzed as a result of a discontinuous dependency relation between the two formatives /ɪ-/ and /-na/. In other words, the forms in question occur in mutual dependency to perform a (combination of) function(s), namely to encode third person plural in the verbs. The morpheme /ɪ-/ , given here as the third person plural for nouns, occurs in only some speech varieties, while in others /ɪ...-na/ is used for both verbs and nouns. I will ignore this distinction here, and will mention it again in chapters 5 and 7. A more detailed morphological description of these pronominal markers will be presented in 7.1.1.

The second set of pronominal markers, given in Table 3, occurs when the word forms the markers attach to either start with a palatal or palato-alveolar consonant, cf. /^hɲika/ ‘to eat’, /ʃã^hpoka/ ‘to fill up’, /^hɲipa/ ‘lice of’, /ʃe^hrepi/ ‘arrow of’, or when these words belong to a subset of body parts, cf. /mã^hkita/ ‘wings of’ and /^hkiri/ ‘nose of’:

Table 3: Set 2 of Subject/Possessor Forms¹

SUBJ. / POSS.		/ɲika/ 'to eat'	/ʃãpoka/ 'to fill up'	/ɲipa/ 'lice of'	/ʃerepi/ 'arrow of'	/mẽkita/ 'wings of'	/kiri/ 'nose of'	
S	1	/ɲi-/	/ɲi- ¹ ɲika/	/ɲi-ʃã ¹ puka/	/ɲi- ¹ ɲipa/	/ɲi-ʃe ¹ repi/	/ɲi-mẽ ¹ kita/	/ɲi- ¹ kiri/
I	2	/pi-/	/pi- ¹ ɲika/	/pi-ʃã ¹ puka/	/pi- ¹ ɲipa/	/pi-ʃe ¹ repi/	/pi-mẽ ¹ kita/	/pi- ¹ kiri/
N	3M	/i-/	/i- ¹ ɲika/	/i-ʃã ¹ puka/	/i- ¹ ɲipa/	/i-ʃe ¹ repi/	/i-mẽ ¹ kita/	/i- ¹ kiri/
G	3F	/o-/	/o- ¹ ɲika/	/o-ʃã ¹ puka/	/o- ¹ ɲipa/	/o-ʃe ¹ repi/	/o-mẽ ¹ kita/	/o- ¹ kiri/
P	1	/a-/	/a- ¹ ɲika/	/a-ʃã ¹ puka/	/a- ¹ ɲipa/	/a-ʃe ¹ repi/	/a-mẽ ¹ kita/	/a- ¹ kiri/
L	2	/hĩ-/	/hĩ- ¹ ɲika/	/hĩ-ʃã ¹ puka/	/hĩ- ¹ ɲipa/	/hĩ-ʃe ¹ repi/	/hĩ-mẽ ¹ kita/	/hĩ- ¹ kiri/
	3	/i-...-na/	/i-ɲi ¹ kã-na/	/i-ʃãpu ¹ kã-na/	/i-ɲipa-na/	/i-ʃe ¹ repi-na/	/i-mẽ ¹ kita-na/	/i-ki ¹ ri-na/

The set 2 forms, thus, occur in two conditioning environments: One that is phonological and the other that is lexical. They are phonologically conditioned when they occur preceding a palatal or palato-alveolar consonant, and they are lexically conditioned when they occur with a few nouns referring to body parts. Note that most body part terms do NOT take set 2 forms; the word for ‘my head’ is /ɲi-¹kɪɥɪ/, not */ɲi-¹kɪɥɪ/; the word my ‘his nape’ is /ɪ-¹nokɪ/, not */i-¹nokɪ/, and so on. Presently, it would appear that the body part terms that take set 2 forms constitute an arbitrary set.

The third set of pronominal markers consists of those that only occur when the word form that they attach to starts with a vowel, thus in a phonologically conditioning environment:

¹ In the various tables listing the pronominal markers, shaded columns highlight the ways that the forms deviate from the basic forms.

Table 4: Set 3 of Subject/Possessor Forms

SUBJ. / POSS.			/oka/ 'to kill'	/ajata/ 'to hunt'	/etama/ 'to see'	/amarite/ 'son of'	/iri/ 'father of'	/oki/ 'eye of'
S	1	n-/	/ṅ-oka/	/ṅ-a'jata/	/ṅ-e'tāma/	/ṅ-āma'rite/	/ṅ-iri/	/ṅ-oki/
I	2	p-/	/p-oka/	/p-a'jata/	/p-e'tāma/	/p-āma'rite/	/p-iri/	/p-oki/
N	3M	ɸ-/	/ɸ- ¹ oka/	/ɸ-a'jata/	/ɸ-e'tāma/	/ɸ-ama'rite/	/ɸ-iri/	/ɸ- ¹ oki/
G	3F	ō- / /ō ^w -/	/ō-ōka/	/ō-ā'jata/	/ō-ē'tāma/	/ō-āma'rite/	/ō-iri/	/ō- ¹ oki/
P L	1	ā- / /ē-/	/ā- ¹ oka/	/ā-ā'jata/	/ē-ē'tāma/	/ā-āma'rite/	/ā-iri/	/ā- ¹ oki/
	2	h-/	/h-ōka/	/h-ā'jata/	/h-ē'tāma/	/h-āma'rite/	/h-iri/	/h-ōki/
	3	ɸ...-na/	/ɸ-o'kā-na/	/ɸ-aja'tā-na/	/ɸ-etā'ma-na/	/ɸ-āma'rite-na/	/ɸ-iri-na/	/ɸ- ¹ oki-na/

The fourth and fifth sets of pronominal markers only occur when the word forms the markers attach to start with the glottal fricative /h/. The fourth is as shown in Table 5:

Table 5: Set 4 of Subject/Possessor Forms²

SUBJ. / POSS.			/hākipa/ 'heart of'	/hēnēma/ 'saliva of'	/herēka/ 'blood of'	/hīrōuqā/ 'to enter'
S	1	/nī-/	/nī-ā'kipa/	/nī-ē'nēma/	/nī-ē'rēka/	/nī-irō'uqā/
I	2	/pī-/	/pī-ā'kipa/	/pī-ē'nēma/	/pī-ē'rēka/	/pī-irō'uqā/
N	3M	/ī-/	/ī-ā'kipa/	/ī-ē'nēma/	/ī-ē'rēka/	/ī-irō'uqā/
G	3F	/ō ^w -/	/ō ^w -ā'kipa/	/ō ^w -ē'nēma/	/ō ^w -ē'rēka/	/ō ^w -irō'uqā/
P L	1	/ā-/	/ā-ā'kipav	/ē-ē'nēma/	/ē-ē'rēka/	/ā-irō'uqā/
	2	/h~/	/h-ā'kipa/	/h-ē'nēma/	/h-ē'rēka/	/h-irō'uqā/
	3	/ī-...-na	/ī-ā'kipa-na/	/ī-ē'nēma-na/	/ī-ēr'ē ka-na/	/ī-irō'uqā-na/

The fifth set is only different from the fourth in so far as the former only occurs when attached to a word form which starts with /h/ followed by /i/, i.e. /hi/. The word illustrated in Table 6 is the only example attested so far:

² This set of subject/possessor forms is not found in the speech varieties where the consonant /h/ is absent, in which case the third set is used with the respective words.

Table 6: Set 5 of Subject/Possessor Forms³

SUBJ. / POSS.			/hĩmata/ 'to copulate'
S	1	/jĩ-/	/jĩ-ĩ ¹ mata/
I	2	/pĩ-/	/pĩ-ĩ ¹ mata/
N	3M	/ĩ-/	/ĩ-ĩ ¹ mata/
G	3F	/õ-/	/õ-ĩ ¹ mata/
P	1	/ã-/	/ã-ĩ ¹ mata/
L	2	/hĩ-/	/hĩ-ĩ ¹ mata/
	3	/ĩ-...-na/	/ĩ-ĩma ¹ tã-na/

Both sets 4 and 5 are phonologically conditioned allomorphs to the extent that they occur preceding any word form starting with a glottal fricative.

Based on the conditioning factors shaping the five sets of pronominal markers, it seems reasonable to suggest that such markers can be derived from the first set given in Table 2. This can be argued to be the case because all of the forms listed in the preceding tables are the phonetic realizations of the rules described in the following paragraphs:

12. The vowel /i/ and /ĩ/ are realized as [i] and [ĩ], respectively, whenever preceding a palatal consonant:

i.e., $\left[\begin{array}{c} /i/ \\ \pm\text{NASAL} \end{array} \right] \rightarrow \left[\begin{array}{c} [i] \\ \pm\text{NASAL} \end{array} \right] / \text{__}[\text{PALATAL}]$ (This rule was already mentioned in subsection 2.1.3.1 of chapter 2.)

13. The consonant /n/ is realized as [ɲ] whenever preceding [i]:

i.e., $/n/ \rightarrow [\text{ɲ}] / \text{__} \left[\begin{array}{c} [i] \\ \pm\text{NASAL} \end{array} \right]$ (This rule was also mentioned in 2.1.2.4 .

14. The vowel /i/ is dropped when preceding another vowel:

i.e., $/i/ \rightarrow \emptyset / \text{__}[\text{+vowel}]$ (This rule further generalizes on the rule given in 2.1.3.2.)

³ See footnote 2.

15. An epenthetic [ɥ] is inserted when [o] or [u] precedes a different vowel: (This process, however, is associated with the rate of speech. The faster the speech the more likely is that the epenthesis occurs; as such, this sort of epenthesis is not always systematic and, also, is more consistently attested in morpheme boundary.)

$$\text{i.e., } \emptyset \rightarrow [\text{ɥ}] / \left[\begin{array}{l} +\text{vowel} \\ +\text{back} \end{array} \right] \text{---} \left[\begin{array}{l} +\text{vowel} \\ -\text{back} \end{array} \right]$$

16. /hĩ/ ‘2PL’ is realized as the glottal fricative (i.e. [h]) plus the nasalization of the following vowel when attached to a word initial base:

$$\text{i.e., } /hĩ/ \rightarrow h\tilde{V} / \text{---}V$$

17. The vowel /a/ is realized as [e] whenever preceding [e]:

$$\text{i.e., } \left[\begin{array}{l} /a/ \\ \alpha\text{NASAL} \end{array} \right] \rightarrow \left[\begin{array}{l} [e] \\ \alpha\text{NASAL} \end{array} \right] / \text{---} \left[\begin{array}{l} [e] \\ \pm\text{NASAL} \end{array} \right]$$

18. A vowel is nasalized morpheme initially whenever following another vowel:

$$\text{i.e., } V \rightarrow [+nasal] / V+\text{---}$$

19. The glottal fricative is dropped whenever preceded by a vowel:⁴

$$\text{i.e., } /h/ \rightarrow \emptyset / [+vowel]\text{---} \text{ (Again, this rule was already mentioned in 2.1.2.5 of chapter 2.)}$$

20. A vowel is nasalized when preceding another nasal vowel:

$$\text{i.e., } V \rightarrow \tilde{V} / \text{---}\tilde{V} \text{ (As already mentioned in 2.1.1.4 of chapter 2.)}$$

Therefore, the preceding rules can represent the processes by which the basic forms given in Table 2 can acquire the actual phonetic properties they show in Tables 2-6. In Table 7 the five sets of pronominal markers and sound alternation rules are summarized:

⁴ As noted in chapter 2 (under 2.1.2.5), the only exception here is the reduced form of the 1st person pronoun, no#.

Table 7: The Application of the Allomorphy Rules

Set 1 Basic Forms	Set 2 Forms Rules		Set 3 Forms Rules		Set 4 Forms Rules		Set 5 Forms Rules	
ni-	/ɲi-/	(12, 13)	/n-/	(14)	nĩ-/	(19, 18)	/ɲĩ-/	(18-20, 12, 13)
pi-	/pi-/	(12)	/p-/	(14)	pĩ-/	(19, 18)	/pĩ-/	(19, 18, 20, 12)
i-	/i-/	(12)	/ø-/	(14)	i-/	(19, 18)	/ĩ-/	(19, 18, 12)
o-	/o-/		/õ-/ / /õ ^w /	(18, 15, 20)	õ ^w -/	(19, 18, 15, 20, 20)	/õ-/	(19, 18)
a-	/a-/		/ã- / /ẽ-/	(18, 20, 17)	ã- / /ẽ-/	(19, 18, 20, 17)	/ã-/	(19, 18)
hĩ-	/hĩ-/		/h̃-/	(16)	/hĩ-/		/hĩ-/	
i-...(-na)	/i-...-na/	(12)	/ø-...-na/	(14)	i-...-na/	(19, 18)	/ĩ-...-na/	(19, 18, 12)

A general phonological rule (described in chapter 2, under 2.1.14) accounting for derived long vowels is not represented in Table 7. The reflex of such a rule can, nevertheless, be seen in the tables 2-6. The rule states that vowels other than /i/ are realized as long vowels whenever adjacent to another vowel of the same quality. As a consequence, in the Apurinã of the Japiim village, whenever two identical vowels occur together in morpheme boundaries they behave, phonetically, as long vowels. The process deriving long vowels can then be stated and represented as follows:

21. Identical adjacent vowels other than /i/ are realized as long vowels:

$$\text{i.e., } \begin{bmatrix} \text{-high} \\ \text{-central} \\ \alpha \end{bmatrix} \rightarrow [+long] / \begin{bmatrix} \text{-high} \\ \text{-central} \\ \alpha \end{bmatrix} \text{ (As mentioned in subsection 2.1.1.4 of chapter 2)}$$

The examples in Table 8 illustrate the process of long vowel derivation. The accompanying nasalization of long vowels is by the rule stated in (18).

Table 8: Derivation of long vowels in morpheme boundaries

	/atama/ 'to see'	/oka/ 'to kill'	/imata/ 'to know'
a- 1PL/POSS	[ã-ã ^l tama]		
o- 3F/ POSS		[^l õ-õka]	
hĩ- 2PL/ POSS			[hĩ-ĩ ^l mata]

Conceivably, if more abstract rules are used, the rule stating the process of vowel lengthening in morpheme boundaries could be generalized to all environments in the language. All long vowels would derive from underlying short ones. Here, however, I will only mention the possibility of such an alternative analysis, reserving such a higher level of abstract generalization to more theoretically based approaches to the data. Such an analysis would be done in an internal reconstruction of the Apurinã phonological system.

Chapter 4

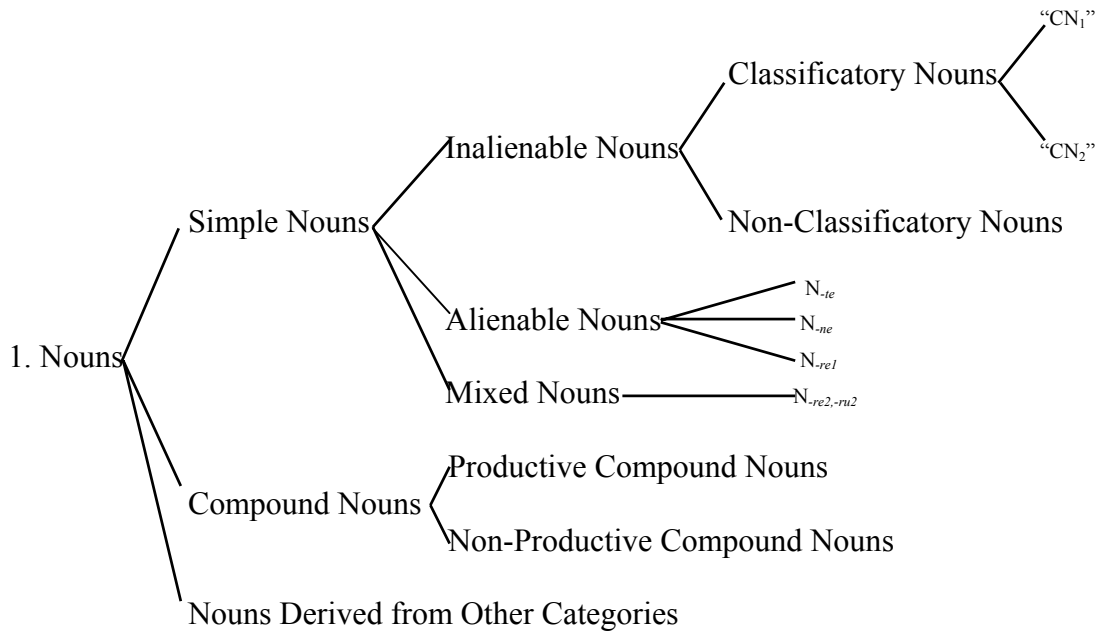
Nouns

4.0. Introduction

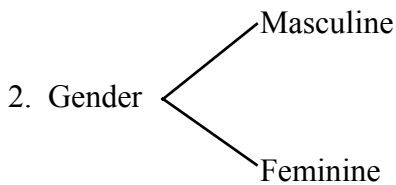
This chapter describes the word internal structural properties of nouns and their syntactic properties, distinguishing the noun subcategories present in the language. The grammatical bound formatives that are described in this chapter as part of the morphological structure of nouns are those that only occur as part of noun bases. Apurinã also has affix-like forms that occur outside of the morphological formatives inherent to nouns. The majority of such morphological forms belonging to this outer-layer morphology can occur not only with nouns but, also, with verbs, pronouns and/or other closed word classes (depending on the relevant case). In this chapter, I will concentrate on the description of inherently nominal bound formatives, postponing the description of non-inherently nominal affix-like forms to chapter 7, where they will be described as a special class of bound formatives.

The grammatical properties described in this chapter for nouns will motivate the following nominal categories:¹

¹ Unless it is necessary to distinguish the general word class from its particular subclasses, I will be using the term “category” to refer to a general word class or to its particular subclasses such that, for example, “noun” and “simple noun” will both be referred to as a “(noun) category”.



In addition to these categories, there is also the following gender categorization that cuts across all the categories given above:



The notion of “noun” can be grammatically defined in Apurinã in terms of its morphological and syntactic properties. Therefore, the exclusively nominal morphological properties described in the next sections will be taken as the distinctive MORPHOLOGICAL delineation of nouns. Morphological properties that nouns share with verbs will be highlighted, in this work, as outside the domain of intrinsic nominal morphological features and will be described separately in chapter 7. The existence of exclusively nominal morphology was already anticipated in chapter 3, under 3.2.2, (for example, in (4)), where the plural marker was illustrated. Hence, it is morphological

properties such as the plural marker, which are intrinsic to nouns, that are described in detail in the rest of this chapter. In addition to specific morphological properties, nouns also have particular syntactic properties (such as, for example, distribution in larger units) which distinguish them from verbs, pronouns etc., as will be made explicit in the following subsections in this chapter.

4.1. Simple Nouns And Alienability

An underived noun (i.e. a noun that is not derived from another word category) can be minimally a bare root which is intrinsically nominal (i.e. can take exclusively nominal morphology). For instance, the words *kema* ‘tapir’ and *anãpa* ‘dog’ cannot be reanalyzed into smaller morphological elements and can only behave as nouns in the language. Nouns which have only one root are **simple nouns**. The following word formation rule (i.e. rewriting rule), thus, represents the simplest type of noun structure possible, one that states that a noun (i.e. **N**) can be realized as a bare root (i.e. **Rt**):

3. $N \rightarrow Rt$

While some simple nouns are lexically marked² to be obligatorily possessed, others are not.³ Obligatorily possessed simple nouns are labeled **inalienable nouns**, whereas non-obligatorily possessed simple nouns are labeled **alienable nouns**. The inalienable versus alienable distinction is reflected in the morphological marking patterns

² “Lexically marked” properties are those that are part of the meaning of a lexical entry. Hence obligatory possession and unpossession are lexically marked in simple nouns because each lexical entry for simple nouns either is obligatorily possessed or is not.

³ The present analysis differs from previous ones (cf. Facundes 1994a, 1995) in that the nouns which were there analyzed as lexically marked for obligatory unpossession are here being analyzed as simply not having the property

described next. Some of the formatives involved in the marking patterns of simple nouns will be shown later, in section 4.3, to occur also with verb bases as nominalizers. Since the purpose of this section is to describe the morphological and syntactic factors that motivate the different lexical categories of nouns found in the language, I will, for the moment, ignore such additional functions of these formatives, returning to them in 4.3.

4.1.1 *Simple Inalienable Nouns*

Inalienable nouns belong to the class of simple nouns insofar as they comprise a single root. Inalienable nouns are obligatorily possessed, require no morphological marker to occur possessed, and, also, require a morphological marker (i.e. *-txi*) to occur unpossessed (in the cases where the semantics/pragmatics allows for the noun to occur unpossessed). As an example, the word *kuwu* by itself means ‘head of’, not simply ‘head’. Thus, in order to express the concept ‘head’ without specifying whose head it is, one needs to say *kuwĩ-txi*⁴. The inalienable noun *kuwu* is further illustrated in the clausal contexts given below. In (4a) *kuwu* is the possessed noun in the construction *kema kuwu* ‘tapir’s head’. In (4b) *kuwu* requires the *-txi* unpossessed marker because it occurs unpossessed:

- 4a. [*kema kuwu*] *mipa atama-ta*
 tapir head.of Mipa look-VBLZ
 ‘Mipa looked at the tapir’s head.’

of being obligatorily possessed. That is, the distinction is one of markedness in relation to a specific grammatical feature.

⁴ The nasalization of the root final vowel when preceding the suffix *-txi* is a property of $R_{t_{\text{INAL}}}$ morphemes described in detail in 4.4.3.

- b. [*kuwĩ-txi*] *su-pe*
 head.of-UNPOSS go-PFTV
 ‘The head person left.’ (In this case ‘head’ refers to a mythological personage who only exists as a head, with no other body parts.)

In (4), as everywhere else in this work, inalienable nouns are glossed as ‘N of’, where “N” is the lexical meaning of the inalienable noun in question and “of” marks it as obligatorily possessed. Thus, in the analysis proposed here, obligatory possession is part of the lexical entry of inalienable nouns; that is, it is stored with the lexical entries of inalienable nouns, rather than added by morphosyntactic rules. As seen (4a), no morphological marker is added when an inalienable noun occurs possessed, and, as a consequence, the syntactic context in which inalienable nouns occur possessed is one where two nouns are placed together by **juxtaposition**. On the other hand, when inalienable nouns occur unpossessed they require the presence of the unpossession marker *-txi*:

The example given in (4) may suggest that possession constructions such as [*kema kuwu*] can be described purely in terms of the syntactic structure internal to the nominal phrase. In this case, the possession relation would not be marked by any lexical property of the possessed noun but, instead, by a syntactic distribution in which the possessor would always precede the possessed noun. However, while this “precedence rule” is a necessary part of the grammar of possession constructions in the language, it is not sufficient to describe them. The reason is a twofold one: First, it is necessary to refer to the lexical property of inalienable nouns in order to describe which ones take the unpossessed suffix *-txi*; second, it is necessary to refer to their lexical property also in order to explain why they do not take the possessed suffixes described below for alienable nouns.

The general possessed and unpossessed morphological marking pattern is given in Table 1. Rt_{INAL} belongs to the set of roots that are lexically marked as possessed, thus requiring no morphological marking to occur possessed, and that require the *-txi* suffix to occur unpossessed —where semantically/pragmatically possible. Put in a different way, inalienable nouns would be covertly marked for possession (covert possession is represented by “Ø” in Table 1) and overtly marked for unpossession. In the last column of Table 1, as in other tables below, “NA” (not applicable) is used to mark the cases where semantics or pragmatics does not allow a Rt_{INAL} to be realized as an unpossessed noun:

Table 1: Marking Patterns for Inalienable Nouns

Root Class	Possessed Marking	Unpossessed Marking
Rt_{INAL}	-Ø	- <i>txi</i> /NA

Thus, the simplest word formation rule for these nouns is as follows:

5. $N_{INAL} \rightarrow Rt_{INAL} (+ txi)$

As the next subsections will illustrate, the class of simple inalienable nouns include body parts, plant parts, personal belongs, kinship terms, among others, and although it must constitute a closed subclass of nouns it still includes at least a few hundred words. Based on whether they can be used with classificatory functions or not, inalienable nouns can be further subcategorized as **non-classificatory** or **classificatory nouns**. The morphological properties of both non-classificatory and classificatory nouns are described next.

4.1.1.1 Simple Inalienable Non-Classificatory Nouns

(Simple inalienable) non-classificatory nouns are simple inalienable common nouns. An example of non-classificatory noun is *kuwu* ‘head of’, illustrated in (4). These nouns follow the (un)possessed marking pattern given in Table 2, where $Rt_{\text{INAL.NON-CL}}$ belongs to the subset of inalienable roots (i.e. Rt_{INAL}) that cannot be used with the classificatory function:

Table 2: Marking Patterns for Non-Classificatory Nouns

Root Class	Possessed Marking	Unpossessed Marking	Classificatory Function
$Rt_{\text{INAL.NON-CL}}$	-Ø	- <i>txi</i> /NA	NO

The simplest word formation rule for these nouns is as follows:

$$6. N_{\text{INAL.NON-CL}} \rightarrow Rt_{\text{INAL.NON-CL}} (+ \textit{txi})$$

Lists of Rt_{INALS} are given in Tables 3-6. As the data below suggest, the majority of Rt_{INALS} that *-txi* attaches to refer to body parts or body-related meanings, second to personal belongings and abstract (non-tactile) concepts, and, third, to other types of concepts:

Table 3: The Unpossessed Nouns Marked with *-txi*: Body Parts

Possessed Form	Unpossessed Form	Gloss
<i>apu</i>	<i>apĩ-txi</i>	‘bone’
<i>herēka</i>	<i>herēka-txi</i>	‘blood’
<i>ĩĩ</i>	<i>ĩĩ-txi</i>	‘fat (N)’
<i>kano</i>	<i>kanō-txi</i>	‘arm’
<i>kuwu</i>	<i>kuwĩ-txi</i>	‘head’
<i>nhipa</i>	<i>nhipa-txi</i>	‘louse’
<i>noku</i>	<i>nokĩ-txi</i>	‘nape’
<i>pitxi</i>	<i>pitxĩ-txi</i>	‘male genitals (1)’
<i>pipi</i>	<i>pipi-txi</i>	‘male genitals (2)’
<i>putu</i>	<i>putĩ-txi</i>	‘part of female genitals’
<i>soko</i>	<i>sokō-txi</i>	‘female genitals’
<i>tenhi</i>	<i>tenhĩ-txi</i>	‘breast’
<i>toro</i>	<i>toro-txi</i>	‘bruise’
<i>xenhi</i>	<i>xenhĩ-txi</i>	‘meat’
etc.		

Table 4: The Unpossessed Nouns Marked with *-txi*: Personal Belongings

Possessed Form	Unpossessed Form	Gloss
<i>hĩwāka</i>	<i>hĩwāka-txi</i>	‘name’
<i>keko</i>	<i>keko-txi</i>	‘hammock’
<i>koi</i>	<i>koi-txi</i>	‘flute (1)’
<i>māka</i>	<i>māka-txi</i>	‘clothes’
<i>meko</i>	<i>meko-txi</i>	‘paddle’
<i>tapo</i>	<i>tapo-txi</i>	‘bow’
<i>toro</i>	<i>toro-txi</i>	‘bruise’
<i>tou</i>	<i>toi-txi</i>	‘thing’
<i>xerepi</i>	<i>xerepi-txi</i>	‘arrow’
etc.		

Table 5: The Unpossessed Nouns Marked with *-txi*: Abstract (Non-Tactile) Concepts

Possessed Form	Unpossessed Form	Gloss
<i>arika</i>	<i>arika-txi</i>	‘burning’
<i>awapoko</i>	<i>awapoko-txi</i>	‘village’
<i>herēka</i>	<i>herēka-txi</i>	‘blood’
<i>hīwāka</i>	<i>hīwāka-txi</i>	‘name’
<i>mixi</i>	<i>mixĩ-txi</i>	‘pregnancy’
<i>nere</i>	<i>nere-txi</i>	‘will’
<i>piyāka</i>	<i>piyāka-txi</i>	‘darkness’
<i>posonata</i>	<i>posonata-txi</i>	‘thirst’
<i>sākire</i>	<i>sākire-txi</i>	‘language’
<i>serēka</i>	<i>serēka-txi</i>	‘dance’
etc.		

Table 6: The Unpossessed Nouns Marked with *-txi*: Others

Possessed Form	Unpossessed Form	Gloss
<i>kiyana</i>	<i>kiyana-txi</i>	‘vegetables’
<i>kiyomanhi</i>	<i>kiyomanhi-txi</i>	‘elder’
<i>nakanhi</i>	<i>nakanĩ-txi</i>	‘tapioca’
etc.		

As can be observed in Tables 3, 5 and 6, there are instances of allomorphic alternations of the lexical base which the possessed marker *-txi* attaches to that are lexically conditioned. That is, when *-txi* occurs with a subset of the nouns referring to body parts, a subset of nouns referring to abstract concepts or a subset of nouns referring to other concepts, the vowel which precedes *-txi* is nasalized. This is further illustrated in each of the pairs of words given in (7-12), where the first word of each pair is the possessed form of the noun, whereas the second word in each pair is the unpossessed form of the noun: (Bound pronominal markers are used in the examples below for easy of illustration. As will be seen in chapter 7, section 7.1.1, these pronominal markers, when used as possessors, are in complementary distribution with free (pro)nominal possessors.)

7a. <i>nu-kuwu</i> 1SG-head.of	‘my head’
b. <i>kuwĩ-txi</i> head.of-UNPOSS	‘head’
8a. <i>p-oku</i> 2SG-eye.of	‘your eye’
b. <i>okĩ-txi</i> eye.of-UNPOSS	‘eye’
9a. <i>o-kano</i> 3F-arm.of	‘her arm’
b. <i>kanõ-txi</i> arm.of-UNPOSS	‘arm’
10a. <i>u-pitxi</i> 3M-penis.of	‘his genitalia’
b. <i>pitxĩ-txi</i> penis.of-UNPOSS	‘(male) genitalia’
11a. <i>o-mixi</i> 3M-pregnancy	‘her pregnancy’
b. <i>mixĩ-txi</i> pregnancy-UNPOSS	‘pregnancy’
12a. <i>u-nakanhi</i> 3M-tapioca	‘its/his tapioca paste’
b. <i>nakanhĩ-txi</i> tapioca-UNPOSS	‘tapioca’

In all the pairs above, the final vowel of the base form to which *-txi* attaches (to mark the noun as unpossessed) is nasalized. As can be seen from the Tables 3-6, the great majority of the noun forms that have the vowel preceding *-txi* nasalized are those referring to body parts.

The norm is for the affixation of the unpossessed marker NOT to trigger nasalization in nouns referring to concepts other than body parts (as shown in Tables 4-6). The rule accounting for the lexically conditioned allomorphy of the sort just described can be stated as in (13):

13. The unpossessed suffix *-txi* nasalizes the preceding vowel of the base it attaches to when this base belongs to a subclass of nouns referring to body parts or abstract concepts or a few others;

i.e. $V \rightarrow \tilde{V} / _+txi$, where V is part of a noun stem referring to body parts or body-related phenomena.

Conceivably, if a lexical semantic analysis can show that the word *mixĩ-txi* ‘pregnancy’ refers to a concept that can be semantically categorized as a body part in Apurinã, and if it is assumed that the word *nakanhĩ-txi* ‘tapioca paste’ has the vowel preceding *-txi* nasalized by analogy to words such as *pitxĩ-txi* ‘penis’, *mixĩ-txi*, *kuwĩ-txi* ‘head’, *okĩ-txi* ‘eye’, etc., then the presence of the nasalization preceding *-txi* can be described as restricted to a subset of body parts, with exception(s) due to developments by analogy. Such an analysis, in order to be satisfactory, is likely to require evidence from the internal reconstruction and/or a diachronic analysis of *-txi*.

Tables 4-6 also illustrated the fact that (as previously shown in Facundes 1994a and 1995a) class membership for simple inalienable non-classificatory nouns cannot be predicted solely on semantic grounds, and, thus, is grammatically determined. However, it still is the case that the class of concepts expressed by the nouns marked with *-txi* include those which are among the ones mostly likely to behave as inalienably possessed in other languages: body parts, personal belongings and abstract nouns. Worth noting is

the fact that kinship terms are entirely excluded from the subset of inalienable nouns that can take the unpossessed marker *-txi*. The word *kiyomanhi-txi* ‘elder’ given in Table 6 is no exception since it simply refers to a person of advanced age, regardless of his/her kin relationships. True kin terms are never used in unpossessed contexts; that is, they are always possessed when used in normal speech. So, in order to express a proposition such as ‘The grandmother has arrived’, one would normally utter the sentence in (14a) or (14b), where, since it is assumed it is somebody’s ‘grandmother’, the word for ‘grandmother’ will be expressed as possessed either by a third person masculine pronominal form or by a third person feminine pronominal form:

- 14a. *Ø-akuro* *apo-pe* ‘His grandmother has arrived.’
 3M-grandmother.of arrive-PFTV
- b. *õ-akuro* *apo-pe* ‘Her grandmother has arrived.’
 3F-grandmother.of arrive-PFTV

Cases where kin terms are used without a possessor formally expressed are those where the kin term being used is a vocative, in which case the vocative is interpreted in terms of its relationship to the speaker—that is, in such cases, the possessor is assumed to be the speaker. (15) illustrates the use of vocatives as kin terms NOT formally marked as possessed:

- 15a. *kuro* *apo-pe* ‘Grandma has arrived.’
 grandma arrive-PFTV
- b. *totu* *apo-pe* ‘Grandpa has arrived.’
 grandpa arrive-PFTV
- c. *nano* *apo-pe* ‘Mom/My auntie has arrived.’
 mom arrive-PFTV

d. *patu apo-pe*
 dad arrive-PFTV

‘Dad/my uncle has arrived.’

A sample of the kin terms is listed in Table 7:

Table 7: Kinship Terms

Possessed Form	Unpossessed Form	Gloss
<i>atoku-ru₁</i>	N/A	‘grandfather of’
<i>aku-ro</i>	N/A	‘grandmother of’
<i>epuru₁</i>	N/A	‘younger brother of’
<i>ita-ru₁</i>	N/A	‘brother of (2), cousin of’
<i>ita-ro</i>	N/A	‘sister of (2), cousin of’
<i>omekanhi-ru₁</i>	N/A	‘grandson of’
<i>omekanhi-ro</i>	N/A	‘granddaughter of’
<i>tanu-ru₁</i>	N/A	‘husband of’
<i>tanu-ro</i>	N/A	‘wife of’
<i>ukōku-ru₁</i>	N/A	‘uncle of (1)’
<i>uru</i>	N/A	‘father of, uncle of (2)’
<i>unuro</i>	N/A	‘mother of, aunt of (1)’
<i>unuro-tanu-ro</i>	N/A	‘aunt of (2)’
etc.		

Kin terms can be described as a subset of inalienable non-classificatory nouns that simply can never occur unpossessed. If nouns for kin terms never occur unpossessed, the situations in which they would be required to take the unpossessed marker *-xi* never arise. Furthermore, the motivating factor underlying the non-occurrence of kin terms in unpossessed contexts can be construed as consisting of the socio-cultural correlates of inalienability in Apurinã. In other words, inalienability, in this case, is defined for Apurinã as the grammatical expression of special types of relationships involving possessor and possessee which have become conventionalized enough so as to disallow a completely semantic account of it but which, nevertheless, still partially reflect socio-cultural aspects of the Apurinã society. In this sense, if inalienability is described as

some sort of grammatical encoding of (conventionalized and especially close socio-cultural) relationships between the possessor and the possessee, the expression of biological relationships is then the one which encodes the highest degree of closeness between the possessor and the possessee in Apurinã, followed by body parts relationships, personal belongings relationships plus abstract relationships, and, perhaps a small residue of other relationships. (For views of inalienability along these lines see Heine 1997, Chappel and McGregor 1996b, Facundes 1994a and 1995a, Chappel and McGregor 1989, Carlson and Payne 1989, and Nichols 1988). I will leave unexplored here the full details of such a general analysis of inalienability marking in Apurinã, referring to Facundes (1995a and 199a) for earlier and more detailed analyses of the formal and conceptual underpinnings of inalienability marking in this language.

4.1.1.2 Simple Inalienable Classificatory Nouns

In contrast to simple inalienable non-classificatory nouns such as *kuwu*, there are other inalienable nouns that differ from *kuwu*-type nouns in being, for example, both phonologically bound forms and in having the property of recurring as part of compound nouns. These nouns are here called **(simple inalienable) classificatory nouns**. For example, a noun such as *-tsota* is an inalienable noun (thus, lexically marked as obligatorily possessed) meaning ‘trunk of’ (where ‘trunk’ is the part of a tree). If marked with the third person masculine singular form *u-*, as in *u-tsota*, it will mean ‘its trunk’. The property of taking a person marker that functions as a possessor is a feature intrinsic to nouns (cf. function of person markers with verbs in 5.0). Hence, classificatory nouns such as *-tsota* can be considered to constitute a subclass of simple nouns that happen to be phonologically bound, i.e. a **bound noun**.

Overall, there are at least four ways in which inalienable nouns such as *-tsota* constitute a special type of noun, i.e. a classificatory noun. First, such classificatory nouns are generally phonologically bound nouns insofar as they occur either as part of a compound word base (as in *oko-tsota* ‘trunk of “oko” tree’) or with a pronominal marker attached to them (as in *u-tsota* ‘its trunk’). Second, classificatory nouns can RECUR as part of a compound noun. That is, as long as the semantics allows it, a classificatory noun can repeatedly occur as part of various compound nouns, as illustrated in (16). The compound nouns formed with non-classificatory nouns plus one (or more) classificatory noun(s) are the **productive compound nouns** that will be specifically dealt with in 4.2.1.

16a. <i>ãã-muna-tsota</i> plant-trunk-trunk.of	NRt+CN+CN	‘tree trunk’
b. <i>mãko-tsota</i> mango-trunk.of	NRt+CN	‘mango tree trunk’
c. <i>oko-tsota</i> oko-trunk.of	NRt+CN	“oko” tree trunk’

Notice that the types of compounds taking classificatory nouns above are somewhat parallel to compound nouns in English such as *banana tree*, *mango tree*, *apple tree* etc., where *tree* also recurs as part of the compound. Different from English, however, words that are used with a generic meaning as part of a compound in Apurinã are bound formatives. Even if speakers were to accept a neologism such as, e.g., *kema-kuwu* ‘tapir’s head’, under some special circumstances, still the non-classificatory inalienable noun *kuwu* ‘head of’ will NOT have the property of recurring as part of compound nouns. That is, the non-classificatory noun *kuwu* cannot be systematically used as part of the compound nouns in (17):

17a. * <i>kuku</i> - <u><i>kuwu</i></u> man-head.of	NRt+NRt	(man's head)
b. * <i>suto</i> - <u><i>kuwu</i></u> woman-head.of	NRt+NRt	(woman's head)
c. * <i>hākiti</i> - <u><i>kuwu</i></u> jaguar-head.of	NRt+NRt	(jaguar's head)

Non-classificatory nouns such as *kuwu* will be used systematically in syntactic possessive constructions, but not in compound nouns, as shown in (18): (As will be further seen under 4.2, a major difference between compound nouns and branched phrasal nominals is that the former carry only one primary stress —omitted in the standardized transcription used here— whereas the latter will carry as many primary stresses as the number of phonologically independent words present in the phrasal construction.)

18a. <i>kuku</i> <u><i>kuwu</i></u> man head.of		‘a man’s head’
b. <i>suto</i> <u><i>kuwu</i></u> woman head.of		‘a woman’s head’
c. <i>hākiti</i> <u><i>kuwu</i></u> jaguar head.of		‘a jaguar’s head’

In being a bound formative, then, classificatory nouns would appear to resemble *-berry* in English (as in *cranberry*, *strawberry*, *blackberry* etc.) However, the similarities end there. The third special property of classificatory nouns (more precisely, a subset of them) is that they can be incorporated into the verb to refer to the semantic properties of a nominal form previously referred in the discourse. So, in (19a) the classificatory noun *-pe* ‘pulp of’ is incorporated into the verb base *usonāka-ta-ka* ‘dry-VBLZ-INTENS’ to refer to a consistency property of the nominal form *komuru* that

precedes the verb in the same clause. In (19b) the classificatory noun *xiti* ‘earth.of’ is incorporated into the verb base *yotika-ta* ‘burn-VBLZ’ to refer anaphorically to the noun form *kikio* ‘field farm’ which had been previously mentioned in the text:

19a. *ata komuru usonãka-pe-ta-ka*
 1PL manioc dry-pulp.of-VBLZ-CAUS
 ‘We put the manioc pulp to dry.’ (QP1:24)

b. Preceding context: ‘First, we prepare the field farm by cutting down the trees... then...’

ata yotika-xiti-ta txa-ru
 1PL burn-earth.of-VBLZ AUX-3M.OBJ
 ‘...we set it (the field farm) on fire.’

Finally, there is one last major reason to distinguish classificatory from non-classificatory nouns, namely the properties that motivate further subcategorization within the class of classificatory nouns. These properties will be fully described in the following subsections and, although they refer to the lexical semantics of classificatory nouns, they are relevant in that they illustrate important form-meaning mappings that will help us understand the current morphological status of classificatory nouns. The notion of ‘meaning’ relevant for the foregoing discussion is that of ‘lexical meaning’ (rather than ‘propositional’ or ‘pragmatic’ meaning). Before examining such properties in detail, however, some labels for the subcategories need to be introduced. A subset of classificatory nouns, hereafter **C(lassificatory) N(oun)₁**, can only be used with their “literal meaning”, while others, hereafter **C(lassificatory) N(oun)₂**, can also have their meaning “metaphorically extended” beyond their literal meaning.⁵ ‘Literal meaning’ here means the original meaning of the lexical item as determined by an **internal**

⁵ The definitions of CN₁ and CN₂ here differ slightly from those given in Facundes 1994 and 1998. Here the two

semantic reconstruction. Literal meaning will be hereafter referred to as the **source meaning**. “Metaphorically extended meaning”, as the name suggests, means that the source meaning is generalized to cover more generic (or abstract) nuances of meaning and, as a consequence, the (potential) semantic scope of the classificatory noun is extended to a wider range of items. Metaphorically extended meaning will be hereafter referred to as **target meaning**.⁶

Classificatory nouns are then those that generally follow the pattern summarized in Table 8, where $Rt_{\text{INAL.CL}}$ belongs to the subset of inalienable roots that can be used with classificatory function (i.e. with a somewhat recurrent meaning as part of the meaning of productive compound nouns):

Table 8: Properties of Classificatory Nouns

Root Class	Possessed Marking	Classificatory Function
$Rt_{\text{INAL.CL}}$	-Ø	YES

Thus, the simplest word formation rule for these nouns is as in (20):

$$20. N_{\text{INAL.CL}} \rightarrow Rt_{\text{INAL.CL}}$$

inalienable noun categories do not overlap, while in previous definitions some overlapping was allowed. The present definitions are preferable because they capture more fine grained contrastive noun properties.

⁶ The notions of ‘source’ and ‘target’ meanings used here partly follow from the work of Lakoff and Johnson 1982, Lakoff 1987 on metaphors, and from the notion of “Generalization” discussed in Bybee et al 1994.

4.1.1.2.1 *Simple Inalienable C(lassificatory)N(nouns)₁*

CN₁s are the subset of simple inalienable nouns that recur as the (semantic) head elements of a class of compound nouns with a quasi-productive formation. CN₁s always have their source meaning preserved where they occur. The first example of a CN₁ given below is *-katu*, which refers to a ‘thin branch of’ a tree; ‘thin branch of’ can be said to be the source meaning of *-katu*, since when used only with the third person singular, as in *u-katu*, it means ‘its branch’. In (21a) *-katu* refers to the ‘thin branch of’ a “jenipapo” tree, whereas in (21b) *-katu* refers to the ‘thin branch of’ an unspecified tree:

21a. <i>umamaru-katu</i> jenipapo-branch.of	NRt+CN ₁	““jenipapo” tree branch’
b. <i>ãã-muna-katu</i> plant-trunk-branch.of	[NRt+CN]+CN ₁	‘tree branch’
c. <i>komeru-katu</i> manioc-branch.of	NRt+CN ₁	‘manioc tree/branch’

In the example in (21c), curiously, *-katu* refers to a ‘thin manioc tree’, a small tree whose trunk looks like thin branches, or to its ‘thin branch’. In this latter example, it can be argued that the meaning of *-katu* has already been extended to refer to a ‘thin tree’ rather than a ‘thin branch of’. However, *-katu* is treated here as CN₁ because the meaning (in the latter example) is extended WITHIN the semantic domain of **plant parts**. As will be shown later, the meaning distinction only becomes grammatically relevant (for the purpose of a description of classificatory nouns) when there is a shift of semantic domains—to be specified in the next subsection.

By way of illustrating CN₁s, in the next examples, in (22), *-xiti* refers to ‘earth of’, e.g. *i-xiti* ‘his land/earth,’ a forest element.⁷

22a. <i>kupatxi-xiti</i> sand-earth.of	NRt+CN ₁	‘land, ground’
b. <i>awinhi-xiti</i> house-earth.of	NRt+CN ₁	‘land, terrain’
c. <i>tōpa-xiti</i> place-earth.of	NRt+CN ₁	‘world’

Finally, in (23), the CN₁ *-piti* refers to ‘feather of’, cf. *i-piti* ‘its feather,’ a body part:

23a. <i>potokoko-piti</i> dove-feather	NRt+CN ₁	‘dove feather’
b. <i>pataru-piti</i> chicken-feather.of	NRt+CN ₁	‘chicken feather’
c. <i>irēka-piti</i> mutum-feather.of	NRt+CN ₁	‘“mutum” (bird) feather’

More examples of compounding following the same pattern are easily found in the language.⁸ Table 9 lists a sample of the CN₁s currently attested. Notice that, as Table 9 illustrates, most of the CN₁s referring to **body parts** can also refer to **plant/forest elements**. Although this suggests that all body parts names might have originated as plant/forest elements, it is not possible (on the basis of the data available) to trace all the source meanings to plant/forest elements:

⁷ Not every speaker uses *-xiti* as an inalienable noun. I have heard at least one speaker of the Japiim village using *i-xiti-ne* ‘his/its land’, where the possessed marker *-ne* is a morphological marking of alienability —as shown later under 4.4.1.

Table 9: The Set of CN₁

CNs	GLOSS	PLANT/FOREST ELEMENTS	BODY ELEMENTS
<i>iri</i> ~ <i>rĩ</i>	‘fruit of; bunch of’	+	-
<i>katu</i>	‘treetop of; thin branch of’	+	-
<i>kotsa</i>	‘root of’	+	-
<i>piti</i>	‘feather of; hair of’	-	+
<i>poru</i>	‘thick branch of’	+	-
<i>tako</i>	‘thin stalk of’	+	-
<i>tsota</i>	‘trunk of’	+	-
<i>xiti</i>	‘earth of’	+	-
<i>yõka</i>	‘spot of’	-	+

Only further comparative work will determine whether all CN₁s derive from nouns for plant/forest elements, or whether some of them may also derive from body parts. What is clear (on the basis of the information provided in Table 9) is that at least some of them were only used for plant/forest elements before being used for body parts. To the extent that the semantics of CN₁s restricts them to sub-domains of plant/forest elements and/or to body parts, they are not as productive as one could imagine. Also due to this semantic restriction, they do not have the full power of a true nominal classifying system, different from the CN₂s presented next. In this sense, CN₁s are quasi-productive and pseudo-classificatory, as their potential for productivity and for classificatory functions is constrained by their semantics.

4.1.1.2.2 *Simple Inalienable C(lassificatory)Nouns₂*

CN₂s form a subset of classificatory nouns different from CN₁s in that the CN₁s can only be used to refer to their source (literal) meanings, while the CN₂s can also be used to refer to target (metaphorically extended) meanings. As seen above, the semantics

⁸ A more exhaustive list of examples can be found in Facundes 1994.

of CN₁s was restricted to their source domain, i.e. the domain of plant/forest elements or body parts. As the data below will show, the semantics of CN₂s, in addition to their source domain, includes target domains. The source domains for CN₂s will be the same as the domains for CN₁s (i.e. plant/forest elements or body parts), and their target domains will be that of body parts and of **manufactured elements**. In simple terms, CN₂s are those classificatory nouns that have undergone semantic bleaching and that, as a consequence, can refer to more general semantic properties of a wider range of nouns, thus, occurring more productively and with the full functional power of nominal classifier. The use of CN₂s is then productive as ‘true’ (not pseudo-) classificatory nouns.

If for a CN₁ to preserve its source meaning means to preserve (nearly) the whole set of properties that were part of its original meaning, for a CN₂ to preserve its target meaning means to preserve only the salient physical properties of its source (original) meaning. As seen in the first examples in (24), the form *-muna* has ‘(tree) log of’ as source meaning, since this is the recurring meaning in (24) and since *u-muna* means ‘its (thick tree) log’:

24a. <i>ãã-muna</i> plant-log.of	NRt + CN ₁	‘tree (trunk)’
b. <i>oko-muna</i> oko-log.of	NRt + CN ₁	“‘oko” tree trunk’
c. <i>yeye-muna</i> yeye-log.of	NRt + CN ₁	“‘yeye” tree trunk

As can be inferred from (25), the target meaning of *-muna* is ‘big, long, roundish’, or, in one word, ‘cylindrical’ —like a thick tree trunk:

25a. <i>lātehna-muna</i> flashlight-log.of	NRt + CN ₂	‘flashlight tube’
b. <i>aiko-muna</i> house-log.of	NRt + CN ₂	‘house beam’
c. <i>pitxi-muna</i> penis-log.of	NRt + CN ₂	‘(big) penis (body)’
d. <i>kiri-muna</i> nose-log.of	NRt + CN ₂	‘animal’s nose’
e. <i>ãã-muna-katu</i> plant-log.of-branch.of	NRt + CN ₂ + CN ₁	‘tree branch’

In (25a) *-muna* refers to the ‘cylindrical’ shape of a flashlight tube; in (25b) it refers to the ‘round’ and ‘cylindrical’ shape of a beam which is used to support the roof of the Apurinã houses; in (25c) it refers to the ‘cylindrical’ shape of the detached genitals of a male tapir (in a context specific to an Apurinã story); in (25d) it refers to the sort of ‘cylindrical’ shape of an animal’s nose (e.g. of a tapir, a cowfish, a cow, a horse, etc.). Interestingly, (25e) shows that the productive nominal compounding formation with (at least some of the) classificatory nouns may consist of more than one classificatory noun within the same compound noun, thus with some potential recursion: that is, while *-muna* ‘log of’ is the CN₂ of the compound *ãã-muna* ‘tree (with a large trunk),’ *-katu* ‘branch of’ is the CN₁ of $[[\textit{ãã-muna}]_N \textit{-katu}]_N$ ‘tree (thick) branch’. Although productive noun compound formation with CN₂ is potentially recursive, it is in fact restricted to a few cases. At most three CN₂s have been attested in the same word.

From a diachronic perspective, CN₂s, therefore, are farther advanced along a grammaticalization continuum than CN₁s. The second is a noun subcategory always recurring as the (semantic) head element of a quasi-productive noun compound, and the first is a slightly more grammaticalized element which preserves only salient perceptual

parts of its lexical meaning and derives a distinct noun which may fall into the two semantic (target) domains of body parts or manufactured elements. Other examples of CN₂s are as follows:

-mata has ‘skin of’ source meaning, as in *u-mata* ‘its skin’. Its approximate target meaning is ‘of a flat surface’:

- | | | |
|---|---------------------|----------------------|
| 26a. <i>oku-mata</i>
eye-skin.of | NRt+CN ₂ | ‘eyelid’ |
| b. <i>kiti-mata</i>
foot-skin.of | NRt+CN ₂ | ‘foot sole; sandals’ |
| c. <i>komeru-mata</i>
manioc-skin.of | NRt+CN ₂ | ‘flat manioc bread’ |

-ku has ‘seed of’ as source meaning, as in *u-ku* ‘its seed’. Its approximate target meaning is ‘of a small and (usually) round shape’:

- | | | |
|---|---------------------|--------------|
| 27a. <i>xamuna-ku</i>
firewood-seed.of | NRt+CN ₂ | ‘gun’ |
| b. <i>kiti-ku</i>
foot-seed.of | NRt+CN ₂ | ‘toe of’ |
| c. <i>tenu-ku</i>
breast-seed.of | NRt+CN ₂ | ‘nipples of’ |

-panhi has ‘ash/powder of’ as source meaning, as in *u-panhi* ‘its ash/powder’. Its approximate meaning is ‘of a powder-like consistency’. In the examples below, the CN₂ is deriving a manufactured object out of another manufactured object:

- | | | |
|--|---------------------|-------|
| 28a. <i>xamu-panhi</i>
fire-powder.of | NRt+CN ₂ | ‘ash’ |
|--|---------------------|-------|

- | | | |
|---|--|-----------------|
| b. <i>oko-panhi</i>
oko-powder.of | NRt+CN ₂ | “oko” tree ash’ |
| c. <i>xamuna-ku-panhi</i>
firewood-seed.of-powder.of | [NRt+CN ₂]+CN ₂ | ‘gun powder’ |

-pẽ has ‘juice of’ as source meanings, as in *u-pẽ* ‘its juice’. Its approximate target meaning is ‘of a liquid consistency’. The examples below in which it refers to juice are manufactured objects because the fruits/potato out of which they are made do not have natural juice; in c. the CN₂ marks a body part:

- | | | |
|---|---------------------|--------------------------------|
| 29a. <i>tata-pẽ</i>
umari-juice.of | NRt+CN ₂ | “umari” fruit juice’ |
| b. <i>moto-pẽ</i>
cará-juice.of | NRt+CN ₂ | “cará” (type of potato) juice’ |
| c. <i>tenu-pẽ</i>
breast.of-juice.of | NRt+CN ₂ | ‘maternal milk’ |

-putsa has ‘liana of’ as source meaning, as in *u-putsa* ‘its liana’. Its approximate target meaning is ‘of a long, thin and flexible (liana-like) shape and consistency’. In the second example below the noun refers to a body part:

- | | | |
|--|---------------------|-----------------|
| 30a. <i>ãã-putsa</i>
plant-liana.of | NRt+CN ₂ | ‘type of liana’ |
| b. <i>tika-putsa</i>
excrement-liana.of | NRt+CN ₂ | ‘intestines’ |

-riko has ‘hole’ as source meaning. Its approximate target meaning is ‘of a hollow interior’. The third example below is a manufactured object:

31a. <i>ãã-riko</i> plant-hole.of	NRt+CN ₂	‘(tree) hole’
b. <i>kai-riko</i> stone-hole.of	NSt+CN ₂	‘cave; the Apurinã original world’
c. <i>xamuna-ku-riko</i> firewood-seed.of-hole.of	[NRt+CN ₂]+CN ₂	‘gun hole’

-xike has ‘small leaf of’ as source meanings, as in *i-xike* ‘its leaf’. Its approximate target meaning is ‘of a narrow flat surface’. In the examples below it refers to a plant part, a manufactured object, and a body part, respectively:

32a. <i>ãã-xike</i> plant-leaf.of	NRt+CN ₂	‘small leaf; leaf’
b. <i>xãpana-xike</i> money-leaf.of	NRt+CN ₂	‘money; leaf used in “witchcraft” to attract women’
c. <i>kuwu-xike</i> hair-leaf.of	NRt+CN ₂	‘(head) hair’

-tãta has ‘(tree) bark of’ as source meaning, as in *u-tãta* ‘its tree bark’. Its approximate target meaning is ‘(something) of a flat outer layer’. In the examples below it refers to a plant part, a manufactured object, and a body part:

33a. <i>ãã-muna-tãta</i> plant-log.of-bark.of	[NRt+CN ₂]+CN ₂	‘tree bark’
b. <i>oku-tãta</i> eye-bark.of	NRt+CN ₂	‘eye glasses’
c. <i>ximaku-tãta</i> fish-bark.of	NRt+CN ₂	‘fish scale’

-ke has ‘wood stick of’ as source meaning, as in *i-ke* ‘its wood stick’. Its approximate target meaning is ‘of a long, thin, non-flexible shape and consistency’. In the examples below it refers to a manufactured object, and two body parts:

34a. <i>yomēti-ke</i> large-stick.of	NRt+CN ₂	‘harpoon’
b. <i>kano-ke</i> arm.of-stick.of	NRt+CN ₂	‘arm of’
c. <i>tapi-ke</i> foot.of-stick.of	NRt+CN ₂	‘leg of’

Table 10 summarizes the attested cases of CN₂s in the first column; in the second column their attested meaning properties are listed; and, from the third column on, +/- indicates whether they preserve their source meaning in, respectively, the domains of plant/forest elements, body parts, and manufactured elements. As seen in this table, there

Table 10: The set of CN₂s

CN ₂	Gloss	Plant Elem.		Body Elem.		Manufactured Elem.	
		source	target	source	target	source	target
<i>ā</i>	water, juice; tear; liquid	+	-	-	+	-	+
<i>ke</i>	wood stick; long, thin	+	-	-	+	-	+
<i>ku</i>	rounded, small, hard	+	-	-	+	-	+
<i>mata</i>	skin; flat, soft	-	-	+	+	-	+
<i>muna</i>	trunk; long, cylindrical	+	-	-	+	-	+
<i>pē</i>	water, juice; liquid	+	-	-	+	-	+
<i>panhi</i>	powder	+	-	-	-	-	+
<i>pe</i>	mush; paste	+	-	-	+	-	+
<i>putsa</i>	liana; tripe; long, flexible	+	-	-	+	-	-
<i>riko</i>	hole	+	-	-	-	-	+
<i>tāta</i>	bark; shell; flat, thick	+	-	-	+	-	+
<i>tsa</i>	liana; long, flexible	+	-	-	-	-	+
<i>tsopa</i>	wide leaf; flat, wide	+	-	-	-	-	+
<i>xike</i>	small leaf; flat, flexible	+	-	-	+	-	+

is only one attested case of CN₂s that have a body part as the source meaning. For all other cases, the source meaning of CN₂s is plant/forest elements: (For reasons of space ‘of’ has been removed from the gloss in Table 10. It should be kept in mind, however, that obligatory possession is part of the meaning of each CN₂ listed below.)

Although CN₂s have semantic properties typical of **classifiers** (as those described in Dixon 1986⁹), they also have the semantic and syntactic properties of **noun class/gender markers** (cf. the typology in Dixon 1986; the similarities and differences between CN₂s and classifiers and noun class/gender markers will be addressed in the next subsection.) Table 11

Table 11: CN₁s and CN₂s

DATA	GLOSS	CN ₁	CN ₂
<i>ã</i>	juice; tear; liquid	-	+
<i>iri ~ rĩ</i>	fruit, bunch,	+	-
<i>katu</i>	treetop, thin branch	+	-
<i>ke</i>	wood stick; flat, flexible, long/tall	-	+
<i>kotsa</i>	root	+	-
<i>ku</i>	kernel, seed; rounded, small, hard	-	+
<i>mata</i>	skin; thin tree bark; flat, rigid	-	+
<i>muna</i>	thick tree trunk; penis; long, cylindrical	-	+
<i>pẽ</i>	juice; liquid	-	+
<i>panhi</i>	ash; powder; powder	-	+
<i>pe</i>	mush; pulp; thick, paste	-	+
<i>piti</i>	feather, hair	+	-
<i>poru</i>	branch	+	-
<i>putsa</i>	tripe; thin, long, flexible	-	+
<i>riko</i>	hole; hole	-	+
<i>tako</i>	thin stalk	+	-
<i>tãta</i>	bark; shell; flat, transparent, thin	-	+
<i>tsa</i>	thin liana; long, flexible	-	+
<i>tsopa</i>	big leaf; flat, thin, wide	-	+
<i>tsota</i>	trunk	+	-
<i>xike</i>	leaf; hair; thin, flexible	-	+
<i>xiti</i>	earth	+	-
<i>yõka</i>	spot	+	-

compares CN₁s and CN₂s to show that there are more instances of CN₂s than CN₁s. Just by itself, this fact is nothing new, as it simply confirms a naturally expected stronger tendency for classificatory nouns to develop a target meaning than to remain restricted to their source meaning —a natural tendency in lexical semantics. The fact becomes meaningful, however, when there is regularity in the semantics of the target meaning: Only certain salient physical properties of the noun roots are preserved when they are used as CN₂s; not by coincidence these are properties of **shape** and **consistency** typical of other types of classifying systems.

Therefore, the inference is that CN₂s once behaved as pure CN₁s and that the former derived from the latter by a process of metaphorical extension of the source meaning. While CN₁s are the source elements, CN₂s are the elements resulting from the process of metaphor in a continuum of grammaticalization well attested in the internal semantic reconstruction. The instance of CN₂s presented so far are only the clear ones, that is, the ones for which the source meaning still is transparent and reconstructable through internal semantic reconstruction. As expected, some instances of CN₂s can only have their source meaning determined on the basis of diachronic reconstruction. Such are the cases of the CN₂s *-na* that is used with nouns referring to things resembling ‘palm trees’ (as in 35), or of *-ta* used to refer to things that have a ‘roundish edge’ (as in 36). *-na* and *-ta* are more grammaticalized instances of CN₂s:

35a. <i>kinhari-na</i> buriti-palm.of	NRt+CN ₂	“‘buriti” (palm) tree’ ¹⁰
--	---------------------	--------------------------------------

⁹ But see also Doris Payne 1987 for problems with Dixon’s typology.

¹⁰ *Mauritia vinifera*.

b.	<i>tsaperuku-na</i> açai-palm.of	NRt+CN ₂	“açai” (palm) tree’
c.	<i>txiparu-na</i> banana-palm.of	NRt+CN ₂	‘banana tree’
36a.	<i>pētxi-ta</i> comb-round.edge.of	NRt+CN ₂	‘comb (Port. “pente”)
b.	<i>pāko-ta</i> stool-round.edge.of	NRt+CN ₂	‘stool (Port. “banco”)
c.	<i>nama-ta</i> ladder-round.edge.of	NRt+CN ₂	‘mouth (of a river)’

Another likely case of a former CN₂ is *-tu*, which occurs attached to the noun referring to ‘person’, or to a person’s name to indicate s/he has a somewhat big, fat and round figure, as illustrated in (37). Several names of four-legged animals also end in /tu/ or /ti/ (e.g. *kayatu* ‘paca’, *hãkiti* ‘jaguar’, *manhitu* ‘deer’, *sotu* ‘brown deer’, *isowatu* ‘small armadillo’, etc.) . It remains to be seen whether these latter cases will turn out to have a lexicalized form of *-tu* in them.

37a.	<i>kãku-tu</i> person-?	NRt+CN ₂ ?	‘person’
b.	<i>mipa-tu</i> Mipa-?	NRt+CN ₂ ?	‘fat Mipa’

As will be seen in 4.4.9, some former and current CN₂s appear to be in the process of becoming grammatical morphemes, as shown in the next set of examples. Only time will tell whether this process will lead to the full grammaticalization of these morphemes.

38a. <i>kema-powa</i> tapir-AUG	NRt+CN ₂	‘big tapir’
b. <i>manhitu-powa</i> deer-AUG	NRt+CN ₂	‘big deer’
c. <i>kuku-powa</i> man-AUG	NRt+CN ₂	‘big man’
d. <i>kanawa-powa</i> canoe-AUG	NRt+CN ₂	‘big canoe’
39a. <i>amarunu-ku</i> boy-DIM	N+CN ₂	‘little boy’
b. <i>kaseroro-ku</i> white.one-DIM	N+CN ₂	‘little white one’
40a. <i>putetu-ta</i> clay.plate-DIM	NRt+CN ₂	‘small plate’
b. <i>kopiti-ta</i> pan-DIM	NRt+CN ₂	‘small pan’

4.1.1.2.3 *Remarks on the Functions and Typological Nature of*

C(lassificatory)N(oun)₂s

The nature of CN₂s could easily be regarded as “uninteresting” if, as it tends to happen at a first glance, one associates CN₂s to the unproductive use of compound words such as those with the morpheme *berry* in English. The association, though well taken, is misleading when it ignores the properties of CN₂s which the morpheme *berry* lacks in English. To the extent that *berry* occurs in English as part of compound nouns referring to fruits of a small size (e.g., *cran-berry*, *straw-berry*, *mul-berry*, *blue-berry*, *rasp-berry*, *black-berry* and so on), it resembles, for example, the CN₂ *ku* ‘seed of, kernel of; small

and round' in Apurinã. However, as was said above, neither can *berry* be metaphorically extended nor can it incorporate into verbs in anaphor-like constructions.

In fact, grammatical and discourse roles of CN₂s pervade the Apurinã language. In the context of discourse there are clear instances of CN₂s being used in productive compounding to DISAMBIGUATE MEANING. One example is the attested use of the noun *komuru* in a text about the making of manioc flour. By itself *komuru* can refer to 'manioc bulb', 'manioc tree', or 'manioc bread'. However, when the textual context does not allow to discriminate the meaning, CN₂s are added to disambiguate meaning, as when *komuru-katu* is used to refer to 'manioc tree', when *komuru-mata* is used to refer to 'manioc flat bread', when *komuru-porõĩ* is used to refer to manioc 'round (ball like) bread', and so on. CN₂s can also be used to HIGHLIGHT INTRINSIC/CONTINGENT SEMANTIC FEATURES of noun references, such as size, dimension, shape or consistency. I learned this by being myself subject to their use. My name in Apurinã, *yowuka*, was consistently pronounced as *yowuka-ke* by one of the speakers I worked with. When I asked another speaker why I was being called *yowuka-ke*, instead of simply *yowuka*, by the other speaker, I was told (after a few laughs) that "It's because you are skinny and tall [of course, within the Apurinã standards]." That is, CN₂s are also used in discourse to play the role of ATTRIBUTIVE MODIFIERS, which is typical of adjectives or descriptive verbs in many other languages.

Both of the discourse roles played by CN₂s in productive compounding, disambiguating and highlighting meanings, are also attested for CN₂ incorporation. For example the word for 'manioc mush' is attested in texts as the productive compounding

komuru-pe, in which case *-pe* not only qualifies the ‘mushy’ and ‘paste’ consistency of the ‘manioc mush’, but it also discriminates ‘manioc mush’ from ‘manioc bulb’, ‘manioc tree’ etc. Approximately the same disambiguating or attributive function can be accomplished by simply incorporating the CN₂ *-pe* into the verb; as in the example below:

41. (*komeru(-pe)*) *ata oka-pe-ta*
 manioc(-pulp of) we throw-pulp-VBLZ
 ‘We thrown the (manioc) mush in.’

The fact that the noun to which the verb incorporated CN₂ refers can be omitted, and most often is, suggests that, when CN₂ incorporation is used somewhat anaphorically, the discourse participant whose properties the incorporated CN₂ refers to is BACKGROUND DISCOURSE INFORMATION. Another piece of evidence for this discourse property is the fact that incorporated CN₂s are widely used to make reference to discourse participants mentioned repeatedly in the same text. Finally, there are many cases in which a subset of incorporated CN₂s narrow the meaning of the verb. For example, the verb *yatarota* by itself means ‘to mix’; but when the CN₂ for liquid things, *ã*, is incorporated, as in *yataro-ã-ta*, the meaning becomes ‘to stir a liquid thing’. Thus, the function of CN₂s when incorporated approximates the function of what Mithun (1986a, 1986b, 1984) describes as **incorporated classifiers** (or **verbal classifiers**). This similarity to a certain type of classifier, however, does not hold grammatically when CN₂s are used in nominal compounding (see 4.2.1).

As to the frequency of CN₂s in texts, in five texts of different genres, two procedural texts, two narratives, and one dialog, CN₂s were attested in only three, these

were the two procedural texts and one of the narrative texts. Of the three texts, Text 1 was a procedural text about how to make manioc flour; Text 2, the second procedural text, describes how to prepare a special type of tobacco powder for inhaling; and Text 3 was a narrative about the story of a young woman who is kidnapped by a tapir. The distribution of CN₂s in the texts are given in Table 12:

Table 12: Frequency distribution of CN₂s

CN ₂	GLOSS	TEXT 1: Manioc		TEXT 2: Tobacco		TEXT3: Young Woman	
		COMPOUND	INCORP	COMPOUND	INCORP	COMPOUND	INCORP
<i>ã</i>	LIQUID, JUICE	7	17				
<i>ke</i>	LONG, THIN, RIGID			2	1		
<i>ku</i>	ROUNDED, SMALL, HARD						
<i>mata</i>	FLAT, SOFT	3	4				
<i>muna</i>	LONG, CYLINDER					3	4 (mu)
<i>panhi</i>	POWDER						
<i>pe</i>	MUSH	11	20			2	2
<i>pẽ</i>	LIQUID	3					
<i>piti</i>	THIN, SHORT, FLEXIBLE						
<i>putsa</i>	THIN, LONG, FLEXIBLE			1			
<i>riko</i>	HOLE						
<i>xike</i>	FLAT, FLEXIBLE						
<i>ta</i>	ROUNDISH EDGE						
<i>tãta</i>	FLAT, THICK			3			
<i>tsa</i>	LONG, FLEXIBLE			1			
<i>tsopa</i>	FLAT, WIDE						

A first look at the text distribution of CN₂s suggests that they are more likely to occur in procedural texts, since no CN₂ were used at all in the second (unrelated) narrative or in the dialog. It would seem that CN₂s are likely to be used when certain physical features of what is being described are important in conveying the thematic information, or simply when highlighting some descriptive aspects of what is being talked about. Other distributional results of counting CN₂s, observable in Table 12, are as follows: While 4 CN₂s were used in noun compounding a total of 24 times in Text 1

(procedural), and while 4 CN₂s were used 7 times in noun compoundings in Text 2 (procedural), only 2 CN₂s were used 7 times in Text 3 (narrative).

In the same 3 texts, incorporated CN₂s have a distribution which is close but not exactly similar to that of compounding CN₂s. Incorporated CN₂s were most frequent in Text 1 (procedural), about how to make manioc flour, less frequent in Text 3 (narrative) about the story of the woman who was kidnapped by a tapir, and even less frequent in Text 2 (procedural) about how to prepare the tobacco powder to be inhaled. This first approach to the frequency of CN₂s leaves as result an open possibility for a distinction in distribution between CN₂s in compoundings and CN₂s in incorporation, which needs to be checked against a more representative body of text. Nevertheless, keeping the limits of the data sample in mind, it may be worth noting how CN₂s are distributed in compounding and incorporation in the same texts. As seen in Table 12, with the exception of Text 2, when the same CN₂ occurs in noun compounding as well as in incorporation, it tends to be more frequent in incorporation. This preliminary result may be one more manifestation of the role that incorporated CN₂s play in discourse as a formal expression of highly topic references, in a manner reminiscent of pronominal elements.

Finally, there are two other correlations attested in the three texts mentioned above: First, of the set of CN₂s that are found in productive compounding, only a smaller set is more often used in incorporation. This is not an artifact of the type or size of data contained in the three texts used here, as the same is attested in additional data. Second, there seems to be a tendency to incorporate CN₂s (used anaphorically) that are monosyllabic. On this, it is important to note that in Table 12 the CN₂ *muna* is reduced to *mu* when incorporated into the verb.

Doris Payne (1987) attempted to typologize the classifying systems attested in the Amazon region of South America, with the finding that there were problems for the opposition between classifiers and noun class/gender systems suggested by Dixon (1986) with certain classifying systems which happened to share properties of both types. In a more recent work, Grinevald (a.k.a. Craig, in p.c.) suggests the following typology for classifiers:

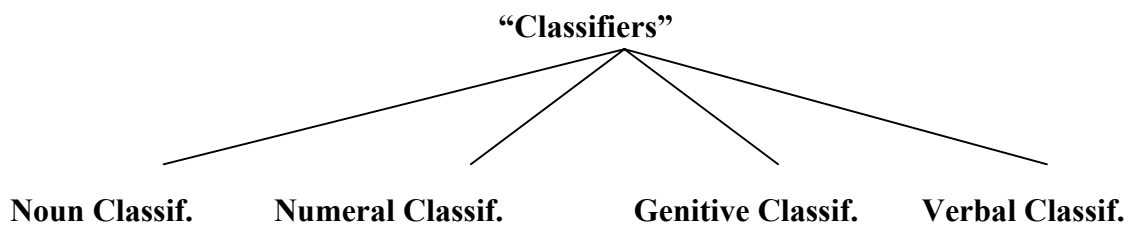


Fig. 1: Grinevald’s Typology of Classifiers

As to the types of CN₂s discussed here, Grinevald, commenting on an earlier version of this paper, made the following remark: “It strikes me that the whole topic of these compoundings is a very general issue of Amazonian languages... and their relation to the phenomenon of ‘Classifiers’ still remains to be clarified.” What I would like to suggest is that, as already implicit in Craig (1986), the various types of classifiers can be generally seen in a semantic continuum of classification systems, from *the most to the least semantically based*. And a CN₂ system, at least in its initial stage, seems to be closer to the semantic systems than to the grammatical systems.

Most semantically based (lexico-syntactic, in Dixon's terms)



→ e.g. CN₂s, Numeral Classifier of Southeast Asia (cf. DeLancey 1986, Erbaugh 1986, Downing 1986) and Austronesian languages (cf. Adams 1986)

→ e.g. Noun Class Gender System of Indo European language (cf. Zubin and Köpcke 1986, Corbett 1991), Apurinã (Facundes 1998a), among others.

Least semantically based (Noun Class/Gender)

Fig. 2: Semantic Continuum of Classifying Systems

On the other hand, insofar as CN₂s occur as parts of compoundings, in terms of their grammatical structure they have morphosyntactic properties of noun class/gender systems. Such properties place CN₂s in an intermediary position in a continuum where, at one end, numeral classifiers are *the least grammatically based* classifying systems, and at the opposite end, class/gender systems are *the most grammatically based* classifying system.¹¹

Most grammatically based



→ Noun Class/Gender System (marked by affixes)

→ CN₂s (marked by bound roots)

→ Numeral Classifiers (marked by free roots)

Least grammatically based

Fig. 3: Grammatical Continuum of Classifying Systems

As to the typological nature of CN₂s, in some ways they are not as unique as has been suggested in the linguistic literature (cf. Payne 1987). In fact, in some of the

¹¹ The typology above is obviously simplified, since it is likely that different types of class/gender marking systems and numeral classifying systems can have a typology of themselves.

literature on Southeast Asian languages, the expression **class terms** has been used to refer to the head element of productive noun compounds; class terms have classificatory properties similar to those which I have described here for Apurinã. As DeLancey (1986) defines it, “[t]hese are morphemes which occur as the head of a number of noun compounds which are exemplars of the category labeled by the class term.” Moreover, DeLancey states that “[t]hus class terms have a semantic classifying function quite similar to that of classifiers, although they do not ordinarily show the incoherent range of uses which is a not uncommon feature of classifiers.” (pp. 438)

The use of the expression “class terms” seems to have originated in the work of Haas (cf. DeLancey 1986). In the same article, DeLancey suggests that class terms are a major source for the development of new classifiers in Tai languages. Examples of class terms are attested, for example, in Thai. DeLancey lists the following as some of the examples of class terms:

- 42a. *ɲuu* ‘snake’
- b. *ráan* ‘shop’
- c. *khon* ‘person’
- d. *duaŋ* ‘round obj.’
- e. *lam* ‘long obj.’

The following examples illustrate the use of class terms in Thai:¹²

- 43a. *ɲuu-lɯ́am* ‘anaconda’
 CLASS.TERM-anaconda
- b. *ɲuu-hàw* ‘cobra’
 CLASS.TERM-cobra

¹² I thank Nuttanart Muansuwan, who provided me the Thai examples used here.

- 44a. *ráan-rəjtáũ*: ‘shoe store’
 CLASS.TERM-shoe
- b. *ráan-năjstũ*: ‘bookstore’
 CLASS.TERM-book
- 45a. *duaŋ-tcan* ‘moon’
 CLASS.TERM-moon
- b. *duaŋ-a:thít* ‘sun’
 CLASS.TERM-sun
- 46a. *lam-than* ‘small river’
 CLASS.TERM-river
- b. *lam-khě* ‘arm’
 CLASS.TERM-ARM

Thus, once we have added CN₂s to the typology of classifying systems, it comes as no surprise to note DeLancey’s suggestion of the existence of a continuum from pure noun to pure classifier, and that such continuum can be observed in the syntactic and semantic behavior of certain nouns and classifiers. Such a continuum has been attested in the form of class terms in some South-East Asian languages. CN₂s in Apurinã then would constitute another manifestation of similar continuum, this time in an Amazonian language.

4.1.1.2.4 *Remarks on the Semantic Nature of C(lassificatory)N(oun)₂s*

In the previous sections we have seen that Apurinã has CN₂s; that CN₂s are the recurrent elements in productive noun compounding; that some CN₂s can be used as anaphor-like nominal elements that can be incorporated into the verb in a manner similar to certain verb incorporated classifiers; and that CN₂s play important grammatical roles in

the morphology, syntax and the lexicon of the language, as well as that they can encompass important discourse and pragmatic roles.

In the analysis presented above for CN₂S, I have suggested that there is enough synchronic evidence pointing toward a continuum within which the nature of CN₂S can be understood. When we look at CN₂S in productive compounding by isolating parts of this continuum based on observable differences in their semantic or syntactic behavior, we identify parts of the mechanisms by which lexical meaning “emerges” as a result of language use and language variation. In terms of their semantic properties, we have seen that CN₂S have two sources currently attested: most CN₂S derive from plant parts/nature elements, and a few others derive from body parts. The fact, however, that there are too few instances of the latter cases does not allow us to discard the possibility that further investigation may reveal that all CN₂S have plant parts/nature elements as source meanings. Moreover, CN₂S occur as one of the elements in a productive noun compound and they refer to anatomical properties of the derived meaning of the compound. Thus, CN₂S may refer to semantic properties of nouns which fall into two or three of the following meaning categories: (i) plant parts/nature elements (as source meaning), (ii) body parts (as derived meaning and, perhaps, also as source meaning), (iii) manufactured elements (as derived meaning).

Based on the descriptive information above, two important questions can be asked about CNs:

I - What is the motivation which may lead the same CN₂S with the semantic field in (i) to be used to refer to the semantic field in (ii) and/or in (iii), or those with the semantic field in (ii) to refer to the semantic field in (iii)? Furthermore, can we say

anything on why the source semantic field is (i) rather than (ii), when the converse seems to be more well attested crosslinguistically?

II - In terms of the semantic internal structure of CN₂s, which are the semantic properties that are preserved or abandoned as CN₂s have their meaning extended with accompanying semantic bleaching?

The semantic development of CNs suggests a number of semantic changes that can be explained through metaphorical extensions of particular source meanings into particular target meanings. One type of semantic change observed was that which occurs when plant parts have their meaning extended to refer to body parts. In contrast, another semantic change occurs with the extension of meaning from plant parts to manufactured elements. For instance, there is a sense in which the use of *-muna* in *ãã-muna* ‘tree’ is different from its use in *kiri-muna* ‘animal’s nose’; and the use of *-muna* in *aiko-muna* ‘house bean’ is different from both of the previous uses. In the first case, *-muna* refers to the properties of a plant; in the second case, *-muna* refers to the properties of a body part; and in the third case, *-muna* refers to the properties of a manufactured element. Is it the case that, in the three cases, *-muna* carries the same meaning properties? If yes, then what are these meaning properties? Are the various uses of *-muna* a case of *polysemy* or *homonymy*?

As Sweetser points out “[n]o historical change of meaning can take place without an intervening stage of polysemy. If a word once meant A and now means B, we can be fairly certain that speakers did not just wake up and switch meanings on June 14, 1066. Rather, there was a stage when the word meant both A and B, and the earlier meaning of A eventually was lost” (1991:9). In that view, *-muna* could be, conceivably, treated as an instance of polysemy. Now, does this help us answer question I or II posited above?

How can we show that each instance of *-muna* in words like *ãã-muna* ‘tree,’ *aiko-muna* ‘house beam,’ *kiri-muna* ‘animal nose’ etc... corresponds to different word meanings that happen to be expressed in the language by the same phonological form? If we followed a strict version of the polysemy view, we would end up having to accept a lexicon consisting of lexical entries such as *-muna₁*, *-muna₂*, *-muna₃*, *-muna₄*, *-muna₅* etc... which when applied to the other CN₂s of the language would generate a close to infinite number of lexical meanings the language learner would need to memorize. This certainly is not a desirable result. If on the other, we assume that there is enough similarities among the various uses of *-muna* that justifies to treat them as semantically related in some way, we find ourselves in the position of having to show which “similarities” those are.

Question I could be answered if we made use of the some sort of cultural mode underlying the use of CN₂s. We may take CN₁s (i.e. plant parts/nature elements and perhaps body parts) to constitute the set of semantic properties expressing a **source domain**, whereas CN₂ (manufactured elements) would constitute a **target domain**. In order to understand, express or conceptualize elements within the target domain, elements of the source domain are used. The meaning of CN₂s would emerge out of the mappings between **image-schematic models** containing “specific schematic images, such as trajectories or long, thin shapes or containers” (Lakoff 1986:31). There would be three of such image-schematic models involved here, one for (i) plant parts/nature elements, another for (ii) body parts and, finally, a third for (iii) manufactured elements. These mappings could be characterized as metaphoric mappings within a **metaphoric model** (idem), in which elements from one image-schematic model maps onto another one, as (i) maps onto (ii), (i) maps onto (iii), and (ii) maps onto (iii), as in the diagrams below:

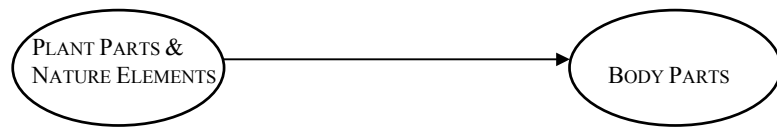


Fig. 4: From Plant Parts & Nature Elements to Body Parts

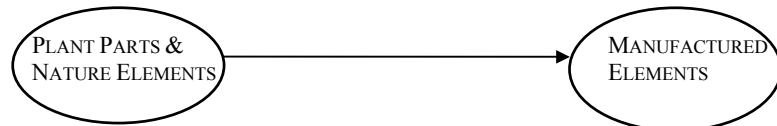


Fig. 5: From Plant Parts & Nature Elements to Manufactured Elements



Fig. 6: From Body Parts to Manufacture Elements

Apurinã then would have conceptual mappings of a sort that motivate the meaning alternation of CN₂s. As a first approximation, Apurinã could be said to have the following global conceptual metaphoric mapping:

THE PHYSICAL PROPERTIES OF ANIMAL BODIES/MANUFACTURED ELEMENTS ARE THE PHYSICAL PROPERTIES OF PLANT PARTS OR NATURE ELEMENTS.

Fig. 7: Generic Metaphoric Model

A version of such a conceptual metaphorical mapping in Apurinã could be grounded on the Apurinã cosmology wherein plants and non-human animals are treated as the same sort of beings —as attested in the Apurinã creation mythology. Thus, what we would be finding is that there would be a generic metaphoric model embedded into an Apurinã idealized cultural model (or an Idealized Cognitive Model, see Lakoff 1987) which would work to motivate the use of certain semantic domains in connection with other semantic domains, in this case, the semantic domain of plant parts/nature elements

in connection with that of body parts (Fig. 4), or of plant parts/nature elements in connection with that of manufactured elements (Fig. 5), or the semantic domain of body parts in connection with that of manufactured elements (cf. Fig. 6). Within this semantic analysis, CN₁ and CN₂ can be treated as items that constitute a natural category (see Lakoff 1982); their commonality consists of the similarities perceptually identifiable in their semantic contribution to the derived compound noun, such similarities consisting of **shape** and/or **consistency**. Physical shape and consistency are the general set of semantic features making an **anatomical image-schematic** model that, once made available to the speakers, can be extensively used with CN₂s with functions beyond that of a simple head of a noun compound. That is when CN₂s can be used as modifying elements with attributive function in nouns or in verb incorporation.

In order to answer question II, we need a more detailed analysis of the semantic features (properties) of CN₂s; we need to specify the shape and consistency properties involved in the mappings posited in Figures (4-6). In order to motivate the properties of CN₂s in terms of image-schematic mappings, we need to specifically describe which particular properties are being mapped between domains. That is, it still remains to be said which of the several different “physical properties of Plant Parts/Nature Elements” are associated to the “physical properties of Body Parts/Manufactured Elements,” and so on. This is what is dealt with in the next paragraphs.

A semantic analysis of the data allows us to make sense out of the descriptive facts by positing schematic models which would motivate the association of the semantic fields given in (i)-(iii) above. Such an analysis also allows us to note that it is the perceptually salient physical properties inherent to (i) and/or (ii) that are mapped onto (ii) and/or (iii). However, we have only been able to account for the semantic classes whose

properties are associated to one another (through metaphorical mappings), and to motivate only one very general set of properties involved in the semantic mappings, namely the set of “physical salient properties.” The obvious question then would be “How do we know which properties are salient?” One way to find the answer to this question would be to perform psycholinguistic experimental tests such as those used in Prototype studies à la Rosch 1977. Another possibility would be to use linguistic information through a structural analysis of the data. It is the structural analysis that follows below.

The CN₂ *-muna* can be used to illustrate how the data presented in the paper indicate that it is that the most salient features inherent to the source domain (i.e. CN₁) turn out to be preserved in the target domain (i.e. CN₂). As we have already seen above, *-muna* can only be used with plant parts names (when used with the plant parts/nature elements category) to refer to trees with large trunks. It is generally the case that such large trunks have as salient perceptible properties the fact that they are ‘thick,’ ‘rigid,’ and ‘cylindrical’. Hence ‘thick,’ ‘rigid,’ and ‘cylindrical’ can be naturally interpreted as the salient source meaning properties of the CN₂ *-muna*. Now, having established the source salient properties of *-muna*, we can examine which of such properties remain or are lost when *-muna* is used to refer to body parts or manufactured elements. As seen in the Table 13 below, the ‘rigid’ property is lost when used to refer to body parts, but maintained when used to refer to manufactured elements. Thus, the recurring properties of *-muna* across categories are ‘thick’ and ‘cylindrical’.

In Table 13, I extend the analysis for each CN₂ in order to illustrate the recurring properties which can be observed when CN₂s refer to the shape or consistency of plant parts/Nature Elements, body parts, and manufactured elements. Hence, in Table 13 we

track the original salient properties for each CN₂ as such properties are preserved or lost when the CN₂s are used with any of the relevant noun categories. As a result, we arrive at the (presumed) “core” properties, that is, meanings that may recur across categories, as summarized in Table 14.

Thus, in Table 14 the “core” properties can conceivably be taken to be the specific features which are mapped from the source to the target domains which were represented in Figs. 4-6.

Table 13: Sample of CN₂s and Their Recurring Meaning

PLANT PARTS/NATURE ELEMENTS			BODY PARTS			MANUFACTURES		
APURINÃ	GLOSS	CN ₂ MEANING	APURINÃ	GLOSS	CN ₂ MEANING	APURINÃ	GLOSS	CN MEANING
<i>ãã-muna</i>	tree	thick, rigid, cylindrical	<i>pĩtxi-muna</i>	a big penis body	thick, cylindrical	<i>lãtehna-muna</i>	flashlight tube	thick, rigid, cylindrical
<i>ãã-putsa</i>	liana-like root	thin, flexible, twisted	<i>tika-putsa</i>	intestines	thin, flexible, twisted			
<i>kemu-ku</i>	corn seed/gran	spherical, small	<i>tenu-ku</i>	mammilae	small	<i>xamuna-ku</i>	small bullets	spherical, small
<i>xamu-panhi</i>	ash	powder				<i>xamuna-ke-panhi</i>	gun powder	powder
<i>anana-pe</i>	pineapple juice	liquid, non-transparent	<i>tenu-pe</i>	maternal milk	liquid, non-transparent	<i>tata-pe</i>	umamari juice	liquid, non-transparent
<i>ãã-riko</i>	tree hole	internal cavity				<i>xamuna-riko</i>	gun hole	internal cavity
<i>ãã-muna-tãta</i>	tree bark	outer layer, glued	<i>ximaku-tãta</i>	fish scale	outer layer, glued	<i>oku-tãta</i>	glasses	outer layer
<i>ãã-tsa</i>	string-like liana	flexible, long thing				<i>mapowa-tsa</i>	cotton string	flexible, long, thin
<i>ãã-tsopa</i>	type of big leaf	wide, thin, flat, flexible, green, smooth				<i>ãã-tsopa</i>	paper	wide, thin, flat, flexible, smooth
<i>tata-pe</i>	umari fruit pulp	paste	<i>ĩ-pe</i>	fat	paste	<i>ĩ-pe</i>	grease	PASTE
<i>ãã-ke</i>	pole, stick	linear, thin, flexible,	<i>kano-ke</i>	arm	thin, flexible	<i>yomẽti-ke</i>	harpoon	linear, thin, flexible
<i>kamoa-ã</i>	dove river	liquid, transparent,	<i>otenu-ã</i>	maternal milk	liquid	<i>txipari-ã</i>	banana juice	liquid
			<i>hãkiti-mata</i>	jaguar skin	outer layer, glued, flexible	<i>kiti-mata</i>	sandals	outer layer, flexible
			<i>tserĩ-ta</i>	chin	round edge	<i>pẽtxi-ta</i>	comb	round edge

Table 14: Summary of the Recurring Meaning of CN₂s

FORMS	SEMANTIC SOURCES OF CNs		RECURRING SALIENT PROPERTIES		"CORE" PROPERTIES
	MEANING	SALIENT PROPERTIES	IN BODY PARTS	IN MANUFACTURES	
<i>muna</i>	trunk	thick, rigid, cylindrical	thick, cylindrical	thick, rigid, cylindrical	thick, cylindrical
<i>putsa</i>	root	thin, flexible, twisted	thin, flexible, twisted		thin, flexible, twisted
<i>ku</i>	kerne, seed	spherical, small	small	spherical, small	small
<i>panhi</i>	ash	powder		powder	powder
<i>pē</i>	juice	liquid, non-transparent	liquid, non-transparent	liquid, non-transparent	liquid, non-transparent
<i>riko</i>	hole	internal cavity		internal cavity	internal cavity
<i>tāta</i>	bark	outer layer, glued	outer layer, glued	outer layer	outer layer
<i>tsa</i>	liana	flexible, long, thin		flexible, long, thin	flexible, long, thin
<i>tsopa</i>	wide leaf	wide, thin, flat, flexible, green, smooth		wide, thin, flat, flexible, smooth	wide, thin, flat, flexible, smooth
<i>pe</i>	pulp	paste	paste	paste	paste
<i>ke</i>	stick	cylindrical, thin, flexible,	thin, flexible	cylindrical, thin, flexible,	thin, flexible,
<i>ā</i>	water	liquid, transparent	liquid	liquid	liquid
<i>mata</i>	skin	outer layer, glued, flexible		outer layer, flexible	outer layer, flexible
<i>ta</i>	? ¹³	round edge		round edge	round edge

¹³ *ta* has clearly the semantics of a CN₂; however, its meaning source cannot be precisely determined only on the basis of its synchronic properties.

Therefore, a cognitively based semantic analysis can motivate general semantic categorization patterns for CN₂s. Their semantic structures can be partially described in terms of an internal structural semantic analysis. Notice that the so-called “core” properties may imply a notion of semantic features attested in every possible use of the CN₂. However, the fact that it was possible to find common properties across the meanings of all the CN₂s analyzed in this work may be an artifact of the number of uses considered here. I suspect, that once more and more usages of specific CN₂s are described, the type of relationship between the various meanings a single CN₂ can have is not going to be one marked by a Plato-type of **discrete** features that recur across these various meanings, but rather that it would be more similar to a Wittgenstein type of **family resemblance** meaning relationship in which a meaning X shares features [a, b, c] with a meaning Y which shares features [c, d] with meaning Z which shares features [d, e], so that meaning X and Z have no common internal feature, but they still can be related through meaning Y.

In conclusion, when we observe the general semantic patterns and the specific semantic properties involved, we notice that a semantic system based on the two general categories of shape and consistency (plus their subordinate classes) seems to be in progress in Apurinã. Thus, what we see then is that the following classification system seems to be in the process of emerging:¹⁴

¹⁴ The diagram below suggests a process of lexicalization which deserves further research and whose in-depth analysis is beyond the scope of this work.

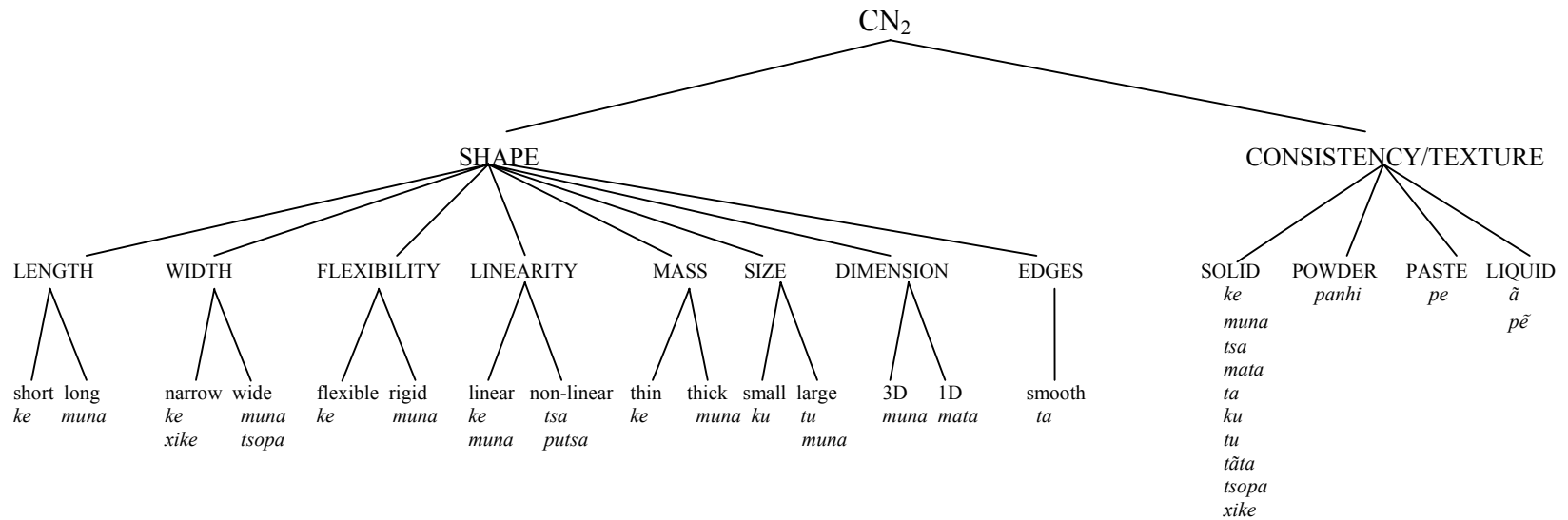


Fig. 8 Emerging Classification System

4.1.2 Simple Alienable Nouns

Alienable nouns are those simple nouns that require suffixation of the forms *-te*, *-ne*, and *-re_l* when possessed, following the marking patterns given in Table 15. In Table 15 $Rt_{\text{ALIEN},te}$ is the subset of alienable roots (i.e. Rt_{ALIEN}) that take the suffix *-te* to occur possessed and no morphological marker to occur unpossessed. Other subsets of Rt_{ALIENS} following analogous patterns are as given in Table 15:

Table 15: Marking Patterns of Alienable Nouns

Root Class	Possessed Marking	Unpossessed Marking
$Rt_{\text{ALIEN},te}$	<i>-te</i>	NONE
$Rt_{\text{ALIEN},ne}$	<i>-ne</i>	NONE
Rt_{ALIEN,re_l}	<i>-re_l</i>	NONE

Put in a different way (and using some of the terms suggested elsewhere, Facundes 1994a, 1995a and 1998b), alienable nouns are those that are overtly marked for possession and unmarked for unpossession. The most plausible analysis of the morphological status of *-te*, *-ne*, and *-re_l* is that the choice of the alienable marker a noun root takes is lexically determined. Whether this implies that *-te*, *-ne*, and *-re_l* are, each one, independent morphemes or allomorphs of the same morpheme is an issue that I will address later under 4.4.2. The simplest word formation rules for these nouns are as in (47):

$$47. N_{\text{ALIEN}} \rightarrow \left\{ \begin{array}{l} Rt_{\text{ALIEN},te} (+te) \\ Rt_{\text{ALIEN},ne} (+ne) \\ Rt_{\text{ALIEN},re_l} (+re_l) \end{array} \right\}$$

As illustrated in (48a), the (underlined) alienable noun *aiko* ‘house’ requires the suffixation of the possessed marker *-te* when occurring as the head possessed element of a nominal possession construction. In contrast, this same noun is shown in (48b) to be unmarked when unpossessed:

- 48a. [*pite* *aiko-te*] *iri-pe*
 2SG house-POSSED fall-PFTV
 ‘Your house has fallen down.’
- b. [*aiko*] *iri-pe*
 house fall-PFTV
 ‘The house has fallen down.’

Table (16) lists a sample of alienable nouns that subcategorize for the suffix *-te*.¹⁵

Table 16: Possessed Head Marker *-te*

Unpossessed Form	Possessed Form	Gloss
<i>tipukiyã</i>	<i>tipukiyã-te</i>	‘door’
<i>ĩporãã</i>	<i>ĩporãã-te</i>	‘water’
<i>kupatxi</i>	<i>kupatxi-te</i>	‘sand’
<i>ama-ru₁</i>	<i>ama-ru₁-te</i>	‘male child’
<i>ama-ro</i>	<i>ama-ro-te</i>	‘female child’
<i>kanawa</i>	<i>kanawa-te</i>	‘canoe’
<i>yomaku</i>	<i>yomaku-te</i>	‘beak’
<i>sutĩĩ</i>	<i>sutĩĩ-te</i>	‘ball’
<i>aiko</i>	<i>aiko-te</i>	‘hut’
<i>kasuru</i>	<i>kasuru-te</i>	‘moon’
<i>ximaku</i>	<i>ximaku-te</i>	‘fish’
<i>itokoru</i>	<i>itokoru-te</i>	‘field farm (1)’
<i>kikio</i>	<i>kikio-te</i>	‘field farm (2)’
<i>txiparu</i>	<i>txiparu-te</i>	‘banana’
etc.		

¹⁵ Here, as in the remaining chapters, subscripts are added to the transcription of the formatives that have one or more homophonous forms. So, for a formative such as *-ru₁* there will be a homophonous *-ru₂* and so on. This constitutes nothing more than a convenient notational procedure.

In (49a) the noun *ããta* ‘canoe’ requires the suffixation of the possessed marker *-ne* when occurring as the head possessed element of a nominal possession construction. In contrast, the same noun is shown in (49b) to be unmarked when unpossessed:

- 49a. *nota nuta-ro n-ããta-ne*
 1SG look.for-3F.O 1SG-canoe-POSSED
 ‘I look for my (traditional) canoe.’
- b. *nota nuta-ro ããta*
 1SG look.for-3F.O canoe
 ‘I look for the (traditional) canoe.’

Table 17 lists a sample of alienable nouns that subcategorize for the suffix *-ne*:

Table 17: Possessed Head Marker *-ne*

Unpossessed Form	Possessed Form	Gloss
<i>yowata</i>	<i>yowata-ne</i>	‘knife’
<i>ĩtopa</i>	<i>ĩtopa-ne</i>	‘(area in the) jungle’
<i>xiti</i>	<i>xiti-ne</i>	‘earth, land, locality’
<i>katsotatu</i>	<i>katsotatu-ne</i>	‘grass’
<i>kopiti</i>	<i>kopiti-ne</i>	‘pan’
<i>atokatxi</i>	<i>atokatxi-ne</i>	‘sun’
<i>ããta</i>	<i>ããta-ne</i>	‘traditional canoe’
<i>kai</i>	<i>kai-ne</i>	‘stone’
<i>kipeta</i>	<i>kipeta-ne</i>	‘instruction to make a string’
<i>paraka</i>	<i>paraka-ne</i>	‘house’ (Port. “barraca”)
<i>tõõpa</i>	<i>tõõpa-ne</i>	‘place’
etc.		

In (50a) the noun *kuku* ‘man’ requires the suffixation of the possessed marker *-re₁* (where the subscript digit is used to distinguish homophonous formatives) when occurring as the head possessed element of a nominal possession construction. In contrast, the same noun is shown in (50b) to be unmarked when unpossessed:

50a. [*nota kuku-re₁*] *apo-pe*
 1SG man-POSSED arrive-PFTV
 ‘My husband has arrived.’

b. *kuku apo-pe*
 man arrive-PFTV
 ‘The man has arrived.’

The following table lists a sample of alienable nouns that subcategorize for the suffix *-re₁*:

Table 18: Head Possessed Marker *-re₁*

Unpossessed Form	Possessed Form	Gloss
<i>yotipana</i>	<i>yotipana-re₁</i>	‘stool’
<i>suto</i>	<i>suto-re₁</i>	‘woman’
<i>kuku</i>	<i>kuku-re₁</i>	‘man’
<i>tsowaku</i>	<i>tsowaku-re₁</i>	‘hips’
<i>xoka</i>	<i>xoka-re₁</i>	‘flatulence’
etc.		

There is no obvious semantic grouping that can be used to distinguish among the various subsets of alienable roots that can take each of the possessed head markers *-te*, *-ne* or *-re₁*, as can be gathered from Table 19, where the meaning referred to by the nouns which take the possessed head markers are grouped together into various specific semantic fields. The information provided by Table 19 is presented in more summarized form in Table 20 to illustrate the sort of meanings that have been attested for simple alienable nouns. The semantic classes given in Table 20 would seem to point to the unlikelihood that any semantic grouping can account for the whole of the alienable marking patterns attested in the language. It is always possible to posit highly abstract semantic classes to account for these formal markings or to identify some subregularities

Table 19: The Semantics of Alienable (1)

Marker	Forest Ground	Plants	Celestial Elements	Places	Manufactured Elements	Humans	Industrialized Elements	Body Parts	Celestial Elements	Transport	Edibles	Others
<i>-te</i>	'water' 'sand'	'banana'	'moon'	'field farm (1)' 'field farm (2)' 'house (1)'	'house (1)' 'canoe (1)' 'ball'	'male child' 'female child'		'beak'	'moon'	'canoe'	'fish'	
<i>-ne</i>	'stone' 'earth, land'	'grass'	'sun'	'earth, land' 'jungle' 'house (2)' (LOAN) 'place'	'pan' 'canoe (2)'		'knife' 'pan'		'sun'	'canoe (2)'		'string making'
<i>-te₁</i>					'stool'	'woman' 'man'		'hips' 'flatulence'				

in the data. However, if highly abstract classes are required to account for such markings, it is likely that alienable markings in Apurinã cannot be properly described solely on semantic grounds. Moreover, a more in-depth survey of the Apurinã lexicon still needs to be carried out. I will discuss again the functions of alienable marking patterns while analyzing the status of the *-te*, *-ne*, and *-re₁* in 4.4.2.

Table 20: The Semantics of Alienable Nouns (2)

Semantic Classes	Rt _{ALIEN.te}	Rt _{ALIEN.ne}	Rt _{ALIEN.re₁}
elements from forest ground	+	+	
plants	+	+	
celestial elements	+	+	
places	+	+	+
manufactured elements	+	+	+
humans	+		+
industrialized elements		+	
means of transportation	+	+	
body parts/related	+		+
edibles			+
others	+	+	+

As the semantics of alienable nouns marked above suggests, simple alienable nouns constitute a subclass of nouns that, in principle, would appear to be potentially open ended; however, the existence of productive noun compounding (see 4.2.1) limits its actual number.

4.1.3 *Simple Mixed (Double-Marked) Nouns*

Mixed (or double-marked) nouns are simple noun forms that are marked both when they are possessed AND when they are unpossessed. When possessed, mixed nouns take the *-re₂* possessed marker, and when unpossessed, they take the *-ru₂* unpossessed marker, as shown in (51):

- 51a. *mipa atama-ta-ru₁ o-kota-re₂*
 Mipa look-VBLZ3M.O 3SG.F-basket-POSSED
 ‘Mipa looks her basket.’
- b. *mipa atama-ta-ru kota-ru₂*
 Mipa look-VLBZ-3M.O basket-UNPOSS
 ‘Mipa looks the basket.’

In (51) a mixed noun is shown to differ from the alienable nouns described in the previous subsections, insofar as the noun root *kota* ‘basket’ not only requires the suffixation of the possessed marker *-re₂* when occurring as a head possessed element of a nominal possession construction (as in 51a), but also the suffixation of the unpossessed marker *-ru₂* when occurring as an unpossessed noun (as in 51b). Thus, mixed noun forms are morphologically marked both when possessed and when unpossessed, as represented in Table 21:

Table 21: Marking Patterns of Mixed Nouns

Root Class	Possessed Marking	Unpossessed Marking
Rt _{MIX.re2}	<i>-re₂</i>	<i>-ru₂</i>

Therefore, mixed nouns are distinct from either alienable or inalienable nouns in their morphological marking patterns in possession and in unpossession constructions: While alienable nouns are morphologically marked when possessed and morphologically unmarked when unpossessed, and while inalienable nouns are morphologically unmarked when possessed and morphologically marked when unpossessed, mixed nouns are morphologically marked (by mutually exclusive formatives) when either possessed or unpossessed. The simplest structure of mixed nouns is then as represented in (52):

$$52. N_{\text{MIX}} \rightarrow \text{Rt}_{\text{MIX}} + \begin{cases} re_2 \\ ru_2 \end{cases}$$

Table 22 lists a sample of simple nouns that subcategorize for the possessed suffix *-re₂* and for unpossessed suffix *-ru₂*:

Table 22: Head Possessed Marker *-re₂* and Unpossessed Marker *-ru₂*

Unpossessed Form	Possessed Form	Gloss
<i>hāpoku-ru₂</i>	<i>hāpoku-re₂</i>	‘flute (2)’
<i>ikiyana-ru₂</i>	<i>ikiyana-re₂</i>	‘poison’
<i>yā-ru₂</i>	<i>yā-re₂</i>	‘juice’
<i>kawu-ru₂</i>	<i>kawu-re₂</i>	‘“pupunha” (fruit)’ ¹⁶
<i>kota-ru₂</i>	<i>kota-re₂</i>	‘basket’
<i>nhipoko-ru₂</i>	<i>nhipoko-re₂</i>	‘food’
<i>pirike-ru₂</i>	<i>pirike-re₂</i>	‘wall’
<i>taka-ru₂</i>	<i>taka-re₂</i>	‘plantation’
<i>xika-ru₂</i>	<i>xika-re₂</i>	‘song’
<i>txipoko-ru₂</i>	<i>txipoko-re₂</i>	‘fruit’
etc.		

As happens to alienable nouns, the marking patterns for mixed nouns in (un)possession constructions cannot be accounted for on the basis of semantic classes in any obvious way. In Table 23 a specific set of semantic classes which nouns following the mixed (un)possession marking pattern can be grouped into is compared with the semantic classes which alienable nouns can be grouped into. The result is summarized in Table 24, which shows that, while some semantic subregularities can be found in the data, there is enough overlap among the semantic fields covered by alienable and mixed

¹⁶ *Guilielma speciosa*.

Table 23: The Semantics of Alienable versus Mixed Nouns (1)

Marker	Forest Ground	Plants	Celestial Elements	Places	Manufactured Elements	Humans	Industrialized Elements	Body Parts	Celestial Elements	Transport	Edibles	Others
-te	'water' 'sand'	'banana'	'moon'	'field farm (1)' 'field farm (2)' 'house (1)'	'house (1)' 'canoe (1)' 'ball'	'male child' 'female child'		'beak'	'moon'	'canoe'	'fish'	
-ne	'stone' 'earth, land'	'grass'	'sun'	'earth, land' 'jungle' 'house (2)' (LOAN) 'place'	'pan' 'canoe (2)'		'knife' 'pan'		'sun'	'canoe (2)'		'string making'
-re ₁					'stool'	'woman' 'man'		'hips' 'flatulence'				
-re ₂				'plantation'	'flute (2)' 'basket' 'wall'						'food' 'juice' 'type of' fruit' 'fruit'	'poison'

nouns to suggest that the distinction between alienable and mixed nouns cannot be motivated solely on the basis of their semantic properties. I will return to discuss the function of (un)possessed markers in simple mixed nouns while analyzing the status of the *-te*, *-ne*, and *-re₁* in 4.4.2.

Table 24: The Semantics of Alienable versus Mixed Nouns (2)

Semantic Classes	Rt _{ALIEN.te}	Rt _{ALIEN.ne}	Rt _{ALIEN.re1}	Rt _{MIX.re2}
elements from forest ground	+	+		
plants	+	+		
celestial elements	+	+		
places	+	+	+	+
manufactured elements	+	+	+	+
humans	+		+	
industrialized elements		+		
means of transportation	+	+		
body parts/related	+		+	
edibles			+	+
others	+	+	+	+

4.2. Compound Nouns

In contrast to simple nouns, defined above as underived nouns having one root, **compound nouns** are defined as the nouns composed by more than one root. Compound nouns are subdivided into two types: **productive** and **non-productive** compound nouns. While the non-productive compounds have an idiosyncratic formation, the productive ones follow a partly regular formation, as described in the following subsections.

4.2.1 Productive (Non-Idiosyncratic) Compound Nouns

Productive compound nouns are those whose constituting roots include at least one classificatory noun. The following examples in (53) and (54), repeated respectively

from (21) and (24-25), illustrate instances of productive compound nouns. In (53) *-katu* ‘branch of’ is a CN₁ that recurs as the head element of a noun compound, whereas in (54) the CN₂ *-muna* ‘log’ is the recurring element:¹⁷

53a.	<i>umamaru-katu</i> jenipapo-branch.of	NRt+CN ₁	“‘jenipapo” tree branch’
b.	<i>ãã-muna-katu</i> plant-trunk-branch.of	[NRt+CN]+CN ₁	‘tree branch’
c.	<i>komeru-katu</i> manioc-branch.of	NRt+CN ₁	‘manioc tree/branch’
54a.	<i>ãã-muna</i> plant-log.of	NRt+ CN ₂	‘tree’
b.	<i>oko-muna</i> oko-log.of	NRt+CN ₂	“‘oko” trunk’
c.	<i>lãtehna-muna</i> flashlight-log.of	NRt+CN ₂	‘flashlight tube’

More examples of productive and quasi-productive compound nouns were given under 4.1.1.2, where CN₁ and CN₂ are described. The simplest word formation rules for these compound nouns are then as in (55):

55. N → Rt + CN (+ CN)

Productive compound nouns consisting of CN₂s form an open class of words to the extent that CN₂s can, in principle, attach to any semantically compatible noun base,

¹⁷ Productive compound nouns could be divided (on a semantic basis) into quasi-productive and (fully-)productive compound nouns, since what is called productive compound nouns here includes both those that take CN₁ and those that take CN₂. As it was shown earlier, part of the distinction between CN₁ and CN₂ is that the former is semi-productive whereas the latter is fully productive.

thus forming a productive compound noun. In fact, it is productive nouns that most often supply the language with neologisms, since one of the grammatical functions of CN₂s in Apurinã is to increase the lexicon. For example, as was illustrated 4.1.1.2, the word for ‘eye glasses’ is *oku-tãta* (eye.of-bark), where *tãta* ‘bark of’ is a CN₂ that can be used to indicate that an item possesses an ‘outer layer’. The word used for the ‘sandals’ introduced by the “Whites” is *kiti-mata* (foot.of-skin), where the word for ‘skin of’ is added to the word for ‘foot’ to indicate that the item being described has a ‘flat and thin surface’. The word for ‘shotgun’ can be either *xamu-na-ku* (fire-linear-seed) or *xamu-na-ke* (fire-linear-stick), where the CN₂s *-na* ‘linear’ and *ku* ‘seed’ or *ke* ‘stick’ are used to indicate, respectively, that the item has a ‘linear’, ‘roundish’ and ‘long and thin’ shape. Finally, the use of productive compounds to enrich the Apurinã lexicon is not restricted to new words. For example, the word for ‘toe of’ is *kiti-ku* (foot.of-seed), where the CN₂ *ku* ‘seed’ is added to the word for ‘foot’ to indicate that the item is like a ‘small, roundish’ appendix of the foot. The word for ‘milk’ is *tenu-pẽ* (breast.of-liquid), where the CN₂ *pẽ* ‘liquid’ is used with the word for ‘breast’ to refer to the ‘liquid’ property that milk has (as water that comes out of the women’s breasts). These and other examples pervade the language, as was seen in the discussion of inalienable noun in 4.1.1.2. Therefore, it seems reasonable to conclude that the number of inalienable and alienable nouns in the language are actually greatly reduced because many of the concepts that the Apurinã lexicon expresses take the form of productive compound nouns. Moreover, as will be seen in 4.2.3, compound nouns in general do not subcategorize for (in)alienability.

4.2.2 *Non-Productive (Idiosyncratic) Compound Nouns*

Non-productive compound nouns are the nouns with more than one root which do not have any productive pattern as to their constituting elements as well as to their derived meanings. The list in (56) below illustrates a sample of this compounding type (underline indicates the semantic head; VRt=Descriptive Root):

56a.	<i>kai-turōkanu</i> stone-waterfall	‘(river) rapids’	NRt+NRt
b.	<i>pirōtu-āwite</i> hummingbird-big	‘plane’	NRt+VRt
c.	<i>mita-āporu</i> wide-path	‘wide path’	VRt+NRt
d.	<i>kai-kota</i> stone-clay	‘“tabatinga” clay’	NRt+NRt
e.	<i>mita-sawana</i> wide-stream	‘wide channel’	VRt+NRt
f.	<i>komeru-nakanhi</i> manioc-sap	‘tapioca’	NRt+NRt
g.	<i>tata-suta</i> umari-stew	‘“umari” ¹⁸ (fruit) stew’	NRt+NRt
h.	<i>txiparu-kana</i> banana-bunch	‘bunch of bananas’	NRt+NRt

I will pay little attention to these types of compounds in this work, since only a few cases have been unambiguously attested and since they play minor role in the language grammar. The simplest word formation rules for these compound nouns are as in (57):

¹⁸ Poraqueiba sericea.

4.2.3 Exceptions

In general, compound nouns do not subcategorize for (in)alienability; that is, only simple nouns are either obligatorily possessed or not. However, there are some marginal cases attested that deserve to be noted. There is one attested case of a productive compound that takes the unpossessed marker *-txi*. The noun is *noku-tsa-txi* (neck.of-liana.of-UNPOSS) ‘necklace’. There are also a few cases of compound nouns (mostly the productive ones) that take the possessed marker *-te* or *-ne*, as given in Table 25:

Table 25: Productive Compound Taking Possessed Markers

Unpossessed Form	Possessed Form	Gloss
<i>yārĩ-yã</i>	<i>yārĩ-yã-te</i>	‘beverage’
<i>ãã-muna</i>	<i>ãã-muna-te</i>	‘tree, wood’
<i>ãã-tsopa</i>	<i>ãã-tsopa-te</i>	‘leaf’
<i>manẽ-ẽ</i>	<i>manẽ-ẽ-te</i>	‘river's mouth’
<i>kai-soro</i>	<i>kai-soro-te</i>	‘stone to sharpen’
<i>xamu-poku</i>	<i>xamu-poku-te</i>	‘stove’
<i>xamu-na-ke</i>	<i>xamu-na-ke-te</i>	‘shotgun’
<i>ããta-panhi</i>	<i>ããta-panhi-ne</i>	‘ash’
<i>sawata-pa</i>	<i>sawata-pa-ne</i>	‘shoes’
etc.		

Whether the distinct behavior of these marginal cases says anything about the synchronic status of their internal structure or not remains to be verified. One possibility is that these nouns are lexicalized nominal forms that have lost the internal morphemic boundaries. Another one is that they are compounds that simply subcategorize to take such morphological markers.

4.2.4 *The Development of Productive Compounds*

The data presented above lead to the conclusion that CN₁s evolved out of simple nouns lexically marked as inalienably possessed¹⁹ nouns (i.e. simple inalienable nouns), since such nouns would always occur in possession constructions marked by juxtaposition (see structure of noun phrases in chapter 8, subsection 8.2.1). As lexical elements, simple inalienable nouns would frequently occur as the possessed element (since, as shown above, they are lexically marked as obligatorily possessed), finally becoming phonologically attached to the possessor noun. The structure of productive compound nouns, then, evolves as represented in (58):

$$58. [N_{\text{Possor}} \# \text{NRt}_{\text{INAL}}]_{\text{NP}} > [N + \text{CN}_1]_{\text{N}}$$

in which the meanings of CN₁s used as lexical items (in covertly marked possession constructions) are still partially preserved, giving the productive nominal compounding as a whole a partial “compositional” (transparent) semantic structure. As the meanings of CN₁s get more and more bleached out (thus, also more abstract/generic) they are used with more and more lexical items to refer to their **shape** and **consistency** properties, therefrom giving rise to CN₂s. The whole path of grammaticalization can then be represented as in (59):

$$59. [N_{\text{Possor}} \# \text{NRt}_{\text{INAL}}]_{\text{NP}} > [N + \text{CN}_1]_{\text{N}} > [N + \text{CN}_2]_{\text{N}}$$

¹⁹ As was mentioned earlier, inalienable possession here is associated with a class of nouns which are lexically marked as obligatorily possessed; its membership is grammatically defined, but with semantic correlates which are usually associated with inalienability cross linguistically, i.e. body parts and plant parts. Notice that the second major class of typical inalienable nouns, namely kinship terms, plays no role in the formation of productive compounding in Apuriná.

4.3. Deverbal Nouns

The third category of nouns consists of those that derive from other word categories and are here simply referred to as **nouns derived from other categories**. A noun can be derived by means of suffixation to a verb base, as seen in the next examples. The first cases illustrated in (60) and (61) below illustrate a different use of some of the formatives, namely *-txi* and *-re₂*, described in the previous sections as part of the (un)possession marking patterns. In (60-61) these formatives are used as nominalizers of verb forms:

- 60a. *nota nhipoko-ta* 'I ate.'
1SG food-VBLZ
- b. *nota apoka-ru nhipoko-ta-txi* 'I found a place-for-eating.'
1SG find-3M.O food-VBLZ-UNPOSS
- 61a. *pita kama-ru* 'You made it.'
2SG make-3M.O
- b. *pita kama-re₁* 'your work'
2SG make-POSSED

There are some special types of morphologically complex bound forms such as *-karu* and *-karo* that attach to verbs to derive, respectively, masculine and feminine noun-like forms referring to the notional subject of the nominalized verb, and such as *-kutu* and *-kuto* that attach to verbs to derive, respectively, masculine and feminine noun-like forms referring to the notional object of the nominalized verb. These forms consist of a set of complex formatives marking relative clauses. For now I will only list the examples in (62), and say that some nominal properties can be associated with the

words marked with these complex formatives. Their full description will be delayed until the last chapter where the syntax of complex clauses is described. (See also 4.4.)

62a. *nota apoka-ru atama-ta-karu*
1SG find-3M.O look-VBLZ-S.M.REL
'I found the (masculine) one who watches.'

b. *nota apoka-ru atama-ta-karo*
1SG find-3M.O look-VBLZ-S.F.REL
'I found the (feminine) one who watches'

63a. *nota apoka-ru nhika-kutu*
1SG find-3M.O eat-O.M.REL
'I found the (masculine) one who was eaten'

b. *nota apoka-ru nhika-kuto*
1SG find-3M.O eat-O.F.REL
'I found the (feminine) one who was eaten'

These, as well as other nominalizing formatives, will be properly described under 4.4 along with the rest of the noun stem morphology. For now it suffices to say that there are good reasons to argue that the forms given above either form nouns from other categories or add some nominal properties to verbs. The evidence will be presented as the noun morphology is described in the next sections. Finally, aside from the property that nouns derived from other word categories have of being formed of bases belonging to another part of speech, they also have another important property that distinguishes them from simple nouns: Nouns derived from other word categories do not subcategorize for (in)alienability.

4.4. Noun Stem Morphology

In the previous section we have seen that nouns can be derived from verb forms. In this section I will survey the inventory and describe the word internal distributional and functional properties of these affixal formatives that can occur within certain bases, here called **noun stems**, to form a noun. The notion of ‘noun stem’ can be understood as the nominal unit which results from adding the bound formatives described in this section to a root base. I will refer to the bound formatives that attach to a root base to form a noun stem as **noun stem formatives**. Thus, a noun stem is a root base plus one or more noun stem formative(s).

As mentioned in the introduction to this chapter, nouns can be grammatically defined in terms of their syntactic and morphological properties. As follows from this definition, morphological properties which are restricted to nouns distinguish them from other parts of speech, and, moreover, this does not mean that nouns cannot share other properties with other parts of speech, but rather that these shared properties cannot be used to identify a word form as a noun morphologically.

As I have already anticipated in the previous chapter (under 3.4.1.1) I will NOT make use of the notions of **inflection** or **derivation** (or its derived terms such as **inflectional** or **derivational** morphemes/morphology...) for the simple reason that such notions can only be defined on a theory internal basis. I will, nevertheless, make brief comparisons, where especially relevant, between the language internally motivated notions of **noun stem morphology** and **noun morphology**. **Noun stem morphology** consists of the properties involved in the word formation of noun stems, whereas **noun morphology** consists of the properties involved in the word formation of nouns and

absent in the word formation of noun stems. In using perhaps typologically “un-user-friendly” labels I am trying to be coherent with the decision of favoring language internal motivated labels where these may be at odds with more common terms found in the typological literature. It is arguable whether noun stem morphology is “simpler” in any way than noun morphology. However, the idea is not that the morphological forms that occur with nouns are individually more complex than the morphological forms that occur with noun stems (though arguments could also be made in this direction), but rather that the overall structure of nouns is more complex than that of noun stems. It is in this sense that I will argue that, at least in a naïve sense, nouns are more complex than noun stems. One way in which these terms will also prove useful is in avoiding the biases that notions such as derivational and inflectional morphology would bring into the analysis of the Apurinã noun morphology.

Finally, before describing the noun stem morphology, let me repeat for convenience the cluster of evidence that will be (heuristically) used in the identification of formatives (i.e. morphemes, their allomorphs or empty morphs). The properties listed in Table 26 are repeated from Table 1 of chapter 3. I will only make explicit use of these properties where the evidence is not overwhelmingly in favor of analyzing a formative as a morpheme, allomorph or empty morph; otherwise, their use will be made implicitly (i.e. I will use but not mention them):

Table 26: Defining Properties of Formatives

Property	Formatives			Non-Formatives
	Morpheme	Allomorph	Empty Morph	
I- Meaning	YES	YES	NO	NO
II- Function	YES	YES	NO	NO
III- Form	YES	YES	YES	NO
IV- P.O.S of base	YES	YES	YES	NO
V- Restrictions on base	YES	YES	YES	NO
VI- Range of allomorphs	YES	YES	YES	NO
VII- Form imposed on base	YES	YES	YES	NO
VIII- Potentiation of other formative	YES	YES	YES	NO
IX- Degree of productivity	YES	YES	YES	NO
X- Position class	YES	YES	YES	NO
XI- Complementary distribution	NO	YES	YES	NO
XII- Recurrence	YES	YES	YES	NO

4.4.1 Gender Markers: Masculine *-ru₁* versus Feminine *-ro*

All nouns, including those derived from other categories, are either **masculine** or **feminine** for the purpose of cross-referencing marking with other elements within a syntactic construction. Masculine and feminine gender can be marked morphologically or they can be morphologically unmarked. Unmarked masculine/feminine gender is the one for which no formal grammatical marker is added to the verb. There are various ways to tell the gender of an unmarked noun form in natural discourse, all involving a coreferential formative found in the modifier, determiner or in the predicate. This is illustrated in the following examples in (64a) and (64b), where in the first clause *tata* “‘umari’” cross-references the feminine pronominal object form in the verb, whereas in the second clause *yowata* ‘knife’ cross-references the masculine pronominal object form in the verb:

- 64a. *ata nhika-ro tata*
 we eat-3F.O umari
 ‘We eat “umari”.’
- b. *nota atama-ru yowata*
 I look-3M.O knife
 ‘I saw the knife.’

Different from languages such as Portuguese and French, Apurinã does not show cross-referencing between the elements inside nominal phrases, as the possessive constructions in (65) illustrate:²⁰

- 65a. *uwa yowata-ne*
 3SG.M knife-POSSED
 ‘his knife’
- b. *owa yowata-ne*
 3SG.F knife-POSSED
 ‘her knife’

Nouns that are morphologically unmarked for gender constitute the majority of the Apurinã nominal lexicon. They include sex-non-differentiable nouns such as those listed in Table 27. As can be gathered from Table 27, the great majority of morphologically unmarked noun stems referring to sex-non-differentiable elements is assigned to the masculine gender.

²⁰ Cf. *suas facas* (3F.POSSESSOR-PL knife-F-PL) ‘their knives’, *seus carros* (3M.POSSESSOR-PL car-M-PL) ‘their cars’, **seus facas*, and **suas carros* in Portuguese.

Table 27: Sex-Non-Differentiable Noun Stems with Unmarked Gender

NOUN	GENDER	GLOSS
<i>ããta</i>	F	‘(traditional) canoe’
<i>ããxike</i>	F	‘(thin) leaf’
<i>pirana</i>	F	‘speech’
<i>serepi</i>	F	‘arrow of’
<i>ããmuna</i>	M	‘tree’
<i>ããtsopa</i>	M	‘(long, wide) leaf’
<i>ĩtopa</i>	M	‘jungle’
<i>kanawa</i>	M	‘canoe’
<i>mãka</i>	M	‘clothes of’
<i>mane</i>	M	‘body of’
<i>mapowatsa</i>	M	‘cotton string’
<i>sãkire</i>	M	‘language of’
<i>tõõpa</i>	M	‘place’
<i>xamuna</i>	M	‘firewood’
etc...		

Morphologically unmarked gender also includes sex-differentiable nouns such as proper names, as illustrated in Table 28. The identification of gender when no cross-referencing clue is available is facilitated by the fact that the **default gender** is the masculine one. The default gender is the one imposed on noun forms when these lack any morphological gender marking, semantic or pragmatic indications of their gender. Thus, the fact that Table 27 lists many more noun forms with a masculine gender than noun forms with a feminine one is NOT an artifact of the data sample; it reflects the preference for masculine over feminine gender in the language as far as frequency in the lexicon is concerned. In fact, with a few exceptions, sex-non-differentiable noun stems are almost entirely assigned the masculine gender.

Table 28: Sex-Differentiable Proper Names with Unmarked Gender

NOUN	GENDER	GLOSS
<i>youka</i>	M	‘(male Indian name)’
<i>mipa</i>	M	‘(male Indian name)’
<i>tokatxi</i>	M	‘(male Indian name)’
<i>tsora</i>	M	‘(male Indian name)’
<i>poyaka</i>	M	‘(male Indian name)’
<i>yawa</i>	M	‘(male Indian name)’
<i>kanhĩ</i>	M	‘(male Indian name)’
<i>koyore</i>	M	‘(male Indian name)’
<i>kotxirĩyã</i>	M	‘(male Indian name)’
<i>kamima</i>	M	‘(male Indian name)’
<i>mapurãka</i>	M	‘(male Indian name)’
<i>marati</i>	M	‘(male Indian name)’
<i>kaxiama</i>	M	‘(male Indian name)’
<i>mayaripa</i>	F	‘(female Indian name)’
<i>kamarapo</i>	F	‘(female Indian name)’
<i>makoyara</i>	F	‘(female Indian name)’
<i>kayaowe</i>	F	‘(female Indian name)’
<i>karaxipa</i>	F	‘(female Indian name)’
<i>nawama</i>	F	‘(female Indian name)’
<i>makuuto</i>	F	‘(female Indian name)’
<i>eroãtxi</i>	F	‘(female Indian name)’
<i>yore</i>	F	‘(female Indian name)’
<i>onhĩa</i>	F	‘(female Indian name)’
<i>kupaãyã</i>	F	‘(female Indian name)’
<i>ayãpa</i>	F	‘(female Indian name)’
<i>kaneepa</i>	F	‘(female Indian name)’
etc.		

The morphologically marked gender occurs with a subset of nouns and consists of the forms *-ru₁* and *-ro*, which mark the masculine and feminine genders, respectively. The examples in (66) illustrate the root base *hãtako-* ‘youth’, the gender markers *-ru₁* and *-ro* and the corresponding coreferential markers *u-* and *o-* in the verb:

- 66a. *u-muteka hãtako-ru₁*
 3M-run youth-3M
 ‘The boy runs.’

- b. *o-muteka hātako-ro*
 3F-run youth-3F
 ‘The girl runs.’

Morphological gender marking in Apurinã is generally restricted to a subset of sex-differentiable nouns that include kinship terms and a few other human groups. The one clear exception attested so far is the word for ‘dog’. This is illustrated in the list in Table 29 below:

Table 29: Sample of Noun Stems with Morphologically Marked Gender

Nouns	Gender	Gloss
<i>tanu-ru₁</i>	M	‘husband of’
<i>tanu-ro</i>	F	‘wife of’
<i>ita-ru₁</i>	M	‘brother/uncle of’
<i>ita-ro</i>	F	‘sister/aunt of’
<i>ama-ru₁</i>	M	‘son of’
<i>ama-ro</i>	F	‘daughter of’
<i>omekanhi-ru₁</i>	M	‘grandson of’
<i>omekanhi-ro</i>	F	‘granddaughter of’
<i>atoku-ru₁</i>	M	‘grandfather of’
<i>aku-ro</i>	F	‘grandmother of’
<i>u-ru₁</i>	M	‘father of, uncle of (2)’
<i>unu-ro</i>	F	‘mother of, aunt of (1)’
<i>popũka-ru₁</i>	M	‘male Apurinã’
<i>popũka-ro</i>	F	‘female Apurinã’
<i>anãpana-ru₁</i>	M	‘male dog’
<i>anãpana-ro</i>	F	‘female dog’
etc...		

As it is also clear from the examples above, the bases to which morphological gender markers attach are all bound roots. So, for instance, the noun stem *hātako-ru₁* means ‘boy’ and the noun stem *hātako-ro* means ‘girl’, but the form **hātako* cannot stand by itself as noun to mean ‘youth’ (or whatever) because it is a phonologically bound root. Hence, *hātako-* is a bound root. The same observation applies to all other

bases taking the morphological gender markers.²¹ The simplest word formation rule to form noun stems (NSt) marked with morphological gender then is as in (67):

$$67. \text{NSt} \rightarrow \text{NRt} + \begin{bmatrix} \text{MASC} \\ \text{FEM} \end{bmatrix}$$

In Facundes 1994 (following the work on gender by Corbett 1991) I also discussed some gender marking types that, in some cases, may be phonologically assigned by Apurinã speakers/hearers when these find a noun form for the first time. These are the cases of nouns ending in forms phonologically similar to either of the morphological gender markers but that cannot be segmented into separate morphemes on the basis of the morphological structure of the language, despite the fact that speakers' interpretation of the gender for such nouns may, in some cases, agree with the interpretation that would follow if the phonological ending were analyzable as a separate morpheme. For example, the word *txipokoru* 'fruit' ends in /ru/. As the next example shows in (68), this noun triggers the masculine (rather than feminine) coreferential marking in the predicate:

68. *posētaka-ru txipokoru*
 yellow-3M.O fruit.M
 'The fruit is ripe.'

However, as a sex non-differentiable noun, there is no feminine counterpart to the word for 'fruit'. Hence, in the absence of other morphological process(es) indicating that /ru/ is a segmentable (morphemic) part of the word, there is no way to show that /ru/ is a

²¹ The only potential exception to this general pattern is exactly the only noun stem referring to a non-human animal,

masculine marker for this word, rather than simply an unsegmentable piece of the word.

As I have argued in Facundes 1994:38-39, the fact that there are also examples of sex-differentiable nouns that take unsegmentable /ru/ endings can be used as evidence for treating the same ending in *txipokoru* as non-morphemic. To illustrate this, the next examples in (69) show that although *pataru* ‘male/female chicken’ ends in /ru/, this noun stem can be semantically coreferential to either of the masculine or feminine markers, which shows that /ru/ in *pataru* is not the masculine morpheme *-ru₁*, but simply an unsegmentable piece of the noun form *pataru*:

- 69a. *mita-ru₁ pataru*
big-3M.O chicken
‘The rooster is big’
- b. *mita-ro pataru*
big-3F chicken
‘The female chicken is big.’

In terms of the tests presented in Table 1 of chapter 3 to determine the morphemic status of a formative, the only positive evidence for arguing that /ru/ is a morpheme is, as shown in Table 30, its form, i.e. the homophony to the masculine gender marker *-ru₁*, its part of speech (i.e. restricted to nouns), and a certain recurrence (though limited to a few nouns). All other tests in Table 30 suggest that /ru/ in *pataru* and *txipokoru* is nothing but a non-formative (i.e. a morphologically inconsequent phonological chunk) that happens to coincide with the form of the masculine gender marker:

i.e. *anãpana*- ‘dog’. The form *anãpa* is the most common form used for ‘dog’. See also final paragraphs under 4.0.

Table 30: Morphological Status of /ru/ in *pataru* and *txipokoru*

Property	Value for /ru/
I- Meaning	NO
II- Function	NO
III- Form	YES
IV- P.O.S of base	YES
V- Restrictions on base	NO
VI- Range of allomorphs	NO
VII- Form imposed on base	NO
VIII- Potentiation of other formative	NO
IX- Degree of productivity	NO
X- Position class	NO
XI- Complementary distribution	NO
XII- Recurrence	YES

In sum, if /ru/ can be an unsegmentable piece of a sex-differentiable noun stem such as *pataru*, it certainly could be an unsegmentable part of a sex-non-differentiable noun such as *txipokoru* as well. Moreover, the gender may be argued to be phonologically assigned because, although the phonological ending cannot be segmented as a morpheme, it can nevertheless work as an audible clue for the speakers' interpretation of the gender of the noun forms in question; however, it functions as a rather poor signal insofar as it is bound to lead speakers to make mistakes when using it to identify the gender of noun forms they are not familiar with.²² Table 31 lists a sample of nouns whose gender is phonologically assigned:

²² More details on phonologically assigned gender and default gender in Apurinã have been described in chapter 2 of Facundes 1994.

Table 31: Sample of Noun Stems with Phonologically Marked Gender

Nouns	Gender	Gloss
<i>etxikuru</i>	M	‘type of monkey’
<i>atsanaru</i>	M	‘type of monkey’
<i>momoru</i>	M	‘“matrinxão” fish’
<i>yokoru</i>	M	‘“embaúba” tree’
<i>komeru</i>	M	‘manioc’
<i>kamuru</i>	M	‘type of spirit’
<i>awiru</i>	M	‘tobacco’
<i>kããwããru</i>	M	‘river stream’
<i>awikeru</i>	M	‘male proper name’
<i>mainharu</i>	M	‘male proper name’
<i>kasuru</i>	M	‘moon’
<i>serotaru</i>	M	‘salt’
<i>takataru</i>	M	‘pottery container’
<i>katarokuru</i>	M	‘manioc flour’
<i>itokoru</i>	M	‘field farm’
<i>katsoparu</i>	M	‘coca leaf’
<i>potxowaro</i>	F	‘honey, sugar’
<i>yakonero</i>	F	‘female proper name’
<i>kamaro</i>	F	‘sting ray’
<i>mayorupero</i>	F	‘female proper name’
etc.		

As the examples in Table 31 suggest, the semantics of nouns whose gender is phonologically assigned varies, including person names, names of animals, cultural elements, plants, among others. Moreover, examples such as those in Table 32 are analogous, except that instead of ending in /ru/ or /ro/, they end in /u/, /i/ or /o/:

In terms of the morphological concepts defined in chapter 3, /ru/, /ro/, /u/ and /o/ can be described as non-formatives. In a more theoretically based approach to such data I am inclined to suggest that phonologically assigned clues as well as notions such as default gender can be conceived within some version of the so-called **lexical redundancy rules** (Jackendolf 1975) operating at some level within the lexicon to establish partial

relationships among lexical items on partly systematic ways. This, however, is more of a speculative note whose workings are well beyond the scope of this work.

Table 32: Sample of Noun Stems with Phonologically Marked Gender

Nouns	Gender	Gloss
<i>hũwu</i>	M	‘flower’
<i>putu</i>	M	‘female genitalia’
<i>aõtu</i>	M	“‘uxi” fruit
<i>manopi</i>	M	“‘tipiti”
<i>kananu</i>	M	‘year’
<i>tou</i>	M	‘thing of’
<i>apu</i>	M	‘bone of’
<i>tanapu</i>	M	‘stalk’
<i>ximaku</i>	M	‘fish’
<i>maku</i>	M	‘Brazil-nut’
<i>upo</i>	F	‘larva’
<i>oko</i>	F	“‘oko” tree’
etc.		

Some semantic subregularities are also likely to exist in the language, although they still deserve further investigation. For example, the word *serepi* ‘arrow’ (which has the variant *xerepi* in some speech varieties) given in Table 27 ends in /i/, but is feminine (as in *mita-ro xerepi-txi* [be.big-3F arrow-UNPOSS] ‘The arrow is big.’). One possibility is that certain elements which are inherently handled by males (such as arrows) are categorized as feminine (just like vehicles such as ‘ship’, ‘airplane’, ‘car’, ‘submarine’, are categorized as feminine in English by the men who usually handle them). This and other possible semantic subregularities require additional research with native speakers, since text material often does not make explicit the gender class which a noun belongs to. There is, however, another possible analysis which still cannot be discarded for *serepi* as well as *ããta* ‘canoe’, *ããxike* ‘(thin) leaf’ and *pirana* ‘speech’. These four words are the only clear cases so far attested for noun stems that are morphologically unmarked for

gender and which are assigned the feminine gender on the basis of their cross-referencing properties. As it happens, these words all translate into feminine words in Portuguese (i.e., respectively *flecha*, *canoa*, *folha* and *fala*). Therefore, it is possible that such words are assigned the feminine gender by influence of the gender of the forms translated in Portuguese. Further verification needs to be made with a variety of speakers in order to evaluate this second analysis.

4.4.2 Possessed Markers: *-te*, *-ne*, *-re₁*, and *-re₂*

The possessed markers *-te*, *-ne*, and *-re₁* were described above in 4.1.2 as suffixes that occur with alienable simple nouns, whereas the possessed marker *-re₂* was described in 4.1.3 as a suffix that occurs with mixed simple nouns. Under the analysis presented earlier, the choice of possessed markers is lexically determined. In the absence of further specification, there are two possible interpretations of what it means here for possessed markers to be lexically determined: It will either mean that (i) possessed markers are assigned as part of the morphological properties associated with noun stems, or that (ii) possessed markers are assigned in the lexicon (or at a different level in the lexicon, if morphology is conceived inside the lexicon —depending on one's morphological theory) so that the information determining which possessed marker a noun base will take will be part of the lexical meaning of the noun base (and not a result of any general grammatical rule). In terms of the traditional derivational versus inflectional opposition made for affixes in the morphological typology, possession marking is generally treated as an inflectional category. In any analysis of *-te*, *-ne*, *-re₁* or *-re₂*, these formatives will be more inflectional or derivational-like depending on how one analyzes their morphological status. In the next paragraphs I will describe these two possible analyses for possessed

markers, and then will suggest a third analysis which will turn out to be a combination of the first two.

In the first analysis possessed marking would be implemented as morphological rules, and the formatives *-te*, *-ne*, *-re₁* or *-re₂* would be described as partially suppletive allomorphs. If these possessed markers are analyzed as (partially suppletive) allomorphs of the same morpheme, then they will be more like inflectional categories in other languages, since they would simply constitute the allomorphic realization (i.e. *-te*, *-ne*, *-re₁* or *-re₂*, as determined by the morphological class of the noun they occur with) of the morpheme {possessed}. In this first analysis speakers/hearers are assumed to have a notion of the more abstract morpheme {possessed}, and the work of implementing the phonological realization of {possessed} is left for the suppletive rules. The rules in (70) represent the implementation of this first analysis:

70a. $NSt \rightarrow Rt + \{\text{possessed}\}$

b. $Rt \rightarrow \left\{ \begin{array}{l} Rt_{te} \\ Rt_{ne} \\ Rt_{re1} \\ Rt_{re2} \end{array} \right\}$

c. $\{\text{possessed}\} \rightarrow \left\{ \begin{array}{l} -te \\ -ne \\ -re_1 \\ -re_2 \end{array} \right\}$

(70a) states that a possessed noun stem is formed of a root plus the morpheme {possessed}. (70b) specifies that the root base to which the morpheme {possessed} attaches belongs to one of a set of four roots (i.e. Rt_{te} , Rt_{ne} , Rt_{re1} , or Rt_{re2}) —which are lexically marked to select one of the four partially suppletive forms of the morpheme

{possessed}. Finally, (70c) further specifies that the morpheme {possessed} can be realized as *-te*, *-ne*, *-re₁* or *-re₂*—depending on the class of the root base (i.e. Rt_{te} , Rt_{ne} , Rt_{re_1} , or Rt_{re_2}) such a morpheme attaches to.

The first analysis just outlined is the descriptively least troublesome analysis to the linguist because it makes use of suppletion to explain the various forms which possessed marking takes, therefore exempting the analyst from providing unique meaning or function to each of the suppletive forms. Such would be the case for the following reason: In arguing that whether the {possessed} morpheme takes the form *-te*, *-ne*, *-re₁* or *-re₂* would be purely a matter of which morphological (arbitrary) class the base taking this {possessed} morpheme belongs to we would also be giving up any possibility of finding a semantic, phonological or syntactic motivation for the various possessed markers in the language. Moreover, the fact that *-te*, *-ne*, *-re₁* and *-re₂* can all be characterized as denoting one general meaning, namely ‘possessed’, is supportive of an allomorphic analysis under partial suppletion. Notice, however, that the result of a suppletive analysis of possessed markers in Apurinã would differ from, for example, a suppletive analysis of *go* > *went*, *be* > *am*, *is*, *are* etc. in English. In *go* > *went* the suppletion is grammatically motivated, since speakers/hearers only need to associate the “irregular” forms with the past tense. In *be* > *am*, *is*, *are* etc., suppletion is also grammatically motivated because speakers/hearers need to associate “irregular” forms with the tense, person and number. In Apurinã, however, suppletive forms such as *-te* > *-ne* > *-re₁* > *-re₂* would each need to be associated with an arbitrarily defined subset of roots.

In the second analysis of possessed marking, possessed markers would be conceived as satisfying the subcategorization constraints of subsets of roots in the same

way as the gender (or noun class) markers do in languages where gender is lexically (rather than semantically or phonologically) assigned. Some roots in Apurinã would have the possessed markers assigned to them in a way similar to how masculine/feminine gender is assigned to noun stems that take no overt gender marker in the language —as described in the previous subsection. That is, under this analysis, the root form *ããta* ‘canoe(F)’ would subcategorize both to agree with the feminine gender (as in *o-ye ããta* [F-PROX canoe] ‘this canoe’) and to take the *-ne* possessed marker (as in *nota ããta-ne* [1SG canoe-POSSED] ‘my canoe’). An informal description of the meaning of the noun root *ããta* could be represented as in (71):

$$71. \text{ããta} \left[\begin{array}{c} \text{'canoe'} \\ \text{FEMININE} \\ \text{-ne} \end{array} \right]$$

In this second analysis, each of the possessed markers would be analyzed as independent morphemes whose information is recorded as part of the lexical entry of the root they attach to. Each of the four possessed markers, by definition, would have distinctive meaning and/or functional properties, if they are to be treated as morphemes. Moreover, if the possessed markers *-te*, *-ne*, *-re₁* or *-re₂* are analyzed as different morphemes that certain roots subcategorize for, then they will be more like derivational morphological categories in other languages. This would be true to the extent that the information about the morphological markers would, conceivably, be stored as part of the lexical entry of the roots they occur with. In sum, in this second analysis, speakers/hearers are assumed to subcategorize roots for taking *-te*, *-ne*, *-re₁* or *-re₂*; the information about the morphological realization of each of the possessed markers is built as part of the lexical entry of certain lexically specified roots, and the work left to do is to

provide meaning and/or function to each of the possessed markers as separate morphemes. (72) presents the rule stating that the possessed noun stems are realized as a subset of roots plus the possessed morphemes such roots are lexically specified to take:

$$72. \text{ NSt} \rightarrow \left\{ \begin{array}{l} \text{Rt}_{te} + te \\ \text{Rt}_{ne} + ne \\ \text{Rt}_{re1} + re_1 \\ \text{Rt}_{re2} + re_2 \end{array} \right\}$$

The major problem with the second analysis is in motivating an independent morphemic status for each of the possessed markers *-te*, *-ne*, *-re₁* and *-re₂*. In an earlier attempt to make sense out of the use of these possessed markers in less arbitrary ways (see Facundes 1995) I found that very intricate arguments can be explored in constructing an account for possessed marking. Such arguments are partially grounded on information of how **genitive classifiers** are used in other languages (as described in Carlson and Payne 1989), on cross-linguistic properties of (in)alienability (as presented in Nichols 1988), on the notion of **predicativity** as it extends to nominal possession (as suggested in Seiler 1983), and on **iconicity principles** as expressed in a notion of conceptual distance (as presented in Chappell and McGregor 1989). The basic idea is that if possession marking is conceived as a formal device used in some languages to express a combination of conceptual distance between possessor and possessee, the functional or social role of the possessee for the possessor, and degrees of predicativity between the possessor and the possessee (as analogous to an argument and its verb), it may be possible to assign some meaning to each of the possessed markers in Apurinã, perhaps enough to consider them as distinct morphemes that are related in terms of having one general meaning, i.e. possessed, but also different in terms of the type of possession they

encode. In this manner, possessed markers would work in ways analogous to, for example, the various morphemes for object that also inflect for person, since such morphemes would have the general common property of marking object and, at the same time, they would also have different properties in that they would also refer each to a different person. So far, however, I have not been able to provide satisfactory independent meaning/function for each of the possessed markers in order to motivate their morphemic status.

The third analysis to be suggested here can be summarized as follows: First, the possessed markers, in addition to carrying the meaning ‘possessed’, also function as the morphological forms performing the marking patterns that motivate the notions of simple alienable nouns and of simple mixed nouns (described in 4.1.2 and 4.1.3, respectively); second, while the possessed markers *-te*, *-ne*, and *-re₁* are partial suppletive allomorphs of a single morpheme whose meaning/function is ‘[possessed, alienable]’, the possessed marker *-re₂* is a morpheme (different from *-te*, *-ne*, and *-re₁*) whose meaning/function is ‘[possessed, mixed]’; and, third, ‘possessed’ refers to the property of being possessed, ‘alienable’ refers to the property of belonging to the (un)possession marking pattern associated with simple alienable nouns (as described in 4.1.2), and ‘mixed’ refers to the property of belonging to the (un)possession marking pattern associated with simple mixed nouns (as described in 4.1.3). The examples in (73) illustrate the general meaning properties of the root forms *ããta* and *kota-*, as they can be described following an analysis in which the (un)possession marking patterns are generalized to become the defining properties of alienable and mixed nouns, and constructed as part of the meaning of these root forms:

73a. $\tilde{a}\tilde{a}ta$ ‘ $\left[\begin{array}{c} \text{'canoe'} \\ \text{FEMININE} \\ \text{ALIENABLE} \end{array} \right]$ ’

b. $kota$ ‘ $\left[\begin{array}{c} \text{'basket'} \\ \text{MASCULINE} \\ \text{MIXED} \end{array} \right]$ ’

In (73a), ‘canoe’ is the content meaning of the root form $\tilde{a}\tilde{a}ta$, whereas ‘FEMININE’ and ‘ALIENABLE’ are the grammatical meanings which this root subcategorizes for. In (73b), ‘basket’ is the content meaning of $kota$ -, whereas ‘MASCULINE’ and ‘MIXED’ are the grammatical meanings which this root subcategorizes for. The word formation rules involving possessed markers can be described as in (74) —revised later in (81):

74a. $NSt \rightarrow \left\{ \begin{array}{l} Rt_{ALIEN} + ALIEN \\ Rt_{MIX} + MIX \end{array} \right\}$

b. $Rt_{ALIEN} \rightarrow \left\{ \begin{array}{l} Rt_{te} \\ Rt_{ne} \\ Rt_{re1} \end{array} \right\}$

b’. $ALIEN \rightarrow \left\{ \begin{array}{l} -te \\ -ne \\ -re_1 \end{array} \right\}$

c. $Rt_{MIX} \rightarrow Rt_{re2}$

c’. $MIX \rightarrow -re_2$

(74a) states the generalization that a possessed noun stem will either consist of a root lexically marked as [alienable] plus an alienable possessed marker, or of a root lexically marked as [mixed] plus the mixed possessed marker. (74b) specifies the classes of alienable roots that take the alienable possessed marker. (74b’) lists the alienable

markers which alienable roots select for. (74c) specifies the class of mixed roots that can take the mixed possessed marker. Finally, (74c') lists the mixed possessed marker which mixed roots select for. Note, however, that the word formation represented in (74) only takes into consideration the possessed markers. Since (in)alienability and mixing possession marking have been defined over the morphological marking patterns found both in possession and unpossession constructions, the word formation rule given in (74) will need to be revised to include the unpossession marking patterns. This is done in the next subsection.

The possessed markers in Apurinã are precisely the forms that have been reconstructed for Proto-Maipuran (David Payne 1991:378-379). That would mean that, in principle, the Apurinã possessed markers are at least a few thousand years old. It is possible that only historical-comparative studies within the Maipuran family will provide clearer evidence as to whether these different possessed markers originated in classifying systems (e.g. genitive classifiers) or whether they arose through phonological processes that are no longer transparent in Apurinã.

As an additional observation about possessed markers, I should recall a special property of the possessed marker *-re₁*. As was shown under 4.1.2, possessed markers typically occur with a noun base or a bound root base. The qualifier “typically” is used here precisely because one of the possessed markers, namely *-re₁*, can also attach to verb forms to derive a possessed noun. The general property of the possessed markers *-te*, *-ne*, and *-re₂*, as described in detail in 4.1.2-4.1.3 in the previous paragraphs, is simply to mark a noun form as possessed and distinguish the class of alienable from the class of mixed (and inalienable) nouns, with no other apparent meaning added to it. The possessed marker *-re₁*, in contrast, aside from being attached to free roots to derive

possessed noun forms (as amply illustrated in (50) and in Table 18), can also be added to verbs to derive noun stems, as illustrated in (75):

- 75a. *tokatxi xika-re₁* ‘Tokatxi’s song’
Tokatxi sing-POSSED
- b. *ata kama-re₁* ‘our work’
1PL work-POSSED
- c. *uwa yaxirika-re₁* ‘its/his knot’
3SG.M tie-POSSED
- d. *nota sãpaka-re₁* ‘my tiredness’
1SG be.tired-POSSED

The function of *-re₁*, when it occurs attached to verbs, is to derive nouns generally meaning ‘what you get/feel by V-ing’. That is, *-re₁* behaves as a sort of possessed object nominalizer whose derived forms refer to possessed activities or states. To the extent that at least one of the possessed markers can occur with verbs to derive nouns, they behave as subcategory changing morphemes. Since *-re₁* is the only possessed marker that can occur with verbs to nominalize them, and since it is restricted to a few verbs, it is likely to constitute an innovation within the possession marking system.

4.4.3 *Unpossessed Markers: -txi and -ru₂*

Analogous to possessed markers, the occurrence of the unpossessed markers *-txi* and *-ru₂* is determined by the lexical properties of the free and bound roots which they, respectively, occur with. There are also many unpossessed nouns that do not take either *-txi* or *-ru₂*, and which, instead, are formally unmarked for unpossession. The unpossessed marker *-txi* was presented in 4.1.1 as the formal marker of inalienable nouns;

it was illustrated in (4), Table 3, and is further illustrated in (76), where the noun root *serěka* ‘dance’ takes *-txi* when unpossessed and no formal marking when possessed:

- 76a. *awa-ru* [serěka-txi]
 there.be-3M.O dance-UNPOSS
 ‘There was dance.’
- b. *ata* [serěka]
 1PL dance.POSSED
 ‘our dance’

Therefore, the meaning of *serěka* can be described in a manner analogous to the way the meanings of *ããta* and *kota-* were described in (73), as shown in (77). That is, ‘dance’ is the content meaning of the root form *serěka*, where ‘MASCULINE’ and ‘INALIENABLE’ are grammatical meanings this root subcategorizes for:

77. *serěka* ‘ $\left[\begin{array}{c} \text{'dance'} \\ \text{MASCULINE} \\ \text{INALIENABLE} \end{array} \right]$ ’

-ru₂ was presented under 4.1.3 as the formal marker attached to bound roots to form unpossessed nouns of the mixed class (i.e. the class of noun stems that are morphologically marked when possessed or when (un)possessed. It was also seen that, in order for these bound roots to be possessed, the mixed possessed marker *-re₂* replaces *-ru₂* in the bound root. Examples of *-ru₂* were illustrated in (51) and in Table (22), and are further illustrated in (78), where the bound root *nhipoko-* ‘food’ takes *-re₂* when possessed and *-ru₂* when unpossessed:

- 78a. [*nhi-nhipoko-re₂*] *pu-muna*
 1SG-food-POSSED 2SG-bring
 ‘Bring my food.’

- b. [*nhipoko-ru₂*] *pu-muna*
 food-UNPOSS 2SG-bring
 ‘Bring the food.’

The way to describe the meanings of mixed nouns was illustrated in (73b).

As was anticipated under 4.3 and illustrated in (60), repeated below as (79), the unpossessed marker for inalienable nouns *-txi* can also be used as a nominalizer. In (79) the verb form *nhipoko-ta* ‘to eat’ takes *-txi* to become a noun:

- 79a. *nota nhipoko-ta* ‘I did the eating.’
 1SG food-VBLZ
- b. *nota apoka-ru nhipoko-ta-txi* ‘I found a place-for-eating/
 1SG find-3M.O food-VBLZ-UNPOSS something to eat with’

Therefore, following the same reasoning used to analyze the possessed markers in the previous subsection, *-txi* and *-ru₂*, on the one hand, have the common property of marking unpossessed nouns, and, on the other, they differ in that *-ru₂* participates in the (un)possessed marking pattern that characterizes mixed unpossessed nouns (as described in 4.1.3), whereas *-txi* participates in the marking pattern that characterizes inalienable nouns (as described in 4.1.1). The complementary distribution of *-txi* and *-ru₂* consists then of the fact that the former occurs only with inalienable nouns, whereas the latter occurs only with a mixed unpossessed nouns (i.e. those whose corresponding possessed counterpart is marked with *-re₂*). However, as was shown in (60), *-txi* can also be used with verbs. To incorporate this into the meaning/function of *-txi*, we can revise the statement about the complementary distribution by saying that “*-txi* occurs with inalienable nouns AND some verbs”. Furthermore, there is evidence that *-ru₂* also occurs with verbs. Some speakers interpret the form */takaru/* (where *taka* means ‘to plant/put’)

as either a verbal form meaning ‘to plant/put it’ or as a noun form meaning ‘plant’. This dual interpretation suggests that there actually are two homophonous forms expressed as /*takaru*/: The first one is *taka-ru*, where *-ru* is the third masculine object marker that occurs with verbs (as will be described in detail in chapter 5 and 7); and the second form is *taka-ru₂*, where *-ru₂* is the unpossessed marker. If this analysis is correct it would explain why *taka* functions as a verb in (80a) and (80b), but as a noun in (80c):

- 80a. *komeru nota taka* ‘I planted/put manioc (in).’
 manioc 1SG plant/put
- b. *nu-taka-ru komeru* ‘I planted/put manioc (in).’
 1SG-plant/put-3M.O manioc
- c. *nu-maporoka-ru taka-ru₂* ‘I pull out the plant.’
 1SG-pull.out-3M.O plant/put-UNPOSS

Thus, a more precise description of *-txi* and *-ru₂* needs to state that *-txi* occurs with the set of inalienable roots (i.e. Rt_{INAL} , which select null marking when possessed, see 4.1.1), including a few verb roots, whereas *-ru₂* occurs with the set of mixed possessed roots (i.e. Rt_{MIX} , which select the *-re₂* mixed possessed marker when possessed, see 4.1.3). The word formation rule provided in (74) to account for the possession markers can now be revised to express also the suffixation of the unpossessed markers, as represented in (81):

- 81a. $NSt \rightarrow \left\{ \begin{array}{l} Rt_{\text{INAL}} + \text{INAL} \\ Rt_{\text{ALIEN}} + \text{ALIEN} \\ Rt_{\text{MIX}} + \text{MIX} \end{array} \right\}$
- b. $Rt_{\text{INAL}} \rightarrow \{Rt_{\text{txi}}\}$
- b’. $\text{INAL} \rightarrow \left\{ \begin{array}{l} -\text{txi} \\ \emptyset \end{array} \right\}$

$$c. \text{Rt}_{\text{ALIEN}} \rightarrow \begin{cases} \text{Rt}_{te} \\ \text{Rt}_{ne} \\ \text{Rt}_{re1} \end{cases}$$

$$c'. \text{ALIEN} \rightarrow \begin{cases} \begin{cases} -te \\ -ne \\ -re1 \end{cases} \\ \emptyset \end{cases}$$

$$d. \text{Rt}_{\text{MIX}} \rightarrow \text{Rt}_{re2}$$

$$d'. \text{MIX} \rightarrow \begin{cases} -ru_2 \\ -re_2 \end{cases}$$

(81a) states that noun stems can consist of roots that follow three morphological marking patterns; (81b) states that a subset of these roots will follow the inalienable morphological marking pattern which, as stated in (81b') is that where the root is marked by the unpossessed marker $-txi$ in noun stems that are unpossessed and where the root is unmarked in noun stems that are possessed; (81c) lists the three subtypes of roots which follow the alienable morphological marking pattern which, as stated in (81c'), will consist of the suffixation of one of the three possessed markers $-te$, $-ne$ or $-re_1$ (depending on which marker is selected by the root) when the noun stem occurs possessed, and of no overt morphological marking (i.e. \emptyset) when the noun stem is unpossessed; (81d) states that another subset of roots will follow the mixed (double-marked) morphological marking pattern where, as stated in (81d'), such roots will be suffixed by the unpossessed marker $-ru_2$ when the noun stem occurs unpossessed, and by the possessed marker $-re_2$ when the noun stem occurs possessed.:

4.4.4 Instrumental/Object Nominalizer: *-iko*

-iko attaches to transitive or intransitive verbs to derive 'things to V with' or 'things to V', thus as an **instrumental** or **object nominalizer**, as illustrated in (82):

- 82a. *katso-na-ka₁-rewa-t-iko* *pu-muna* ‘Bring the squeezer’
squeeze-linear-INTENS-VBLZ-NMLZ 2SG-bring
- b. *nota suk-iko* ‘my gift’
1SG give-NMLZ
- c. *kusaka-rewa-t-iko* *pu-muna* ‘Bring the “digger”’
dig-INTR-VBLZ-NMLZ 2SG-bring

Notice that, as the examples in (82a) and (82c) indicate, *-iko* can attach to verb forms that are themselves inflected. When this happens, the verbal formatives that occur within the nominalized form have their meaning and function canceled out—a property which is not exclusive of *-iko*, as will be seen further below. Differently from other derived forms presented later, there is no question, however, that *V-iko* forms are nouns rather than verbs morphologically, as they can take inherent noun morphology such as, e.g., the plural marker *nu-ru* (described later under 4.5.3), as in *suk-iko-nu-ru* ‘diggers’. *-iko* has low productivity in the language insofar as it occurs with very few of the nouns it could logically occur with. The word formation rule for instrumental derivation is then as in (83):

83. NSt → V + *iko*

Moreover, as the examples in (82) indicate, neither alienability nor inalienability are grammatically encoded as part of noun stems taking *-iko*. That is, *V-iko* forms do NOT require any alienability or inalienability formal marking device, as can be seen by contrasting (82a,c) to (82b), where in (82a,c) the *V-iko* is not possessed while in (82c) it is.

The presence of *-iko* triggers the deletion of the preceding vowel in the base which *-iko* attaches to, as the examples in (84) illustrate. The verb base *u-suka* is shown preceding the consonant initial morpheme *-pe* in (84a); in (84b) the same verb base precedes vowel initial morpheme *-āpo*; in (84c) verb base *u-suka* precedes the consonant initial morpheme *-ta* which precedes the vowel initial morpheme *-i*; in (84d), however, the verb base form *u-suka* is realized as *u-suk* preceding the nominalizer *-iko*:

- | | |
|--|----------------------|
| 84a. <i>u-suka-pe</i>
3M-give-PFTV | ‘he has given (it)’ |
| b. <i>u-suka-āpo-ta</i>
3M-give-RANDOM-VBLZ | ‘he gives it around’ |
| c. <i>u-suka-ta-i</i>
3M-give-VBLZ-2O | ‘he gives it around’ |
| d. <i>u-suk-iko</i>
3M-give-NMLZ | ‘his gift/present’ |

As shown in (84d), it is only when the verb base precedes *-iko* that vowel deletion occurs. To the extent that the allomorphy effects on the morpheme that precedes *-iko* is caused by the presence of *-iko*, this allomorphy process can be characterized as morphologically conditioned. We will see in 4.4.7 that the gerund marker *-inhi* also triggers similar kind of allomorphy effect on the base it attaches to. The formal statement of the allomorphy process involving *-iko* will be made in 4.4.7, where *-inhi* is also morphologically described.

4.4.5 Actor Nominalizer: *-muna*

-muna can attach to transitive verbs to derive a noun.²³ The derived noun refers to ‘the one who Vs’, thus functioning as an **actor nominalizer**—similar to what is traditionally called **agentive nominalizer** in the morphological literature (Comrie and Thompson 1985:351). The term “actor” is preferred here because, by definition, it covers both agent and experiencer actors. The examples in (85) illustrate the use of *-muna* to derive nouns meaning ‘the one who Vs’:²⁴

- | | |
|---|---|
| 85a. <i>mayaka-muna</i> <i>apo-pe</i>
catch-NMLZ arrive-PFTV | ‘The catcher has arrived.’ |
| b. <i>taka-muna</i> <i>apo-pe</i>
put/plant-NMLZ arrive-PFTV | ‘The planter (one who plants) has arrived.’ |
| c. <i>oka-muna</i> <i>apo-pe</i>
kill-NMLZ arrive-PFTV | ‘The killer/murderer has arrived.’ |
| d. <i>keroka-muna</i> <i>apo-pe</i>
miss-NMLZ arrive-PFTV | ‘The error-maker (one who makes errors) has arrived.’ |

-muna can also occur with concrete nouns. When used with elements of the material culture it refers to ‘the one who makes/builds N’—where N generally, if not always, refers to an element of the material culture. Also, the derived forms are inflected for gender, as the next examples in (86) show. The form *kopiti-muna-ro* ‘female pan-maker’ in (86c) has been constructed here on the basis of other examples, thus requiring further confirmation from native speakers:

²³ Although it is possible that there is a diachronic relationship between this nominalizer and the CN *-muna* ‘(tree) log; cylindrical’, there is no reason to think they are related synchronically.

²⁴ This specific process of noun formation where *-muna* attaches to a verb form, however, does not occur in all speech varieties. The examples illustrated here are from the Japiim village (in the Pacia River) and are not accepted, for instance, in the Fortaleza village of the Marahã area.

- 86a. *kanawa-muna-ru₁ su-pe.* ‘The canoe-builder has left.’
 kanawa-NMLZ-3M go-PFTV
- b. *serepi-muna-ru₁ su-pe.* ‘The arrow-maker has left.’
 arrow-NMLZ-3M go-PFTV
- c. *kopiti-muna-ro su-pe.* ‘The pan-maker has left.’
 pan-NMLZ-3F go-PFTV

-muna can also be used with animate nouns, in which case the derived form refers to ‘the one who kills N’, where N refers to animates. Here, again the derived nouns are inflected for gender, as shown in (87):

- 87a. *n-atama-ta-ru ākiti-muna-ru₁* ‘jaguar killer’
 1SG-look-VBLZ-3M.O jaguar-NMLZ-3M
- b. *n-atama-ta-ru kākiti-muna-ru₁* ‘person killer, murderer’
 1SG-look-VBLZ-3M.O person-NMLZ-3M
- c. *n-atama-ta-ro pataru-muna-ro* ‘chicken killer’
 1SG-look-VBLZ-3F.O chicken-NMLZ-3F

Of all the usages described above, that illustrated in (87) is most common across distinct speech varieties. It appears, however, to be harder to attest the use of *-muna* with forms referring to feminine referents (especially women) for at least two reasons: first, because *-muna* generally occurs with nouns implying specialized tasks which (for whatever reason) are generally restricted to men; and, second, because most of the nouns in the language are masculine nouns. Moreover, as happens to *-iko*, *-muna* is also low in productivity, since it actually occurs with just a few of the nouns it could logically occur with.

The word forms taking *-muna* are clearly nouns morphologically, as is attested by the fact that they take gender markers. Also, there is no question that *-ru₁* in

ãkiti-muna-ru₁ is just a gender marker, rather than the object marker for third person masculine, i.e. *-ru* (described in detail in chapter 7, in 7.1.12) or the unpossessed marker for alienable nouns, i.e. *-ru₂* (described under 4.4.3). If the morpheme in question were the object marker *-ru*, it could be replaced with any other object person marker (as in **ãkiti-muna-no/-i/-wa...* [jaguar-NMLZ-1SG.O/2SG.O/1PL.O...]), which is not the case; and, if it were *-ru₂* it could be replaced with *-re₂* in the possessed form (as in **ãkiti-muna-re₂* [jaguar-NMLZ-UNPOSS]), which is also not the case. Finally, the word formation rules for actor nominalization is then as in (88):

$$88. \text{NSt} \rightarrow \left\{ \begin{array}{l} \text{V+muna} \\ \text{N+muna+} \left\{ \begin{array}{l} \text{ru}_1 \\ \text{ro} \end{array} \right\} \end{array} \right\}$$

Finally, although the few instances of words taking *-muna* are all NOT possessed, I suspect that such words are not sensitive to the alienable versus inalienable marking distinctions. My suspicion is that nouns marked with *-muna* can occur either possessed or unpossessed if the appropriate contexts can be found. Unfortunately, however, the instances of such noun forms are too few to allow any satisfactory conclusion on this matter. More data is required here.

4.4.6 Relativizing Markers: *-karu, -karo, -katu, -kato...*

The relativizing markers constitute the most complex grammatical category found in the language as far as their morphological, syntactic and functional properties are concerned. Table 33 summarizes (preliminarily) the whole system, ignoring for the moment their breaking down into smaller meaningful units: (PRON=independent pronoun, BPRO=Bound Pronominal Marker)

of verbal properties. Under an analysis of the forms taking relativizing marker as nouns, the simplest word formation rules for these relativized forms would be as follows:

90. NSt → V + RELZ

As happens to V+*iko* and, perhaps, to noun forms containing *-muna*, V+RELZ forms are NOT sensitive to the alienable-inalienable distinction insofar as no formal marking is required for them to occur possessed or unpossessed. Detailed illustrations of constructions with V+RELZ will be reserved for chapter 9.

4.4.7 *Gerund or Action Nominal Marker: -inhi*

-inhi can occur attached to an action verbal predicate to derive a **gerund** (or **action nominal**) construction. In the example in (91a) the form *muteka* ‘run’ is a verb, whereas in (91b) it appears to have nominal properties. The same happens to *sarawa-ta* ‘play’ in the other pair of examples:

- | | | |
|------|--|------------------------|
| 91a. | <i>nota muteka</i>
1SG run | ‘I run’ |
| b. | <i>nota mutek-inhi</i>
1SG run-GER | ‘my running’ |
| 92a. | <i>a-sarawa-ta</i>
1PL-play-VBLZ | ‘we play’ |
| b. | <i>awa-ru</i> <i>a-sarawa-t-inhi</i>
there.be/have-3M.O 1PL-play-GER | ‘there is our playing’ |

The gerund can be presented in terms of the verbal and nominal properties they share (Comrie and Thompson 1985:358-395), thus resembling the relativizing markers

presented in the previous subsection in that both of them share a subset of nominal as well as a subset of verbal properties. In the following examples, the action nominal forms exhibit morphological properties of nouns for taking the (strictly nominal) **instrumental oblique marker** *-ã* (described in 7.1.2.1):

- 93a. *nhi-xinhik-inhi-ã* ‘in/with my remembering’
 1SG-remember-GER-INST
- b. *nu-s-inhi-ã* ‘in/with my going’
 1SG-go-GER-INST

In contrast to (93), the examples in (94) show that gerund forms keep the bound pronominal object marker, *-ru*. We have already seen in various places above that the pronominal object marker *-ru* (described in detail under 7.1.12, in chapter 7) differs from its homophonous masculine gender marker *-ru₂* (described under 4.4.1). In the examples below, *-ru* could as well be replaced by bound pronominal object markers for first or second person:

- 94a. *a-yowẽk-inhi-ru* ‘our things for sifting’
 1PL-sift-GER-3M.O
- b. *o-awãku-ta-k-inhi-ru* ‘her struggle to give birth to him’
 3F-give.birth-VBLZ-CAUS-GER-3M.O

Hence, action nominal forms in Apurinã share verbal as well as nominal morphological properties. I return to action nominals when describing their syntactic properties in chapter 9. As their syntactic functions are presented, we will see that *-inhi* can be used to mark certain subordinate clauses. The verbal as well as nominal properties of *-inhi* justify treating it, hereafter, as a “gerund” marker. Under an analysis of action nominal

forms as noun stems, the simplest word formation rules for relativized nominalization would be as in (95):

95. NSt → V + *inhi*

As can be seen in the various examples given in this subsection, *-inhi* triggers allomorphy effects on the base it attaches to in exactly the same way as the instrumental/object nominalizer described in 4.4.4. That is, when *-inhi* attaches to a base the vowel that would precede *-inhi* in that base is deleted. For example, (96a) shows that the verb base *muteka* ‘to run’ preserves the final vowel when preceding the consonant initial morpheme *-ko*, and in (96b) the same base preserves the final vowel when preceding the vowel initial morpheme *-ãpo*. However, in (96c) the presence of *-inhi* following the verb base *muteka* triggers the deletion of the base final vowel, such that *muteka* is realized as *mutek* when followed by *-inhi*:

- | | |
|---|-----------------|
| 96a. <i>nota muteka-ko</i>
1SG run-FUT | ‘I’ll run.’ |
| b. <i>nota mutekã-ãpo-ta</i>
1SG run-RANDOM-VBLZ | ‘I ran around.’ |
| c. <i>nota mutek-inhi</i>
1SG run-GER | ‘my run’ |

The allomorphy rule shaping these word forms is morphologically conditioned insofar as it is restricted to two specific morphological forms, namely *-iko* or *-inhi*. Such a rule can be stated as in (97), where the rule applies the allomorphy processes produced by both *-iko* and *-inhi*:

97. [+vowel] → Ø / ____ + $\left. \begin{array}{l} iko \\ inhi \end{array} \right\}$

There is some preliminary evidence that one or more Apurinã speech varieties also have the morpheme *-ika* ‘no longer’, used with some nouns and, perhaps, a subset of verbs as well. This morpheme also triggers the same allomorphy effects on the base they attach to as do *-iko* and *-inhi*. However, since more detailed information is still required on *-ika*, such a morpheme is not described in this work.

Finally, V-*inhi* forms are also NOT sensitive to the alienable-inalienable distinction insofar as no formal marking distinguishes when such forms are used possessed or unpossessed.

4.4.8 Other Processes of Noun Stem Formation

In addition to the noun stem formations given above there are others, less productive or of more limited use in the language. The first one is realized through some sort of “**reduplication**” of **onomatopoeic forms**, where the derived nouns refer to the animal or phenomenon that produces certain sounds, and where the phonology of these nouns results from an iconic representation of such sounds. As the examples in (98) illustrate, the appearance of reduplication is a result of the way speakers/hearers represent what they hear; it does not constitute true reduplication in that the forms that result from separating the formally similar parts of these onomatopoeias do not stand as formatives that can be found as part of other words:

- 98a. *měko-měko-ru₁* 'thunder'
 měko-měko-3SG
- b. *toro-toro* 'type of big frog'
 toro-toro
- c. *nhao-nhao* 'type of large seagull'
 nhao-nhao

Another process included here for forming noun stems where some partial regularity can be found involves certain proper names assigned to women. A few proper names for women coincide in ending in /ero/, as the examples in (99) are illustrative of:

- 99a. *irarĩero* '(woman's name)'
 wild.pig.F
- b. *komarĩero* '(woman's name)'
- c. *yakonero* '(woman's name)'
- d. *mayoripero* '(woman's name)'
- e. *mirĩero* '(woman's name)'
- f. *nanãxiero* '(woman's name)'
- g. *nainero* '(woman's name)'
- h. *irĩero* '(woman's name)'

Notice that, aside from /ro/ in /ero/ coinciding with the feminine gender marker -ro (described under 4.4.1), there is no other grounds for positing /e/ and /ro/ as distinct formatives. It is of interest in these examples, however, that the form *irari* in *irarĩ-ero* coincides with the word for 'wild pig' (and the nasalization of the last vowel could follow from the allomorphy rule given in (18) of chapter 3). Such examples have been presented here for the sake of completeness, as they are restricted to just a few cases and could as

functional opposition can be encoded by particular set of morphemes, even if not completely systematically, it is worth describing it. The unproductive and less than systematic behavior of the suffix forms described below justifies including them among the processes of noun stem formation.

A noun has at least two ways to be marked as augmentative, namely by the suffixation of *-powa* or *-tu*. Further historical comparative analysis may reveal that these two forms evolved out of classificatory nouns (described under 4.1.1.2).

Synchronically, *-powa* and *-tu* simply derive a noun of larger than average proportions for the referents of the nouns they occur with, as seen in (101):

- | | |
|-------------------------------------|-------------|
| 101a. <i>kema-powa</i>
tapir-big | ‘big tapir’ |
| b. <i>mipa-tu</i>
Mipa-big | ‘big Mipa’ |

As to the diminutive function, there are at least four forms to mark it. They are *-peku*, *-tuku*, *-ku*, and *-ta*.²⁵ Note that *-ku* and *-ta* are both instances of classificatory nouns, the first referring to ‘seed; things of a round and small shape’, and the second referring to ‘things of a roundish edge’ (both described under 4.1.1.2.2). *-peku* was the only one mentioned in Pickering 1971:30, there presented as *-puku* for the dialect he was describing (i.e. from the Tawamirim village, village 14 in the map in Figure 2 of chapter 1). It is possible that *-tuku* is formed by *-tu* (also used to mark augmentative) plus the classificatory noun *-ku* ‘seed; thing of a small round shape’, both synchronically lexicalized into one affixal form. (Aikhenvald [p.c.], however, notes that Tariana has a

²⁵ The extent to which the use of some of these forms is specific to certain dialects remains to be verified. *-ta*, for

similar diminutive suffix, namely *tuki*.) As shown in (102-105), these affixes derive noun forms whose referents are smaller than the average size:

- | | | |
|-------|---|----------------------------------|
| 102a. | <i>kuku-<u>peku</u></i>
man-DIM | ‘little man’ |
| | b. <i>tata-<u>peku</u></i>
umari-DIM | ‘little “umari” fruit’ |
| 103a. | <i>pataru-<u>tuku</u></i>
chicken-DIM | ‘little chicken’ |
| | b. <i>kema-<u>tuku</u></i>
tapir-DIM | ‘little tapir’ |
| 104a. | <i>amarunu-<u>ku</u></i>
boy-DIM | ‘little boys’ |
| | b. <i>kaseroro-<u>ku</u></i>
white.one-DIM | ‘little white one; white kernel’ |
| 105a. | <i>putetu-<u>ta</u></i>
clay.plate-DIM | ‘(small) plate’ |
| | b. <i>kopiti-<u>ta</u></i>
pan-DIM | ‘(small) pan’ |

The simplest word formation rules for diminutive/augmentative nominalization is as follows:

$$106. \text{NSt} \rightarrow \text{NSt} + \left\{ \begin{array}{l} \text{DIM} \\ \text{AUGM} \end{array} \right\}$$

example, is not associated with diminutive in the variety spoken in the Fortaleza village (Marahã area).

4.4.10 Distribution of Affixes and Generalized Noun Stem Formation

Rules

The purpose of this subsection is to present the generalizations in terms of which the structures involved in noun stem formation can be described. Before presenting the general rules for forming noun stems, some labels need to be introduced in order to facilitate some contrasts to be noted in the noun structure. In the noun stem formation rules described in the previous subsections we have seen that certain noun stems can consist of a single root with no further morphological marking. Such is the case of some simple alienable nouns such as *kanawa* ‘canoe of’, which follows the word formation rule (hereafter WFR) $\text{NSt} \rightarrow \text{Rt}_{\text{ALIEN}} (+te)$, which states that noun stems can consist of an alienable root plus the possessed marker *-te*. This is also the case of inalienable noun stems such as *kuwu* ‘head of’, which follows the WFR $\text{NSt} \rightarrow \text{Rt}_{\text{INAL}} (+txi)$, which states that noun stems can consist of an inalienable root (i.e. belonging to the class of inalienable roots) plus the inalienable marker *-txi*. In both cases the root forms can stand by themselves as a noun, and they will be hereafter referred to as **free roots** (abbreviated to FRt). Hence, both WFRs will be rewritten as $\text{NSt}_{\text{ALIEN}} \rightarrow \text{FRt}_{\text{ALIEN.te}} (+te)$ and $\text{NSt}_{\text{INAL}} \rightarrow \text{FRt}_{\text{INAL}} (+txi)$, respectively.

In contrast to FRts, there are bound roots such as *kota-* ‘basket’, a mixed (un)possessed root form following the WFR $\text{NSt} \rightarrow \text{Rt}_{\text{MIX}} + \{re_2, ru_2\}$, which states that some noun stems can consist of a mixed (un)possessed root (i.e. belonging to the class of roots that select *-re₂*) plus the possessed marker *-re₂* or the unpossessed marker *-ru₂*. As represented in this WFR, root forms such as *kota-* cannot stand by themselves as nouns, and hence will be hereafter referred to as **bound roots** (abbreviated to BRt). Hence, the

WFR for alienable nouns stem with bound roots can be rewritten as

$\text{NSt} \rightarrow \text{BRt}_{\text{ALIEN}} + [re_2, ru_2]$. This terminological distinction is motivated both by expository reasons and by the fact that, as we will see, certain affix forms are sensitive to such a distinction.

In view of the introduction of the FRt versus BRt₂ distinction, the WFRs for noun stems need to be partly revised as follows: (Although an analogous BRt versus FRt opposition can be made for verbal roots, such a distinction will be ignored here, as it will be described later in chapter 5, under 5.1.)

Inalienable non-classificatory nouns have free roots, i.e.:

107. $\text{NSt}_{\text{INAL.NON-CL}} \rightarrow \text{FRt}_{\text{INAL-NON-CL}} (+ \text{txi})$

Inalienable classificatory nouns have free roots, i.e.:

108. $\text{NSt}_{\text{INAL.CL}} \rightarrow \text{BRt}_{\text{INAL.CL}} (+ \text{txi})$

All alienable noun stems have either a free noun root or, in the case of some of those marked by $-re_1$, a verb base, as represented by the WFR in (109):

109. $\text{NSt}_{\text{ALIEN}} \rightarrow \left\{ \begin{array}{l} \text{FRt}_{\text{ALIEN}} + \left\{ \begin{array}{l} te \\ ne \\ re_1 \end{array} \right\} \\ \text{V}_{\text{ALIEN}} + re_1 \end{array} \right\}$

All mixed (un)possessed noun stems have either bound roots or, in the case of some of those marked by $-ru_2$, a verb, as represented by the WFR in (110):

$$110. \text{NSt}_{\text{MIX}} \rightarrow \left\{ \begin{array}{l} \text{BRt}_{\text{MIX}} + \left\{ \begin{array}{l} re_2 \\ ru_2 \end{array} \right\} \\ \text{V}_{\text{MIX}} + ru_2 \end{array} \right\}$$

Non-productive noun compounds (in all cases attested so far) are formed of free roots, i.e.:

$$111. \text{NSt} \rightarrow \text{FRt} + \text{FRt}$$

Productive noun compounds (also in the cases attested so far) have free roots, i.e.:

$$112. \text{NSt} \rightarrow \text{FRt} + \text{CN} (+ \text{CN})$$

All noun stems morphologically marked for gender have a bound root where the masculine, i.e. *-ru*, and the feminine, i.e. *-ro*, gender markers can occur, as represented in (113):

$$113. \text{NSt} \rightarrow \text{BRt} + \left\{ \begin{array}{l} ru \\ ro \end{array} \right\}$$

Noun stems marked by the actor nominalizer, in the cases where this nominalizer attaches to noun forms, have a free root, i.e.:

$$114. \text{NSt} \rightarrow \left\{ \begin{array}{l} \text{V} + muna \\ \text{FRt} + muna + \left\{ \begin{array}{l} ru \\ ro \end{array} \right\} \end{array} \right\}$$

These revised WFRs are restricted to those that are clearly grammaticalized in the language, and they incorporate the bound versus free root distinction. Other WFRs such as the ones for augmentative/diminutive have no need to be revised because they are not

(yet) part of the grammatical system of noun stem formation. Augmentative/diminutive functions in the language are expressed as extensions of the meaning of morphemes with other grammatical functions.

The processes of WFRs above can then be summarized as involving (i) “null” affixation (e.g. possessed inalienable nouns), (ii) the addition of a second nominal stem to the right of a noun root (to form a compound noun), (iii) the addition of a classificatory noun to the right of a noun stem or noun root (to form a productive compound), and, finally, (iv) by the suffixation of category changing bound formatives to a verbal or nominal base (e.g. actor nominalization). At a more generalized level, the WFRs for nouns are thus as follows:

First, a noun stem can simply be a free noun root; second, a noun stem can consist of a compound noun base formed by a free noun root plus a second free noun root, plus (optionally) one or more classificatory nouns; or a noun stem can consist of a free noun root plus a noun stem marker (where a noun stem marker (NStM) is any of the noun stem forming suffixes described in the previous subsection); or, yet, a noun stem can consist of either a bound root or a verb form plus a noun stem marker, i.e.:

$$115. \text{NSt} \rightarrow \left\{ \begin{array}{l} \text{FRt} + \left\{ \begin{array}{l} (\text{FRt}) + (\text{CN}^*) \\ (\text{NStM}) \end{array} \right\} \\ \left\{ \begin{array}{l} \text{BRt} \\ \text{V} \end{array} \right\} + \text{NStM} \end{array} \right\} , \text{where certain lexical constraints need be observed as to} \\ \text{which root or verb bases can take the noun stem markers,} \\ \text{or yet as to whether the root base is bound or free.}$$

The terms “root” and “stem” are probably among the most traditional words found in the morphological literature. Implicitly or explicitly, “root” is traditionally used to name the minimal lexical base (where “base” is a any morphological unit to which other morphological forms attach) which category changing bound morphemes can attach

to; whereas “stem” is generally used to name the morphological base which (sub)category maintaining bound morphemes/processes attach to/occur (Anderson 1985a:6, 1992:71, Spencer 1991:5). The use and definition of these terms follow from the general tendency for (sub)category maintaining bound morphemes/processes to occur outside (sub)category changing bound morphemes/processes, and vice-versa; or, in other words, their use follows from the tendency for (sub)category changing morphemes to occur closer to the root, and for the (sub)category maintaining morphemes to occur farther from the root. In this description of Apurinã, a “noun stem” is any noun base internally consisting only of noun stem morphology, or, in other words, any base on the margins of which non-noun stem morphology (described in the next section) can occur. Parallel to Anderson’s (1992) definition of the term, noun stem is a noun minus the non-noun stem morphology. It is this non-noun stem morphology that is presented next. Now that we have seen the ways that a noun stem can be formed, we can go on to describe the other nominal forms that can only occur once the noun stem has already been formed. In other words, now that the structure of noun stems has been described, the morphological forms that can only attach to stems can be presented.

4.5. Inherent Noun Morphology

In 4.4 I have described the structure of noun stems. Here I will describe the plural markers that attach to noun stems to form **nouns**. ‘Nouns’ can then be morphologically defined as the word category consisting of a noun stem plus inherently nominal formatives. Thus, the general structure of a noun can be informally described as [NSt + PL]_N. The reason to describe plural markers separately from the noun stem morphology

described in the previous section, as will be seen below, is that while the noun stem formatives are all mutually exclusive, they can generally co-occur with plural markers — with exceptions resulting from the individual properties of the relevant noun stem.

4.5.1 Number Markers: *-wako-ru₁*, *-wako-ro*; *-nu-ru₁*, *-nu-ro*

There are two pairs of morphological number markers that occur attached to noun stems to form nouns. The first pair only occurs with noun stems referring to humans, and consists of the masculine form *-wako-ru₁* and the feminine form *-wako-ro*. The following examples in (116) all illustrate this first pair:

- | | | | |
|-------|--|------------------------------|-------------------------|
| 116a. | <i>kuku-wako-ru₁</i>
man-PL-M | <i>apo-pe</i>
arrive-PFTV | ‘The men have arrived.’ |
| b. | <i>suto-wako-ro</i>
woman-PL-M | | ‘women’ |
| c. | <i>popũka-ru₁-wako-ru₁</i>
woman-PL-M | | ‘male Apurinã’ |
| d. | <i>popũka-ro-wako-ro</i>
woman-PL-F | | ‘female Apurinã’ |
| e. | <i>nurumane-wako-ru₁</i>
relative-PL-M | | ‘male relatives’ |
| f. | <i>nurumane-wako-ro</i>
relative-PL-M | | ‘female relatives’ |

The gender markers can be separated from the number markers in *-wako-ru₁/ro* on the basis of the independent existence of the *-ru₁/ro* as gender markers (described in 4.4.1). However, this also means that there is a kind of **dependency relation** between the plural formative *-wako* and the gender formatives *-ru₁/ro*, where the former requires the presence of the latter. This follows from the fact that forms such as **kuku-wako*,

**suto-wako* and so on are ungrammatical in the language. Moreover, as can be seen in (116c-d), when a noun stem is already morphologically marked for gender and the plural marker is added to such a noun stem to form a noun, the gender marker that is in a dependency relation with the plural marker is also added to the noun in spite of the fact that the gender of the noun form is already marked morphologically. There are special circumstances in which *-wako-ru₁* and *-wako-ro* are used with non-human nouns, namely when they are accompanied of some additional (figurative) meaning. When used with non-human nouns the interpretation is that the referent is somehow humanized, as the next examples in (117a-b) show. In fact, the Apurinã clans are all named after animals with the addition of these number and gender markers, as shown in (117c-g):

- | | |
|---|---------------------------------------|
| 117a. <i>kitxiti-wako-ru₁</i>
bacaba.fruit-PL-M | “‘bacaba’ ²⁶ fruit people’ |
| b. <i>ãã-muna-wako-ru</i>
plant-log-PL-M | ‘human-like trees’ |
| c. <i>xima-wako-ru</i>
fish-PL-M | ‘clan of jaguar people’ |
| d. <i>kũũru-wako-ru</i>
rat-PL-M | ‘clan of rat people’ |
| e. <i>kayokuru-wako-ru</i>
alligator-PL-M | ‘clan of alligator people’ |
| f. <i>umunu-wako-ro</i>
snake-PL-M | ‘clan of snake people’ |
| g. <i>kamẽẽru-wako-ro</i>
macaw-PL-M | ‘clan of macaw people’ |

²⁶ Oenocarpus bacaba.

There is also a second pair of plural markers with a wider token as well as type distribution insofar as it can occur with nouns for animate or inanimate referents: *-nu-ru* is used for masculine nouns and *-nu-ro* for feminine, as shown below:

- | | | |
|-------|--|-------------------------|
| 118a. | <i>kuku-<u>nu-ru</u></i> <i>apo-pe</i>
man-PL-M arrive-PFTV | ‘The men have arrived.’ |
| b. | <i>suto-<u>nu-ro</u></i>
woman-PL-M | ‘women’ |
| c. | <i>kema-<u>nu-ru</u></i>
tapir-PL-M | ‘male tapirs’ |
| d. | <i>kema-<u>nu-ro</u></i>
tapir-PL-F | ‘female tapirs’ |
| e. | <i>kopiti-<u>nu-ru</u></i>
big.pan-PL-M | ‘large buckets’ |
| f. | <i>aiko-<u>nu-ru</u></i>
house-PL-M | ‘houses’ |

Different from the *-wako*, the number marker *-nu* is not in a dependency relation with *-ru/-ro*. Although, the plural marker *-nu* is more often found accompanied of the gender makers *-ru/-ro* at least some speakers admit forms such as *popũka-ru-nu* ‘male Apurinãs’ where the gender marker that would occur after the number marker is absent. Whether the dropping of the gender marker following the number marker is restricted to forms that have their gender already marked in the base (which the number marker attaches to) remains to be verified. The occurrence of plural markers is optional when plurality is already indicated somewhere else within the same phrasal construction. The

examples in (119-120) show that plural markers are not obligatory when plurality is indicated by a modifying numeral:²⁷

- 119a. *epi hātako-ru₁(-wako-ru₁)* ‘two boys’
 two youth-M-(PL-M)
- b. *epi hātako-ro(-wako-ro)* ‘two girls’
 two youth-F-(PL-F)
- 120a. *epi aiko(-nu-ru₁)* ‘two houses’
 two house(-PL-M)
- b. *epi serepi-txi(-nu-ru₁)* ‘two arrows’
 two arrow-UNPOSS(-PL-M)

4.5.2 *Distribution of Affixes and Generalized Noun Formation Rules*

As was briefly mentioned in 4.1, the plural markers that attach to noun stems to form a noun can co-occur with most of the noun stem marking formatives described and illustrated in the subsections under 4.4. This co-occurrence of noun stem morphology and the plural markers is demonstrated by the examples in (121):

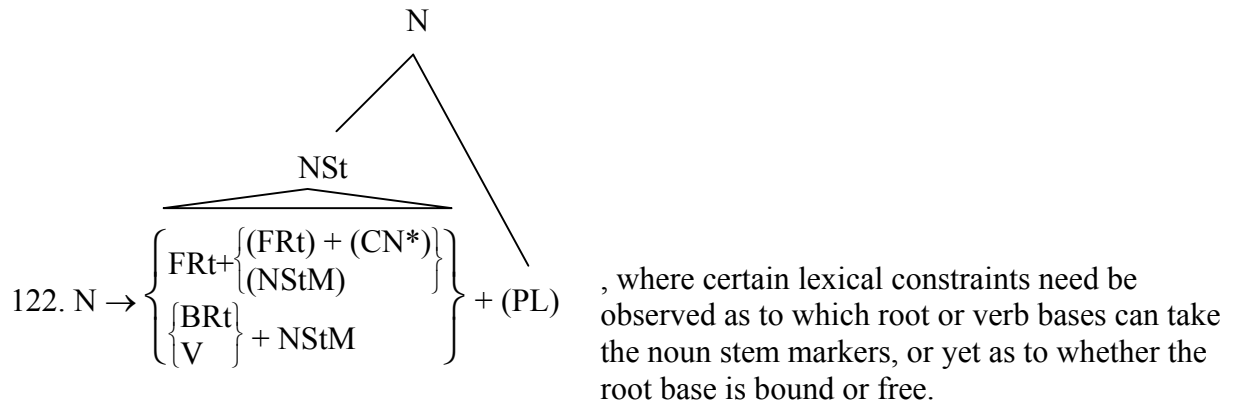
- 121a. *popūka-ro-wako-ro* ‘women’
 Apurinã-F-PL-F
- b. *unawa aiko-te-nu-ru₁* ‘their houses’
 1PL house-POSSED-PL-M
- c. *serepi-txi-nu-ru₁* ‘arrows’
 arrow-UNPOSS-PL-M

²⁷ There is some indication that for some speakers both *-wako-ru/-wako-ro* and *-nu-ru/-nu-ro* behave as unanalyzable units (i.e. where *-wako/-nu* and *-ru/-ro* cannot be treated as separate morphemes). However, the data providing evidence for such an analysis still require further investigation and, therefore, will not be discussed here. It may turn out that these plural markers are being lexicalized as one morpheme as a result of language obsolescence phenomena.

- d. *katso-na-ka₁-rewa-t-iko-nu-ru₁* ‘(manioc mush) squeezers’
squeeze-linear-INTENS-INTR-VBLZ-NMLZ-PL-M
- e. *keroka-muna-wako-ru₁* ‘error-makers (ones who makes errors)’
miss-NMLZ-PL-M

The only noun stem formatives that do not co-occur with the plural markers are the relativizing and gerund markers described, respectively, in 4.4.6-4.4.7. The fact that noun stems marked with relativizers and gerund markers do not take the plural markers is one of the properties that make such noun stems atypical nominal forms. I will discuss the category status of relativized and gerund noun stems in chapter 9, in 9.1.1.6 and 9.1.2.2.3.

The structure for noun stems was given in (115). The word formation rules given in (122) represent the general morphological structure of nouns, which, simply put, consists of noun stems plus the plural markers, or just noun stems:



4.5.3 Notes on *mane* ‘body of’

Pickering (1971:30) analyzes the form *-mane* as a ‘private, esteemed’ marker.

However, as can be seen from the following examples in (123), the form *mane* does not

function as a ‘private, esteemed’ marker, at least not in the speech varieties I am more familiar with. As can be seen from the following examples, *mane* is simply an inalienable noun following a pattern similar to the pattern described for CN₁ in 4.1.1.2.1 (i.e. restricted to a specific semantic domain, namely body parts) that means ‘body of’. In the examples in (123a-b) *mane* occurs as the head of a productive compound noun; in (123c-d) *mane* is shown to occur as an independent word taking its own plural marker, hence different from the behavior of an affixal formative in the language:

- | | | | |
|-------|--------------------------------------|-------------------------------------|-------------------------------|
| 123a. | <i>nhi-keta-ru</i>
1SG-shoot-3M.O | <i>kema-mane</i>
tapir-body.of | ‘I shot at the tapir’s body.’ |
| b. | <i>suto-mane</i>
woman-body.of | | ‘woman’s body’ |
| c. | <i>suto-wako-ro</i>
woman-PL-F | <i>mane-wako-ro</i>
body.of-PL-F | ‘women’s bodies’ |
| d. | <i>mane-nu-ru</i>
body.of-PL-M | | ‘bodies’ |

Pickering’s analysis may have been influenced by the fact that *mane* is found in the noun forms in (124):

- | | | |
|-------|--|----------------|
| 124a. | <i>nuru-mane</i>
?-body.of | ‘relatives of’ |
| b. | <i>kiyo-mane-txi</i>
trunk-body.of-UNPOSS | ‘elder’ |

However, on the basis of the general use of *mane* as an inalienable noun that simply means ‘body of’, the form *mane* can either be (synchronically) considered a different morpheme, or these two noun forms where they occur are perhaps “frozen” (lexicalized) forms. Evidence for either of these two hypotheses is the fact that at least

one speaker of the Japiim village (village 13 in the map in Figure 2, chapter 1) says *kiyo-manhi-txi* for the same noun form given in (124b), thus already adding a phonological distinction to the form.

4.6 General Syntactic Properties of Nouns

As a syntactic unit, nouns can differ in various ways from other parts of speech. For example, I have shown above (4.1) that nouns divide into alienable, inalienable and mixed nouns in Apurinã, something which is true of no other part of speech. In terms of their formal expression, this means that no other part of speech but nouns can take any of the possessed/unpossessed markers illustrated above or be placed in juxtaposition to form a possession construction. We saw in 4.4.2 that potential exceptions consist of the cases in which the possessed marker *-re₁* attaches to a verb base (as in *xika-re₁* [sing-POSSED] ‘song’, *kama-re₁* [make-POSSED] ‘work’) and nominalizes such a base. The same happens when the unpossessed marker *-txi* attaches to a verb base (as in *nhipoko-ta-txi* [eat-VBLZ-UNPOSS] ‘place for eating’). Thus, aside from nouns no independent pronoun or any other part of speech will subcategorize for possession or unpossession marking in the language, and when the possessed and unpossessed markers *-re₁* and *-txi*, respectively, do occur with verbs, such markers have slightly different functions. To the extent that possession/unpossession marking is also a syntactic (aside from morphological) phenomenon in the language, it constitutes a distinctive syntactic property of nouns.

An exclusive property of nouns that follows from their possibility of taking possession/unpossession marking is their consequent distributional property as the head

possessed element in a possession construction. That is, no other part of speech can take the place of a possessed noun in a possession construction. Although this distributional property is a direct implication from the possession marking property of nouns, it can be described separately because there was the logical possibility that other parts of speech could perhaps acquire by inheritance the possibility of occurring as the possessed head.

As was shown in 4.4.1, nouns are also lexically or morphologically marked as feminine or masculine, and this grammatical property of nouns can not only be reflected in the form of the noun itself (when the noun takes a morphological gender marker) but also in the cross-referencing marking patterns found in other words in the language and controlled by the noun the other word agrees with. The only other word that also encodes gender as part of its meaning is the independent pronominal form for third person singular. Thus, except for this pronominal form only nouns subcategorize for gender.

Other properties that can help in distinguishing nouns from other syntactic categories include the morphological distinctions provided in 4.5, under the assumption that “[l]exical category [i.e., part of speech] is as much of a notion of morphology as one of syntax, in that what an item is inflected for provides sufficient grounds for assigning it to a lexical category” and that, therefore, “[t]he differences in syntactic behavior of the different lexical categories serve in part to allow compliance with morphological requirements.” (McCawley 1988:183). The qualification “in part”, however, is an important one since not all morphological marking properties have syntactic consequences, or, as was shown in chapter 7, not all morphological marking properties that are syntactically relevant are sensitive to the parts of speech distinctions (although one can argue whether the latter cases really constitute part of the morphology rather than solely of syntax). Finally, the last set of properties that can distinguish nouns from other

parts of speech consists of the way they can combine with other words in phrasal constructions and the way they can stand by themselves as a phrase. These last properties will be described in detail in 8.3.1.

Verb Morphology

5.0. Introduction

The focus of this chapter will be on the internal structure of verbs and their syntactic properties; that is, how verbs are formed and the subcategories that may arise from their morphological and syntactic properties. As nouns, verbs take bound formatives that only attach to verb forms (i.e. bound formatives that are inherently verbal), as well as, also, formatives that occur outside of the inherently verbal morphology. The majority of this outer-layer morphological forms are not inherently verbal insofar as they can attach to nouns, pronouns and/or a few other closed word classes (depending on the bound formative in question). In this chapter I will focus exclusively on the morphological forms that are inherently verbal, that is, the bound formatives that only occur as part of verb bases. The bound formatives that occur outside of the inherently verbal morphology will be described as a special class of bound formatives in chapter 7.

Verbs in Apurinã, as a part of speech, can be distinguished from nouns on the basis of various syntactic and morphological properties. An example of an inherently nominal morphological property is the plural marker *-wako-ru₁/-wako-ro*.

-wako-ru₁/-wako-ro, which was described in the previous chapter, in 4.5.1, as a number marker, and is further illustrated in (1a) where it attaches to the noun stem *kākutu*

‘people’ to mark plural. The example in (1b), on the other hand, illustrates the fact that *-wako-ru₁/-wako-ro* cannot occur with verbs:

- 1a. *hākiti-nhi* *kākutu-wako-ru₁* *keta*
jaguar-AFFECT person-PL-M shoot
‘The (male) people shot the poor jaguar.’
- b. **hākiti-nhi* *kākutu keta-wako-ru₁*
jaguar-AFFECT person shoot-PL-M
(The (male) people shot the jaguar)

In the verb reside the most complex morphological structures found in the language. Although the interaction of verb-internal forms with typical syntactic functions is constant, this chapter surveys only the processes and verb forms (through which such processes are formally encoded) that need to be considered in building a grammatical verb category. The ways by which these processes and verb forms are relevant for the clausal and propositional units are described in chapters 8-9.

Analogous to nouns, verbs can consist of elements that are prefixed or suffixed to a **verb base** (here used as a neutral term to refer to any verbal unit to which bound forms can be added). It will become clear when these elements are presented in the rest of this chapter that the verb morphology (like the noun morphology) is predominantly suffixal. Among 31 **position classes** (i.e. **slot positions**, including those described in chapter 7) clearly identified in the base of non-descriptive verbs (i.e. those that are not property-referring verbs, see 5.1.1.1.1, 5.1.1.2, and 5.2), 30 are suffixal and only 1 is prefixal. Although the morphology of descriptive verbs (i.e. property-referring verbs) is more limited, it includes a subset of the non-descriptive verbs morphology plus two prefix positions inherent to descriptive verb bases. The number of (mutually exclusive) formatives that can occur in each of such position classes can vary from one to seven.

Most position classes consist of only one formative. The set of subject/possessor pronominal markers may have seven or five members depending on how one interprets the homophonous forms used both in the singular and plural. Both the pronominal marking sets (which will be described in detail in chapter 7, in 7.1.1 and 7.1.12) are given in Table 1 below for convenience, since they will be referred to very often as important verbal properties:

Table: 1 Pronominal Markers Sets

Person & Gender	Pronominal Forms			
	Subject/Possessor		Object	
	SG	PL	SG	PL
1	<i>nu-</i>	<i>a-</i>	<i>-no</i>	<i>-wa</i>
2	<i>pu-</i>	<i>hĩ-</i>	<i>-i</i>	<i>-i</i>
3M	<i>u-</i>	<i>u-...-na</i>	<i>-ru</i>	<i>-ru</i>
3F	<i>o-</i>	<i>u-...-na</i>	<i>-ro</i>	<i>-ro</i>

As I mentioned in the chapter 3 (under 3.6.1), the third person plural marker that occurs with verbs, i.e. *u-...* is in a discontinuous dependency relation with the plural marker *...-na*, such that both *u-...* and *...-na* will always co-occur in order to encode third person plural. Although *...-na* has been added to Table 1, it occupies its own position class in the verb—as will be made clear in chapter 7, in 7.1.1.1. As it is clear from Table 1, these pronominal markers behave as **cumulative morphs** (in Anderson’s [1988:154] terminology, or as **multiple exponence** or **cumulation** in Spencer’s [1991] terminology, or as **portmanteau morphs**¹ in Bauer’s [1994:17] terminology). What all these terms

¹ Linguists, perhaps from different linguistic traditions, use the term “portmanteau” to refer exclusively to morphemes resulting from the contraction of morphs (e.g. Spencer 1991:50) or to morphemes that accumulate meanings (e.g. Bauer 1994:17).

mean to describe is simply the one-to-many mapping between form and meaning which is associated with some morphemes.

When referring to pronominal marking bound formatives as they are used with verbs, I will use the term **subject pronominal markers**, so as to distinguish their use with verbs from their use (as possessors) with nouns, and, also, to distinguish them from the **object pronominal markers** (also listed in Table 1 above). The terms “subject pronominal markers”, however, is more of a label used for mnemonic purposes, since, as I will argue later in 7.1.1.1, subject is morphologically marked as a function of the slot which subject pronominal markers occupy in the verb, rather than part of the function of each individual pronominal marker that occurs in such a slot. Before analyzing the syntactic properties of verbs I will need to introduce preliminarily the notions of grammatical subject and grammatical object. The full set of properties that can motivate grammatical subject and grammatical object will be presented in chapter 9 (sections 9.1 and 9.8), once all the required syntactic information has been systematically presented. However, there is one basic property that will work for the purpose of describing the syntax of verbs, namely that the grammatical subject is the syntactic expression of an argument (of a verb) that can co-occur with a coreferential subject pronominal marker attached to the verb. The grammatical object, in contrast, is the syntactic expression of an argument (of a verb) that can co-occur with a coreferential object pronominal marker attached to the verb. The co-occurrence of the subject or the object free expression with its corresponding coreferential pronominal marker, however—as will be discussed later in 8.2.1.2—is only possible when the subject/object free expression is post-verbal. So, in (2a) *-ru* is the object pronominal marker for third person masculine object which is coreferential with the nominal form *ximaku* ‘fish’, thus indicating that *ximaku* is the

grammatical object of the verb in that clause. In (2b) *n-* is the subject pronominal marker for first person singular subject which is coreferential with the independent pronominal form *nota* ‘1SG’, thus indicating that *nota* is the grammatical subject of the verb in that clause:

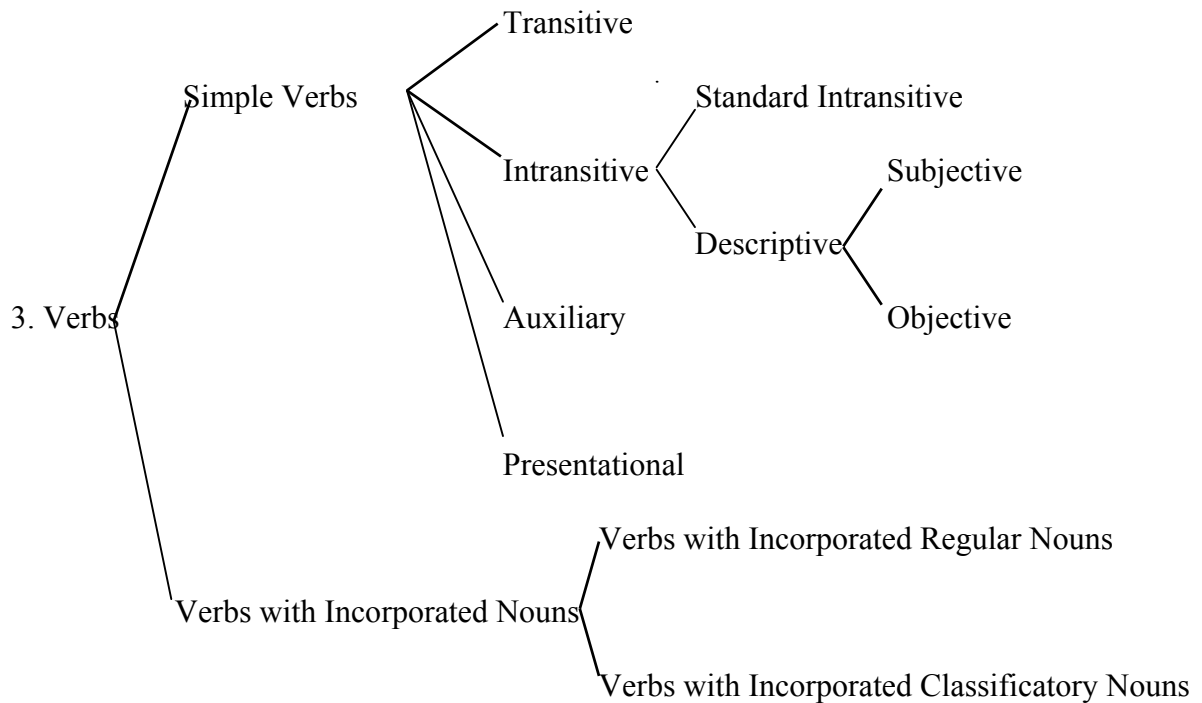
2a. *ata nhika-ru ximaku*
we eat-3M.O fish
‘We eat fish.’

b. *yowata n-atamata nota*
knife 1SG-look 1SG
‘I look at the knife.’

The full sets of both subject and object markers which is given in Table 1 will be morphologically described in chapter 7, in 7.1.1 and 7.1.12, respectively.

5.1. Verb Categories

This section describes the word-internal structure of verbs, distinguishing the verb subcategories present in the language. The grammatical properties described for verbs in this section will motivate the following verbal subcategories:



The defining syntactic and morphological properties of the verb category will be summarized in 5.4.

5.1.1 *Simple Verbs*

A verb may consist of a basic or a derived verb form. Analogous to nouns (see 4.1 and 4.5.2), a basic verb form can be a free root (i.e. a lexical form that cannot be analyzed into smaller morphological units and that can stand by itself as a verb) or a root plus formatives phonologically attached to it. In (4a-b) we have examples of a basic verb form. In (4a) the verb form *arika* ‘to set on fire’ consists of a free standing verbal root; in (4b) the same verb form takes the bound pronominal formatives as the expression of the arguments of the verb; (4c) shows that this verb form requires a nominalizer in order to be a noun, and, thus, behaves as a form that is verbal:

- 4a. *arika* ‘to set on fire’
- b. *n-arika-ru* ‘I set it on fire.’
1SG-set.fire-3M.O
- c. *arika-txi n-atama* ‘I looked at the fire.’
fire-NMLZ 1SG-look

A derived verb form can be made out of a noun, as in (5b), in which a noun stem, *karuwa* in (5a), can only behave as a verb if the bound verbalizer formative *-ta* (described in 5.2.1.2.1.1) is attached to it. The formative *-no* (described in detail later in chapter 7, in 7.1.12) is one of a set of formatives that are restricted to verbs:

- 5a. *karuwa* ‘a non-Indian person’
- b. *karuwa-ta-no* ‘I am/act like a non-Indian person’
non-Indian-VBLZ-1SG.O

The reason the derived verb *karuwa-ta* ‘to be/act like a non-Indian person’ takes the object formative *-no* to express the notional subject (i.e. the argument that is expressed as subject in English) is that *karuwa-ta* happens to belong to the class of verbs that systematically take these object pronominal markers, rather than the subject pronominal ones. This property of certain verbs will be described in detail later, under 5.1.1.1.2.

Also, analogous to nouns (see 4.1 and 4.2.10), a derived verb form can also be made out of a bound root (i.e. a root that cannot stand by itself as a verb or noun unless additional verbal or nominal morphology is attached to it) plus the verbalizer *-ta*. In (6), it is shown that a bound root, *nhipoko*, cannot stand by itself as noun or verb without further morphological marking. So, in (6a) the form *nhipoko-ru₂* ‘food’ is a noun; in (6b) *nhipoko* is shown not to stand by itself as a noun or verb; in (6c) *-ta* is added to form the

verb *nhipoko-ta* ‘to eat’, and in (6d) the pronominal marker *nhi-* is added to the derived verb form to express its notional subject:

- 6a. *nhipoko-ru₂* ‘food’
 food-NMLZ
- b. **nhipoko*
- c. *nhipoko-ta* ‘to eat (INTR)’
 food-VBLZ
- d. *nhi-nhipoko-ta* ‘I eat (INTR)’
 1SG-food-VBLZ

Therefore the simplest forms a verb can take are a free root (FRt), a noun form plus a verbalizer, or a bound root (BRt) plus a verbalizer, as represented in (7):

$$7. V \rightarrow \left\{ \begin{array}{l} \text{FRt} \\ \text{N} + \text{VBLZ} \\ \text{BRt} + \text{VBLZ} \end{array} \right\}$$

The verbs can be classified in terms of their valence as **transitive** or **intransitive**. Although the valence properties are more generally reflected in the syntactic and semantic domains of a language grammar, certain morphological properties associated to valence can also be found, and are described in the following subsections. In addition to transitive and intransitive verbs, there are the **auxiliary** and **presentational** verbs which show some grammatical distinctions that justify describing them in subsections of their own, although they may turn out to be best as, ultimately, subclasses of transitive or intransitive verbs.

5.1.1.1 Intransitive Verbs

Intransitive (or monovalent) verbs are split into two classes: **standard intransitive** or **descriptive intransitive**. It is important to take into account the subclasses of verbs while doing a morphological analysis because they differ somewhat either as to which verbal bound forms each subclass can take or as to the different functions homophonous bound formatives have in each subclass.

5.1.1.1.1 *Standard Intransitive Verbs*

Standard intransitive verbs are the most typical monovalent verbs which express events; these verbs lexically require one syntactic argument, and their only required argument may co-occur with a subject coreferential pronominal marker (listed in Table 1) on the verb if the subject is post-verbal. In the following examples (8) *nota* ‘1SG’, *kuku* ‘man’ and *suto* ‘woman’ have in common the property of being coreferential with the prefixed pronominal markers in the verb, thus characterizing the verb as belonging to the class of standard intransitive ones:

- 8a. *Ø-upũ-pe*
3M-die-PFTV
‘He/It has died.’
- b. *nh-irika nota*
1SG-fall 1SG
‘I fell down.’
- c. *n-umaka-ko*
1SG-sleep-FUT
‘I will sleep.’
- d. *u-muteka kuku*
3M-run man
‘The man ran.’

e. *o-serena suto*
3F-dance woman
'The woman danced.'

f. *o-apo-pe*
3F-arrive-PFTV
'She has arrived.'

As the examples in (8) illustrate, standard intransitive include verbs that take patient-like subject (such as 'die' and 'fall'), experiencer-like subject (such as 'sleep'), and agent-like subject (such as 'run', 'dance' and 'arrive'). Therefore, the class of meanings of these verbs cannot be established on the basis of the semantic roles of their arguments.

5.1.1.1.2 *Descriptive Intransitive Verbs*

In semantic terms, **descriptive intransitive** (hereafter **descriptive**) verbs differ from standard intransitive verbs insofar as the descriptive intransitives are exclusively property-referring words, while standard intransitives typically refer to events or, in a few instances, states. In morphological terms, descriptive verbs follow a **split-S** pattern (Andrews 1985:147-150) common in other Arawak languages (see Payne 1991:376), dividing into two subclasses: **subjective** and **objective** (here used as purely mnemonic labels). That is, the notional subjects of some descriptive verbs take subject morphological markers, while the notional subjects of other descriptive verbs take object morphological markers —both subject and object markers were listed in Table 1. Each of the two sub-classes of descriptive verbs are further described and illustrated in the next subsections.

5.1.1.1.2.1 Subjective Descriptive Intransitive Verbs

The first subclass of descriptive verbs, **subjective descriptive** verbs, consists of the property-referring verb forms that can take the subject pronominal forms plus a structurally optional coreferential free (pro)nominal expression in post-verbal position. In the following examples the subject pronominal markers are *nu-*, *nhi-* and *o-*, the free (optional) post-verbal coreferential (pro)nominal expressions are *nota*, *hātako-ro* and *hātako-ru*, and the verbs all expressing psychological or physical states:²

- 9a. *nu-sāpaka* *nota*
1SG-be.tired 1SG
'I'm tired.'
- b. *nhi-inhikaka*
1SG-feel.hot
'I feel hot.'
- c. *o-mireka*
3F-be.awake
'She's awake.'
- d. *nu-sutūka-pe* *nota*
1SG-stink-PFTV 1SG
'I smell bad.'
- e. *o-surūka* *hātako-ro*
3F-lie.down youth-F
'The girl is lying down.'
- f. *u-tuma* *hātako-ru*
3M-stand.up youth-M
'The boy is standing up.'

The putative morphological difference between standard intransitive and descriptive subjective intransitive verb is not a straightforward one, since both types of

² All allomorphs of bound pronominal markers follow from the allomorphy processes described in chapter 3, in 3.6.1.

intransitive verbs take subject pronominal markers. An arguable difference would consist of the fact that while the standard intransitive verbs can take the same morphological forms as the transitive verbs (described in 5.1.1.2)—as long as such forms are grammatically compatible with intransitivity—subjective descriptive verbs do not easily allow these morphological forms. I use the expression “do not easily allow” because there is a degree of variation across speakers as to which morphological forms can go with subjective intransitive verbs. So, while the examples of standard intransitives in (10) are perfectly grammatical, those of subjective intransitives in (11) vary from somewhat acceptable to ungrammatical for different Apurinã speakers: (The morphological forms used in these examples, except for the pronominal markers, will be described in detail in 5.2)

- | | |
|---|----------------------------------|
| 10a. <i>nu-muteka-nanu-ta</i>
1SG-run-PROG-VBLZ | ‘I’m running.’ |
| b. <i>u-muteka-powa-ta</i>
3M-run-AUGM-VBLZ | ‘The fat one is running.’ |
| c. <i>u-muteka-ãpo-ta</i>
3M-run-RANDOM-VBLZ | ‘He/It is running at aimlessly.’ |
| 11a. * <i>nu-sãpaka-nanu-ta</i>
1SG-be.tired-PROG-VBLZ | (I’m getting tired.) |
| b. <i>u-sãpaka-powa-ta</i>
3M-be.tired-AUGM-VBLZ | ‘The fat one is tired.’ |
| c. <i>u-sãpaka-ãpo-ta</i>
3M-be.tired-RANDOM-VBLZ | ‘He’s aimlessly tired.’ |

It is the somewhat distinct behavior of subjective intransitive verbs in terms of the verb morphology they take that has led me to separate them morphologically from

standard intransitive verbs. As a result of the speakers' variations in evaluating the grammaticality of these examples, I have not reached any systematic results as to the complete set of morphological forms that can or cannot go with subjective intransitive verbs. At the present time I can only say that it is most likely that both semantic as well as grammatical factors play a role in determining the difference between standard intransitive and subjective intransitive verbs, and that a more detailed work specifically on the class of subjective intransitive verbs is required in order to tease apart semantic from grammatical (in)compatibility with standard/subject descriptive verbs. One of the problems in accounting for the examples such as those in (11) is to tease apart cases that are ungrammatical simply because they are semantically anomalous from others where syntactic factors determine their (un)grammaticality.

5.1.1.1.2.2 Objective Descriptive Intransitive Verbs

Objective descriptive verbs are the monovalent property-referring verbs whose only (lexically) required syntactic argument (when a free post-verbal (pro)nominal expression) can (optionally) co-occur with an object pronominal marker attached to the verb, but where such pronominal markers are used to express the notional subject rather than the notional object of the verb. In the following examples the verbs *hareka* 'be good', *here* 'be pretty' and *pooma* 'be hot' all take the object pronominal marker for first person singular:

12a. *hareka-no*
be.good-1SG.O
'I am good.'

b. *here-no*
be.pretty-1SG.O
'I am pretty.'

- c. *pooma-no*
 be.hot-1SG.O
 ‘I am hot.’

In the examples in (13) *nota* ‘1SG’, *hũwu* ‘flower’, *mãga-txi* ‘clothes-UNPOSS’ and *aiko* ‘house’ are all instances of object forms co-occurring with the object pronominal markers:

- 13a. *pooma-no* *nota*
 be.hot-1SG.O 1SG
 ‘I’m/feel hot.’
- b. *katsopu-ru* *hũwu*
 be.white-3M.O flower
 ‘The flower is white.’
- c. *pomama-ru* *mãka-txi*
 be.black-3M.O clothes-UNPOSS
 ‘The clothes are black.’
- d. *mita-ru* *aiko*
 be.big-3M.O house
 ‘The house is big.’

The semantics of objective descriptive verbs covers a wide range of physically observable properties or sensations, as well as value. Table 2 lists a sample of objective descriptive verbs and their corresponding semantic fields.

Table 2: The Semantics of (Non-Derived) Objective Descriptive Verbs

Verb forms	Gloss
SIZE	
<i>mita</i>	‘be big, be large’
<i>waxeputu</i>	‘be small’
<i>ōtano</i>	‘be long, be tall’
SHAPE	
<i>katapo</i>	‘be crooked’
<i>sorosoro</i>	‘be of rough surface’
CONSISTENCY/TEXTURE	
<i>kaiko</i>	‘be hard’
<i>pōyope</i>	‘be soft earth’
<i>ĩāka</i>	‘be wet’
<i>posona</i>	‘be dry’
AGE OF THINGS (NOT OF PEOPLE)	
<i>kitxakare</i>	‘be old’
<i>ēēĩtu</i>	‘be new’
VALUE	
<i>hareka</i>	‘be good’
GUSTATORY SENSATIONS	
<i>potxowa</i>	‘be sweet’
<i>katxiyo</i>	‘be sour’
<i>kipixi</i>	‘be bitter’
HEAT/COLD SENSATIONS	
<i>potsayã</i>	‘be cold’
<i>pooma</i>	‘be hot’
SPATIAL DEIXIS	
<i>wai</i>	‘be here’
<i>werã</i>	‘be there’
COLOR	
<i>pomamaru</i>	‘be black’
<i>katsopi</i>	‘be white’
etc...	

The verbs listed in the Table 2, however, are restricted to non-derived objective descriptive verbs. As will be shown in section 5.3, the attributive markers *pa-* and *ka-* can attach to root forms to derive objective descriptive verbs. Although a more systematic study of the lexical semantics of objective descriptive verbs is required, I should say that the semantic fields involved in derived objective descriptive verbs only widens the range of properties referred to by objective descriptive verbs in general.

Finally, some of the verb forms listed in the Table 2 are the positive values of a property; for these verbs, their negative values (i.e. their **antonyms**) are expressed as a negation of the positive value. So, for example, the opposite of the verb *hareka* ‘be good’ is *kona hareka* ‘be bad (not be good)’.

5.1.1.2 Transitive Verbs

Transitive (or bivalent) verbs differ morphologically from the general class of intransitive ones insofar as only the transitive verbs can take both subject and object pronominal markers. Transitive verbs are syntactically different from intransitive verbs precisely in that only the former require the presence of both subject and object simultaneously. Transitive verbs can be divided into **regular transitive** verbs and **(potentially) ditransitive** verbs on the basis of whether their object can be marked by an oblique marker or not. The example given in (4b) was an instance of a transitive verb. Other examples are as given in (14), where *nhi-*, *n-* and *nu-* are subject pronominal markers, and *-ru* is an object pronominal marker:

- 14a. *nhi-nhika-ãpo-ta-ru*
 1SG-eat-RANDOM-VLBZ-3M.O
 ‘I went around aimlessly eating it.’

- b. *n-oka-ma-ru-ko*
1SG-kill-FRISTR-3M-FUT
'I would have killed it.'
- c. *nu-taka-pe-ta-ru*
1SG-put-pulp-VBLZ-3M.O
'I put it (the fleshy thing) away.'

Solely in terms of their morphology, there is no basis for distinguishing bivalent verbs from potentially trivalent verbs in Apurinã. The recipient argument of a potentially trivalent verb can also be marked with object pronominal markers. So, the morphemes *-ru* and *-ro* of the examples in (15) express the recipient of *suka* 'give':

- 15a. *pu-suka-ru* 'Give (something) to him.'
2SG-give-3M.O
- b. *pu-suka-ro* 'Give (something) to her.'
2SG-give-3F.O

However, there are other types of differences between transitive and ditransitive verb worth of note. In the next subsections I will describe properties indicating that both regular transitive and ditransitive verbs can be analyzed as subclasses of transitive verbs, under the definition of transitive verbs provided above. In distinguishing regular transitive verbs from ditransitive verbs I will make use of the structural constituency notion of "noun phrase", which will be properly motivated later in chapter 8. For the moment, "noun phrase" can be informally defined as the (pro)nominal free syntactic expressions that are used to bear grammatical relations to the clausal predicator.

5.1.1.2.1 Regular Transitive Verbs

Regular transitive verbs are the most typical transitive verbs in the language, insofar as they require both a (grammatical) subject and a (grammatical) object, wherein

subject and object can be expressed as noun phrases, as a combination of noun phrases plus the corresponding subject/object pronominal marker in the verb, or just as subject and object pronominal markers. Regular transitive verbs constitute by far the great majority of transitive verbs found in the language. In the following examples in (16) (where underlining marks co-reference between the relevant arguments), the (pro)nominal forms *aõtu* ‘umari fruit’, *uwa* ‘3SG.M’, *maku* ‘Brazil-nut’, and *komeru-pe* ‘manioc-pulp’ are all grammatical objects in the clauses they occur in; in (16d) the subject is formally expressed as the pronominal marker *a-* ‘1PL’; and in (16e) both subject and object are only manifested, respectively, as the pronominal markers *a-* and *-ru*:

16a. *hãtako-ro apa-nanu-ta-ru aõtu*
 girl.F fetch-PROG-VBLZ-3M.O umari(M)
 ‘The girl is fetching “umari” (fruit).’

b. *o-atamata-ru uwa suto*
 3F-look-3M.O 3SG.M woman
 ‘The woman, she looked at it/him.’

c. *maku ata apa*
 Brazil.nut we fetch
 ‘We gather Brazil-nut’

d. *a-makatxaka txa-ru komeru-pe*
 1PL-take.out AUX-3M.O manioc-pulp
 ‘We take the manioc pulp out.’

e. *a-makatxaka-ru*
 1PL-take.out-3M.O
 ‘We take it out.’

In the examples in (16) subject/object pronominal markers are only found in the verb when the subject/object NP is either post-verbal or absent in the clause. I will discuss in

further detail the correlation between post-verbal subject/object noun phrases and subject/object markers in the next chapter, in 8.1.1.

5.1.1.2.2 *Potentially Ditransitive Verbs*

Verbs that translate as ditransitive (i.e. trivalent) verbs in other languages behave like regular transitive verbs in Apurinã insofar as only the subject and one object are structurally required to occur, and the third argument is structurally optional (i.e. the third argument can be omitted without making the clause ungrammatical). The examples in (17) illustrate the general case, namely that verbs that translate as ditransitive verbs in some other languages, in this case as ‘to teach’ and as ‘to tell’ in English, behave as regular transitive verbs in Apurinã (parentheses indicate that the expression is structurally optional in the clause in which it occurs):

- 17a. *mipake owara-pira-ta-ru u-sākire (pita-monhi)*
Mipake teach-language-3M.O 3M-language.of 2SG-GOAL
‘Mipake taught his language (to you).’
- b. *nota sāpire-ta-ru tsora sākire (youkake-monhi)*
1SG tell-VBLZ-3M.O Tsora language.of Youkake-GOAL
‘I told the Tsora story (to Youkake).’

As shown in (17), the argument expressing the “theme” is obligatory and occurs as the object of the verb, expressed by a “caseless” noun phrase, while the recipient argument is optionally expressed by an “oblique” noun phrase. For the present purposes of this section, a “caseless” noun phrase can be informally defined as a noun phrase without any morphological case marker, whereas an “oblique” noun phrase can be described (also informally) as a noun phrase marked with an oblique (case) marker. The description of noun phrases will take place under 9.3.

There is one ditransitive verb, i.e. *suka* ‘to give (away)’, however, that differs from regular transitive verbs in two main ways. There are two special properties to be noted about the Apurinã verb *suka* that make it a special case of transitive verb: The first property is that only this ditransitive verb allows a third argument (representing the recipient) to be expressed by a caseless noun phrase. So, for example, in (18) a comparison is made between the verb for *suka* and *etuka* ‘to look’, where the former is the special case of a transitive verb (i.e. a potentially ditransitive transitive verb) and the latter is the typical case of transitive verbs (i.e. a regular transitive verb) in Apurinã:

- 18a. *nhi-yowata-ne* *pita* *nota* *suka*
 1SG-knife-POSSED 2SG 1SG give
 ‘I gave you my knife.’
- b. **i-yowata-ne* *pita* *nota* *etuka*
 2M-knife-POSSED 2SG 1SG look
 (I watched/looked over his knife for him.)

In (18a), where *pita* ‘2SG’ and *nhi-yowata-ne* (1SG-knife-POSSED) ‘my knife’ are, respectively, recipient and “theme” arguments, both (recipient and “theme”) arguments are expressed by noun phrases, whereas (18b) is ungrammatical.

The second special property of *suka* is that, while regular transitive verbs take a single caseless object noun phrase, with *suka* either the “theme” argument, represented by a “caseless” noun phrase, or the recipient argument, expressed by an oblique noun phrase, can bear the object grammatical relation, as indicated by what the object pronominal marker agrees with, as the examples in (19) illustrate:

- 19a. *o-suka-ro* *uwa-mokaru* *nu-serepi*
 3F-give-3F.O 3SG.M-GOAL 1SG-arrow.of(F)
 ‘She gave my arrow to him.’

- b. *nota suka-ru uwa-mokaru nu-serepi*
 1SG give-3M.O 3SG.M-GOAL 1SG-arrow.of(F)
 ‘I gave my arrow to him.’

In (19a), the verb bears a feminine object pronominal marker, agreeing with the caseless noun phrase representing the “theme” argument *nu-serepi* ‘my arrow’. In (19b), in contrast, the verb bears a masculine pronominal marker, agreeing with the recipient object, which is expressed by the oblique noun phrase *uwa-mokaru* ‘to him’ (morphologically described in chapter 7, 7.1.2.4). That is, insofar as pronominal object markers can be considered to be the major formal marking property of the object grammatical relation in Apurinã, the object of the ditransitive verb *suka* can be expressed either by the caseless noun phrase representing the “theme” or by the oblique (or caseless) noun phrase expressing the recipient. In the interest of focusing here on the properties that regular transitive and ditransitive verbs share or do not share, I will postpone to chapter 8 (in subsection 8.1.1.2, where the relevant type of grammatical relations will be presented) further discussion on what it means for the recipient or the “theme” semantic role to be marked as object in the language. General constraints on the structure of clauses with potentially ditransitive verbs will be discussed in 8.3.

In sum, the examples in (18-19) show that the ditransitive verb *suka* differs from regular transitive verbs in two ways: First, only this ditransitive verb allows for a recipient argument to be expressed as a caseless noun phrase; and, second, the object of this ditransitive verb denoting the recipient can be expressed either by a caseless noun phrase or by an oblique noun phrase. On the basis of the distinctions just described, one might feel motivated to postulate that transitive regular verbs and ditransitive verbs constitute distinct general syntactic types of verbs, types that would be as different from

one another as are intransitive and regular transitive verbs. There are, however, two important reasons to analyze ditransitive verbs as a subclass of transitive verbs in Apurinã. The two examples in (20) have in common the fact that only two arguments of the verb are overtly realized in the clause: In (20a) *nota* ‘1SG’ is the object, since it is coreferential with the object pronominal marker *-no* ‘1SG.O’, and in (20b) the only formal manifestation of the object is the object pronominal marker *-ru* ‘3M.O’:

- 20a. *pu-suka-no* *nota*
 2SG-give-1SG.O 1SG
 ‘Give away to me.’
- b. *nu-suka-pe-ka-ru*
 1SG-give-PFTV-PRED-3M.O
 ‘I’ve given away to him.’

Examples such as those in (20) reflect a common property of ditransitive verbs, namely that they only require two arguments to be (morpho)syntactically realized in the clause, the subject and the (recipient) object; that is, they are only “potentially” ditransitive. The examples in (20) also confirm what was already illustrated by the examples in (19) (and underscored in chapter 5, in subsection 5.1.12). Only one non-subject argument of ditransitive verbs is required in a clause, and, moreover, only one of the non-subject arguments can be coreferential with the object pronominal marker in the verb. Thus, insofar as ditransitive verbs require only two arguments and insofar as the free standing expression that can be in an object relation (whether a “caseless” noun phrase or an “oblique” noun phrase in post-verbal position) can be coreferential with the same pronominal object markers in the verb as those that attach to regular transitive verbs, they can be considered to belong to the same general category as regular transitive verbs.

Aside from the verb *suka* ‘to give’, there is only one other verb, namely, *sukare* ‘sell’, that appears to allow the recipient to be expressed either as a “caseless” noun phrase or as an “oblique” noun phrase, as illustrated in (21).

- 21a. *aiko mipake sukare-pe-ro suto*
 house Mipake sell-PFTV-3F.O woman
 ‘Mipake sold the house to the woman.’
- b. *mipa sukare-pe-ru aiko mipa-mokaru*
 Mipa sell-PFTV-3M.O house(M)-AFFECT woman(M)-GOAL
 ‘Mipa sold the house to the woman’

However, the verb *sukare* requires further verification, since the data available still do not allow a conclusive analysis about the formal marking of its argument roles. Although it is clear in (21a) that the verb *sukare* can take a third caseless noun phrase argument, the example in (21b) is ambiguous as to whether the pronominal object marker is coreferential with the caseless noun phrase argument *aiko* ‘house’ or with the “oblique” noun phrase argument *mipa-mokaru* (since both contain a masculine noun). One of the problems with *sukare* is that it expresses a concept that has been fairly recently introduced into some of the Apurinã communities, and, as such, it is not consistently used across large numbers of speakers or across speech varieties. As will be seen in 5.2.1.1.1.3, some speakers simply add the intransitivizer *-rewa* to the verb *suka* in order to express the concept ‘to sell’. It is likely that the form *sukare* is a lexicalized form that resulted from the reduction of *suka-rewa-ta* into *sukare*, going through some process of reanalysis that still needs to be determined. In terms of their most general use, although verbs such as *suka* and *sukare* can take both a “theme” and a recipient argument, these verbs are most often found with only one of these two arguments morphosyntactically

expressed —exactly as expected from a transitive verb. Issues related to when the object of a ditransitive verb stands as a “caseless” noun phrase or as an “oblique” noun phrase will be addressed in chapter 8, in subsection 8.1.1.2. Some restrictions apply to the clausal distribution of the noun phrases bearing an object grammatical relation; such restrictions will be described later in 8.3.

5.1.1.3 Presentational Verb

Constructions used to introduce a participant in the discourse generally make use of the verb *awa*. In its presentational use *awa* translates as ‘there be’, as indicated by the following examples. In the examples in (22) the nominal forms *i-ye sāko* ‘this “traíra” fish’, *nhiki-txi* ‘game (meat of hunted animal)’, and *yowata* ‘knife’ occur as arguments of the presentational verb:

- 22a. *sāko awa?*
 traíra there.be
 ‘There is “traíra” fish.’
- b. *nhikitxi awa-ka-sawaku*
 game there.be-PRED-TEMP
 ‘When there’s game...’
- c. *apoka-koru yowata awa*
 find-REL knife there.be
 ‘There’s a knife that was found.’

Although the presence of the third person object marker *-ru* in (22a) would seem to suggest that *awa* takes an object argument, there are other syntactic properties associated to this verb which still need to be better understood. As the examples in (22a,c) show, the presence of the pronominal marker in the verb is not obligatory. The exact nature of the syntactic arguments of *awa* and the factor(s) that determine(s) the

presence (or absence) of the pronominal marker in the verb are issues which are still unresolved. The reason for this is partly because I have not done yet a careful survey of the syntactic consequences of the (sub-)meanings of *awa*. For the purpose of this work, I will simply list these (sub-)meanings here and leave for further research the decision as to whether they reflect semantic properties of different (but homophonous) lexical entries or whether they constitute semantic sub-variants of one and the same lexical entry. In addition to introducing presentational constructions, the verb form *awa* can also be used as a main verb with the meanings described and illustrated in the next paragraphs:

awa used with a sort of existential meaning, i.e. ‘to exist, live’, as in (23):

- 23a. *popũka-ru-wakoru awa-ru*
 Apurinã-M-PL.M there.be-3M.O
 ‘Apurinã existed.’
- b. *kone kariwa awa-ru*
 not white.person there.be-3M.O
 ‘White people didn’t exist.’
- c. *aiko kone watxa awa-yoka*
 house NEG today there.be-NO.LONGER
 ‘The house no longer exists nowadays.’

It is true that there is a clear overlap between the existential meaning of *awa*, as illustrated by the examples in (23), and its presentational meaning, as illustrated by the examples in (22). In both the presentational and existential scenarios in which *awa* is used, the verb predicates about the types of existences of what is referred to by its argument. A very subtle difference is that in the cases illustrated in (23) the predication is about a longer (more permanent or stable) existence during states or processes, whereas

in (22) the predication is about a shorter (more short-lived, momentary, accidental, or casual) existence during states or processes.

awa used with locative meaning, i.e. ‘to live in, inhabit, reside’, to refer to inhabitancy or other place circumstances, as in (24):

- 24a. *nu-wāka-tu-kata* *n-awa*
1SG-namesake-big-ASSOC 1SG-there.be
‘I live with my namesake.’
- b. *nha-monhi-pa* *p-awa-ru*
WH-GOAL-INT 2SG-there.be-3M.O
‘Where do you live?’
- c. *aiko* *here-ri-nhi* *suto* *aw-inhi* *iri-pe*
house pretty-M-AFFECT woman there.be-GER fall-PFTV
‘The cute house where the woman lives in collapsed.’
- d. *uwā-ra* *ata* *wai* *awa-pe-ru*
PTC-ESS 1PL here there.be-PFTV-3M.O
‘Then we stay here.’

awa used with possessive meaning, i.e. ‘to have’, as in (25):

- 25a. *nha-pakunu-pa* *p-ātenekoru* *p-awa*
WH-plus-INT 2SG-children 2SG-there.be
‘How many children do you have?’
- b. *n-awa-ru* *epi* *kanawa*
1SG-have-3M.O two canoe
‘I have two canoes.’

5.1.1.4 Auxiliary

The auxiliary verb *txa* is used with verbal predicates, following the verb and serving as the “host” base for some of the material the main verb inflects for, as the

examples in (26) illustrate. In (26a) the auxiliary follows the verb *akirita* ‘to call’ and takes the object pronominal marker; in (26b), the auxiliary follows the verb *atama* ‘to look’ and takes the object pronominal marker; in (26c) the auxiliary follows the verb form *yotika-xiti-ka-ta* ‘burn-field-INTENS-VBLZ’ and takes no pronominal marker; and, in (26d) the auxiliary follows the objective descriptive verb form *hareka-ko* ‘be.good-FUT’:

- 26a. *akirita i-txa-ro owa*
 call 3M-AUX-3F 3SG.F
 ‘He called her.’
- b. *pitxeka i-txa komeru*
 grow 3M-AUX manioc
 ‘The manioc grew.’
- c. *ata yotika-xiti-ka-ta txa*
 1PL burn-earth-INTENS-VBLZ AUX
 ‘We burn well the farm field.’
- d. *hareka-ko pi-txa*
 be.good-FUT 2SG-AUX
 ‘Be good.’

The form *txa* behaves as an auxiliary verb in that it adds no meaning to the proposition expressed by the clause in which it occurs, and it usually carries part of the bound formatives that would otherwise attach to the lexical verb form. *txa* is rarely found in elicited material offered by Apurinã speaker as translations of Portuguese data, but it is very commonly found in text material. Presently I have not found any grammatical or semantic factor that determines when *txa* is used or not, nor have I been able to find any grammatical or semantic motivation for when a bound formative will attach to the auxiliary rather than to the lexical verb. Except for rare instances, the subject and/or pronominal markers will attach to the auxiliary form when this auxiliary is present in the

same clause. However, other bound formatives are more often found attached to the lexical base rather than to the auxiliary.

The form *txa* can also be used as a main verb with various meanings, as described and illustrated in the next paragraphs:

txa can be used to mean ‘to speak, to say’ introducing (or not) a direct or an indirect quotation. This is the most common use of *txa* as a main verb attested in texts and is illustrated in the following examples. In the first two examples below, (27a, b), *txa* introduces direct quotations; in (27c) *txa* introduces an indirect quotation; and in (27d) *txa* simply takes an object:

- 27a. *kuku-ka-ne-ra-no* *i-txa*
 man-PRED-ALSO-FOC-1SG.O 3M-say
 ‘He said “It’s a man that I also am.”’
- b. *∅-oka-pe-no-na-ko* *i-txa* *kema owa-mokaru*
 3M-kill-PFTV-PL-FUT 3M-say tapir 3SG.F-GOAL
 ‘“They’ll kill me”, the tapir said to the woman.’
- c. *kuku-ka-ne-ra* *uwa* *o-txa-ru*
 man-PRED-ALSO-FOC 3SG.M 3F-say-3M.O
 ‘She said that he’s also a man.’
- d. *akirita i-txa-ro* *owa*
 call 3M-say-3F.O 3SG.F
 ‘He called her.’

txa can be used as a copula verb to mean ‘to be’, as seen in (28), in which case the reflexive marker *-wa* is also found in the verb:

- 28a. *owa-kanera suto o-txa-wa*
 3SG.F-ALSO woman 3SG.F-be-REFL
 ‘She is also a woman.’

- b. *uwa-kanera kuku i-txa-wa*
 3SG.M-ALSO man 3SG.M-be-REFL
 ‘He is also a man.’

Finally, *txa* can also be used to make reference to the lexical meaning of another verb (normally found in the preceding discourse). It can be roughly translated as ‘do’, as shown next:

- 29a. *a-txa-ru ata kitxekapirika*
 1PL-do-3M.O 1PL formerly
 ‘We did it in ancient times.’
- b. *i-txa-ka-ta-ru*
 3M-do-INTENS-VBLZ-3M.O
 ‘He really did it.’

5.1.2 *Verbs with Incorporated Nouns*

Verbs can incorporate a noun form which occurs adjacent to the verb root. So far I have only attested incorporated nouns with transitive verbs. The incorporated noun form can either be a regular noun (i.e. non-classificatory inalienable nouns and/or alienable nouns) or a classificatory noun. As happens to any other forms that occur as part of the morphological structure of the verb, incorporated nouns need to obey the morphological rules for placement inside the verb. What this means is that incorporated nouns also have one (and only one) slot in which they occur inside the verb and, for reasons to be explained under 5.2.1.1, the presence of an incorporated noun in the verb requires the presence of the verbalizer *-ta* (described under 5.2.1.1). The simplest structure of a verb with an incorporated noun can be represented as in (30), where the slot for the incorporated noun is the first position immediately after the first root in the verb,

as represented by the underlined space: (Recall that BRt=Bound Root and FRt=Free Root.)

$$30. V \rightarrow \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \end{array} \right\} + \text{---} + ta$$

5.1.2.1 Verbs with Incorporated Regular Nouns

Verbs with incorporated regular nouns are verb forms that incorporate a noun which expresses a semantic argument of the verb inside which it occurs. That is, certain nouns when used as a syntactic unit expressing the argument of a verb can also occur incorporated in the verb and still have the same semantic function as non-incorporated nouns. This is illustrated in the examples in (31) and (32). In (31a), *tapo-txi* ‘arrow’ occurs non-incorporated as a syntactic unit expressing the notional object of the verb. The same noun form occurs incorporated in (31b), also expressing the notional object of the verb. The examples in (32) follow an analogous pattern, except that in (32a) the non-incorporated noun is possessed whereas in (32b) it is unpossessed —i.e. marked with the unpossessor marker *-txi*:

- 31a. tapo-txi pu-suka-ta-no ‘Give me a bow.’
 bow-UNPOSS 2SG-give-VBLZ-1SG.O
- b. pu-suka-tapo-ta-no ‘Give me a bow.’
 3F.S 2SG-give-food-VBLZ-1SG.O
- 32a. nota pu-suka-ta-no pu-tou ‘Give me your goods.’
 1SG 2SG-give-VBLZ-3M.O 2SG-thing
- b. pu-suka-toi-txi-ta-no ‘Give me the goods.’
 2SG-give-thing-UNPOSS-VBLZ-1SG.O

The semantic propositions expressed in (31a-b) are exactly the same, since in both examples the incorporated and non-incorporated nominal elements express the “theme” semantic role of the verb. However, syntactically the incorporated noun constitutes part of a compound verb base within which it (the noun) plays no syntactic role, whereas the possessor agrees with the pronominal object marker found in the verb, as do nominals in object relation to the verb.

In the next pair of examples in (33), the nominal form *yākunu* ‘footprint.of’ occurs non-incorporated in (33a) and incorporated in (33b):

33a. *n-atama-ta ru-na kema yākunu*
 1SG-look-VBLZ-3M.O tapir footprint.of
 ‘I looked at the tapir’s footprint.’

b. *n-atama-yākunu-ta-ru kema*
 1SG-look-footprint.of-VBLZ-3M.O tapir
 ‘I looked at the tapir’s footprint.’

The semantic interpretations of (33a-b) are the same, since in both cases *yākunu*, incorporated or not, is the possessed element in the clause. Here, again, the incorporated element plays no syntactic function and the possessor element is cross-referenced by the object marker in the verb. Therefore, the analysis of these incorporated nominal elements can be described as a result of **possessor raising** where the possessor element acquires syntactic properties of the syntactic object of the verb. The types of verb incorporated regular nouns given above are not intended to exhaust all the types of regular noun incorporation in the language. Instead, they simply illustrate the presence in the language of regular noun incorporation, which can be contrasted with the classificatory noun incorporation.

In addition to verbs with incorporated nouns such as those illustrated above, there are rare examples of verbs that can be analyzed as consisting of a compound base plus a verbalizer. An example of this is illustrated in (34), where *yōka* ‘spot’ and *tsopa* ‘leaf’ are shown in (34a) and (34b), respectively, to be noun roots. In (34c) a base consisting of these two noun roots take the verbalizer *-ta*:

- | | | |
|------|---|----------------|
| 34a. | <i>i-yōka</i>
3M-spot.of | ‘its/his spot’ |
| b. | <i>u-tsopa</i>
3M-leaf.of | ‘its/his leaf’ |
| c. | <i>a-yōka-tsopa-ta</i>
1PL-spot-leaf.of-VBLZ | ‘We wrote...’ |

A verb with the structure of *yōka-tsopa-ta* would differ from verbs with incorporated nouns in that, in contrast to the latter, the former cannot be “unincorporated”. So, the root *-tsopa* in the verb *yōka-tsopa-ta* ‘to write’ cannot be “unincorporated” to form a construction such as the one below:

- | | | | |
|-----|---|------------------------------|-----------|
| 35. | <i>*nhi-yōka-ta-ru</i>
1SG-spot.of-VBLZ-3M.O | <i>u-tsopa</i>
3M-leaf.of | (I write) |
|-----|---|------------------------------|-----------|

Examples like (34c) would seem to require postulating a category of **compound verbs** that would differ from verbs with incorporated regular nouns in that in the compound noun there is no incorporated noun (i.e. a noun functioning as argument of a verb it occurs inside of). However, it is still NOT possible to discard the possibility that forms such *yōka-tsopa-ta* are actually lexicalized verbs. A more systematic investigation of this specific type of verbs still needs to be done in order to decide whether

yōka-tsopa-ta is an isolated example or whether there are other instances of verb forms that can be analyzed as compound verbs. The simplest structure a verb with incorporated regular nouns can have may be represented as in (36):

$$36. V \rightarrow \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \end{array} \right\} + N + ta$$

5.1.2.2 Verbs with Incorporated Classificatory Nouns

Verbs with incorporated classificatory nouns (ICN) are the types of verbs that incorporate the C(lassificatory) N(oun)s described in 4.1.1.2., particularly the CN₂s described in 4.1.1.2.2-4.1.1.2.3. In section 4.1.1.2.2, CN₂s were defined as the type of inalienable nouns that can recur with a classificatory function as part of a productive noun compound formation. ICNs occur productively incorporated into the verb in ways analogous to the way CN₂s occur productively as part of the productive noun compounds described in 4.2.1. In the following examples, *-ke*, *-pe*, and *-ã* are classificatory nouns that are incorporated into the verb:

37a. *a-txirãka-ke-ta-ru* ‘We opened a long, thin, flexible object’
 1PL-split-stick-VBLZ-3M.O

b. *nu-taka-pe-ta-ru* ‘I put the paste object.’
 1SG-put-pulp-VBLZ-3M.O

c. *u-pokĩka-ã-ta* ‘It floated in the water.’
 3M-leave-water-VBLZ

The simplest structure verbs with ICNs can have may be represented as in (38):

$$38. V \rightarrow \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \end{array} \right\} + \text{ICN} + ta$$

Furthermore, ICNs can be used with anaphorical-like functions insofar as they can also either keep a copy non-incorporated in the same clause or be used anaphorically to refer to a subset property of another nominal that occurs in the preceding discourse (within or outside the same clause).³ In the example in (39a) the CN₂ *-ke* occurs both incorporated and as part of the noun form expressing the notional object, namely *ãã-ke* ‘stick’; and, in the (39b), *-pe* also occurs both incorporated and as part of the noun form expressing the notional object, namely *komuru-pe* ‘manioc pulp’:

39a. *ata i-ye ãã-ke txirãka-ke-ta*
 1PL 3M-PROX plant-stick split-stick-VBLZ
 ‘We split open the stick.’

b. *ata komuru-pe usonãka-pe-ta-ka*
 1PL manioc-pulp.of dry-pulp-VBLZ-CAUS
 ‘We put the manioc pulp to dry.’

In (40) clauses (a’-a’’) occur in the same text, (a’) preceding (a’’) in the discourse. In (a’) the CN₂ *-pe* ‘pulp of’ occurs as part of the productive compound noun *komuru-pe* ‘soft/paste-like. In (a’’) the same *-pe* occur as an ICN in the verb base *aminhãka-pe-ta* ‘to carry something which is paste-like’, thus referring back ‘soft/paste-like manioc’ through its consistency property:

40a’. *ata makatxa-ka txa-ru i-ye komuru-pe...*
 1PL take.out-PRED AUX-3M.O M-DEM manioc-pulp.of
 ‘...(when it softens,) we take out the softened manioc (out of the water)...’

³ Notice, however, that the term ‘anaphor’ is here extended to included metonymy or other sort of relationships in which a reference is made to a property of an item in the preceding discourse, not to the item itself. Hence, the anaphor described here differs slightly from that expressed by pronominal forms and, thus, understandingly can be argued by others as being outside the domain of anaphor per se.

a'. ...*ata aminhãka-pe-ta txa-ru aiko-mokaru*
 1PL carry-pulp-VBLZ AUX-3M.OBJ house-GOAL
 '...we bring the softened one into the house.'

In (41a') the word *itoko-ru* 'field farm' is mentioned for the first time in a text. Two clauses later in the same text (41a'') is uttered, where CN₂ *xiti* 'earth.of' works as an ICN in the verb base *yotika-xiti-ta* 'burn-earth-VBLZ' to refer back (metaphorically) to the noun form *itokoru* 'field farm' which had been previously mentioned in (41a'):

41a'. *i-ye itoko-ru ata mitxi ata ÿãpataĩ-ka-ta...*
 M-DEM field.farm-UNPOSS AUX-3M.OBJ
 '...we set it (the field farm) on fire.'

a''. *ata yotika-xiti-ta txa-ru*
 1PL burn-earth.of-VBLZ AUX-3M.OBJ
 '...we set it (the field farm) on fire.'

The repetition of the same CN₂ incorporated and non-incorporated resembles the repetition that is characteristic of agreement markers. But, different from typical agreement markers, the repetition of the same classificatory noun in a clause is structurally optional, as shown by (40). Therefore, both the properties of "doubling" of ICNs and of its being used anaphorically distinguish verbs with incorporated CN₂s from verbs with incorporated regular nouns. If there is a possibility (still to be conclusively determined) that incorporated regular nouns may function as the grammatical object, no such possibility exists for CN₂s. This is the case because CN₂s cannot actually replace the object they modify. In the cases where a CN₂ is incorporated and the notional object it modifies is not overtly expressed in the clause as an external nominal expression (as in 40a'' and in 41a''), a pronominal marker coreferential with the nominal object is found in the verb. Although ICNs require a morphological description (as do incorporated regular

nouns), since they occur as part of a grammatical word, occupying a morphologically defined position class in the verb (as will be further described under in the next section), the interaction of incorporated CN₂s with other words inside and outside the same clause gives them a potential syntactic relevance that is worth of further investigation.

5.2. The Morphology of Non-Descriptive Verbs

In this section, standard intransitive and transitive verbs (i.e. those that are not descriptive verbs) are grouped under the umbrella **non-descriptive** verbs. Descriptive verbs will continue to be called **descriptive** verbs. Non-descriptive and descriptive verbs are described separately because their morphology follows slightly different patterns and, also, because only a small percentage of the rich morphology attested in verbs applies to descriptive verbs.

In the following subsections it will be clear that the verb morphology (like the noun morphology) is organized in what I have been informally calling “slots” which can consist of one or more morphemes with a specific position class distribution. Before getting into the descriptive presentation proper, the following paragraphs discuss some issues relevant to a morphological analysis of the verb structure.

The identification of position classes in a language with a rich morphology is no trivial matter. The major problem is to obtain the right examples that show that a specific morpheme precedes or follows another when there are just too many possible combinations to consider. Ideally, we would like to find textual examples for each combination; however, the rare types of combinations that make sense but which the speakers never or rarely use may be extremely difficult to find in texts. One alternative is

to try to elicit such combinations. One of the problems with elicitation is the lack of contexts necessary to make any sense out of combinations performing subtle functions, in which case it is not always obvious when some unacceptable combinations result from ungrammaticality or pure pragmatics. In the case of Apurinã, the problem is worsened by the fact that the language still has no written literature and the speakers have not gone through the years of school training where they might develop ways to play with the language structure in its written form in a manner useful to find clues supporting one or another analysis.

Standard criteria frequently used to distinguish between distinct position classes include (i) **rigid surface ordering** of bound forms and (ii) **complementary distribution** among the elements with identical ordering (see for example Inkelas 1993). As the data presented in the following sections will show, criteria (i) and (ii) can be used to argue for the need to make use of an abstract construal such as position class in order to properly analyze the Apurinã verb morphology.

5.2.1 Simplex Verb Morphology

A **simplex verb** consists of a lexical base plus the morphological forms that are inherently verbal, that is, the formatives that can occur only with verbs. In the previous sections, we have seen that a verb form can consist minimally of a root that can stand by itself as a verb (e.g., (4)), of a noun base plus the verbalizer *-ta* (e.g., (5b)), or of a simple (e.g., (6)) or compound base (e.g., (31b) and (32b)) that also requires the presence of the verbalizer *-ta* in order to function as a verb. The minimal structures for these verbs were represented above as the W(ord)F(ormation)R(ule)s in (7), (30), (36), and (38), which are all combined in the WFR in (42) —to be further revised later:

$$42. V \rightarrow \left\{ \begin{array}{l} \text{FRt} + \left(\left(\left\{ \begin{array}{c} \text{N} \\ \text{CN} \end{array} \right\} \right) + \text{VBLZ} \right) \\ \left\{ \begin{array}{c} \text{BRt} \\ \text{N} \end{array} \right\} + \left(\left\{ \begin{array}{c} \text{N} \\ \text{CN} \end{array} \right\} \right) + \text{VBLZ} \end{array} \right\}, \text{ e.g., (4), (5b), and (31b)}$$

Of all the possible forms that follow from the general WFR in (42) the only verb produced by this rule that has not been illustrated so far is one where an inherently verbal free root (i.e., a free root which can stand just by itself as a verb, see introductory paragraphs under 5.1.1) takes the verbalizer *-ta*. An example of this would be *arika-ta* ‘to set (something) on fire’. As shown in (4), *arika* is a free verb root and, as such, it does not require the presence of the verbalizer *-ta*. No meaning property whatsoever is added to a verb by the suffixation of *-ta* to a free verb base because, aside from attaching to nouns to form verbs, *-ta* is also a specialized morphological structural marker which, as will be shown under 5.2.2.2, carries no meaning when used purely to mark a position class in the verb in the circumstances where such a position class needs to be filled.

For expository purposes as well as for the descriptive simplicity that arises from it, I will distinguish various verb bases on the basis of three properties: (i) whether they include any grammatical formatives or solely lexical ones, (ii) the class of grammatical formatives that occur inside each base, and (iii) the class of grammatical formatives that attach to each base. For example, hereafter I will use the term **(Verb) Base_∅** as the name for the minimal lexical base (i.e. consisting solely of lexical formatives) to which verbal grammatical formatives can attach. So, base_∅ can be motivated as a verb base on the basis of its exclusive lexical composition, which by itself implies the absence of any grammatical formatives, and on the basis of the specific class of bound formatives (to be specified in the next subsection) that can attach to it. In applying the label base_∅, the

following notations in (43) can be used to synthesize the structures just given in (42).

Following the terminology introduced earlier, in the notations in (43) a FRt is a free root that can stand by itself as a verb; VBLZ is the verbalizer *-ta*; base_∅ is a unit that can be realized as a bound root (BRt) or a free verbal root or a noun, all preceding a structurally optional incorporated noun (N) or incorporated classificatory noun:⁴

$$43a. V \rightarrow \left\{ \begin{array}{l} \text{FRt} \\ \text{Base}_{\emptyset} + \text{VBLZ} \end{array} \right\}$$

$$b. \text{Base}_{\emptyset} \rightarrow \left\{ \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \\ \text{N} \end{array} \right\} + \left(\left\{ \begin{array}{l} \text{N} \\ \text{CN} \end{array} \right\} \right) \right\}$$

What the WFRs in (43) do is to abstract away from the property that the forms produced by (43b) have of consisting solely of lexical formatives, of serving as the host base for the affixation of the bound formatives presented in the next subsection. I call the result of such an abstraction “base_∅” for reasons that will become obvious in the next subsections. The need to appeal to this sort of specialized unit follows from the higher complexity of the verbal morphological structure. Different from nouns, which were analyzed in terms of two bases only (i.e. noun stems and nouns) in the previous chapter, a series of bases needs to be appealed to in order to account for the morphological factors involving the structure and behavior of bound formatives associated with non-descriptive verbs. Most of the remaining subsections of this chapter will be about how the various bound formatives can attach to various other bases to be motivated below in the process of constructing the maximum structure a verb can have, as well as about what the

⁴ In principle, N in (43b), wherever it occurs, can be a simple or a compound noun. However, since I still need to confirm this analysis with additional data, I will restrict N to simple nouns in (43b).

functions of these formatives are, and about how they can be shown to cluster together in different morphological classes. The sequence of presentation of each formative (or set of formatives) in the following subsections, unless otherwise noted, follows their sequential ordering of occurrence inside the verb.

5.2.1.1 Formatives Meaning, Function, and Distribution within Verb Base₁: Class₁

Class₁ formatives are those consisting of the bound verbal formatives that attach to base₀ to form **(Verb) Base₁** and that require the presence of the verbalizer *-ta*.

Formatives from class₁ are in a dependency relation with *-ta*, and that is why (in all the examples given under this section) every time there is a formative of class₁ in a verb base there will also be the verbalizer *-ta* closing that base. For example, while a verb form such as *nhi-yana-poko-ta* (1SG-walk-DISTR-VBLZ) ‘I go for a walk’ exists, a form such as **nhi-yana-poko* does NOT because *-poko* is a formative of class₁ and thus requires the presence of *-ta*. Further illustration of this dependency relation can be seen as each of the formatives of class₁ is presented in the following subsections, as well as in 5.2.1.1.14 —where *-ta* is described. Since class₁ formatives are defined as the set of bound verbal formatives that attach to base₀ to form base₁ and which require the presence of the verbalizer *-ta*, it follows then that *-ta* is not a class₁ formative. In fact, *-ta* will be shown in the next subsection to belong to the a second class of bound formatives.

Base₁ is then the result of the combination of base₀ plus class₁ formatives. The presentation of these formatives will be given in the following sequence: The grammatical function and/or meaning which each formative of class₁ has will be described first; then the evidence for position classes is presented next, followed by the overall distribution of these formatives in the verb. In many cases the meaning and/or

function of the formatives will be described superficially in this chapter and, in such cases, I will return to them in chapters 8-10 in the required syntactic contexts. However, as mentioned earlier, even if the meaning and/or function of a formative turns out to be better understood in conjunction with phrasal or clausal considerations, the assumption held in this work is that their place inside the grammatical word needs to obey morphological parsing principles as well and, as such, requires a morphological description.

5.2.1.1.1 *Meaning and/or Function of Formatives within Class₁*

Meaning and function are different things in the sense that, for example, a causative marker can mean ‘to cause’, so that a form such as V-causative will mean ‘cause to V’, and, at the same time, this same causative marker can also have the function of transitivizing an intransitive verb. Also, meaning and functions are not necessary concurrent properties of a morpheme (see criteria for defining a morpheme in chapter 3, under 3.3.1), since, for example, a morpheme can have a clear function (e.g., verbalizer, nominalizer etc.) but no semantically definable meaning —except for very abstract ones which, in such cases, are precisely what I call “functions” rather than “meaning”.

5.2.1.1.1.1 *Distributive Event/Directional Marking: -poko*

The **distributive action marker** *-poko* attaches to base₀ to indicate that the participants of an event move in one direction or another, as in (44a), in which case it works as a sort of a **directional marker**, or to mark an event as consisting of distributed actions, i.e. as discontinuous or intermittent actions, as in (44b-c):

- 44a. *n-aya-poko-ta* (R:N) 'I was hunting around.'
 1SG-hunt-DISTR-VBLZ
- b. *u-muteka-poko-ta-pe* 'He ran away, stopping here and
 3M-run-DISTR-VBLZ-PFTV there.'
- c. *u-nuta-poko-ta-i* (M:51) 'He is searching around for you.'
 3M-search-DISTR-VBLZ-2O

5.2.1.1.1.2 Causative Marking: *-ka₂*⁵

The **causative marker** *-ka₂* is used as a valence-increasing causative morpheme that can occur with intransitive or transitive verbs, as shown by the examples in (45), where *nhipokota* is the intransitive verb for 'to eat' and *nhika* is the transitive verb for 'to eat':

- 45a. *nhi-nhipoko-ka₁-ka₂-ta-ru* (M) 'I made him do eating.'
 1SG-eat-INTENS-CAUS-VBLZ-3M.O
- b. *nhi-nhika-nanu-ka₂-ta-ru* *yapa* 'I am making him eat capibara.'
 1SG-eat-PROG-CAUS-VBLZ-3M.O capibara

This and other valence-increasing morphemes are described in syntactic contexts in chapter 9, under 9.3.1.

5.2.1.1.1.3 Intransitivizer Marking: *-rewa*

The **intransitivizer** *-rewa* attaches to transitive verbs making them intransitives. So, the verbs in (46) are simple transitive verbs which inflect for subject and object markers:

⁵ This morpheme has only been attested in the Japiim village (Paciá river).

- 46a. *a-etuka-ta-ru* ‘We saw it.’
 1PL-see-VBLZ-3M.O
- c. *n-atama-ta-i* ‘I look at you.’
 1SG-look-VBLZ-1O
- b. *u-suka-no* ‘He gave me (something).’
 3M-give-1SG.O

In (47), on the other hand, the same verbs given in (46) take the intransitivizer marker, making the verbs intransitive:

- 47a. *a-etuka-rewa-ta* ‘We did some seeing.’
 1PL-see-INTR-VBLZ
- b. *u-suka-rewa-ta* ‘He did selling.’
 3M-give-INTR-VLBZ
- c. *n-atama-rawa-ta* (3:15) ‘I did some looking.’
 1SG-look-INTR-VBLZ

To add, for example, any object person markers to any of the verb forms in (47) would yield ungrammatical forms. Notice, also, that, as can be seen from (47c), in some cases the intransitivizer adds some meaning to the verb it occurs with, producing the verb meaning ‘to sell’ from an intransivization of the verb meaning ‘to give’. There are also rare instances in which *-rewa* occurs in an intransitive verb, in which case no apparent meaning or function is associated with *-rewa*, as illustrated in (48):

48. *∅-umaka-poko-rewa-ta-na* ‘They are sleeping around.’
 3M-sleep-DISTR-INTR-VBLZ-3PL

5.2.1.1.1.4 Augmentative Marking: *-powa*

The **augmentative marker** *-powa* is used with intransitive verbs to augment the size of the participant expressed as the notional subject, and with transitive verbs to augment the quantity of what is expressed as the notional object of the verb *-powa* occurs within, as illustrated in (49):⁶

- 49a. *u-muteka-powa-ta* (M) 'The fat one ran.'
3M-run-AUGM-VBLZ
- b. *i-nhipoko-powa-ta* 'The big one did eating.'
3M-eat-AUGM-VBLZ
- c. *nhi-nhika-powa-ta-ru* 'I ate a lot of it.'
1SG-eat-big-VBLZ-3M.O

Notice that, as (49) illustrates, while *-powa* modifies the meaning of the notional subject of intransitive verbs, it modifies the meaning of the predication when used with transitive verbs.

5.2.1.1.1.5 Transitive Causative Marking: *-kūtaka*

The **transitive causative marker** *-kūtaka* is a valence increasing morpheme that is restricted to transitive verbs, as illustrated in (50):

⁶ I have recently learned that in the Fortaleza village (Marahā area) *-powa* is used with intransitive verbs with the same function as when it is used with transitive ones in the Japiim village (Paciá River), that is, modifying the predicate. Speakers of the Fortaleza village do not make use of *-powa* to modify the core argument of intransitive verbs.

- 50a. *nh-nhika-kūtaka-nanu-ta-pe* (3:11,22-23) ‘I already made (her) eat (it).’
1SG-eat-TR.CAUS-PROG-VBLZ-PFTV
- b. *n-atama-kūtaka-ta* ‘I made (him) look (at it).’
1SG-look-TR.CAUS- VBLZ
- c. *n-oka-kūtaka-ta* ‘I made (him) kill (it).’
1SG-kill-T.CAUS- VBLZ

This and other causative markers are described in syntactic contexts in chapter 9, in 9.3.1.1.

5.2.1.1.1.6 Factuality Marking: *-ã₂*⁷

As the label suggests, the morpheme constituting the **factuality marking** position class, i.e. *-ã*, is an evidential marker used to express a relatively strong degree of certainty of the proposition expressed by the clause, as illustrated in (51):

- 51a. *Ø-apo-ã₂-ka₁-ta* (Artur:Class) ‘He really arrived.’
3M-arrive-FACT-INTENS-VBLZ
- b. *u-pitxe-ã₂-ka₁-ta* (R:N) ‘All of it really grew.’
3M-grow-FACT-INTENS-VLBZ
- c. *Ø-atama-ã₂-ka₁-ta* (R:N) ‘He really tried it.’
3M-look-FACT-INTENS-VBLZ

5.2.1.1.1.7 Collective Action Marking: *-pirĩka*

The **collective action marker** *-pirĩka* is used to mark an event as involving various participants expressed as the notional subject of the verb, as the examples in (52) are illustrate:

⁷ In the speech variety of the Fortaleza village, this morpheme marks a stronger degree of “factuality” rather than simply inference.

- 52a. *hamo a-nhipoko-pirika-ta* 'Let's all eat.'
 HORT 3M-eat-COLTV-VBLZ
- b. *hamo a-ã-pirika-ta-ru* 'Let's all drink together.'
 HORT 1PL-run-COLTV-VBLZ-3M.O
- c. *hamo a-serena-pirika-ta* 'Let's all dance together.'
 HORT 1PL-dance-COLTV-VBLZ

The collective action marker is not as productive as its logical potential would seem to indicate. In fact, this marker is only used with verbs expressing events which Apurinã traditionally do collectively. So, the example in (53) is not possible because 'beating jaguars' is not among the more usual or traditional things Apurinã people do together:

53. **a-yarita-pirika-ta-ru* *hãkiti* (We beat the jaguar.)
 1PL-beat-COLTV-VBLZ-3MO jaguar

5.2.1.1.1.8 Progressive Marking: *-nanu*

The **progressive marker** *-nanu* is used to mark an event in progression, as the examples in (54) illustrate:

- 54a. *p-irika-nanu-ta* (M:4) 'You're (often) falling down.'
 2SG-fall-PROG-VBLZ
- b. *o-nhika-nanu-ta-ru* (M:13) 'She is eating it.'
 3F-eat-PROG-VBLZ-3M.O
- c. *n-atama-nanu-ta-ru* 'I'm looking at it/him.'
 1SG-look-PROG-VBLZ-3M.O

The progressive as well as other aspect markers are described in syntactic contexts in chapter 9, under 9.4.2.

5.2.1.1.1.9 Anti-Perfective/“Almost” Marking: *-wari*

The “almost”/anti-perfective marker *-wari* means precisely what its label says: It marks an event as something that almost took place, but which did not. It is in this sense that it behaves as a sort of anti-perfective marker, as illustrated in (75):

- 55a. *nhi-nhika-wari-ta-ru* (M) ‘I almost ate it.’
1SG-eat-ALMOST-VBLZ-3M.O
- b. *kaikiripi akatsa-wari-ta-no* ‘The “jararaca” snake almost bit me.’
snake bite-ALMOST-VBLZ-1SG.O

The anti-perfective marker *-wari* is described in syntactic contexts in chapter 9, in 9.4.2.2.5, along with to other aspect markers. Akhenvald (p.c.) reports that Kuteva (1998) uses the **term action narrowly averted** to refer to a (perhaps) related marker in other language(s) that means that something ‘was on the verge of V-ing but did not V’.

5.2.1.1.1.10 Random Marking: *-ãpo*

The **random marker** *-ãpo* is used to mark events that take place randomly or sort of aimlessly, as the examples in (56) are illustrative of:

- 56a. *nhi-nhika-ãpo-ta-ru* (M) ‘I go around eating aimlessly.’
1SG-eat-RANDOM-VBLZ-3M.O
- b. *hãkiti akatsa-ãpo-ta-ru* ‘The jaguar ran around biting it/him aimlessly’
jaguar bite-RANDOM-VBLZ-3M.O

-ãpo can be conceived as a “anti-directional”, since it specifies that an action or process occurs without any systematic direction (or goal, for that matter).

5.2.1.1.11 Intensifier Marking: *-ka₁*

The **intensifier marker** *-ka₁* is used to underscore the intensity with which an event takes place, as illustrated in (57):

- 57a. *i-nhipoko-ka₁-ta* (M:7) ‘He ate well.’
3M-eat-INTENS-VBLZ
- b. *u-muteka-ka₁-ta* ‘He runs in a hurry.’
3M-run-INTENS-VLBZ
- c. *nh-irika-ka₁-ta* ‘I fell down at once.’
1SG-fall-INTENS-VBLZ

5.2.1.1.12 “Desiderative”/ “Want” Marking: *-ene*

The **“desiderative”/“want” marker** *-ene* is used to mark the event/state expressed by a verb as a desire of the participant expressed by the notional subject of this verb, as the examples in (58) illustrate:

- 58a. *nhi-nhika-ene-ta-ru* ‘I wanted to eat it.’
1SG-eat-DESID-VBLZ-3M.O
- b. *hãkiti akatsa-ene-ta-ru* ‘The jaguar wanted to bite him.’
jaguar bite-DESID-VBLZ-3M.O

The term “desiderative” is used here with quotes to highlight the fact that it differs from what is also called desiderative in other languages where such a marker would appear to be restricted to the sense of desire of the speaker, rather than being restricted to the sense of desire of whatever participant is expressed by the notional subject of the verb. I should also note that, although *-ene* can be used to express the sense of desire of a discourse participant other than the speaker, it is nevertheless the case that this marker is more often used with first person subjects.

5.2.1.1.1.13 Reported Speech/Hearsay Marking: *-pira*

As the label suggests, the **reported speech/hearsay marker** *-pira* can be used to mark the information expressed in the verb as something that is being talked about in the community without anyone having witnessed it, as the examples in (59) illustrate:

- 59a. *ata kema-pira-ta-ru* ‘We heard rumors.’
1PL listen-RS-VBLZ-3M.O
- b. *Ø-atama-pira-ta* ‘He went to see if it was true or not.’
3M-look-RS-VBLZ
- c. *u-muteka-pira-ta* ‘The news spread around.’
3M-run-RS-VBLZ

I intentionally say “can be used” rather than “is used” above, while specifying the meaning of *-pira*, because both reported speech and hearsay do not appear to be a completely specialized meaning of this morpheme. This what is illustrated by (59c), where the form *-pira* is interpreted is an incorporated form meaning ‘news/speech’.

5.2.1.1.2 Status and Position Classes for Formatives of Class₁

Class₁ suffixes can only occur with verbs and, in this manner, they behave as typical suffixes —differently, as will see later, from the special class of bound formatives described in chapter 7. In terms of their distribution, there are two properties that need to be described for class₁ formatives: One is how they cluster in a class of formatives and the other is how each individual suffix is positioned within such a class. On the first property, class₁ formatives, as noticeable in the examples presented above, not only follow the base₀ but also require the presence of the verbalizer *-ta*. Thus, a defining distributional characteristic of class₁ formatives is that they all require the presence of the verbalizer *-ta* in order to occur in a verb. To illustrate this, we can contrast the examples

in (60) to those in (61). In the example in (60a) *n-* ‘1SG’ attaches to the FRt form *atama* ‘look’ and no verbalizer is required. In (60b-n), however, the examples are all ungrammatical due to the absence of the verbalizer *-ta*:

- | | |
|-------------------------------------|---------------------------|
| 60a. <i>n-atama</i> | I looked... |
| b. * <i>n-atama-poko</i> | (I looked around...) |
| c. * <i>n-atama-rewa</i> | (I did looking.) |
| d. * <i>n-atama-ã₂</i> | I really looked... |
| e. * <i>n-atama-ka₁</i> | (I really looked...) |
| f. * <i>n-atama-powa</i> | (I looked a lot...) |
| g. * <i>n-atama-ta-kūtaka</i> | (I made look...) |
| h. * <i>n-atama-nanu</i> | (I am looking...) |
| i. * <i>n-atama-ãpo</i> | (I go looking...) |
| j. * <i>n-atama-wari</i> | (I almost look...) |
| k. * <i>n-atama-ene</i> | (I wanted to look...) |
| l. * <i>a-atama-pirīka</i> | (We look all together...) |
| m. * <i>n-atama-pira</i> | (I seem to have heard...) |
| n. * <i>n-atama-ka₂</i> | (I made look...) |
| 61a. <i>n-atama-ta</i> | ‘I look...’ |
| b. <i>n-atama-poko-ta</i> | ‘I looked around.’ |
| c. <i>n-atama-rewa-ta</i> | ‘I did looking.’ |
| d. <i>n-atama-ã₂-ta</i> | ‘I really looked...’ |
| e. <i>n-atama-ka₁-ta</i> | ‘I really looked...’ |
| f. <i>n-atama-powa-ta</i> | ‘I looked a lot...’ |

- g. *n-atama-kūtaka-ta* ‘I made look...’
 h. *n-atama-nanu-ta* ‘I am looking...’
 i. *n-atama-āpo-ta* ‘I go looking...’
 j. *n-atama-wari-ta* ‘I almost looked...’
 k. *n-atama-ene-ta* ‘I wanted to looked...’
 l. *a-atama-pirīka-ta* ‘We looked all together...’
 m. *n-atama-pira-ta* ‘I seem to have looked...’
 n. *n-atama-ka₂-ta* ‘I made look...’

The next examples in (62) are given to simply demonstrate that class₁ suffixes cannot follow the verbalizer *-ta*:

- 62a. **n-atama-ta-poko* (I looked around...)
 b. **n-atama-ta-rewa* (I did looking.)
 c. **n-atama-ta-ā₂* I really look...)
 d. **n-atama-ta-ka₁* (I really look...)
 e. **n-atama-ta-powa* (I looked a lot...)
 f. **n-atama-ta-kūtaka* (I made look...)
 g. **n-atama-ta-nanu* (I am looking...)
 h. **n-atama-ta-āpo* (I go looking...)
 i. **n-atama-ta-wari* (I almost looked...)
 j. **n-atama-ta-ene* (I wanted to look...)
 k. **a-atama-ta-pirīka* (We looked all together...)
 l. **n-atama-ta-pira* (I seem to have looked...)

m. **n-atama-ta-ka*₂ (I made look...)

Now that we have seen that class₁ formatives attach to base₀ (to form base₁), that base₀ requires the presence of one (or more) class₁ formative(s) to become base₁, and, finally, that part of the definition of class₁ formatives is that they require the presence of the verbalizer *-ta*, we can revise the verb structure as follows in (63):⁸

63a. $V \rightarrow \text{Base}_1$

b. $\text{Base}_1 \rightarrow \left\{ \begin{array}{l} \text{FRt} \\ \text{Base}_0 + \text{Class}_1 \end{array} \right\}$, where class₁ formatives are in discontinuous dependency with *-ta*.

c. $\text{Base}_0 \rightarrow \left\{ \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \\ \text{N} \end{array} \right\} + \left(\left\{ \begin{array}{l} \text{N} \\ \text{CN} \end{array} \right\} \right) \right\}$

The second distributional property consists of establishing the position class for each class₁ formative. The examples in (64-65) can be contrasted to demonstrate that class₁ formatives are ordered not only collectively in relation to the verb base and the verbalizer *-ta*, but also individually in relation to each other:

- 64a. *n-atama-poko-rewa-ta* 'I searched around...'
 b. *n-atama-rewa-ã*₂*-ta* 'I really did looking.'
 c. *n-atama-ã*₂*-ka*₁*-ta* 'I really tried (it)...'
 d. *n-atama-ka*₁*-powa-ta* 'I really looked a lot...'
 e. ...

⁸ As I have shown elsewhere (Facundes 1997), further generalization is possible if we consider that Base₀ and Base₁ follow identical morphological behavior by requiring the presence of the verbalizer *-ta*, thus motivating the inclusion of both units into a single morphological base. In the interest of avoiding highly abstract analyses of the data in this

- 65a. **n-atama-rewa-poko-ta* (I looked around.)
 b. **n-atama-ã₂-rewa-ta* (I really did looking.)
 c. **n-atama-ka₁-ã₂-ta* (I really looked...)
 d. **n-atama-powa-ka₁-ta* (I really looked a lot...)
 e. ...

The position classes for class₁ formatives are given below in Table 3. For the present purposes, the most relevant information to be extracted from Table 3 is the “slot” which each bound formative occupies (i.e. its position within class₁ formatives), each one linearly organized in relation to the others, and the fact that some restrictions apply as to the class of the verb base which each class₁ formative can occur with. The class of the verb base is one of the constraints determining which formatives can co-occur in the same verb base. Other types of constraints are motivated by whether semantic (or other) restrictions apply to some formatives disallowing them to co-occur in the same verb base. I will not attempt to describe these constraints in this work. A thoroughly complete presentation of all the logically possible combinations of the 13 formatives of class₁ would obviously yield many more forms than (for practical reasons) could be illustrated

work, I chose to present the analysis given above.

Table 3: Suffixes of Class₁ and their Position Classes⁹

POSITION CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13
MEANING/ FUNCTION: FORMS	DISTR <i>-poko</i>	CAUS <i>-ka₂</i>	INTR <i>-rewa</i>	AUGM <i>-powa</i>	T.CAUS <i>-kū̃taka</i>	FACT <i>-ā₂</i>	COLTV <i>-pirīka</i>	PROG <i>-nanu</i>	ALMOST <i>-wari</i>	RANDOM <i>-āpo</i>	INTENS <i>-ka₁</i>	DESID <i>-ene</i>	RS <i>-pira</i>
TRANSIT.	+	+	#	+	+	+	+	+	+	+	+	+	+
INTRANS.	#	+	+	+	+	+	+	*	+	+	+	+	+

⁹ “+” means that the structure is grammatical, “*” means that the structure is ungrammatical, and “#” that it is grammatical but with a different meaning/function.

here —or, for that matter, many more forms than any Apurinã speaker is likely to have ever uttered or heard.¹⁰ Also for practical reasons, I will refrain from exemplifying all the many combinations that are possible.

The examples in (66) justify the position classes in Table 3, where the question mark in (66f,g,k) indicates that I have no unambiguous data to illustrate those specific cases and that, hence, require further verification with native speakers:

- 66a. *Ø-umaka-poko-rewa-ta-na* ‘They are sleeping around.’
3-sleep-DISTR-INTR-VBLZ-3PL
- b. *Ø-umaka-poko-ka₂-ta-ro* ‘He ordered her to sleep here and there.’
3M-sleep-DISTR-CAUS-VBLZ-3F.O
- c. *nhi-nhipoko-ka₂-rewa-ta* ‘I gave an order for eating.’
1SG-eat-CAUS-INTR-VBLZ
- d. *Ø-umaka-rewa-powa-ta-na* ‘They slept for a long while.’
3-sleep-INTR-AUGM-VBLZ-3PL
- e. *pi-nhika-powa-kutaka-ta-no* ‘You made me eat a lot...’
2SG-eat-AUGM-TR.CAUS-VBLZ-1SG.O
- f. *?i-nhika-kutaka-ã₂-ta-ro* ‘He really made her eat...’
3M-eat-TR.CAUS-FACT-VBLZ-3F.O
- g. *?u-nhipoko-ã₂-pirĩka-ta-na* ‘They really ate all together.’
3-eat-FACT-COLTV-VBLZ-3PL
- h. *nu-suka-pirĩka-nanu-ta* ‘I’m selling over and over.’
1SG-give-COLTV-PROGR-VBLZ
- i. *nu-muteka-nanu-wari-ãpo-ta* ‘I left almost running.’
1SG-run-PROGR-ALMOST-RANDOM-VBLZ
- j. *nhi-muteka-rewa-powa-ãpo-ka₁-ta* ‘I really left running aimlessly.’
1SG-run-INTR-AUGM-RANDOM-INTENS-VBLZ

¹⁰ Although I will not try to explain all the restrictions that apply to the possible combinations of class₁ formatives in this work, this is, however, a desirable goal, since it may reveal certain structural constraints (in content or in form) which may be part of the morphological organization of the language.

- k. *no-muteka-ka₁-ene-ta* ‘I really wanted to run away.’
 1SG-run-INTENS-DESID-VBLZ
- l. *i-nhipoko-ene-pira-ta* ‘I heard that he wanted to eat.’
 1SG-eat-DESID-RS-VBLZ

5.2.1.2 Formatives Function and Distribution within Verb Base₂: Class₂

Class₂ consists of the formatives that attach to base₁ to form base₂. Formatives of class₂ are similar to formatives of class₁ in that they are also exclusive verbal morphemes; but they are different from class₁ formatives in that they do not require the presence of the verbalizer *-ta* preceding them. That is, the formatives from class₂ formatives are not in a dependency relation with the verbalizer *-ta*. The properties will be illustrated in the next subsections, each of which describes the functions and/or meanings of the class₂ formatives, followed by the evidence for the position classes.

5.2.1.2.1 *Meaning and/or Function of Formatives within Class₂*

The following subsections describe the meaning and/or function for each of the formatives that are part of class₂.

5.2.1.2.1.1 **Verbalizer Marking: *-ta***

The **verbalizer** *-ta* attaches to base₀ (i.e. free roots, bound roots, or nouns, either of them followed or not by an incorporated regular/classificatory noun) to yield another verb base, here called base₁. All examples from (44) to (45) illustrate the verbalizer *-ta*. While no apparent meaning can be associated with *-ta*, its function has been shown in (5) to be that of a verbalizer. However, as (67-68) show, *-ta* can also occur with bases that themselves are already verbs:

- 67a. *n-atama-i* 'I looked at you'
1SG-look-2O
- b. *n-atama-ta-i* 'I looked at you'
1SG-look-VBLZ-2O
- 68a. *u-muteka* 'He ran.'
3M-run
- b. *u-muteka-ta* 'He ran.'
3M-run-VBLZ

Thus, in terms of the concepts introduced above, a more general function can be associated with *-ta*, namely that of forming $base_{1S}$, that is, the bases which formatives of $class_2$ can attach to. Moreover, since $class_2$ is defined as consisting of formatives that attach to $base_{\emptyset}$, and since *-ta* also attaches to $base_{\emptyset}$, it naturally follows that *-ta* is a $class_2$ formative as well.

5.2.1.2.1.2 Hypothetical Marking: $-\tilde{a}_3$

The **hypothetical** marker $-\tilde{a}_3$ is used when the speaker postulates a hypothetical situation, for example, while making suppositions, hypothetical considerations or the like.

The examples in (69) illustrate some uses of this marker:

- 69a. *nhi-nhipoko-ta- \tilde{a}_3 -ka₄* 'if I had done the eating...
1SG-eat-VBLZ-HYPOTH-PRED
- b. *u-kori- \tilde{a}_3 -ka₄* 'If he had died...'
3M-die-HYPOTH-PRED
- c. \emptyset -*umaka- \tilde{a}_3 -ka₄* 'If he had slept...'
3M-sleep-HYPOTH-PRED

5.2.1.2.1.3 Imminent Marking: *-napano*

The imminent marker *-napano* is used to mark an event as being about to start. I will return to this marker in chapter 9, in 9.4.2.2.4, where it will be described along with other aspectual markers. The examples in (70) are illustrative of this marker:

- 70a. *nhi-nhipoko-ta-napano-ka₄* ‘I’m about to start eating.’
1SG-eat-VBLZ-IMMIN-PRED
- b. *n-umaka-napano-ka₄* ‘I’m about to sleep.’
1SG-sleep-IMMIN-PRED
- c. *u-muteka-napano-ka₄* ‘He’s about to run.’
3M-run-IMMIN-PRED

5.2.1.2.1.4 Causative Marking: *-ka₃*

The **causative marker** *-ka₃* is functionally similar to the class₁ causative marker *-ka₂* described in 5.2.1.1.1.2, but it differs in its position within the verb in being a class₂ formative. *-ka₃* increases the valence of a verb and adds the meaning of causation, as the examples in (71) illustrate. I will return to discuss causative construction in syntactic contexts in chapter 9, in 9.3.1.1.

- 71a. *nu-muteka-ka₃-ru* ‘I made him run.’
1SG-run-CAUS-3M.O
- b. *nhi-nhika-ka₃-ru* *yapa* ‘I made him eat capybara.’
1SG-eat-CAUS-3M.O capybara

5.2.1.2.1.5 Habitual Marking: *-pi*

The **habitual marker** *-pi* is used to mark habitual aspect, that is, events that happen with a reasonable frequency. This aspect marker will be further described in chapter 9, in 9.4.2.2.3. The examples in (72) are illustrative of this aspectual marker:

- 72a. *owa txita-pi-ka₄* ‘She is always fighting.’
she fight-HAB-PRED
- b. *uwa nhipoko-ta-pi-ka₄* ‘He is always eating.’
he eat-VBLZ-HAB-PRED

5.2.1.2.1.6 Reciprocal Marking: *-kaka*

The **reciprocal marker** *-kaka* attaches to a verb base to mark an event where both participants act upon each other, as the examples in (73) are illustrative of:

- 73a. *ata atama-ta-kaka* ‘We look at each other.’
we look-VBLZ-RECIPR
- b. *ata txita-kaka* ‘We argued with each other.’
we argue-RECIPR

-kaka is further described as the marker of a valence-decreasing operation in chapter 9, in 9.3.2.3.

5.2.1.2.2 *Status and Position Classes for Formatives of Class₂*

As mentioned earlier, class₂ formatives are like class₁ formatives insofar as both can only occur with verb forms, as the examples in (74) illustrate:

- 74a. **suto-ã₃* (hypothetical woman)
woman-HYPOTH

- b. **suto-napano-ka*₃ (about to (be a) woman)
 woman-IMMIN-PRED
- c. **suto-ka*₃ (cause to woman)
 woman-CAUS
- d. **suto-pi-ka*₄ (always woman)
 woman-HAB-PRED
- e. **suto-putu-ka*₄ (really woman)
 woman-EMPH-PRED

However, in contrast to class₁, class₂ forms do not require the presence of the verbalizer, as seen in (75), where parentheses indicate that the formative is optional in that example.

These examples show that when the verbalizer *-ta* occurs with class₂ formatives, they follow *-ta*:

- 75a. *nhi-nhika* -(*ta*)-*ã*₃-*ka*₄... 'I ate...'
 1SG-eat-VBLZ-HYPOTH-PRED
- b. *nhi-nhika*-(*ta*)-*ã*₂-*ka*₄... 'If I ate...'
 1SG-eat-VBLZ-HYPOTH-PRED
- c. *nhi-nhika*-(*ta*)-*napano-ka*₄... 'I'm about to eat...'
 1SG-eat-VBLZ-IMMIN-PRED
- d. *nhi-nhika*-(*ta*)-*ka*₃... 'I made eat...'
 1SG-eat-VBLZ-CAUS
- e. *nhi-nhika*-(*ta*)-*pi-ka*₄... 'I always eat...'
 1SG-eat-VBLZ-HAB-PRED
- f. *nhi-nhika*-(*ta*)-*putu-ka*₄... 'I really ate...'
 1SG-eat-VBLZ-EMPH-PRED

In addition, unlike class₁, class₂ formatives cannot precede the verbalizer *-ta*, as shown by the examples in (76):

- 76a. **nhī-nhika-ã₃-ta* ... (If I ate...)
 1SG-eat-HYPOTH-VBLZ
- b. **nhī-nhika-napano-ta*... (I started to eat...)
 1SG-eat-IMMIN-VBLZ
- c. **nhī-nhika-ka₂-ta* ... (I made eat...)
 1SG-eat-CAUS-VBLZ
- d. **nhī-nhika-pi-ta* ... (I always eat...)
 1SG-eat-HAB-VBLZ
- e. **nhī-nhika-putu-ta* ... (I really ate...)
 1SG-eat-EMPH-VBLZ

Now that we have seen that class₂ suffixes attach to base₁ (to form base₂), and that they do not require the verbalizer *-ta*, we can revise the verb structure given in (63) as in (77):

- 77a. $V \rightarrow \text{Base}_2$
- b. $\text{Base}_2 \rightarrow \left\{ \begin{array}{l} \text{FRt} \\ \text{Base}_1 + \text{Class}_2 \end{array} \right\}$
- c. $\text{Base}_1 \rightarrow \left\{ \begin{array}{l} \text{FRt} \\ \text{Base}_\emptyset + \text{Class}_1 \end{array} \right\}$, where class₁ formatives are in discontinuous dependency with *-ta*.
- d. $\text{Base}_\emptyset \rightarrow \left\{ \left\{ \begin{array}{l} \text{BRt} \\ \text{FRt} \\ \text{N} \end{array} \right\} + \left(\left\{ \begin{array}{l} \text{N} \\ \text{CN} \end{array} \right\} \right) \right\}$

The whole set of class₂ formatives, their functions/meanings and position classes are summarized in Table 4:

Table 4: Suffixes of Class₂ and their Position Classes¹¹

POSITION CLASS	14	15	16	17	18	19
MEANING/FUNCTION:	VBLZ	HYPOTH	RECIPR	IMMIN	CAUS	HAB
FORM	<i>-ta</i>	<i>-ã₃</i>	<i>-kaka</i>	<i>-napano</i>	<i>-ka₃</i>	<i>-pi</i>
TRANSITIVE	+	+	-	+	+	+
INTRANSITIVE	+	+	+	+	+	+

Different from class₁, class₂ formatives can attach to a verb base regardless of its verb class; that is, all class₂ formatives can occur with both transitive and standard intransitive verb bases. As to affix combinations, the examples that follow Table 5 are illustrated in (78):

- 78a. *Ø-umaka-ã₂-napano-ka₄* ‘If he was/were about to sleep...’
 3M-sleep-HYPOTH-IMMIN-PRED
- b. *o-umaka-napano-ka₃-ka₄-ru* ‘She’s about to put him to sleep.’
 3F-sleep-IMMIN-CAUS-PRED-3M.O
- c. *ata atama-kaka-napano-ka₃-ka₄-ru* ‘We were about to look at each other.’
 1PL look-RECIP-IMMIN-CAUS-PRED-3M.O
- d. *pi-umaka-ka₃-pi-ka₄-no* ‘You always make me sleep.’
 1SG-walk-CAUS-HAB-PRED-1SG.O
- e. *a-atama-kaka-pi* ‘We always looked at each other.’
 1PL-look-HAB-RECIPR

Note that I have decided to include the verbalizer *-ta* in class₂ formatives, although it could as well be included in its own (independent) class. The properties of *-ta* can be summarized as follows: (i) In the verb structure *-ta* is positioned between class₁ and other class₂ formatives (cf. Tables 3 and 4); (ii) it can occur with both nominal

¹¹ The ordering of these morphemes in the verb, however, may vary across speech varieties.

or verbal bases, but always deriving a verb form (as shown in 5.1.1 and in 5.2.1.2.1.1); and, (iii) it is required when any class₁ formative also occurs in a verb base (cf. 60 and 61). Thus, *-ta* cannot be included in class₁ formatives, since these are defined as the set of formatives that attach to base₀ and require the presence of *-ta*. To argue that *-ta* would require the presence *-ta*, thus, behaving as a class₁ would seem to me to trivialize the descriptive analysis. The fact that *-ta* can attach to nominal bases to yield verbal bases is a unique property of this formative, although (as shown in 5.2.1.2.1.1) not its defining property since it can also attach to inherently verbal bases. *-ta* also differs from any other bound formative in the language in being required when any class₁ occurs in a verb base. Thus, the many ways in which *-ta* differs from the formatives of class₁, class₂ (or, for that matter, of the class of special bound formatives described in chapter 7) could be used to justify postulating another class of formatives that would consist solely of *-ta*. From this it would follow that a verb base plus *-ta* would give rise to a third verb base.

Although the preceding analysis is plausible, I will choose to use two particular properties associated with *-ta* to justify including it among class₂ formatives. The first property is that when any class₁ formative co-occurs with *-ta*, the latter necessarily follows the former (cf. (60) and (61)). The second property (described in detail and illustrated in the next subsection) can be described in four parts: (i) *-ta* can attach to base₁ preceding class₂ formatives; (ii) when attached to base₁ *-ta* yields a base to which special bound formatives (described in chapter 7) can attach to; (iii) the only base to which special bound formatives can attach is base₂; (iv) therefore, the general function of *-ta* can be described as a base₂-forming morpheme. In other words, the ultimate function of *-ta* is not to simply form verbs but, more specifically, to form verb base₂ forms to which special bound formatives can potentially attach to. Since the verb base₂ consists of

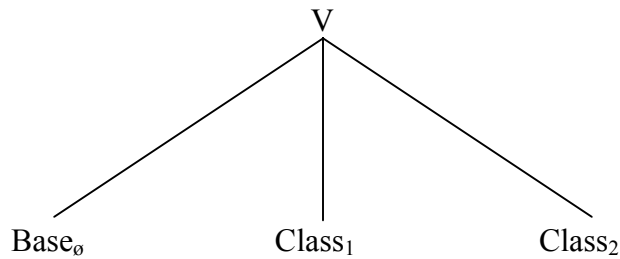
[base₁ + class₂] (or of lexically defined free roots, as represented in (77)), *-ta*, as a base₂-forming morpheme, can be described as a class₂ formative. In this analysis, the similarities rather than the distinctions involving the formative *-ta* in relation to class₁ or class₂ are maximized in the description of the structure of the verb. As a result, a simpler general picture of the verb structure is presented and a more complex description of the properties of *-ta* is required.

5.2.1.3 Generalized Verb Formation Rules and Hierarchical Structure for Non-Descriptive Verbs

Based on the data presented above, we can conclude that the non-descriptive verb morphology is linearly organized in position classes, with each formative or group of formatives falling into specific slots. In addition to that, some morpheme groupings “emerge” when we observe how different morphemes pattern together, resulting in two groups: class₁ and class₂. Class₁ formatives consist of the suffixal forms that follow the base₀, and obligatorily precede the verbalizer *-ta*, which blocks class₁ morphemes from further occurring. Class₂ formatives are the suffixes that may follow class₁ formatives, do not require the presence of the verbalizer *-ta*, and may precede special bound formatives described in chapter 7.

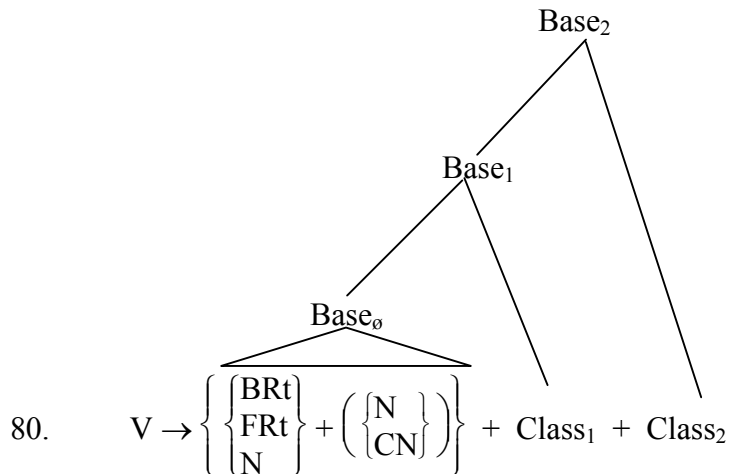
Therefore, what we have are two layers of bound formatives which make the largest possible structure inherent to non-descriptive verbs. We could conceive of such classes of bound formatives as being organized in the global structure of a verb as layers linearly placed in a flat structure such as the following in (79):

79.



On the other hand, we could also conceive of the global verb structure as consisting of layers of bound formatives organized in a hierarchical fashion. In motivating a hierarchical structure for the verb, we can use the various properties which distinguish the two classes of bound formatives not only as factors that differentiate among morpheme groupings, but that also differentiate among levels on which bound forms are distributed in a hierarchical structure. As a result, each class of bound formatives will be attached to a different verb base, and each verb base will be hierarchically located in relation to the other. In this view, we have a different level depending on which base a different class of bound forms can attach to, having then the following structure in (80).

Therefore, although the individual bound formatives that are inherently verbal in this language are linearly organized in relation to one another in a flat structure, they can be described as combining in two classes of formatives which function as sort of **macro-position classes** that are hierarchically distributed within the verb.



5.3. Morphology for Descriptive Verbs

The morphology of descriptive verbs is treated separately from that of transitive and of standard intransitive verbs so that the particularities of the former can be highlighted, establishing the distinction between these two general verb subcategories. As was mentioned above, descriptive verbs refer to property concepts and can be of two types, subjective and objective (listed earlier in Table 1, under 5.0). These two types differ to the extent that one takes subject pronominal markers while the other takes object pronominal markers, but not the other way around, and, they also differ in terms of other bound formatives they do or do not share. It is precisely the bound formatives that descriptive verbs do or do not share with non-descriptive verbs that will be the focus of the following subsections. I will start with the morphological forms that are restricted to descriptive verbs, and then mention those that both descriptive and non-descriptive verbs share. There are three morphemes that are restricted to descriptive verbs, as described in the next subsections.

5.3.1 (Positive) Attributive Markers: *pa-* and *ka-*

(Positive) **attributive markers** are morphemes used with certain word bases to form descriptive verbs. The semantic function of the attributive marker is to attribute to the core argument of a descriptive verb physical or abstract characteristics that are part of the meaning of the lexical bases they attach to. The first one, *pa-* (with the allomorph *p-* before vowel initial bases), occurs with inherently descriptive objective verb bases only, whereas the second, *ka-* (with the allomorph *k-* before vowel initial bases), can occur either with inherently descriptive objective verbs or with descriptive objective verbs formed from transitive or nominal bases. The examples in (81) illustrate instances of *pa-* occurring with descriptive verb bases. Note that in all these examples the argument is expressed by the object pronominal markers *-ru* ‘3M.O’ or *-ro* ‘3F.O’:

- | | | |
|------|---|------------------------|
| 81a. | <i>pa-tuma-ru</i>
ATTR-be.fast-3M.O | ‘He’s fast’ |
| b. | <i>pa-ĩtano-ru</i> ¹²
ATTR-be.long-3M.O | ‘He’s tall; it’s long’ |
| c. | <i>pẽ-ere-ro</i>
ATTR-be.pretty-3F.O | ‘She’s pretty.’ |
| d. | <i>p-amiyánata-ro</i>
ATTR-be.sick-3F.O | ‘She’s sick.’ |
| e. | <i>pa-mita-ru</i>
ATTR-be.big-3M.O | ‘He’s big.’ |

The descriptive verb bases which *pa-* attaches to in the examples above in (81) are all bound descriptive roots. Although exceptions may turn out in the future, as far as I can

¹² Here the speaker who uttered this example did not use the form *k-* before a vowel initial base perhaps to avoid

tell on the basis on my current knowledge of the language, descriptive bases are generally made of bound descriptive roots.¹³ The ungrammatical examples in (82) reflect exactly this “boundness” property of descriptive roots:

- 82a. **uwa tuma* (He/It’s fast.)
 3SG.M be.fast
- b. **uwa ãtano* (He’s tall; it’s long)
 3SG.M be.long
- c. **owa here* (She’s pretty.)
 3SG.F pretty
- d. **nota amiyadata* (She/It’s sick.)
 1SG be.sick
- e. **pite mita* (He/It’s big.)
 2SG be.big

In (83) *ka-* is illustrated:

- 83a. *ka-tuma-ru* ‘He’s fast’
 ATTR-be.fast-3M.O
- b. *ka-kama-wa* ‘We have soul.’
 ATTR-soul-3M.O
- c. *k-ẽtiri-powa-ru* ‘He’s a thief.’
 ATTR-theft/steal-big-3M.O
- d. *k-ĩĩ-powa-ru* ‘He’s fat’
 ATTR-fat-big-3M.O
- e. *k-oku-tãta-pe-ka-i* ‘You own glasses’
 ATTR-eye-bark-PFTV-2SG.O

confusion with the form *p-ĩtanu-ru* ‘your husband’ or with the form *p-ĩtanu-ro* ‘your wife’ (also uttered *p-ĩtano-ro* by some speakers).

¹³ Although this is generally the case for the speech variety of the Japiim village (Paciá River), I have recently found

In (83a) *ka-* attaches to a descriptive verb base; in (83b-c) it attaches to a base that can be either verbal or nominal; and in (83c-d) it attaches to inalienable noun bases. As shown by (83a), when compared to (81a), there is some overlap in the use of these two attributive markers. The difference between *pa-* and *ka-* is in the types of bases they can attach too. That is, it is lexically determined whether a base form can take *pa-* or *ka-* or both. *ka-*, however, presents a wider distribution than *pa-* in terms of the forms they attach to. The semantics involved in the use of these two formatives still requires further analysis. I will provide some preliminary information on their semantics in chapter 8, in 8.1.2.1.1.2.

5.3.2 *Negative Attributive (or Privative) Markers: m(a)-...and ...-tu/-to*

The **negative attributive** (hereafter **privative**) **markers**, i.e. *m(a)-...* and *...-tu/-to*, are morphemes that attach to nominal or descriptive verb bases to indicate that the notional subject of the resulting descriptive verb lacks the property borne by the lexical base the affix attaches to. A privative marker, thus, has the opposite function/meaning of the (positive) attributive markers. The privative marker is realized as *ma-* before a consonant and as *m-* before a vowel.¹⁴ The presence of the privative marker *m(a)-* triggers a morphologically conditioned allomorphy on third person object markers, such that the third person masculine and feminine object markers, i.e. *-ru* and *-ro*, change into *-tu* and *-to* respectively. In the next examples, *m(a)-* attaches to descriptive verb bases in (84a-b), and to inalienable noun bases in (84c-d), and in all

out that the same roots illustrated here are treated as free roots in the speech variety of the Fortaleza village (Marahã area); that is, the examples in (82) are all grammatical for speakers of the Fortaleza village.

¹⁴ I have, however, found at least one speaker in the Japiim village who only produces the *ma-* form as the privative marker.

these examples the presence of *-tu* and *-to*, as determined by the gender of the argument of the verb, is obligatory:

- 84a. *m-ĩtano-tu* 'He's short'
 PRIV-be.long-3M.O
- b. *mẽ-ere-tu* 'He's ugly'
 PRIV-be.pretty-3M.O
- c. *m-uru-tu* 'He's fatherless.'
 PRIV-father.of-3M.O
- d. *m-unuro-to* 'She's motherless'
 PRIV-mother.of-3M.O

Notice that the vowel of *ma-* does not delete in (84b) because the underlying form of the verb root is *here*. The nasalization and vowel assimilation in (84b) follow from the rules discussed in chapter 3, subsection 3.6.1.

5.3.3 Privative Reversal Marker: *wẽ-*

The **privative reversal** *wẽ-* is a morpheme that with a somewhat elusive function, especially because it is rarely used. The few examples so far attested suggest that it cancels/reverses the negative meaning of the descriptive verb forms it attaches to. This is illustrated in (85), where in (a-b) the morpheme cancels the negative meaning of the privative marker, and in (c-d) where it cancels the meaning of the independent negative particle:

- 85a. *ma-wẽ-ere-tu* 'He's pretty'
 PRIV-REV-be.pretty-3M.O
- b. *ma-wẽ-ere-to* 'She's pretty'
 PRIV-REV-be.pretty-3F.O

- c. *kona pa-wẽ-ere-ro* 'She's very pretty'
 not ATTR-REV-be.pretty-3M.O
- d. *kona pa-wẽ-ereka-ru* 'He's very nice'
 not ATTR-REV-be.good-3M.O

5.3.4 *Final Remarks on the Morphology of Descriptive Verbs*

There are some indications that certain class₁ bound forms can also occur with descriptive verbs, but this requires further investigation. The structure of a descriptive verb can be represented as in (86), although certain combinations do not occur due to semantic incompatibility:

86. ATTR/PRIV-REV-Rt

5.4. General Syntactic Properties of Verbs

A verb in Apurinã can be distinguished from nouns as well as from other parts of speech in terms of various syntactic and morphological properties which are specific to verbs. The morphological distinctions between nouns and verbs, for example, consist of the inherently nominal or verbal morphological structures described in chapter 4 (for nouns) and in the previous sections for verbs. The remaining morphological structures of verbs and nouns (not described in this or in the previous chapter) are the special bound formatives that either are NOT inherently verbal or nominal, respectively, or they interact in special ways with clausal or phrasal structures. These special bound formatives will be described in detail in the next chapter.

A major syntactic distinction between nouns and verbs is manifested in the formal expression of the sub-categorization for core semantic relations, which is specific to

verbs. Although this sub-categorization per se can be described as lexical semantic properties of verbs, its formal expression is structured in syntactic terms. For example, the root form *nhipoko-* occurs in (87a) with the unpossessed marker *-ru₂* to form a noun that expresses the subject of the verb *hareka* ‘to be good’. In (87b), the bound root *nhipoko-* occurs with the possessed marker *-re₂* to refer to the possessed element in a construction where the possessor is expressed as *nota* ‘1SG’:

- 87a. *nhipoko-ru₂* *hare-ka*
 food-UNPOSS be.good-PRED
 ‘The food is good.’
- b. *nota nhipoko-re₂*
 1SG food-POSSED
 ‘my food...’
- c. **nota nhipoko-ru₂*
 1SG food-UNPOSS
 (My food; I eat)
- d. *nota nhipoko-ta*
 1SG food-VBLZ
 ‘I eat.’

As follows from the syntactic description of nouns presented above, (87a-b) illustrate two of the syntactic properties of nouns. The example in (87c) shows that *nota* cannot be interpreted as the syntactic expression of a possessor or a subject when occurring with *nhipoko-* marked by the unpossessed suffix *-ru₂*. The reason why *nota* in (87c) cannot be interpreted as subject follows from the presence of the unpossessed marker *-ru₂* (as described in detail in 5.1.2), which makes the bound root into a noun, not into a verb. As a noun, *nhipoko-ru₂* does not subcategorize for subjects. Moreover, as shown by (87d), only verbs subcategorize for grammatical arguments (such as, e.g., subject) and, hence allow for their syntactic expression in a clause. That is, (87d) is a grammatical clause

because the verbalizer *-ta* has been added to *nhipoko-*, thus forming a verb (in this case an intransitive one) that, like any non-objective descriptive verb in the language, requires a subject. Exceptions to this pattern will consist of the class of non-verbal predicates (described in 9.2.2), but in which cases certain constraints on such predicates take place to transform non-verbal predicates into the sort of exceptions that only confirm the general property described here for verbs.

The following examples are given to show that the syntactic difference between (87b) and (87c) is also reflected in the distributional behavior of their constituting elements. So, (88a) is ungrammatical while (88b) is perfectly grammatical because arguments of a verb can occur pre- as well as post-verbally, whereas the genitive of a possessive construction can only occur preceding the nominal form expressing the possessor (see description of noun phrases in 8.2.1):

88a. **nhi-nhipoko-re₂ nota*
 food-POSSED 1SG
 (my food.)

b. *nhi-nhipoko-ta nota*
 1SG-food-VBLZ 1SG
 'I eat.'

Although it is true that, as was shown earlier in the previous chapter (see 4.1), certain nouns have their own subcategorization frame (for example, inalienable nouns subcategorize for taking a possessor), the subcategorization distinction involving nouns and verbs, however, still obtains, since what this subset of nouns subcategorizes for are not the same things verbs subcategorize for. Other syntactic properties that can distinguish verbs from nouns include formal and behavioral reflexes of valence changing operations, but these are presented along with the description of simple clauses in the

next chapter. Finally, so far I have not attested any clear instance of labile verbs in the language.

5.5 Where Have All the Adjectives and Adverbs

Gone?¹⁵

The functions normally associated with adjectives in other languages are accomplished in Apurinã either by C(lassificatory)N(oun)s or by descriptive verbs. In productive compound nouns consisting of the CN₂s (described in 4.1.1.2.2) it is particularly clear how attributive functions are accomplished in the language. CN₂s are the classificatory nouns that can be used to refer to their source (literal) meaning as well as to target (metaphorically extended) meanings. Since CN₂s occur as part of a productive compound noun to refer only to salient physical properties of the compound's meaning, they end up being used fully productively with attributive functions in a manner (functionally) similar to adjectives in other languages. So, we saw that a CN₂ such as *-muna* 'trunk of' ends up being used attached to basically any noun (as part of a productive compound noun) to attribute the 'cylindrical' property to the noun. Hence, in general terms, "X-*muna*" will be interpreted as "cylindrical X", where X is any noun with a physical/concrete reference in the world. Another example is the CN₂ *-ke*, whose source meaning is 'stick of, rod of' and whose target meaning can be described as 'of a thin and generally flexible consistency'. As it happens, this seemed to be precisely the picture some Apurinã individuals had of me when I, in my early twenties, first visited one specific community. There one of the speakers (later to become one of my major

consultants) added the form *-ke* to my Apurinã name (which I had been given in another village in an earlier trip). So, instead of being called *youka* I was being called *youka-ke*, i.e. ‘skinny Youka’. It is in this way that CN₂s are used (rather productively) with an attributive function.

While classificatory nouns are a closed subset of inalienable nouns, descriptive verbs, on the other hand, form a larger (if not an open) subset of intransitive verbs (see 5.1.1.1.2). The fact that the set of descriptive verbs is much larger than the set of classificatory nouns follows from the lexical semantics of both categories. While the meanings of classificatory nouns consist of very general semantic properties associated with shapes and consistencies, those of descriptive verbs consist of a larger variety that includes sizes (big, small, long etc.), shapes (straight, crooked, sharp etc.), qualities (new, old, hot etc.), values (good, bad etc.) and so on. The examples in (13), repeated below as (89), illustrate the use of descriptive verbs modifying nominal and pronominal forms as predicators of the clause:

- 89a. *pooma-no* *nota*
 be.hot-1SG.O 1SG
 ‘I’m/feel hot.’
- b. *katsopu-ru* *hũwu*
 be.white-3M.O flower
 ‘The flower is white.’
- c. *pomama-ru* *mãka-txi*
 be.black-3M.O clothes-UNPOSS
 ‘The clothes are black.’
- d. *mita-ru* *aiko*
 be.big-3M.O house
 ‘The house is big.’

¹⁵ My debt to Robert Dixon’s (1977) creative article’s title “Where have all the adjectives gone?”.

Another reason why descriptive verbs belong to a larger set than CNs is because these verbs can be productively derived by the prefixing of attributive markers to other words, as was shown under 5.3.

The fact that objective descriptive verbs share properties typologically associated with both verbs and adjectives in some other languages suggests that to use either label in this case may be more of an arbitrary convention than anything reflecting categorical distinctions in the grammar.¹⁶ What the descriptive facts reveal is that property-referring words are more “verbal-like” than “nominal-like” in Apurinã, both in terms of their forms and behavior. Thus, in this sense, Apurinã is different from languages such as, e.g., Portuguese, where property-referring words share more characteristics with nouns than with verbs.

Functions usually associated with adverbs in other languages are accomplished in Apurinã either by adverbial particles (as will be shown in 6.3.1) or bound markers in the verb. As we see in the next chapter, there are good reasons to treat these independent words with adverbial functions as a subclass of particles rather than as an independent class of adverbs. Not only is the case that the class of independent words used with adverbial functions is rather small but, also, there is no morphological way to derive a word with an adverbial function from another word.

¹⁶ For a relevant discussion on the general issue, see Schachter 1985, especially pages 13-20.

Closed Classes

6.0 Introduction

Aside from the open classes of words (made of nouns and verbs) presented in chapters 3 and 5, there are also the closed classes of parts of speech, consisting of **pronouns**, **demonstratives**, **particles**, **numerals**, **interrogative words**, **interjections**, and **onomatopoeias**. The distinctions to be presented here are based on the morphological properties that either these words share or that they lack, and on their syntactic properties.

6.1 Pronouns

As a class of words, pronouns form the only category whose members combine to encode person, number and gender, or a combination of these meanings —depending on the pronoun in question. Pronouns have no inherent morphology and, as such, can be distinguished morphologically from nouns and verbs in lacking the morphology that is inherently nominal or verbal. The only bound formatives that attach to pronominal bases will be described later in chapter 7 as part of the special class of morphological forms discussed in that chapter. There are seven independent pronoun forms, as listed in Table 1, four in the singular and three in the plural. The gender distinction is only expressed in the forms for 3rd singular.

Table 1: Independent Pronouns

Person & Gender	Pronoun Forms	
	SG	PL
1	<i>nota</i>	<i>ata</i>
2	<i>pīte</i>	<i>hīte</i>
3M	<i>uwa</i>	<i>unawa</i> ¹
3F	<i>owa</i>	

The following examples in (1-2) illustrate the fact that independent pronouns can be used as both subject and object. So, in (1), independent pronouns occur following the verb *nhipoko-ta* ‘do.eating-VBLZ’, coreferential with the pronominal markers that occur attached to the verb to refer to its subject: (Underlining highlights coreference.)²

- 1a. *nhi*-*nhipoko-ta* *nota*
 1SG-eat-VBLZ 1SG
 ‘I did eating.’
- b. *pi*-*nhipoko-ta* *pita*
 2SG-eat-VBLZ 2SG
 ‘You did eating.’
- c. *o*-*nhipoko-ta* *owa*
 3F-eat-VBLZ 3SG.F
 ‘She/it did eating.’
- d. *i*-*nhipoko-ta* *uwa*
 3M-eat-VBLZ 3SG.M
 ‘He/it did eating.’
- e. *a*-*nhipoko-ta* *ata*
 1PL-eatVBLZ 1PL
 ‘We did eating.’

¹ Aside from *unawa*, the forms *nunawa* or *nunowa* are also found, but each form is specific to one speech variety or another, that is, they do not co-occur in any speech variety.

² See sections 7.1.1, 7.1.12 and 7.1.13 of chapter 7 for the description of the bound pronominal markers.

- f. hi-nhipoko-ta hīte
 2PL-eat-VBLZ 2PL
 ‘You (PL) did eating.’
- g. i-nhipoko-ta-na unawa
 3-eat-VBLZ-3PL 3PL
 ‘They did eating.’

In (2) the same independent pronouns follow the verb *atama-ta* ‘see-VBLZ’. However, in (2) these pronouns are coreferential with the pronominal markers that occur attached to the verb to refer to the object of the verb.

- 2a. n-etama-ta-i pita
 1SG-see-VBLZ-2O 2SG
 ‘I saw you.’
- b. p-etama-ta-no nota
 2SG-see-VBLZ-1O 1SG
 ‘You saw me.’
- c. Ø-atama-ta-ro owa
 3M-see-VBLZ-3F.O 3SG.F
 ‘He/it saw her/it.’
- d. Ø-atama-ta-ru uwa
 3F-see-VBLZ-3M.O 3SG.M
 ‘She/it saw him/it.’
- e. Ø-atama-ta-wa ata
 3M-see-VBLZ-1PL.O 3PL
 ‘He saw us.’
- f. ā-ātama-ta-i hīte
 1PL-see-VBLZ-2SG.O 2PL
 ‘We saw you (PL).’
- g. h-ātama-ta-ru/-ro unawa
 2PL-see-VBLZ-3M/F.O 3PL
 ‘You (PL) saw them (M/F).’

Furthermore, as the examples in (3) indicate, independent pronouns can also be used as the possessor in nominal possession constructions. In (3) the independent pronouns precede the possessed noun form *aiko-te* ‘house-POSSEDED’.

- 3a. *nota aiko-te*
1SG house-POSSEDED
‘my house’
- b. *pita aiko-te*
2SG house-POSSEDED
‘your house’
- c. *uwa aiko-te*
3SG.M house-POSSEDED
‘his house’
- d. *owa aiko-te*
3SG.F house-POSSEDED
‘her house’
- e. *ata aiko-te*
1PL house-POSSEDED
‘our house’
- f. *hīte aiko-te*
2PL house-POSSEDED
‘your (PL) house’
- g. *unawa aiko-te*
3PL house-POSSEDED
‘their (M/F) house’

Independent pronouns show partial similarities in their shape to pronominal markers (see 5.1, 7.1.1 and 7.1.11-12), particularly to subject/possessor pronominal markers as compared in

Table 2:

Table 2: Independent Pronominal Forms versus Pronominal Markers

Person, Gender & Number	Pronominal Forms		
	Independent Pronouns	Subj./Possessor Pronominal Markers	Obj. Pronominal Markers
1SG	<u>no</u> -ta	nu-, no# ³	-ru
2SG	<u>pi</u> -te	pu-	-i
3M.SG	<u>u</u> -wa	u-	-ru
3F.SG	<u>o</u> -wa	o-	-ro
1PL	<u>a</u> -ta	a-	-wa
2PL	<u>hi</u> -te	hi-	-i
3M.PL	<u>u-na</u> -wa	u...-na	-ru
3F.PL	<u>o-na</u> -wa	o...-na	-ro

These partial similarities could be used to segment further each of the independent pronouns such that they could be separated into distinct morphemes, as shown in the second column (from the left) of Table 2. Although such morphemic breakings are likely to be particularly useful for a diachronic study of these pronominal forms, or even, for that matter, in an internal reconstruction analysis on the subject, I will refrain from further segmenting independent pronouns in the synchronic approach taken in this work. Instead, I will describe these pronouns in Apurinã, as shown in Table 1, as non-segmentable morphemically (though admitting that they can still be segmented into formatives or empty morphs). To the extent that morphemes can be argued to be part of some type of the grammatical knowledge speakers have about their language, the assumption is that independent pronouns in Apurinã are as un-analyzable as are, for example the English quartets *me* vs. *I* vs. *my* vs. *mine*, *you* vs. *you* vs. *your* vs. *yours*, *him* vs. *he* vs. *his* vs. *his* in English. There is no loss in generalization in not segmenting further the independent pronouns, unless it is one of a diachronic nature which, however, will be best described in a diachronic investigation of independent pronouns in the language.

³ Recall that *no#* is a shortened (cliticized) form of the pronoun *nota* (see 3.2.3).

Independent pronouns can replace nominal constructions functioning as the syntactic expressions of subject/object or the possessor. The structure and distribution of such nominal constructions will be described in chapter 8, in 8.1. Various examples given above can be used to illustrate the use of pronouns as words replacing nominal constructions. For example, the noun form *hātako-ro* ‘girl’ in (4) can be replaced by its pronominal counterpart *owa* ‘3SG.F’ in (5):

- 4a. *hātako-ro umaka-nanu-ta*
 youth-F sleep-PROG-VBLZ
 ‘The girl is sleeping.’
- b. *hātako-ro unuro iri-pe*
 youth-F mother fall-PFTV
 ‘The girl’s mother has fallen down.’

- 5a. *owa umaka-nanu-ta*
 3SG.F sleep-PROG-VBLZ
 ‘She is sleeping.’
- b. *owa unuro iri-pe*
 3SG.-F mother fall-PFTV
 ‘Her mother has fallen down.’

Pronouns differ syntactically from nouns in that they do not subcategorize for the things nouns subcategorize for, except for gender—which third person singular pronouns also distinguish (as was earlier illustrated in 1c-d, 2c-d, and 3c-d). Another difference (which will be further described in the discussion on the structure of noun phrases in 8.1.1) is that a pronoun cannot be the possessed head element of a possession construction, as indicated by the ungrammaticality of (6):

6. **hātako-ro owa iri-pe*
 youth-F 3SG.F fall-PFTV
 ‘(The woman’s it/her has fallen down.)’

The use of independent pronouns is determined by either grammatical or discourse factors, or by a combination of both. Example of a grammatical factor is the oblique noun phrases (described in chapter 8, in 8.1.1.2). Since oblique noun phrases are generally marked with an oblique marker (see 7.1.2), and since oblique markers can attach to phonologically independent elements only, independent pronouns but not pronominal markers can occur with an oblique marker. So, while the example in (7a) is grammatical, the one (7b) is ungrammatical because, in the latter, the associative oblique marker *-kata* (see 7.1.2.2) occurs with a bound pronominal marker, rather than with an independent pronoun.

7a. *uwa-kata* *n-una-ru*
 3SG.M-ASSOC 1SG-come-3M.O
 ‘I came with him.’

b. **u-kata* *n-una-ru*
 3M-ASSOC 1SG-come-3M.O
 (‘I came with him.’)

The discourse factors that determine the use of independent pronouns cannot be described in any detail in this work for two reasons: first because the discourse structure of Apurinã will not be dealt with here and, second because preliminary evidence suggests that there is no one or two discourse factors that can account for the use of independent pronouns in discourse, but instead there are various discourse categories that need to be taken into account. What I will do then is to list some of the most obvious discourse factors that have been observed, and which can be found in the text given in Appendix B. While reproducing examples from Appendix B, for easy of illustration, I will preserve the numbering and format given there.

8. Independent pronouns used to mark significant (e.g., unexpected) changes in the plot of narratives, in which case, in general, a co-occurring coreferential pronominal marker is also

found in the same sentence. In 005 the independent pronoun *owa* ‘3SG.F’ refers to the young woman, and is used to mark the fact that, contrary to what one would normally expect of her, she went just by herself to watch the tapir eat the “uxi” fruit in the jungle:

```

\ref kemasuto 005
\tx iyē      owa          osukasawaku    ākuta
\mb iyē      owa          o-su-ka-sawaku ākuta
\gl then      she/her/it/its 3F-go-PRED-TEMP see
\ps DISC.PTC PRON.3SG.F 3F-V-VBLZ-TEMP V

\tx txaru     iyē          kema.
\mb txa-ru    iyē          kema
\gl AUX-3M.O then      tapir
\ps AUX-3M.O DISC.PTC N

```

\ft Then, when she went see the tapir

9. Independent pronouns are used in appositive constructions in highlighting the presence/role of a participant in discourse. In 006 *uwa* ‘3SG.M’ is used with the coreferential appositive nominal form *kema* ‘tapir’ in a context where the narrator describes the daring action performed by the tapir, namely to kidnap the young woman:

```

\ref kemasuto 006
\tx oposo     uwa          kema anhika    txapero
\mb oposo     uwa          kema anhika    txa-pe-ro
\gl later      he/him/his/it/its tapir take.away AUX-PFTV-3F.O
\ps ADV.PTC PRON.3SG.M N V AUX-PFTV-3F.O

\tx hātakoro,
\mb hātako-ro
\gl young.person-F
\ps NRt-F

```

\ft he, the tapir, took the young woman away

The use of independent pronouns accompanied by appositive constructions is pervasive in the text in Appendix B (see 006, 021, 025, 033, 034, 036, 039, 041, 046, 050, 078, 084, 086, 087, 091).

10. Independent pronouns are used to reintroduce a participant as a cataphoric topic into discourse. In 049 *unawa* ‘3PL’ refers to the hunters, whose previous mention had been made to eight clauses earlier in 041. *unawa* is used in 049 to reintroduce the ‘hunters’ into the discourse, after a parenthetical description of the state of the young woman had been made (from 042 to 048 in Appendix B).

```

\ref kemasuto 049
\tx oposo      unawa      iye kimatããpita
\mb oposo      unawa      iye kimatãã-pi-ta
\gl later      they       then shoot.arrow-LONG-VBLZ
\ps ADV.PTC PRON.3PL PTC V-CN-VBLZ

\ft So, they shot him (with arrows).

```

Similar usages of independent pronouns are attested in Appendix B in (070, 071, 081 and 082).

11. Independent pronouns are used in contexts marked by the continuity of actions performed by a participant. This use can be attested in sentences from 054-58, where the 3rd person plural pronoun *unawa* is used to refer to the hunters as they perform a sequence of actions:

```

\ref kemasuto 054
\tx oposo      unawa      mããyaka txapero.
\mb oposo      unawa      mããyaka txa-pe-ro
\gl later      they       catch   AUX-PFTV-3F.O
\ps ADV.PTC PRON.3PL V      AUX-PFTV-3F.O

\ft They caught her;

```

\ref kemasuto 055
 \tx *oposo unawa mūpe txaro.*
 \mb *oposo unawa muna-pe txa-ro*
 \gl later they bring-PFTV AUX-3F.O
 \ps PTC PRON.3PL V-PFTV AUX-3F.O

\ft they brought her (back to the village).

\ref kemasuto 056
 \tx *oposo unawa...*
 \mb *oposo unawa*
 \gl later they
 \ps DISC.PTC PRON.3PL

\ft Then they (said)...

\ref kemasuto 057
 \tx *"hamo asupeka."*
 \mb *hamo a-su-pe-ka*
 \gl let's 1PL-go-PFTV-VBLZ
 \ps HORT 1PL-V-PFTV-VBLZ

\ft "Let's go!"

\ref kemasuto 058
 \tx *...oposo unawa txaru.*
 \mb *oposo unawa txa-ru*
 \gl later they say/do-3M.O
 \ps ADV.PTC PRON.3PL V-3M.O

\ft ... and they did so.

\ref kemasuto 059
 \tx *apope itxape iye ōuru,*
 \mb *apo-pe u-txa-pe iye o-uru*
 \gl arrive-PFTV 3M-AUX-PFTV then 3F-father.of
 \ps V-PFTV 3M-AUX-PFTV DISC.PTC 3F-N

\tx *ōunuro, oye ōurutaru,*
 \mb *o-unuro o-ye o-uruta-ru*
 \gl 3F-mother.of 3F-PROX 3F-paternal.uncle.of-3M.O
 \ps 3F-N 3F-PROX 3F-N-3M.O

\tx	<i>ōunurotanuro,</i>	<i>oye</i>
\mb	<i>o-unurota-nu-ro</i>	<i>o-ye</i>
\gl	3F-maternal.aunt.of-PL-F	3F-PROX
\ps	3F-N-PL-F	3F-PROX

\tx	<i>ōutaruwakoru,</i>
\mb	<i>o-utaru-wako-ru</i>
\gl	3F-cousin.of-PL-3M.O
\ps	3F-N-PL-3M.O

\tx	<i>ōumatukuruwakoru,</i>
\mb	<i>o-umatuku-ru-wako-ru</i>
\gl	3F-maternal.uncle.of-3M.O-PL-3M.O
\ps	3F-N-3M-PL-3M.O

\ft As they arrived... her father, her mother, her paternal uncle, her maternal aunt, her cousins, her maternal uncle...

Therefore, the Apurinā independent pronouns differ from languages like English, since in English independent pronouns are generally required in the absence of a coreferential noun phrase, while in Apurinā they can be replaced with coreferential bound markers in the appropriate grammatical and discourse-pragmatic contexts. On the other hand, these independent pronouns also differ from the ones in a language such as Portuguese, since in Portuguese the only conditioning factor for the occurrence of independent pronouns is, in general, discourse pragmatics. The result of the characteristics of independent pronouns in Apurinā then is that they occur a lot less frequently in texts than the English pronouns, but more often than the Portuguese ones.

6.2 Demonstratives

Demonstratives are the words used in the language to express both **spatial deixis** and **definiteness**. These demonstratives inflect for deixis and gender in the ways listed in Table 3:

(Notice that the transcription used here hides the fact that the *i-* and *u-* forms have the same underlying form /i/, as shown in chapter 2, in 2.1.3.2.)

Table 3: Demonstratives⁴

Deixis	Gender	
	Masculine	Feminine
Proximate	<i>i-ye</i>	<i>o-ye</i>
Distal	<i>u-kira</i>	<i>o-kira</i>

The examples in (12) illustrate the **proximate** demonstrative, that is the one used to refer to things close to the speaker or to the hearer. In (12a) the demonstrative form *i-ye* ‘MASCULINE-PROX’ is coreferential with the masculine noun *hātako-ru* ‘boy’, whereas in (12b) *o-ye* ‘FEMININE-PROXIMATE’ is coreferential with the feminine noun *hātako-ro* ‘girl’:

12a. *i-ye* *hātako-ru*
 M-PROX youth-M
 ‘this/the boy’

b. *o-ye* *hātako-ro*
 F-PROX youth-F
 ‘this/the girl’

The examples in (13) illustrate the **distal** demonstrative, that is the one used to refer to things far from the speaker and hearer. In (13a) *u-kira* ‘MASCULINE-DISTAL’ is coreferential with the masculine noun form *hātako-ro*, whereas in (13b) *o-kira* ‘FEMININE-DISTAL’ is coreferential with the feminine noun form *hātako-ro*:

⁴ I have recently attested the uninflectible form *nakara* for the speakers of the Fortaleza village (Marahã area), which is used for referents out of the visual field.

- 13a. *u-kira* *hātako-ru*
 M-DIST youth-M
 ‘that boy’
- b. *o-kira* *hātako-ro*
 F-DIST youth-F
 ‘that girl’

In this analysis of demonstratives the initial forms “i, u” and “o” from *i-ye* or *u-kira* and from *o-ye* or *o-kira* correspond, respectively, to a bound pronominal form that means ‘3M’ (wherein “u”= /i/ that changes into /i/ by the palatalization rule given in (12), in 3.6.1), and to a bound pronominal form that means ‘3F’. Analyzing the initial vowels in the demonstrative as person-gender markers leads us to conclude that *-ye* is a formative whose meaning is ‘PROXIMATE’, and that *-kira* is a formative whose meaning is ‘DISTAL’. When modifying plural nouns, demonstratives may neutralize the masculine-feminine gender distinction in favor of the masculine form, as the examples in (14) indicate:

- 14a. *u-ye* *hātako-ro-wako-ro*
 M-PROX youth-F-PL-F
 ‘these girls’
- b. *o-kira* *hātako-ro-wako-ro*
 F-DIST youth-F-PL-F
 ‘those girls’

There is so far no evidence that demonstratives take any additional morphological structure aside from those just described. Moreover, for at least some speakers, demonstratives

are different from pronouns in that the former cannot replace nominal expressions playing the role of arguments of the verb, as the ungrammatical examples aim to show:⁵

- 15a. **nhi-potxi-ta-ru* *i-ye*
 1SG-like-VBLZ-3M.O M-DEM
 (I like this)
- b. **nhi-potxi-ta-ro* *o-kara*
 1SG-like-VBLZ-3F.O M-DEM
 (I like that)

However, some conflicting information may indicate that this property of demonstratives may not be true for all Apurinã varieties. That being the case, the analysis presented here will work for the relevant varieties. The property that demonstratives have of modifying nouns, in addition to their distribution, gives them an independent syntactic status, distinguishing them from other closed word classes.

In addition to *u-/o-kara*, there is another form, namely *wera*, that is also used to mean ‘DISTAL’. At the present time I have not attested any distinction between these two forms. The second one, i.e. *wera*, requires further verification with different speakers in order to determine, for example, whether it is not limited to certain speech varieties. It is clear, however, that, as shown in (16), *wera* does not inflect for the gender of the noun it modifies:

- 16a. *wera* *suto*
 DISTAL woman
 ‘That woman...’
- b. *wera* *kuku*
 DISTAL man
 ‘That man...’

⁵ This, however, is not true of all speech varieties.

In this work I will only mention the existence of *wera*, leaving a more detailed description of its function for future work.

6.3 Numerals

Two numerals are found in any Apurinã speech variety. The first of them, *hāt-u* ‘one-M’ or *hāt-o* (one-F), inflects for gender; the second of them is *epi* ‘two’. To count over two, *hāt-u/o* and *epi* are combined with the form *-pakunu* ‘plus’, as illustrated in (4):

Table 4: Numerals

Forms	Gloss
<i>hāt-u, hāt-o</i>	‘one (M., F)’
<i>epi</i>	‘two’
<i>epi-hātu-pakunu</i>	‘three’
<i>epi-epi-pakunu</i>	‘four’
<i>epi-epi-hātu-pakunu</i>	‘five’

The examples in (17) illustrate the use of numerals modifying nouns:

- 17a. *hāt-u kuku*
 one-M man
 ‘one/other man.’
- b. *hāt-o suto*
 one-F woman
 ‘one/other woman.’
- c. *epi kuku-wako-ru*
 two man-PL-M
 ‘two men’
- d. *epi suto-wako-ro*
 two woman-PL-F
 ‘two women’

As the following examples show, although numerals resemble demonstratives in that they also precede the noun, the two co-occur with a fixed order with the demonstrative preceding the numeral and, thus, have a different syntactic distribution. This is true to the extent that, in Apurinã, the distribution of words within larger units constitutes a somewhat reliable syntactic criterion for distinguishing parts of speech (see 8.2.1). In the following examples *hāt-u*, *hāt-o* and *epi* occur with the noun forms *hātako-ru/-ro* ‘boy/girl’ forming a nominal construction that is determined by the demonstrative forms *i-/o-ye*:

18a. *i-ye hāt-u hātako-ru*
 M-DEM one-M youth-M
 ‘this one/other boy’

b. *o-ye hāt-o hātako-ro*
 M-DEM one-F youth-F
 ‘this one/other girl’

19a. *i-ye epi hātako-ru*
 M-DEM two youth-M
 ‘these two boys’

b. *o-ye epi hātako-ro*
 F-DEM two youth-F
 ‘these two girls’

The traditional Apurinã way to count works on a base of two. In order to count over two it is necessary to combine *hāt-u/hāt-o* and *epi* ‘two’ with the bound form *-pakunu* ‘plus’ (briefly described in 7.4.2), as the following examples show:

20a. *epi hāt-u-pakunu hātako-ru*
 two one-M-plus youth-M
 ‘three boys’

- b. *epi epi-pakunu hātako-ru*
 two two-plus youth-M
 ‘four boys’
- c. *epi epi hāt-u-pakunu hātako-ru*
 two two one-M-plus youth-M
 ‘five boys’

In elicited data speakers often count up to three or four using this system. Five is normally translated as ‘one handful’, and speakers tend to get confused when counting over five. Reports by Pickering (1971:33) show that in the past speakers could count up to ten using the traditional system. Some speakers have also given unrelated complex words when counting over five. Nowadays it is more common to find Apurinã speakers using the Portuguese numerals.

6.4 Interrogative Words

Interrogative words in Apurinã are complex morphological forms that result from the combination of various formatives. Interrogative words are those used clause-initially to introduce information questions. They take different forms and are used to introduce interrogative clauses when questioning subject/object, reason, place, manner, or time, as indicated in Table 5.⁶

Table 5: Interrogative Words

Forms	Gloss
<i>ki-pa, ke-...-pa</i>	‘what, who, whom’
<i>ka-nhi-pa</i>	‘how’
<i>nhã-pa, na-pa, yãpa; ãtepa-</i>	‘where’; ‘where.be’
<i>nha-pakunu-pa</i>	‘how many’
<i>ke-nere-pa</i>	‘why’
<i>ke-ru-sawaku-pa</i>	‘when’

⁶ See chapter 8, section 8.8.2 for interrogative words and their syntactic properties.

In (21) the interrogative word *ke-...-pa* is used to ask about the subject in (21a, c) and the object in (21b):

21a. *ke-ru-pa* *umaka wai*
WH-3M-INT sleep here
'Who sleeps?'

b. *ke-ru-pa* *p-oka-pe*
WH-3M-INT 2SG-kill-PFTV
'What have you killed?'

c. *ki-pa* *apo-pe*
WH-INT arrive-PFTV
'Who/What has arrived?'

In (21a, b) the masculine form *-ru* is incorporated as part of the interrogative word. And in (21c) the variant *ki-...-pa* is used as the interrogative word and appears to be a variant conditioned by speech varieties, not by any phonological, grammatical or lexical process.

In (22) *ke-nere-pa* is the interrogative word used to question the reason why an event/action/process/state takes place:

22. *ke-nere-pa* *p-oka-pe-ru* *ãkiti*
WH-will-INT 3SG-kill-PFTV-3M.O jaguar
'Why have you killed the jaguar?'

In (23a) *nhã-pa*⁷ is an interrogative word used to question the place where an event takes place, whereas in (23b) *ĩtepa-* is used to question the localization of an entity in space:

⁷ The variant forms *yã-pa*, *na-pa*, *nanhi-pa* (where “*nhĩ*” might be diachronically reconstructible as a separate morpheme) are attested in different speech varieties.

23a. *nhã-pa p-oka-pe-ru ãkiti*
WH-INT 2SG-kill-PFTV-3M.O jaguar
'Where have you killed the jaguar?'

b. *ĩtepa-i pite*
WH.PLACE-2O 2SG
'Where are you'

In (24) *nha-pakunu-pa* is the numeral interrogative word that, by modifying a noun, is used to ask about the number of referents expressed by the subject or object in a clause:⁸

24. *nha-pakunu-pa kuku-wako-ru apo-pe*
WH-plus-INT man-PL-M arrive-PFTV
'How many men have arrived?'

In (25) the interrogative word *ka-nhi-pa* is used to question the manner in which an event/state takes place:⁹

25a. *ka-nhi-pa p-oka-pe-ru ãkiti*
WH-?-INT 2SG-kill-PFTV-3M.O jaguar
'How have you killed the jaguar?'

In (26) the interrogative word *ke-ru-sawaku-pa* is used to question the time when an event/state takes place:

26a. *ke-ru-sawaku-pa p-oka-pe-ru ãkiti*
WH-3M-TEMP-INT 2SG-kill-PFTV-3M.O jaguar
'When have you killed the jaguar?'

The clauses taking interrogative words form the interrogative type of clauses described in the next chapter (9.6.2). Aside from sharing interrogative functions, these interrogative words

⁸ The variant form *ku-pakunu-pa* (WH-plus-INT) is found in some speech varieties.

⁹ The variant form *natoko-pa* (MANNER-INT) is found in some speech varieties.

have in common the fact that they always occur clause initially. By themselves these common properties may not constitute sufficient evidence to group interrogative words in one class, independent from other parts of speech. However, I have decided to present them separately here so as to highlight individual properties. In fact, further investigation may reveal that different interrogative words may group together with other words as part of a larger word class.

6.5 Onomatopoeias

In chapter 4 we saw some types of onomatopoeic forms that are clearly a type of noun stem, with specific and well-defined referents as well as morphological structure (see 4.4.8). Aside from those, there are other onomatopoeic forms that are found in the language and whose phonological shapes are even more iconic in relation to some properties of their referents. Since these later forms do not take the morphology of noun stems, and due to their particular iconicity properties, they are described here separately from other closed words classes, as **onomatopoeias**, as the examples in (27) are illustrative of:

- | | |
|--------------------------|--|
| 27a. <i>tei tei tei</i> | ‘sound beat’ |
| b. <i>tii tii tii</i> | ‘sound of bats’ |
| c. <i>puma puma puma</i> | ‘sound of banana tree’ |
| d. <i>toh</i> | ‘sound of pineapple tree’ |
| e. <i>heheeeee</i> | ‘sound of a crowd of people’ |
| f. <i>tou tou tou</i> | ‘sound of ball being kicked’ |
| g. <i>xii</i> | ‘sound of hawk’ |
| h. <i>toou</i> | ‘sound of hitting somebody with a stick’ |
| etc. | |

Examples of some of these onomatopoeic interjections expressing sounds of actions, people, animals or personified vegetables as they are used in a story about an Apurinã entity called *awããĩ* or *awãru*, depending on speech variety) are illustrated in (28):

- 28a. *tei! tei! tei! i-txa-ka-ta i-ye koriwa hawite*
 3M-say-INTENS-VBLZ 3M-DISTAL “javari” chief
 ‘Tey! Tey! Tey! The chief “javari” says.’
- b. *tii! tii! tii! i-txa-ka-ta xiyoku hawite*
 3M-say-INTENS-VBLZ bat chief
 ‘Tii! Tii! Tii! The chief bat says.’
- c. *puma! puma! puma! i-txa-ka-ta*
 3M-say-INTENS-VBLZ
 ‘Booma! Booma! Booma! It says.’
- d. *toh! i-txa-ka-ta*
 3M-say-INTENS-VBLZ
 ‘Toh! It says.’
- e. *unawa... pirika-ka-ta: heheeeee!*
 3PL play-INTENS-VBLZ
 ‘They really played: heheeeee!’

Although onomatopoeias have been included here in the description of closed word classes, they constitute a class of words that has the logical potential of being open-ended. The reason they can be, however, classified as a closed word class is that only a limited number of onomatopoeias recur across speech communities or, to some extent, across different speakers of the same community. That is, although the number of onomatopoeias is potentially non-finite if the full range of logical possibilities in which different iconic expressions can be uttered to represent different “things”, states, events etc. in all logically possible contexts, the fact is that only a limited number of such forms are used systematically enough across communities/speakers as conventional words. The assumption, therefore, is that only a limited number of interjections are actually stored as part of the Apurinã lexicon of any speaker.

Whether this number is less than fifty or over one hundred, however, remains to be determined.

Onomatopoeias are different from other closed word classes in that they present an iconic relationship between their forms and their meanings and in that they normally follow the distribution of a complete sentence.

6.6 Interjections

Interjections are the word forms that are used with particular exclamatory purposes, like calling somebody, screaming, expressing pain, surprise, or other sort of feelings. A systematic survey of exclamatory words in Apurinā still needs to be carried out, since gender and age (among other) factors seem to play a role in determining the use of such words. The examples in (29) illustrate some of these exclamatory words. As shown by (27c), some particles can also be used with exclamatory functions:

- | | |
|--|----------------------------|
| 29a. <i>hei!</i> | ‘man answering a call’ |
| b. <i>oh!</i> | ‘woman answering a call’ |
| c. <i>ha!</i> | ‘initiating story-telling’ |
| d. <i>ateeneka!</i> | ‘Right!’ |
| e. <i>ne-putu-ka-ru!</i>
?-EMPH-PRED-3M.O | ‘True, indeed!’ |
| e. etc... | |

Interjections are different from other closed word classes in that they are only used in specific emphatic-exclamatory contexts, and, like, onomatopoeias, they normal follow the distribution of a complete sentence.

6.7 Particles

In addition to the pronominal and demonstrative forms presented above, there are other closed classes of words with various functions. These other forms are described in this section under the umbrella **particles**. In a sense, particles are word classes that do not fit in any of the other word categories already established. In this sense the category “particles” does function as a sort of “wastebasket”. But, also, particles do pattern similarly insofar as they generally neither have any inherent morphology nor take any inherent nominal or inherent verbal morphology. Furthermore, the general meanings/functions associated with particles are adverbial modification, and phrasal, clausal or discourse linking, as described and illustrated in the following subsections. In the order of presentation of each set of particles below I will present them in terms of their most typical semantic meanings.

6.7.1 *Adverbial Particles*

Certain particles have meanings that include **time**, **manner**, **degree**, **spatial deixis**, thus semantic properties reminiscent to certain adverbs in European languages. These particles are here called **adverbial particles**, a label which will be more properly justified as some of the distributional properties of these particles are presented below. Time (or temporal) expressions refer to parts of a day, and to shorter or longer periods in the life of a person or group of persons. The following table lists the adverbial particles currently attested:

Table 6: Adverbial Temporal Particles

Adverbial Particles	Gloss
<i>watxa</i>	‘today’
<i>oposo</i>	‘after’
<i>mitxi</i>	‘first, initially’
<i>atana</i>	‘yesterday’
<i>katana</i>	‘tomorrow’
<i>kitxaka</i>	‘in ancient times’
<i>kutatu</i>	‘in ancient times’

The following examples in (30) illustrate some of the adverbial temporal particles:

- 30a. *ã-apo-pe* *watxa*
 1SG-arrive-PFTV today
 ‘We arrived today/now.’
- b. *oposo* *u-sa-ru*
 after 3M-go-3M.O
 ‘He then left.’
- c. *mitxi* *Ø-una-ru*
 first 3M-come-3M.O
 ‘First, he came.’
- d. *kuta* *nu-sa-ru*
 yesterday 1SG-go-3M.O
 ‘I left yesterday.’
- e. and so on.

As illustrated by *watxa* ‘today, now’ in the examples in (31), adverbial particles have a “loose” distribution within the clause, with no formal marking or semantic consequences:

- 31a. *watxa* *nu-su-pe-ka*
 today 1SG-go-PFTV-PRED
 ‘I’ll leave now.’
- b. *nu-su-pe-ka* *watxa*
 1SG-go-PFTV-PRED today
 ‘I’ll leaving now.’

There is one reasonably clear case of **manner adverbial particle** in the language, which is the form *arĩkika* ‘slowly.’ As shown in (32), *arĩkika*, can occur before (32a) or after (32b) the modified predicate:

32a. *arĩkika* *sãki-rewa-ta-karu* *kuku* *apo-pe*
 slowly speak-INTR-VBLZ-RELZ man arrive-PFTV
 ‘‘The man who speaks slowly arrived.’’

b. *sãki-rewa-ta-karu* *kuku* *apo-pe* *arĩkika*
 speak-INTR-VBLZ-RELZ man arrive-PFTV slowly
 ‘‘The man who speaks arrived slowly.’’

Notice in the examples above that the manner adverb, in both instances, modifies the meaning of the predicate adjacent to it.

Some meanings that are associated with adverbs in European languages (insofar as they refer to the intensity of an event/state, the degree to which or the manner in which it takes place) are expressed by bound forms in the verb in Apurinã. Examples of these are *-ka* ‘INTENSIFIER’, *-wari* ‘almost’, and *-ãpo* ‘RANDOM’ (described under 5.2.1.1). Other adverb-like meanings are expressed as verbal constructions, such that, in terms of their translation equivalents, instead of saying ‘He runs rapidly.’ one would say ‘He’s fast.’

Other semantically adverb-like particles include a pair of spatial forms used with deictic functions. Analogous to the demonstratives, these spatial adverbial forms can be **distal**, i.e. far from the speaker (or other deictic center), or **proximate**, i.e. close to the speaker/hearer (or other deictic center), as listed in the following Table 7:

Table 7: Adverbial Spatial Particles

Forms	Gloss
<i>wai</i>	‘here’
<i>werã</i>	‘there’

The examples in (33) illustrate the use of distal and proximate adverbial particles:

- 33a. *n-awa-ru* *wai*
1SG-exist-3M.O here
'I live here.'
- b. *nu-sa-ru* *werã*
1SG-go-3M.O there
'He went there.'

One important information related to the approximate adverbial particle *wai* is that there is a phonologically identical form that can be used as a descriptive verb. So, the conventional way to greet a person when visiting an Apurinã village is by uttering (34a), for which (34b) is the conventional answer:

- 34a. *wai-ka-i* *pite*
be.here-PRED-2O 2SG
'Hi there...!'
Lit.: 'Are you here?'
- b. *wai-ka-ra-no* *nota*
be.here-PRED-FOC-2O 1SG
'Hi, I'm here!'
Lit.: 'It's here that I am!'

Both in (34a) and (34b) the form *wai* is used as a descriptive objective verb which takes the object pronominal marker to express its notional subject. There are two possible analyses of these examples as far as the form *wai* is concerned. The basic question is whether the proximate adverbial particle and the object descriptive verb are different words or whether they actually are the same word, namely a proximate adverbial particle that can be used (as other words can) as the predicate of a "verbless" clause. In this work I will treat *wai* used in an object descriptive predicate as a descriptive objective verb, and *wai* used with an adverbial-like function as an

adverbial particle. It is conceivable, however, that this is ultimately a purely terminological issue.

Another terminological issue is whether adverbial particles should not be described as an independent word class equivalent to the word class **adverbs** in European languages. The reason I have included adverbials as a subclass of particles rather than as an independent word class is that adverbs, like other particles, share the property of lacking any inherent morphological property. Ultimately, this may be another simple matter of terminology which is immaterial to the description of the language.

6.7.2 **Subordinator Particle**

There is also one clear case of a subordinator particle, which is *kotxi* (or *kota*, depending on speech variety) ‘because’, as the example in (35) illustrates. The syntactic properties of this subordinator are presented in chapter 9, in subsection 9.1.3.1.

35. *nu-su-pe-ka-ko* *kotxi* *nu-sāpaka*
1SG-go-PFTV-PRED-FUT because 1SG-be.tired
‘I’ll get going because I’m tired.’

6.7.3 **Polarity Particles: Negative, Positive**

The polarity particles are simply the word forms used to answer polar questions. They are *kona* ‘not, no’ and *aru₁* ‘yes’. As suggested by the gloss, the negative particle *kona* can be used as the answer to polar questions and, also, it can negate phrasal expressions. This, however, is only part of the syntactic functions of polarity particles. The negative particle can be used more than as an answer to polar questions, and its functions and scope are described in detail in the context of simplex clauses in the chapter 8, in 8.7.

One particularity about the positive polarity marker, *aru₁* ‘yes’, which must be noticed is that it is the only one (among all particles) that can take the suffix *-te* ‘really, indeed’, as in *aru₁-te* ‘yes indeed; of course’. Thus, in this respect, *aru₁* differs from other particles. Polarity particles are treated here separately from the discourse particles described next because, although they may be used under particular discourse contexts with functions that can only be described in terms of discourse-pragmatic factors, they have a well established prototypical function, namely to mark the polarity of an event/state or of one of its parts. Aside from that, there is at least one homophonous form, *aru₂*, whose specific function is to serve as a sort of discourse link, thus without the meaning associated with a polarity particle.

6.7.4 Discourse Particles

Discourse particles are various word forms that are normally used to link different discourse chunks. The precise function of these forms cannot be described without a detailed understanding of the language discourse structures, which is beyond the scope of the present work. In Table 8 a sample of the discourse particles is listed:

Table 8: Discourse Particles

Forms	Approximate Gloss
<i>ane</i>	‘then’
<i>aruwatxa</i>	‘that’s it’
<i>anhinhĩã</i>	‘then’
<i>ateeneka</i>	‘alright’
<i>aru₂</i>	‘right’
<i>uwaĩka</i>	‘so’
<i>uwã</i>	‘then’
<i>iye</i>	‘so’
<i>oposo</i>	‘then’
etc.	

Note that the form *iye* is included among the discourse particles in the table above. We have already seen *i-ye* being described in Table 3 as the masculine demonstrative form. The immediate question that arises is whether the discourse particle and the demonstrative are just different functions of the same morpheme, or whether they are actually different morphemes. There are reasons to say that the latter alternative better describes *iye*. That is, it would appear that the discourse particle *iye* is already a lexically distinct word. The main evidence for this is the fact that *iye* but not **oye* (the feminine demonstrative counterpart) can be used as a discourse particle. Similar reasoning applies to *aru*₂ in relation to the positive polarity marker *aru*₁.

Discourse particles are the sort of words that are generally not offered by speakers in elicited material and which they usually find difficult to translate into Portuguese. These same particles, however, are pervasive in natural (non-elicited) discourse, and they usually occur preceded as well as followed by short pauses. The proper analysis of discourse particles requires knowledge about the organization of discourse structures, something beyond the scope of this work. The examples in (36) illustrate the usage of some of the discourse particles:

- 36a. *aruwatxa*, *sitxinei*, *Ø-umu-pe-ka*
 so Sidi 3M-end-PFTV-PRED
 ‘That’s it, Sidi, it’s the end.’
- b. *uwaika*, *hātako-ro* *apa-nanu-ta-ru* *aōtu*
 so youth-F fetch-PROGR-VBLZ-3M.O “umari”
 ‘So, the young woman was fetching “umari” fruit.’
- c. *oposo*, *uwa*, *kema*, *anhika* *txa-pe-ro* *hātako-ro*
 then 3M.SG tapir take AUX-PFTV-PFTV youth-F
 ‘Then, the tapir, it took the young woman away.’
- d. *iye*, *owa*, *o-su-ka-sawaku* *aōkuta* *txa-ru* *i-ye* *kema*
 so 3F.SG 3F-go-PRED-TEMP see AUX-3M.O 3M-PROX tapir
 ‘So, she, when she went to see this tapir...’

6.8 Final Remarks

As is clear from the list of words belonging to the closed classes presented in this chapter, only a limited set of grammatical functions can be expressed in Apurinã by means of such independent words. This follows as a natural consequence of the wide range of grammatical functions expressed by bound formatives in the language, as the ones described in chapters 3-5 and the ones that will be described in the next chapter. Moreover, although closed word classes such as independent pronouns, in general, possess no inherent morphological properties formally marked (i.e., with very few exceptions such as the 3rd person plural marker *-na*, they are not generally segmentable into class-specific morphemes in the same way as nouns and verbs are). Finally, I will return to some of the closed classes or words in chapters 8-9, where the syntax of simplex sentences is described. As happens in various other places in this work, certain word properties can be better described within the specific domains of the grammar that these properties are most relevant to. This applies most clearly to the interrogative words and to the majority of the particles introduced above. In fact, even more than syntactic structures, discourse particles require information about the organization of the Apurinã discourse structure in order to be properly described. Since this work does not include a description of discourse structures, discourse particles cannot (unfortunately) be satisfactorily described here.

Special Bound Formatives

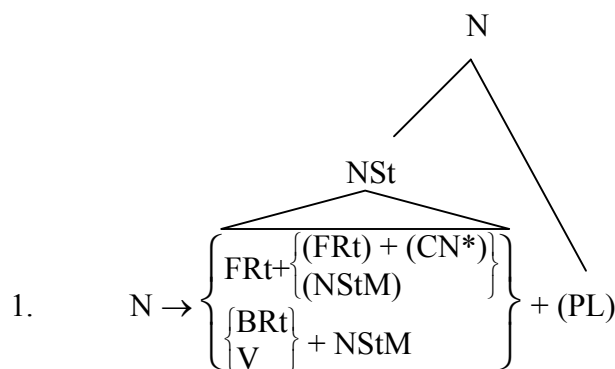
7.0. Introduction

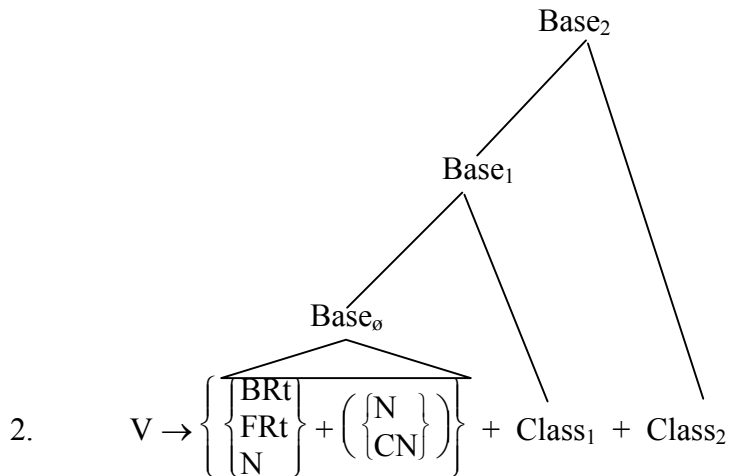
Chapters 4-6 described the morphological structure of nouns, verbs and closed word classes. In those chapters only affixes that were specific to one or the other word class were discussed in detail. The purpose of this chapter is to describe the various types of bound formatives that occur outside of the bound morphology described in chapters 4-6. The reason to describe this “outer” bound formatives separately from the “inner” bound formatives described in the previous chapters can be summarized as follows: (i) “Outer” bound formatives occur in positional classes located outside of the “inner” bound formatives; (ii) some of these “outer” bound formatives can “float” in the clause, attaching to host bases belonging to distinct word classes; and (iii) some of the “outer” bound formatives interact in special ways with syntactic phenomena. Insofar as the “outer” bound formatives occur in fixed positional classes, they are affix-like. However, insofar as some of these “outer” bound formatives can attach to different host bases and/or interact in special ways with syntactic structures, they have properties usually attributed to separate words. It is these three properties of the “outer” bound formatives that have led me to class them as a group of **special bound formatives** —to distinguish and describe them in a chapter of their own, separately from the more typical affixes presented in earlier chapters. Like the inherent formatives described for nouns and verbs

in chapters 4 and 5, respectively, special bound formatives do not change the category of the word they attach to, and, in this, sense, they are more inflection-like than derivation-like.

The organization of this chapter is as follows: Section in 7.1 will describe the meaning/function of special bound formatives, also illustrating the category of the host base which they attach; 7.2 will summarize the distribution of special bound formatives both in terms of how they are placed in their host base as well as in terms of their placement in relation to the clause. 7.3 will present a brief discussion of the category status of special bound formatives, justifying why the label ‘special bound formatives’ rather than ‘clitics’ is used. Finally, 7.4 will illustrate some cases of other (potential) special bound formatives that, however, still require further investigation.

Before going into the details of the description of special bound formatives, let me repeat in (1-2) the structure of nouns and verbs presented in chapters 4 and 5, respectively, so as to provide a general picture of the position of special bound formatives (as a group) in noun and verb host bases:





Given the noun structure in (1), the special bound formatives (that can occur with nouns) will attach to the right edge of the noun structure, except for the subject/possessor markers which will attach to the left edge of such a noun structure. Given the verb structure in (2), the special bound formatives (that can occur with verbs) will attach to the right edge of the verb structure, except for the subject/possessors markers which will attach to the left edge of such a verb structure.

7.1. The Meaning/Function of Special Bound

Formatives

The following subsections describe briefly the meaning and functional properties of the various types of special bound formatives. More detailed description of the meaning/function of these formatives will be provided in chapter 9, in the appropriate syntactic contexts. As will be seen in the various subsections below, the grammatical functions associated with special bound formatives do not yield other word (sub)categories; instead, they more often add grammatical meanings that are overtly

reflected in the noun phrase or in the clause, thus being inflection-like formatives. The order of presentation of each formative follows their internal distribution in the word base they attach to. This distribution will be summarized in terms of position classes in 7.2.

I should also note that in various subsections below one may feel the need to ask why certain forms are described as morphological units (rather than syntactic ones) when they are clearly associated with predicates, phrases, clauses or even discourse functions. The answer to this question follows from the definition of word and the domain of morphology as described for Apurinã in chapter 3. In its relevant definition, a word can be as complex as a phrase or clause; in fact, a word can stand syntactically as a phrase or as a clause. However, since the primary goal of morphology is to describe the structure of words, words need to be morphologically described even when they can stand by themselves as a phrase or clause. This in no way means that all formatives which are morphologically described cannot be syntactically described as well, or even described as to their discourse functions. To the contrary, such formatives are only morphologically described insofar as their place in the word needs to be established. Their precise function, however, in some cases can only be properly described within the syntactic or discourse domain. With this in mind, we can now proceed to analyze the meaning/functional properties of special bound formatives.

7.1.1. Subject/Possessor Pronominal Markers

The **subject/possessor pronominal markers**, briefly mentioned in the introduction to chapter 5, in section 5.0, consist of the set of bound pronominal formatives that can attach to nouns to express the possessor in a possession construction or to verbs to function as the subject marker. These pronominal markers, listed in Table

1, inflect for number, person and for the gender of third person singular: (See chapter 3, in subsection 3.6.2, for the allomorphic variations of these pronominal markers.)

Table 1: Subject/Possessor Pronominal Markers

Person & Gender	Subject/Pronominal Forms	
	SG	PL
1	<i>nu-</i>	<i>a-</i>
2	<i>pu-</i>	<i>hĩ-</i>
3M	<i>u-</i>	<i>u-...-na</i>
3F	<i>o-</i>	<i>o-...-na</i>

There are two reasons to include subject/possessor pronominal markers among special bound formatives: first, because they are in complementary distribution with coreferential preverbal subject NPs as well as with coreferential independent (pro)nominal possessors, and, second, because they can be described as attaching to both noun as well as verb bases. The list in (3-4) illustrates the pronominal markers both with verb forms and with noun forms:

3a. <i>nu-</i> 1SG	<i>nu-muteka</i> 1SG-run	‘I ran.’	4a. <i>nu-kuwu</i> 1SG-head.of	‘my head’
b. <i>pu-</i> 2SG	<i>pu-muteka</i> 2SG-run	‘You ran.’	b. <i>pu-kuwu</i> 2SG-head.of	‘your head’
c. <i>u-</i> 3M	<i>u-muteka</i> 3M-run	‘He ran.’	c. <i>u-kuwu</i> 3M-head.of	‘his head’
d. <i>o-</i> 3F	<i>o-muteka</i> 3F-run	‘She ran.’	d. <i>o-kuwu</i> 3F-head.of	‘her head’
e. <i>a-</i> 1PL	<i>a-muteka</i> 1PL-run	‘We ran.’	e. <i>a-kuwu</i> 1PL-head.of	‘our head’

f.	<i>hĩ-</i> 2PL	<i>hĩ-muteka</i> 2PL-run	‘You all ran.’	f.	<i>hĩ-kuwu</i> 2PL-head.of	‘your (PL)head’
g.	<i>u-...-na</i> 3-...-3PL	<i>u-muteka-na</i> 3-run-3PL	‘They ran.’	g.	<i>u-kuwu(-na)</i> 3-head.of-3PL	‘their head’

These examples illustrate the fact that the same pronominal forms attach to noun forms as well as to verb forms. Moreover, these pronominal markers are interpreted as subject markers when attached to verb bases, as shown in (3), and as possessor markers when attached to noun bases, as shown in (4). In (3) the standard intransitive verb *muteka* ‘to run’ (which could be replaced with any other standard intransitive verb or with any transitive verb, as many of the examples seen so far illustrate) inflect for person, number and (in the case of third person singular) gender. In (4) the alienable noun form *kuwu* ‘head of’ takes the corresponding pronominal forms that attach to noun bases to function as possessors. As was mentioned in the introduction to chapter 5, the formative *-na* in (4g) is a plural marker that is in a discontinuous dependency relation with the third person marker *u-*. That is, in order to express third person plural subject/possessor by means of the subject/possessor pronominal markers, the third person marker *u-* is prefixed to a verb/noun form and the third person plural marker *-na* is suffixed to the verb/noun form. Insofar as both *u-* and *-na* need to co-occur in order for the semantic ‘third person plural’ to be expressed through bound forms, *u-* and *-na* are in a discontinuous dependency relation. Since all special bound formatives are presented following the internal distribution in their host, and since *u-* and *-na* have distinct distributions within their host base, *-na* will only be properly presented later in subsection 7.1.13. Furthermore, *-na* is in parenthesis in (4g) to represent the fact that nowadays not all speakers make use of the plural marker *-na* in expressing third person plural. Some

speakers use, instead, only the form *u-* to express both third person singular masculine and third person plural masculine or feminine.¹

Note that these pronominal forms, when attached to noun forms as possessor markers, are not simply possession markers that are co-indexed with the "real" free expression of a nominal possessor; in fact, they are in complementary distribution with free nominal possessors, as shown by the examples in (5): (Underlining marks coreference.)

5a. *nota nu-nuro
1SG 1SG-mother.of
(my mother)

b. *pita pu-nuro
2SG 2SG-mother.of
(your mother)

c. *kuku u-nuro
3SG 3M-mother.of
(man's mother)

d. *suto o-nuro
woman 3M-mother.of
(woman's mother)

etc...

When used with verbs as subject markers, pronominal markers differ in one particular way from the more familiar agreement markers found in various other languages (e.g., Romance languages in general). In Apurinã, the subject/possessor pronominal markers are in complementary distribution with the coreferential pre-verbal

¹ In my last visit to the field, I also found that in some speech varieties the plural marker *-na* works as a plurality marker for both third person non-object and third person object. For example, in the Fortaleza village (Marahã area), 'They looked at me' is uttered as *Ø-etama-ta-no-ne* (3-look-VBLZ-1O-PL) and 'I looked at them' is uttered as

free subject (pro)nominal forms. That is, whereas pronominal markers used as possessors are in complete complementary distribution with any coreferential free (pro)nominal forms expressing the possessor, these same pronominal markers, when used as subject markers in verbs, are in complementary distribution with pre-verbal, but NOT with post-verbal, coreferential free (pro)nominal expressions of the subject. The complementary distribution is shown by the three examples in (6):

- 6a. **uwa* *u-su-pe*
 3SG.M 3M-go-PFTV
 (He has left.)
- b. **suto* *o-apo-pe*
 3SG.F 3F-arrive-PFTV
 (The woman has arrived.)
- c. **suto* *o-apa-nanu-ta-ru* *aõtu*
 woman 3F-fetch-PROG-VBLZ-3M.O umari
 (The woman was gathering “umari” fruit.)
- d. **nota* *nhi-nhika-ru* *nhi-nhipoko-re*
 1SG 1SG-eat-3M.O 1SG-food-POSSED
 (I ate my food.)

In (6a) the clause is ungrammatical because the pre-verbal independent pronoun *uwa* ‘3SG.M’ co-occurs with the coreferential subject/possessor pronominal marker *u-*; in (6b) the clause is ungrammatical because the pre-verbal nominal form *suto* ‘woman’ co-occurs with the coreferential subject/possessor pronominal marker *o-* ‘3M.O’; finally, in (6c-d) both clauses are ungrammatical because the pre-verbal noun form *suto* and the pre-verbal independent pronoun *nota* ‘1SG’ co-occur, respectively, with the coreferential pronominal markers *o-* in (6c) and *nhi-* (6d).

n-etama-ta—ne (1SG-see-VLBZ-PL). At this point I do not know how the potential ambiguity is resolved in cases

In contrast to pre-verbal free subject (pro)nominal forms and their coreferential pronominal markers, there is no complementary distribution between free post-verbal (pro)nominal forms and their corresponding coreferential subject/possessor pronominal markers in the verb, as the examples in (7) demonstrate:

- 7a. *u-su-pe* *uwa*
 3M-go-PFTV 3SG.M
 ‘He has left.’
- b. *o-apo-pe* *suto*
 3F-arrive-PFTV woman
 ‘The woman has arrived.’
- c. *aõtu* *o-apa-nanu-ta-ru* *suto*
 umari 3F-fetch-PROG-VBLZ-3M.O woman
 ‘The woman was gathering “umari” fruit.’
- d. *nhi-nhipoko-re* *nhi-nhika-ru* *nota*
 1SG-food-POSSED 1SG-eat-3M.O 1SG
 ‘I ate my food.’

Therefore, the descriptive facts reveal that (i) subject/possessor markers attached to verb forms are mutually exclusive with coreferential free pre-verbal (pro)nominal forms (but not with postverbal ones), that (ii) subject/possessor markers attached to noun forms are mutually exclusive with any free coreferential (pro)nominal element, and, also, that (iii) pronominal markers are obligatory if no pre-verbal nominal is found in a clause—although the converse is not true (see also 9.7.2).

The reason why the meaning ‘possessor’ is not included as part of the gloss of these pronominal markers in the examples above is that the meaning ‘possessor’ can be described as a function of the slot these markers occupy in the noun base, rather than as

where both core arguments are non-coreferential third person plural.

part of the meaning of each individual marker in the pronominal set. Analogous analysis applies to the pronominal markers when used as subject markers. Furthermore, as can be gathered from the way subject/pronominal markers are glossed in the previous examples, the analysis proposed here is that the same set of pronominal markers occurs with nouns to express the possessor, or with verbs to express the subject. The meanings ‘possessor’ and ‘subject’, in this case, are meanings assigned by the position classes in which these pronominal markers occur, not by each individual pronominal marker. The result of this analysis is that the same pronominal forms can attach to verbs or nouns, a result which will be significant to distinguish the special status of subject/possessor pronominal markers (along with the other special bound formatives discussed in this chapter) from the more typical affix categories described in chapters 3-6.

7.1.2. *Oblique Markers*

Oblique markers are the special bound formatives that attach to the rightmost noun or pronoun in phrasal constructions and bear peripheral grammatical relations to the predicator in the clause. Thus, these oblique markers occur as part of elements that bear the sort of peripheral grammatical relations generally marked with **adpositions** in languages that have **prepositions** or **postpositions**. Like postpositions, these oblique markers occur after the forms they attach to; also like postpositions, oblique markers occur with nouns or with pronouns. However, different from postpositions, they are phonologically attached to a word base. Insofar as they are integrated into the morphological structure of their host base and insofar as they mark peripheral grammatical relations, oblique markers bear formal and functional resemblance to **case-marking affixes** in languages with a system of case markers. The next subsections will

present the meaning/function of oblique markers in terms of the internal structure of their hosts. The survey of oblique markers presented below covers most of those attested in the language. There may be a few additional cases, but they require further verification.

7.1.2.1. Instrumental/Locative Oblique Marker: $-\tilde{a}_4$

The oblique marker $-\tilde{a}_4$ is often used as an **instrumental marker**, so that it will basically occur in ‘N/PRO used to V with’ constructions. The syntactic properties of $-\tilde{a}_4$ are described in 8.3.2.1 and 8.3.2.2. As all other oblique markers described below, the instrumental marker occurs with nouns or pronouns. The following examples illustrate a few ‘tools’ $-\tilde{a}_4$ often occurs with:

- 8a. *manopi- \tilde{a}_4 o-kama-ru*
 tipiti-INSTR 3F-make-3M.O
 ‘She makes it with/in the “tipiti”.’
- b. *serepi-txi- \tilde{a}_4 Ø-oka-ru*
 arrow-UNPOSS-INSTR 3M-kill-3M.O
 ‘He killed it with the arrow.’
- c. *kai- \tilde{a}_4 ù-asoka-ru*
 stone-INSTR 3M-beat-3M.O
 ‘He beat him/it with/in a stone’
- d. *tsapũãta- \tilde{a}_4 o-katsã-ã-ta*
 fish.hook-INSTR 3F-to.fish-LIQ-VBLZ
 ‘She fished with a fish-hook.’
- i. *uwa- \tilde{a}_4 nu-sawaka-ru*
 3SG.M-INSTR 1SG-cut-3M.O
 ‘I cut it/him with/in it.’

However, $-\tilde{a}_4$ is also often used to mark a **locative**, as in the following examples:

- 9a. *nu-parĩkawa-ta itokori- \tilde{a}_4*
 1SG-work-VBLZ field.farm-INSTR
 ‘I worked in the field farm.’

- b. *nu-parĩkawa-ta n-awapoko-ã₄*
 1SG-work-VBLZ 1SG-village-INSTR
 ‘I worked in my village.’

Although a more detailed semantic analysis of *-ã₄* is required, the data available suggests that this morpheme is only used with inanimates, both in locative and instrumental constructions. Moreover, its locative meaning is restricted to nominal expressions which most typically are interpreted as locations.

7.1.2.2. Associative Oblique Marker: *-kata*

The **associative oblique marker** *-kata* is used to mark associative constructions, so that N/PRO-*kata* will mean ‘in the company of N/PRO’ or ‘in association with N/PRO’. The syntactic properties of *-kata* are described in 8.3.2.3. The following are examples of the use of the associative marker:

- 10a. *a-ĩta-wako-ru-kata n-awa-ru*
 1PL-brother.of-PL-M-ASSOC 1SG-live-3M.O
 ‘I live/am with our cousins/brothers.’
- b. *nu-wãka-tu-kata n-awa-ru*
 1SG-namesake-big-ASSOC 1SG-live-3M.O
 ‘I live/am with my namesake.’
- c. *hãtako-ro o-unuro-kata n-atama-ta*
 youth-F 3F-mother.of-ASSOC 1SG-see-VBLZ
 ‘I saw the young woman with her mother.’
- d. *suto kuku-kata n-atama-ta*
 woman man-ASSOC 1SG-see-VBLZ
 ‘I saw the woman with the man.’
- e. *n-ama-ru₁-te-nhi-kata-ra n-awa-ru*
 1SG-kid-M-POSSED-ASSOC-FOC 1SG-live-3M.O
 ‘It’s with my injured son that I live/am.’

- f. *nota-kata* *o-apoka*
 1SG-ASSOC 3F-arrive
 ‘She arrived with me.’

The associative marker *-kata* seems to be restricted to forms referring to humans. The only attested case in which *-kata* is NOT used with humans was the construction *serota-ru₁-nanu-kata* [salt-M-RESTR-ASSOC] ‘only with salt’ which was given in a text. However, while transcribing this text with a different speaker, he stated that *-kata* did NOT fit there. It is possible that some speakers may be using *-kata* with non-humans by influence of Portuguese (where *com* ‘with’ is used non-distinctively with humans and non-humans). This possible influence of Portuguese, however, requires further verification.

7.1.2.3. Temporal Oblique Marker: *-sawaku*

The **temporal oblique marker** *-sawaku* occurs attached to nouns referring to instances of time or events to mark them as temporal constructions, as the two examples illustrate:

- 11a. *kuunuru-sawaku₁* *ata serena-ko*
 xingané-TEMP 1PL dance-FUT
 ‘We’ll dance during the “Xingané” festivities’
- b. *ōtu-sawaku* *n-apo-pe*
 day-TEMP 1SG-arrive-PFTV
 ‘I arrived during the day’
- c. *upuyã-sawaku* *n-ayata-ko*
 day-TEMP 1SG-hunt-FUT
 ‘I’ll go hunting during the night’

As described in this work, *-sawaku₁* is grammatically distinct from the phonologically identical form *-sawaku₂* (their commonality being describable in terms of

lexical redundancy rules) which will be described in chapter 9, in 9.1.3.2, a bound subordinator that attaches to the verb base to mark temporal subordinate clauses.

7.1.2.4. Goal (Allative) Oblique Marker: *-monhi*, *-mokaru*

The **goal (allative) oblique marker** *-monhi* or *-mokaru* is used mainly to mark goal, although (as we will see later) it can also be used in association with other semantic roles. Both the forms *-monhi* and *-mokaru* are attested, for example, in the Japiim village (10 in Figure 2 of chapter 1). As far as I can tell both forms are used with the same function and distribution, as we will see in chapter 8, under 8.3.2.4. Whether this reflects register differences (or something else) remains to be determined. The following examples illustrate the use of *-monhi/-mokaru*:

- 12a. *kikio-mokaru* *nu-sa-ru*
field.farm-GOAL 1SG-go-3M.O
'I went to the field farm.'
- b. *uwa-mokaru* *nu-suka-ru*
3SG.M-GOAL 1SG-give-3M.O
'I gave away to him.'
- c. *kukata-monhi* *u-su-pe*
afternoon-GOAL 3M-go-PFTV
'He has gone towards the afternoon.'

7.1.2.5. Contiguous Oblique Marker: *-takote*

The **contiguous oblique marker** *-takote* is simply used to mean 'next to' or 'near' the referent of the (pro)noun it occurs attached to; that is, it marks location proximity. The syntactic properties of *-takote* are described in 8.3.2.8. The following examples illustrate the use of *-takote*:

- 13a. *nh-ita-ru₁-takote* *n-awa-ru*
 1SG-brother.of-M-CONTIG 1SG-live-3M.O
 ‘I live near/next to my brother/cousin’
- b. “*agostinho*”-*takote* *n-awa-ta*
 Agostinho-CONTIG 1SG-live-VBLZ
 ‘...I live near Agostinho.’
- c. *uwa* *surũka-powa-ta* *owa-takote*
 3SG.M lie.down-AUG-VBLZ 3SG.F-CONTIG
 ‘He was lying down beside her.’

7.1.2.6. Causal Source Oblique Marker: *-xika*

The causal source oblique marker *-xika* attaches to (pro)noun bases to express the causal source of what is expressed in the predicate. The syntactic properties of *-xika* are described in 8.3.2.6. The following examples illustrate the use *-xika* with noun stems and pronouns:

- 14a. *suto-xika* *n-una-ru*
 woman-C.SOURCE 1SG-come-3M.O
 ‘I came because of the woman.’
- b. *anãpana-ru-xika*
 dog-M-C.SOURCE
 ‘...because of the dog’
- c. *uwa-xika*
 3SG.M-C.SOURCE
 ‘...because of him/it’

7.1.3. Emphatic Marking: *-putu*

As the name suggests, the **emphatic marker** *-putu* emphasizes the propositional meaning expressed by the clause within which this marker occurs, or it emphasizes the meaning of the word it attaches to in such a clause. This emphatic marker can attach to

noun bases, pronoun bases or to verb bases. In the first example in (15a), *kopiti-nhi* refers to a broken bucket, and when *-putu* is added to it, the meaning of the word is emphasized in the context in which it occurs. The remaining examples are analogous, except that in (15e-f) *-putu* attaches to a pronominal base:

- 15a. *n-apoka-ru kopiti-puti-nhi*
 1SG-find-3M.O bucket-EMPH-AFFECT
 ‘I found the really broken bucket.’
- b. *kopiti-nuru-putu-pe*
 bucket-PL-EMPH-PFTV
 ‘really buckets...’
- c. *kopiti-ta-putu*
 bucket-PL-EMPH
 ‘really a little pan...’
- d. *maku-putu-ka₄-ra*
 Brazil.nut-EMPH-PRED-FOC
 ‘(it is) really the Brazil-nut...’
- e. *nota-putu-ka₄-ra*
 1SG-EMPH-PRED-FOC
 ‘It’s I indeed.’
- f. *nota-putu-nhi*
 1SG-EMPH-AFFECT
 ‘Poor me!’

The examples in (16) illustrate the use of *-putu* in verb bases, where it occurs emphasizing the meaning of the clausal proposition:²

- 16a. *nhi-nhika-putu-ka₄-ru*
 1SG-eat-EMPH-PRED-3M.O
 ‘I ate it indeed.’

² Some of the usages of *-putu* can also be characterized as marking a degree of certainty or truth and, to this extent, as marking evidentiality. These usages, however, require further investigation.

- b. *nu-muteka-putu-ka₄*
 1SG-eat-EMPH-PRED
 ‘I ran indeed.’

7.1.4. *Gerund Marking: -inhi*

The **gerund** marker *-inhi* was introduced in chapter 4, in subsection 4.4.7, as a bound formative that attaches to verb bases to form noun-like verb forms or deverbal-like noun forms. The fact is that *V-inhi* has both nominal and verbal properties, and this is a good reason to include it in the discussion of the verb structure. Gerund, therefore, differs from other special bound formatives in possessing this sort of hybrid category-yielding nature. Notice, however, that the property of sharing features of different categories is part of what defines ‘gerund’ cross-linguistically.

In both examples in (17), the *V-inhi* bases include object markers (i.e., *-ru* ‘3M.O’ and *-no* ‘1SG.O’), giving *V-inhi* morphological verbal properties:³

- 17a. *n-ayat-inhi-ru-ko*
 1SG-hunt-GER-3M.O-FUT
 ‘My hunting for it/him...’
- b. *u-suk-inhi-no-ko*
 3M-give-GER-1SG.O-FUT
 ‘His giving away to me...’

I will return to discuss the status of *V-inhi* in the context of syntax in chapter 9, subsection 9.1.2.2.3.

³ When *-inhi* is attached to a vowel final word form, the vowel preceding *-inhi* is deleted, as described in chapter 4, subsection 4.4.7.

7.1.5. *Affectedness Marking: -nhi*

The **affectedness** marker *-nhi* can also attach to noun bases, pronoun bases or to intransitive verb bases. In syntactic terms, when attached to noun bases, *-nhi* occurs with nouns functioning as arguments changing in location/state (physically or metaphorically). For this reason, in the past I have referred to this formative as a **theme marker** (Facundes 1992, where the analysis, terminology and ideas are based on DeLancey 1991, 1984). Usually the change of location/state is accompanied by some negative affectedness. It is based on its semantic properties that I will refer to *-nhi* as a marker of affectedness. (I will postpone a more detailed discussion of the functions of *-nhi* to chapter 8, in 8.3.1.4.) It is easy to perceive the notion of “affectedness” involved in the use of *-nhi*. So, for example, take a noun stem such as *powa* ‘lake’; as shown in (18a), when *-nhi* is added to this word, *powa* is understood to somehow have undergone some change by being (negatively) affected by an action or process, thus leading speakers/hearers to interpret it as ‘dried up lake’. The remaining examples in (18) follow similar patterns, as also does the example given earlier in (15a), except that in (18d) *-nhi* attaches to a pronominal base:

- 18a. *upowa-nhi* *n-atama-ta*
lake-AFFECT 1SG-see-VBLZ
‘I saw the dried up lake.’
- b. *anāpa akatsata-ru kuki-nhi*
dog bite-3M.O man-AFFECT
‘The dog bit the injured man.’
- c. *suto-nhi*
woman-AFFECT
‘the injured woman...’

- d. *uwa-nhi* *hãkiti* *nhi-pe*
 3SG.M-AFFECT jaguar eat-PFTV
 ‘The jaguar has eaten him/it.’ (R:N)

When the affectedness marker attaches to intransitive verb bases, it adds the same meaning as it does when added to noun bases, namely that of negative affectedness or change in location/state. When attached to a verb base, the scope of the meaning of *-nhi* is the core argument of an intransitive verb, as the next examples in (19) illustrate:

- 19a. *i-nhipoko-ta-nhi-ko*
 3M-eat-VBLZ-AFFECT-FUT
 ‘He now feels like eating.’ (i.e. ‘He’s hungry’)
- b. *u-muteka-nhi-pě-ka*
 3M-run-AFFECT-PFTV-PASS
 ‘He (being hurt) had to run.’
- c. *u-muteka-nanu-ta-nhi-ka₄*
 3M-run-AFFECT-VBLZ-AFFECT-PRED
 ‘He (being hurt) is running.’

The meaning of *V-nhi* would seem to suggest that it can occur both with transitive and intransitive verbs. If that were the case, we would expect that with transitive verbs the affectedness marker would most likely modify (semantically) the notional object of the verb. However, so far I have not attested any instance of *V-nhi* where *V* is transitive.

7.1.6. *Perfectivity Marking: -pe, -panhi*

There are two **perfectivity markers** that can attach to noun bases, pronoun bases or verb bases, namely the **perfective** and **imperfective** aspectual markers. One can argue that aspectual markers should NOT be considered as part of the noun or pronoun morphology, since the scope of such a marker is the event/state rather than the referent of

the noun or pronoun in question. Or, conversely, one can argue that word bases taking perfectivity markers are not noun or pronoun forms since they take marking forms associated with the event/state expressed in the verb. Although, in a general sense, both arguments could be correct in other languages (or in Apurinã under a different view of the domain of morphology), the fact is that the word forms described below as taking aspectual markers fit the definition of grammatical words given in chapter 3, regardless of their translation into English. In other words, there is no reason to think that perfectivity markers make a noun or a pronoun into a verb. In the following subsection, I will merely illustrate some examples of noun, pronoun and verb bases marked with perfectivity markers. I will return to the discussion of perfectivity markers in chapter 8, in 8.6.2, where I will provide a more detailed description of the semantics of perfectivity markers. In translating clauses marked with perfectivity markers, I will use the English perfective form *have V-ed* to translate the perfective marking, and the English form *still/yet* to translate the imperfective marking. Although this does not constitute a “perfect” translation of the perfectivity markers, it covers some of their most typical meanings—which will be described in detail in chapter 8.6.2.

7.1.6.1. **Perfective Marker: -pe**

The **perfective marker** *-pe* can occur attached to noun bases, pronoun bases, or to verb bases. The example in (20a) illustrates *-pe* with the noun *kuku* ‘man’. In this example the translation into an English **cleft** (e.g., as illustrated in Givón 1990:704) construction is motivated by the **focus marker** (described in 7.1.11) and has nothing to do with the perfective marker itself. I will postpone a full description of the meaning properties of the perfective marker to chapter 8, in 8.6.2.1, since such a description can

only be properly presented in a clausal context. The examples in (20b-c) are analogous to (20a), and the one in (20d) attaches to a pronominal base:

- 20a. *kema-kata-pe* *o-su-p-inhi-nhi*
 tapir-ASSOC-PFTV 3F-go-PFTV-GER-AFFECT
 ‘... her having gone with the tapir.’
- b. *epu kanaanu-pe-ka₄*
 two year-PFTV-PRED
 ‘two years have passed...’
- c. *kuku-pe-ka₄-ra* *apo-ka₄*
 man-PFTV-PRED-FOC arrive-PRED
 ‘(It’s) the man that has arrived.’
- d. *owa-pe-ka₄-ra...* *hātako-ro...*
 3SG.F-PFTV-PRED-FOC youth-F
 ‘(It’s) been her... the young woman...’

The examples in (21) show the use of the perfective marker with verb bases:

- 21a. *nhi-nhipoko-ta-pe-ka₄*
 1SG-eat-VBLZ-PFTV-PRED
 ‘I’ve already eaten.’
- b. *sotu hākiti oka-pe*
 deer jaguar kill-PFTV
 ‘The jaguar has already killed the brown deer.’
- c. *nu-su-pe-ka-ko*
 1SG-go-PFTV-PRED-FUT
 ‘I’ll already get going.’

7.1.6.2. Imperfective Marker: *-panhi*

The **imperfective marker** *-panhi* can also occur attached to a noun base, a pronominal base or to a verb base. In the examples in (22a-b), *-panhi* attaches to nouns, and in (22c), it attaches to a pronoun base:

- 22a. *hātako-ru₁-panhi kona apo-ka₄*
 youth-M-IMPFTV not arrive-PRED
 ‘The boy has not arrived yet.’
- b. *epu kanaanu-panhi*
 two year-IMPFTV
 ‘...still two years’
- c. *wai-ka-ra-no nota-panhi*
 be.here-PRED-FOC-1SG.O 1SG-IMPFTV
 ‘(It’s) here that I am still.’

(23) illustrates the imperfective marker occurring with verb bases:

- 23a. *nhi-nhipoko-ta-panhi-ka₄-ko*
 1SG-eat-VBLZ-IMPFTV-PRED-FUT
 ‘I’m still going to eat.’
- b. *hākiti n-oka-panhi-ka₄*
 jaguar 1SG-kill-IMPFTV-PRED
 ‘I’m still going to kill the jaguar.’
- c. *kona u-su-pe-ka*
 not 3M-go-IMPFTV-PRED
 ‘He has not left yet.’

A more precise description of the meaning of the imperfective marker is provided in chapter 8, under 8.6.2.2 where the relevant pieces of syntactic and semantic information are taken into consideration.

7.1.7. *Predicate Marking: -ka₄*

The **predicate marker** *-ka₄* occurs attached to word bases that are used as predicators. Such word bases include (at least) verb bases, noun bases, pronoun bases, numeral bases, and particle bases. With nouns, pronouns or particles, *-ka₄* functions as non-verbal predicate marker, attaching to the head of such a non-verbal predicate

construction. The examples in (24) illustrate *-ka₄* with non-verbal predicate constructions:

- 24a. *popũka-ru-ka₄-ra-no*
Apurinã-F-PRED-FOC-1SG.O
'I (really) am Apurinã.'
- b. *watxa-ka₄-ra-ko*
ADV.PTC-PRED-FOC-FUT
'(It) will really be today/now.'
- c. *hãt-u-ka₄-ra-ko*
one-M-PRED-FUT
'(It) will be one.'
- d. *uwa-putu-ka₄-ma-ra-ko*
3SG.M-EMPH-PRED-FRUSTR-FOC-FUT
'(It) would be him but....'

When attached to verb bases, *-ka₄* has no apparent grammatical meaning or function, working simply as an optional “filler” or empty formative. I call it “predicate” marker because it occurs with non-verbal bases when these are in predicate position. With verbs it can follow the perfectivity markers (as in 20-23), the class₂ formatives habitual, hypothetical, or imminent markers (described in chapter 5), the emphasis marker (as in 16b), or certain verbal roots, as in (25b) below. The example in (25a) shows that *iri* ‘to fall’ is a free verb root (otherwise *iri* could not take a subject/possessor pronominal marker and, also, precede a free subject form coreferential with the pronominal marker); (25b) shows *-ka₄* following a free verbal root. Note that the meaning difference between (a) and (b) in (25) is due to the presence/absence of the perfective marker, and not to the presence/absence of *-ka₄*:

25a. *nh-iri-pe* *nota*
 3M-fall-PFTV 1SG
 ‘I’ve fallen down.’

b. *nh-iri-ka₄* *nota*
 1SG-fall-PRED 1SG
 ‘I fell down.’

There are rare clear cases of *-ka₄* attaching directly to a free verb root such as *iri* ‘to fall’. There is some evidence that */#irika#* used to be an unanalyzable form, and that *iri* results from a reanalysis of */#irika#* into */#iri+ka#*. Such a reanalysis would be motivated by a phonological process of root shortening similar to *suka* > *su* ‘to go’, *umaka* > *uma* ‘to sleep’ and so on that happens in natural discourse. *iri* would be then the result of a root shortening process that nowadays happens often enough to lead speakers/hearers to reanalyze it as a full free verbal root. I will not attempt to describe here such a reanalysis, nor the root shortening phonological process involved in it, simply because it is still a rather preliminary analysis which still requires a more systematic verification of the relevant data.

The reason to say that *-ka₄* carries no grammatical meaning or function when attached to verbs is that whatever verb bases it occurs with no meaning is added/subtracted by its presence/absence, and, moreover, its presence is optional, as the next examples in (26) show (in these examples parentheses indicate that the form is optional):⁴

26a. *owa* *txita-pi-(ka₄)*
 3SG.F fight-HAB-(PRED)
 ‘She is always fighting.’

⁴ In some speech varieties, however, *-ka* seems to be in a dependency relation with the morphemes *-pi*, *-napano*, and *-putu* such that it cannot be omitted when co-occurring with any of these morphemes.

- b. *n-umaka-napano-(ka₄)*
 1SG-sleep-IMMIN-(PRED)
 ‘I was about to sleep.’
- c. *nu-muteka-putu-(ka₄)*
 1SG-run-EMPH-(PRED)
 ‘I ran indeed.’
- d. *uwa nhipoko-ta-pi-(ka₄)*
 3SG.M eat-VBLZ-HAB-(PRED)
 ‘He is always eating.’
- e. *n-umaka-napano-(ka₄)*
 1SG-sleep-IMMIN-(PRED)
 ‘I’m about to sleep.’

7.1.8. “Passive” Marking: *--ka*

The formative *--ka*, where “~” is a nasal feature that is added to the immediately preceding vowel in the base this marker attaches to, has been described by Pickering (1971:17, where the formative is represented as *-Ṽka*) as marker of a passive verb form⁵. As a “passivizer” marker, *--ka* attaches to a verb base to make the subject encode a “patient” role. For the present purposes, a “patient” is understood as an affected, non-volitional semantic role. More standardized terms for semantic roles are provided in chapter 8, under 8.3. The examples in (27) illustrate this “passivizing” function of *--ka*:

- 27a. *Ø-oka-pẽ-ka*
 3M-kill-PFTV-PASS
 ‘He was killed.’

⁵ Only recently I have been able to attest the form *-Ṽka* in the Fortaleza village. There speakers lengthen and nasalize the vowel preceding the “passivizing” marker, cf. *Ø-oka-pe-ka-ru* (3M-kill-PFTV-PRED-3M.O) ‘He killed it’ and *Ø-oka-pe-ẽka* (3M-kill-PFTV-PASS) ‘He was killed.’

- b. *n-apoka-pẽ-ka*
 1SG-find-PFTV-PASS
 ‘I have been found.’
- c. *u-pata-pẽ-ka*
 3M-cover-PFTV-PASS
 ‘It has been covered.’
- d. *uwa-nhi ãkiti oka-pẽ-ka*
 man-AFFECT jaguar kill-PFTV-PASS
 ‘The man was killed by the jaguar.’

The examples in (27a-c) all take the subject/possessor pronominal marker which, however, maps onto “patient”-like (rather than onto “agent”-like semantic arguments). In Apurinã, when the free nominal expressions that encode, respectively, “agent”-like and “patient”-like semantic roles co-occur pre-verbally, the unmarked interpretation is that the pre-verbal nominal free expression that occurs adjacent to the verb maps onto the “agent”-like semantic role. The fact that in (27d), the pre-verbal nominal expression that occurs adjacent is interpreted as mapping onto a “patient”-like semantic role also follows from the presence of the “passive” marker in the verb.

However, examples such as the ones in (27) are scarce in text material, although they are generally accepted by speakers. Only (27a) comes from naturally occurring speech (in the Água Preta Village, number 5 in Fig. 2 of chapter 1). Not only that but, also, another use of *-~ka* is in combination with the perfective marker *-pe* and, less often, with the imperfective marker *-panhi*, in both cases, however, without the passive meaning, as the next examples in (28) illustrate.⁶

- 28a. *uwã u-su-pẽ-ka*
 there 3M-go-PFTV-PASS

⁶ This use of the “passivizing” marker does not, however, apply to all speech varieties.

‘He/It has gone (somewhere).’

- b. *uwã Ø-etama-panhĩ-ka-ko*
there 3M-see-IMPTV-PASS
‘He/It still will go there.’
Lit.: ‘He/It still will see there.’
- c. *sotu ãkiti akatsa-pẽ-ka*
deer jaguar bite-PFTV-PASS
‘The jaguar has already bitten the deer.’
- d. *kariwa i-txa-pẽ-ka-wa*
white.person 3M-be-PFTV-PASS-REFL
‘He/it became a white man.’

Furthermore, some speakers do not accept examples with *--ka* marking what would, otherwise, seem to be good passivized forms, as illustrated in (29), where *--ka* is not preceded by the perfective or imperfective marker:

29. **i-nhikã-ka*
3M-eat-PASS
(He/it was eaten.).

Assuming that Pickering's original analysis of *--ka* was correct at the time he had contact with Apurinã, the present behavior of *--ka* may be the result of changes in its meaning/function. Although what exactly this meaning/function is turns out to be difficult to pinpoint on the basis of the current data available, I would tend to say that it seems to highlight the particular type of (im)perfectivity of the verb. I will return to *--ka* when describing (im)perfectivity in chapter 8, under 8.6.2.

7.1.9. **Restrictive Marker: -nanu**

The **restrictive marker** *-nanu* occurs with noun bases or pronoun bases, and its meaning can be translated as ‘only’, as is clear from the examples in (30) —where the

translation into predicate constructions is simply a by-product of how focus constructions are formally expressed in English (see 7.1.11):

- 30a. *a-sākire-nanhi-nhi* *n-umata*
1PL-language.of-RESTR-AFFECT 1SG-know
'I know only our language.'
- b. *katarokuru-nanu-ra* *nhi-nhika*
manioc.flour-RESTR-FOC 1SG-eat
'It's only manioc flour that we eat'
- c. *serota-kata-nanu-ra*
salt-ASSOC- RESTR-FOC
'(It's) only with salt...'
- d. *uwa-nanu* *su-pe*
3SG.M-RESTR go-PFTV
'Only he has left.'

In (30a-c) *-nanu* attaches to noun bases, while in (30d) it attaches to a pronoun base.

In addition to *-nanu*, the bound formative *-noka* has also been attested in the language. As shown in (31), *-noka* has roughly the same meaning as *-nanu*. However, further investigation is necessary in order to determine, for example, whether there is any grammatical distinction between *-nanu* and *-noka*, or whether the use of these formatives is simply conditioned by distinct speech varieties.

- 31a. *u-kuwu-noka* *n-atama-ta*
3M-head.of-RESTR 1SG-see-VBLZ
'I saw only his/its head.'
- b. *nota-noka* *apoka*
1SG-RESTR arrive
'I arrived alone.'

7.1.10. Frustrative Marking: *-ma*

The **frustrative** marker *-ma* is used to mean that whatever the result of an event/state is, it is not the one desired or expected. Although the grammatical meaning of the morpheme is associated with the predicate, *-ma* can nevertheless occur attached to noun bases, pronoun bases, aside from verb bases. The grammatical function of *-ma* will be clearer when described in clausal contexts in chapter 8, in 8.8.1.2, where expanded examples will be provided. The following examples illustrate this formative with noun and pronoun bases:

- 32a. *youka-ke-ma-ra* *apoka*
Youka-stick-FRUST-FOC arrive
'It's the skinny Youka that had arrived but...'
- b. *nota-ma* *uwa-kata* *sāki-rewa-ta-pe* *kona nu-sa-ru*
1SG-FRUST 3SG.M-ASSOC talk-INTR-VBLZ-PFTV not 1SG-go-3M.O
'I talked to him but I didn't go (with him).'

When attached to verb bases, the frustrative marker has the same role as it does with noun or pronoun bases, namely to mark the result of an event/state as somehow undesired or unexpected, as illustrated below in (33):

- 33a. *nu-nuta-pe-ka-ma-ru* *kona n-apoka-ru*
1SG-search-PFTV-PASS-3M.O not 1SG-find-3M.O
'I searched it/him but I didn't find it/him'
- b. *Ø-oka-ma-ru-ko*
3M-kill-FRUST-3M.O-FUT
'He'd kill it but...'
- c. *nhi-nhipoko-ta-ma-ko*
1SG-eat-VBLZ-FRUST-FUT
'I'd eat but...'

This "frustrative" meaning is the core meaning of *-ma*. Other meanings and functions can also be associated with this formative, and these will be seen in chapter 8, under 8.8.1.2.

7.1.11. *Focus Marking: -ra*

The **focus marker** *-ra* is used to mark focus of attention constructions, such that, e.g., *N-ra* translates into English as 'it's N that'. Thus, noun bases or pronoun bases marked with *-ra* are generally translatable into English as **cleft constructions** (e.g., as illustrated for English in Givón 1990:704), as the examples in (34) show. (34a-c) illustrate *-ra* with noun bases, and (34d-e) illustrate *-ra* with pronoun bases:

- 34a. *kopiti-ka₄-ra* *o-kama*
 bucket-PRED-FOC 3F-make
 'It's the bucket that she made.'
- b. *maku-putu-ka₄-ra* *n-apoka*
 Brazil.nut-EMPH-PRED-FOC 1SG-find
 'What I found was indeed Brazil-nut.'
- c. *katarokuru-nanu-ra*
 manioc.flour-RESTR-FOC
 '(It's) only manioc flour...'
- d. *a-serota-re-kata-nanu-ra*
 1PL-salt-POSSED-ASSOC-RESTR-FOC
 '(It's) only our salt...'
- e. *uwa-ka₄-ra*
 3SG.M-PRED-FOC
 'It's him!'
- f. *nota-ka₄-ra*
 3SG.M-PRED-FOC
 'It's me!'

Notice that the fact that *N-ra* and *PRO-ra* constructions in (34) (as in all other examples of *N-ra* and *PRO-ra* constructions) translate into predicates in English does not

necessarily mean that they constitute (verbal) predicates in Apurinã. In fact, *V-ra* constructions do NOT constitute verbal predicates, although they (as any other nominal construction) can be used as non-verbal predicates in the language (see chapter 8, subsection 8.4.2) or be marked as predicate with the predicate marker *-ka₄*, as in (34a-b, e-f). *N-ra* and *PRO-ra* constructions could as well be translated with a special intonation in a language that makes use of intonation to mark focus of attention.

When attached to verb bases, *-ra* functions as a focus of attention marker as well, but to the verb. The capital letters used in the free translation of the examples in (35) express the meaning of *-ra* on verbs as a marker of focus of attention:

- 35a. *Ø-iketa-ra-ko*
 3M-get.dark-FOC-FUT
 ‘The NIGHT WILL COME DOWN.’
- b. *nu-suka-pe-ka₄-ra-ru*
 1SG-give-PFTV-PRED-FOC-3M
 ‘I HAVE GIVEN AWAY to him.’
- c. *nu-suka-ra-ru*
 1SG-give-FOC-3M.O
 ‘I GAVE AWAY to him.’

7.1.12. *Object Pronominal Marking & Reflexive Set: -no, -i, -ru ...; -wa*

Object pronominal markers attach to a verb base to encode (morphosyntactically) the object of this verb. These markers were briefly mentioned in the introduction to chapter 5 (Table 1), along with the subject/possessor pronominal markers, and are illustrated in (36):

- 36a. *-no* *p-atama-ta-no*
 1SG.O 2SG-see-VBLZ-1SG.O

- ‘You saw me.’
- b. *-i* *n-atama-ta-i*
 2O 2SG-see-VBLZ-2O
 ‘I saw you (SG/PL).’
- c. *-ru* *p-atama-ta-ru*
 3M.O 2SG-see-VBLZ-3M.O
 ‘You saw him/it.’
- d. *-ro* *p-atama-ta-ro*
 3F.O 2SG-see-VBLZ-3F.O
 ‘You saw her/it.’
- e. *-wa* *p-atama-ta-wa*
 1PL.O 2SG-see-VBLZ-1PL.O
 ‘You saw us.’
- f. *-ru* *p-atama-ta-ru*
 3O 2SG-see-VBLZ-3M.O
 ‘You saw them (F/M).’

As happens with subject/possessor pronominal markers when attached to verb bases (as described in 7.1.1), object pronominal markers are in complementary distribution with coreferential free (pro)nominal expressions when the latter are pre-verbal. The examples in (37) are ungrammatical because each of them show a pre-verbal free expression that is coreferential with the object pronominal marker in the verb:

- 37a. **aõtu* *o-apa-nanu-ta-ru*
 umari 3F-fetch-PROG-VBLZ-3M.O
 (She was gathering “umari” fruit.)
- b. **nota* *nhi-nhipoko-re* *nhi-nhika-ru*
 1SG 1SG-food-POSSED 1SG-eat-3M.O
 (I ate my food.)

The **reflexive marker** *-wa*, illustrated in (38), occupies the same “slot” as the object pronominal markers:

38. *-wa*
REFLEXIVIZER
- a. *nhi-yōka-ta-wa*
1SG-paint-VBLZ-REFL
'I painted myself.'
 - b. *pi-yōka-ta-wa*
2SG-see-1SG.O
'You painted yourself.'
 - c. *o-yōka-ta-wa*
3F-see-2O
'She painted herself.'
 - d. *i-yōka-ta-wa*
3M-paint-VBLZ-REFL
'He painted himself.'
 - e. *a-yōka-ta-wa*
1PL-paint-VBLZ-REFL
'We painted ourselves.'
 - f. *hĩ-yōka-ta-wa*
3PL-paint-VBLZ-REFL
'You (PL) painted yourselves.'
 - g. *i-yōka-ta-wa-na*
1SG-paint-VBLZ-REFL-PL
'They (F/M) painted themselves.'

That object markers and the reflexive marker belong in the same position class is suggested by their complementary distribution, as shown in (39):

- 39a. **nhi-yōka-ta-wa-no*
1SG-paint-VBLZ-REFL-1SG.O
(I painted myself.)
- b. **nhi-yōka-ta-no-wa*
1SG-paint-VBLZ-1PL.O-REFL
(I painted myself.)

For more on the reflexive marker, see discussion in 8.5.2.2 on reflexivization as a valence-decreasing operation.

7.1.13. 3rd Person Plural Subject/Possessor Marking: *-na*

As already anticipated earlier in 7.1.1, the **third person plural subject/possessor marker** *-na* is a formative that is in a discontinuous dependency relation with the third person pronominal marker *u-* in the verb or noun base, as described in 7.1.1 and illustrated in (3g) and in (4g). The following examples in (40-41) further illustrate the third person plural subject/possessor marker with verb base and noun base, respectively:

40a. *i-nhika-ru-na*
3PL-eat-3M.O-3PL
'They (M) ate it/him.'

b. *kona ð-oka-ro-na*
not 3F-kill-3F-3PL
'They (F) killed it/her.'

41a. *Ø-unuro-na*
3M-mother.of-3PL
'Their (M) mother'

b. *ð-unuro-na*
3F-mother.of-3PL
'Their (F) mother'

As was mentioned earlier in 7.1.1, there are speakers that do not overtly mark the masculine-feminine gender distinction in the plural, using, instead, the subject/possessor masculine form, i.e. *u-*, plus the plural marker, i.e. *-na*. That is, for some speakers (and, perhaps, speech varieties to be determined), an example such as that in (41a) can mean either 'their (M) mother' or 'their (F) mother'.⁷

⁷ See also footnote 1. in this chapter.

7.1.14. Future Marking: *-ko*

The **future marker** *-ko* refers to the non-immediate future tense of the verb, but it can, however, occur attached to noun bases, pronoun bases, numeral bases, and particle bases, in addition to verb bases, thus constituting another example of a formative whose scope is not necessarily the word it attaches to. I will return to discuss this marker in chapter 8, in 8.6.1.1, where tense will be described in clausal context. The following examples in (42) are illustrative of it:

- 42a. *katarokuru-nanu-ra-ko*
manioc.flour-RESTR-FOC-FUT
'(It's) only manioc flour (that) will...'
- b. *maku-putu-ka₄-ra-ko*
Brazil.nut-EMPH-PRED-FUT
'(It's) broken buckets (that) will...'
- c. *kopiti-ka₄-ra-ko* *o-kama*
bucket-PRED-FOC-FUT 3F-make
'(It's) the bucket that she'll make.'
- d. *nota-ko* *suka-ru*
1SG-FUT give-3M.O
'I'll give away to him.'
- e. *hāt-u-kata-ra-ko*
one-M-ASSOC-FOC-FUT
'(It) will (be) with one that...'
- f. *kona-ko* *nhi-txiparu-te* *nhi-suka-i*
not-FUT 1SG-banana-POSSED 1SG-give-2O
'I won't give you banana.'

(42a-c) show the future marker attached to noun bases; (42d) shows the future marker with a pronoun base; (42e) shows the future marker with a numeral base; and, (42f) shows the marker with a negative particle.

When attached to verb bases, *-ko* also marks the future tense, as the examples in

(43) (in addition to many earlier examples) demonstrate:

- 43a. *nhi-nhipoko-ta-ko*
1SG-eat-VBLZ-FUT
'I will do eating.'
- b. *p-imaka-ko*
2SG-sleep-FUT
'You'll sleep.'
- c. *a-kama-ru-ko*
1PL-make-POS-3M.O-FUT
'We'll make it.'
- d. *o-taka-ru-ko*
3F-put/plant-3M.O-FUT
'She'll put it (somewhere)/plant it.'

In 8.6.1.1 I will discuss in detail the kind of future *-ko* marks.

7.2. Distribution of Special Bound Formatives

As was shown in the previous section, special bound formatives can be described in terms of bound formatives that (with the exceptions to be noted below) attach to various word bases. Hence, the distribution of special bound formatives needs to be described both in terms of their positioning inside the host base and in terms of their positioning in the clause where their host base occurs. In the presentation below, in 7.2.1 I will first describe how special bound formatives are distributed in position classes in the word bases they attach to, then in 7.2.2. I will describe how these special formatives are distributed in the clause where their host base occurs.

7.2.1. *Distribution of Special Bound Formatives in the Host Base*

As was shown above, except for the subject/possessor pronominal markers (described in 7.1.1), special bound formatives occur after the word bases they attach to. That is, the overwhelming majority of special bound formatives resemble suffixes in terms of their linear position inside their host base. Moreover, when special bound formatives co-occur with any of the suffixes described for nouns, verbs, and closed word classes in chapters 4-6, special formatives occur after such suffixes. So, in (44a) the reciprocal marker *-kaka* is the element that occupies the last position class among class₂ formatives (as was shown in chapter 5, under 5.2.1.2.2), whereas the emphatic marker *-putu* (as was shown in 7.1.3) is a special bound formative:

- 44a. *ã-atama-ta-kaka-putu*
1PL-see-VBLZ-REC-EMPH
'We indeed see each other.'
- b. *kopiti-nu-ru₁-putu-ka₄-ra*
pot-PL-M-EMPH-PRED-FOC
'It's indeed the pans.'

In (44b), the emphatic marker attaches to a noun base after the plural masculine markers. As was shown in chapter 4, in 4.5.14, the gender marker is the rightmost suffix that attaches to noun stems.

Special bound formatives can also be distinguished from the class₁ bound formatives that were described as part of the suffixal morphology of non-descriptive verbs in chapter 5, in 5.2.1.1. Differently from class₁ bound formatives, special bound formatives can never precede the verbalizer *-ta*, as seen below:

- 45a. **nhi-nhipojo-nhi-ta* ...
 1SG-eat-AFFECT-VBLZ
 (I did eating.)
- b. **nhi-nhika-pe₂-ka₄-ta* ...
 1SG-eat-PFTV-PRED-VBLZ
 (I almost ate...)
- c. **nhi-nhika-panhi-ka₄-ta* ...
 1SG-eat-IMPTV-PRED-VBLZ
 (I started to eat...)
- d. **nhi-nhikã-ka-ta* ...
 1SG-eat-PASS-VBLZ
 (I made eat...)
- e. **a-nhika-kaka-ta* ...
 1PL-eat-HAB-VBLZ
 (I always eat...)
- f. and so on.

In addition to that, special bound formatives are still different from class₁ forms in that the former do not require the presence of the verbalizer, as the next examples in (46) show (where parentheses indicate that the formative can be omitted in that particular example):

- 46a. *nhi-nhika-(ta)-putu* ...
 1SG-eat-VBLZ-EMPH
 ‘I indeed ate...’
- b. *nhi-nhipoko-(ta)-nhi*
 1SG-eat-VBLZ-AFFECT
 ‘I (being injured/sick) did eating.’
- c. *nhi-nhik-(t)-inhi*...
 1SG-eat-VBLZ-GER
 ‘my eating...’
- d. *nhi-nhika-(ta)-pe*...
 1SG-eat-VBLZ-PFTV
 ‘I’ve already eaten...’

- e. *nhi-nhika-(ta)-panhi...*
1SG-eat-VBLZ-IMPFTV
'I'm still to eat...'
- f. *nhi-nhika-(tã)-ka...*
1SG-eat-VBLZ-PASS
'I was eaten...'
- g. and so on.

Special bound formatives are also linearly organized in relation to one another and in relation to the host base. The position class distribution for each special bound formative inside the verb base is given in Table 2, as well as the indication of whether each of these formatives occur or not with standard intransitive and/or transitive verbs:

Table 2: Special Bound Formatives and their Position Classes in a Verb Base⁸

POS. CLASS:	-1	1	2	3	4	5	6	7	8	9	10	11	
MEANING/ FUNCTION:	SUBJ	EMPH	GER	AFFECT	PFTVT	PRED	PASS	FRUST	FOC	OBJ	3SUBJ/ POSSOR.PL	FUT	
FORMS	<i>nu-</i> 1SG	<i>-putu</i>	<i>-inhi</i>	<i>-nhi</i>	<i>-pe</i> PFTV	<i>-ka₄</i>	<i>~ka</i>	<i>-ma</i>	<i>-ra</i>	<i>-no</i> 1SG.O	<i>...-na</i>	<i>-ko</i>	
	<i>pu-</i> 2SG				<i>-panhi</i> IMPTV					<i>-i</i> 2SG.O			
	<i>u-</i> 3M.SG									<i>-ru</i> 3M.O			
	<i>o-</i> 3F.SG									<i>-ro</i> 3F.O			
	<i>a-</i> 1PL									<i>-wa₁</i> 1PL.O			
	<i>hĩ-</i> 2PL									<i>-wa₂</i> REFL			
	<i>u-...</i> 3M.PL												
	<i>o-...</i> 3F.PL												
	TRANSIT.	+	+	+	+	+	+	*	+	*	+	+	+
	INTRANS.	+	+	+	+	+	+	+	+	+	+/-	+	+

⁸ Values “+/-“ are given for object markers (column 9) in this table to mark the fact that, in general, all object markers BUT the reflexivizer do not occur with intransitive verbs. Special cases of the reflexivizer with descriptive verbs will be, however, mentioned in the next chapter, in 8.5.2.2.

Among all the special bound formatives described in the various subsections under 7.1, only the oblique markers (described under 7.1.2) and the restrictive marker (i.e., *-nanu*, described in 7.1.9) do not occur attached to verb bases (cf. discussion in 7.2.2 on the status of potential exceptions to the former cases). Examples that illustrate the position classes represented in Table 2 are given in (47):

- 47a. ?*Ø-upũpe-puti-nhi*
 3M-die-EMPH-GER
 ‘He died indeed.’
- b. *Ø-upũp-inhi-nhi*
 3M-die-GER-AFFECT
 ‘...his death/him dying.’
- c. *kiyomani-txi-t-inhi-pẽ-ka-no*
 elder-UNPOSS-VBLZ-GER-PFTV-PASS-1SG.O
 ‘being I already old...’
- d. *Ø-upata-pe-kã-ka*
 3M-cover-PFTV-PRED-PASS
 ‘It’s already covered.’
- e. ?*Ø-upata-pẽ-ka-ma*
 3M-cover-PFTV-PASS-FRUSTR
 ‘It’s already covered but...’
- f. ?*p-apo-ka-ma-ra*
 2SG-arrive-PRED-FRUSTR-FOC
 ‘It’s that that arrived but...’
- g. *wai-ka-ra-no*
 be.here-PRED-FOC-1SG.O
 ‘I’m here.’ / ‘Hi!’
- h. *Ø-oka-pe-no-na-ko*
 3M-kill-PFTV-3PL-FUT
 ‘They will kill me.’

Examples marked with a question mark in Table 2 require further verification

Table 3: Special Bound Formatives and their Position Classes in a Noun Base

POS. CLASS:	-1	1	2	3	4	5	6	7	8	9	10
MEANING/ FUNCTION:	SUBJ	EMPH	AFFECT	OBLIQUES	PFTVT	PRED	FRUSTR	RESTR	FOC	3PL.SUBJ/ POSSOR	FUT
FORMS	<i>nu-</i>	<i>-putu</i>	<i>-nhi</i>	<i>-ã</i>	<i>-pe</i>	<i>-ka₄</i>	<i>-ma</i>	<i>-nanu</i>	<i>-ra</i>	<i>...-na</i>	<i>-ko</i>
	1SG			INSTR	PFTV						
	<i>pu-</i>			<i>-kata</i>	<i>-panhi</i>						
	2SG			ASSOC	IMPTV						
	<i>u-</i>			<i>-sawaku</i>							
	3SG.M			TEMP							
	<i>o-</i>			<i>-mokaru</i>							
	3SG.F			GOAL							
	<i>a-</i>			<i>-takote</i>							
	1PL			CONTIG							
	<i>hĩ-</i>			<i>-xika</i>							
	2PL			C.SOURCE							
<i>u-...</i>											
3PL.M											
<i>o-...</i>											
3PL.F											

‘(it’s) only with manioc flour (that)...’

- h. *kuku-putu-ra-ko*
man-EMPH-FOC-FUT
‘(It’s) indeed the man that...’
- i. *Ø-unuro-ra-na-ko*
3M-mother.of-FOC-3PL-FUT
‘(It’s) their mother (that) will...’

To the extent that special bound formatives occur also attached to some closed word classes, the same position classes provided in Table 3 for noun bases generally apply to pronoun bases, particle bases, and numeral bases. One clear exception, however, consists of the subject/possessor pronominal markers. These pronominal markers never occur with closed word classes. Moreover, certain other restrictions on the presence of special bound formatives with closed word classes still require further verification with native speakers. Of all closed word classes, pronouns, numerals, and temporal or deitic particles are the word categories that most often take special bound formatives. The next examples show some of these closed word classes taking special bound formatives. (49) illustrates the presence of special bound formatives in pronominal bases:

- 49a. *nota-puti-nhi*
1SG-EMPH-AFFECT
‘I (poor of me) indeed...’
- b. *ata-nhi-ra*
1PL-AFFECT-FOC
‘(It’s) us (poor of us) (that)...’
- c. *uwa-ka-ra*
3M-PRED-FOC
‘It’s him/it (that)...’
- d. *uwa-kata-ma-ra-ko*
3M-ASSOC-FRUSTR-FOC-FUT
‘(It’s) him/it (that) will...’

- e. *uwa-putu-ka₄-ma-ra-ko*
 3M-EMPH-PRED-FRUSTR-FOC-FUT
 ‘(It’s) indeed him/it (that) would...’

(50a) shows a numeral base taking special bound formatives; (50b-d) show adverbial particles taking special bound formatives:

- 50a. *hāt-u-kata-ra-ko*
 one-M-ASSOC-FOC-FUT
 ‘(It’s) with one that...’
- b. *watxa-ka₄-ra-ko*
 ADV.PTC-PRED-FOC-FUT
 ‘(It) will really be today/now.’
- c. *uwã-pe-ka₄*
 DISTAL-PFTV-PRED
 ‘(it’s) already there...’
- d. *uwã-ma-ra-ko*
 DISTAL-FRUSTR-FOC-FUT
 ‘If (it’s) there...’

7.2.2. *Distribution of Special Bound Formatives in the Clause*

One of the unique properties of special bound formatives is that they, in general, attach to word bases that belong to distinct parts of speech (i.e., nouns, verbs, pronouns etc.). From this it follows that the possible host bases to which each special bound formative can attach also need to be described. Moreover, possible constraints on where in a phrase or clause such special bound formatives occur need to be verified as well. It is both the possible host bases and the distribution of special bound formatives in relation to the clause or phrase that will be presented in the next paragraphs.

As was briefly mentioned in the previous subsection, of all the 14 position classes occupied by the special bound formatives described earlier (7.1.1-7.1.14), only those occupied by the oblique markers and the restrictive marker cannot be part of a verb base. Conversely, only the gerund marker, the “passive” marker, and the object markers cannot be part of a typical noun base. Although a more complete survey is necessary in order to determine exactly which closed word classes can take any of the special bound formatives, the preliminary evidence presented above suggests that all special bound formatives that attach to a noun base also attach to one or more of the closed word classes. For the purpose of describing the general distributional properties of special bound formatives, these formatives can be presented in terms of whether they occur with verb bases, with noun bases, with closed class word bases, or with a combination of these bases. Table 4, where “other bases” refer to any one or more word bases that belong to closed word classes, summarizes the information about the word category of the possible host bases of each one of the special bound formatives:

Table 4: Special Bound Formatives and the Category of Their Host Base

Special Bound Formatives	Verb Base	Noun Base	Other Bases
SUBJ/POSSOR MARKERS: <i>nu-</i> , <i>pu-</i> ...	+	+	-
OBLIQUE MARKERS: <i>-kata</i> , <i>-ã</i> ...	-	+	+
EMPHATIC MARKER: <i>-putu</i>	+	+	+
AFFECTEDNESS MARKER: <i>-nhi</i>	+	+	+
GERUND MARKER: <i>-inhi</i>	+	-	-
PERFECTIVITY MARKERS: <i>-pe</i> and <i>-panhi</i>	+	+	+
PREDICATE MARKER: <i>-ka₄</i>	+	+	+
"PASSIVE" MARKER: <i>--ka</i>	+	-	-
RESTRICTIVE MARKER: <i>-nanu</i>	-	+	+
FRUSTRATIVE MARKER: <i>-ma</i>	+	+	+
FOCUS MARKER: <i>-ra</i>	+	+	+
OBJECT MARKERS: <i>-no</i> , <i>-i</i> ...	+	-	-
3 rd PLURAL SUBJ/POSSOR MARKER: <i>-na</i>	+	+	-
FUTURE MARKER: <i>-ko</i>	+	+	+

A general property shared by almost all special bound formatives, which is made explicit in Table 4, is the fact that, except for the gerund, “passive”, and object markers, every other special bound formative attaches to two or more distinct word categories. Conversely, except for the gerund marker, “passive”, and object markers, no other special bound formative occurs exclusively with one word category. Hence, out of 14 slots for special bound formatives, 7 are found in with at least three distinct word categories, 4 are found with two word categories, and 3 are found with one word category (namely, the verb). The property that special bound formatives have of occurring with one or more host bases of distinct word categories can be used to classify special bound formatives into three types, as represented in Table 5. In this table, special bound formatives that attach to host bases of three or more word categories are termed **floating** special bound formatives; those that attach to host bases of at least two word categories are termed **quasi-floating** special bound formatives; and, those that attach to host bases of one

specific word category are termed **non-floating** special bound formatives:

Table 5: Special Bound Formatives and Their “Floating” Status

Floating	Quasi-Floating	Non-Floating
<i>-putu</i>	<i>nu-, pu-...</i>	<i>-inhi</i>
EMPHATIC	SUBJ/POSSOR	GERUND
<i>-nhi</i>	<i>-kata, -ã...</i>	<i>--ka</i>
AFFECTEDNESS	OBLIQUE	"PASSIVE"
<i>-pe</i> and <i>-panhi</i>	<i>-nanu</i>	<i>-no, -i...</i>
PERFECTIVITY	RESTRICTIVE	OBJECT
<i>-ka₄</i>	<i>-na</i>	
PREDICATE	3PL SUBJ/POSSOR	
<i>-ma</i>		
FRUSTRATIVE		
<i>-ra</i>		
FOCUS		
<i>-ko</i>		
FUTURE		

Therefore, the general tendency is for special bound formatives to be floating or quasi-floating rather than non-floating. On these grounds, some qualifications need to be made about the non-floating minority subset of special bound formatives. Such qualifications apply to the presence/absence of oblique markers in verb bases, to the presence/absence of object markers in noun bases, and to the status of the “passive” marker in the language. First, at least some oblique markers are found in **deverbal-like** bases. Deverbal-like bases are the word forms that show both noun and verb properties, and that consist of a verb plus the gerund marker or plus a relativizer. The examples below constitute instances of an oblique marker attached to deverbal-like bases: The goal marker *-mokaru* attaches to *V-inhi* in (51a) and to *V-kuto* in (51b):

- 51a. *aiko nota s-inhi-mokaru*
house 1SG go-GER-GOAL
‘My going to the house...’

- b. *i-txa kema owa hātako-ro Ø-anhi-kuto-mokaru*
 3M-say tapir 3SG.F youth-F 3M-take-REL.F.O-GOAL
 ‘The tapir said to her, the woman whom it took away.’

A detailed discussion of the nominal and verbal properties of V-*inhi* and V-*kuto* will be presented within the appropriate syntactic context in chapter 9, in 9.1.2.2.3 and 9.1.1.6, respectively.

The second qualification to be made is about the presence/absence of object markers in noun bases. There is a limited set of noun forms that take the object marker when these noun forms function as the predicator in a clause. The examples in (52) present instances of noun bases that function as predicators of non-verbal clauses, and that take the first person object marker *-no*, in (52a-b), or the second person object marker *-i*, in (52c-d), to encode the sole argument of the predicator:

- 52a. *kiyomane-txi-nhi-pě-ka-no*
 elder-UNPOSS-AFFECT-PFTV-PASS-1SG.O
 ‘I’ve become old.’
- b. *kona hātako-ru-ka-no nota*
 not youth-M-PRED-1SG.O 1SG
 ‘I’m not young.’
- c. *popũka-ru-ka₄-ra-i*
 Apurinã-M-PRED-FOC-2SG.O
 ‘Are you’re Apurinã.’
- d. *kākutu-ka₄-ra-i*
 person-M-PRED-FOC-2SG.O
 ‘Are you’re a (white) person.’

The third qualification, about the functional status of the “passive” marker, is that, as was made explicit in 7.1.8, the grammatical function/meaning of the “passive” marker may be undergoing changes in the language, going from a passive marker to a marker of

a specific subtype of perfectivity. These changes, however, require a better understanding. At the present time, the current data available do not allow a conclusive analysis of the function of the “passive” marker or of the distribution of this formative in terms of the range of the host bases it attaches to. That is, it still is possible that the fact that the “passive” marker has been attested only with verb bases may be an artifact of the data available.

Examples such as those in (51-52) would then seem to suggest that some of the cases (of non-floating formatives) that are listed in Table 5 as possible exceptions to the predominant (quasi-)floating property of special bound formatives would actually be no exceptions. However, in the present work, I will maintain the exceptional status of the oblique markers as well as of the object markers for two specific reasons. The first reason is that the deverbal-like bases share both noun and verb properties (as will be later shown in detail in chapter 9, in 9.1.1.6 and 9.1.2.2.3). The second reason is that examples such as (52), where an object marker attaches to a predicator noun base, so far have been attested in the speech of a single speaker. It is possible that examples such as those in (52) are specific to a speech variety that still requires further investigation, in which case it remains to be shown how representative such examples are of the morphosyntactic properties of non-verbal clauses in the language. (Non-verbal clauses are described in chapter 8, in 8.4.2.) Nonetheless, if the status of the gerund, “passive”, and object marker turns out to be confirmed as non-floating formatives, they would still differ from the typical affixes found in the language, even if only insofar as they occur outside of typical affixes in the same way as do (quasi-)floating special bound formatives.

Here may be a good place to note that it is NOT the case that the distribution of special bound formatives can be predicted in any obvious way on the basis of the surface

syntactic structure of the language as it applies to free (i.e., non-phonologically bound) word forms. In other words, although special bound formatives may occur most often in a particular position in the clause, they do not occupy fixed positions, for example, at the edge of phrases or clauses. Take, as a first example, the perfective marker *-pe*. *-pe* is a floating special bound formative that occurs most often attached to verb forms. In (53a) *-pe* is shown attached to a clause-final verb; in (53b) it occurs attached to a main verb which precedes the clause-final auxiliary verb; and, in (53c) it attaches to a verb form that occurs clause initially:

53a. *oposo uwa kema anhika txa-pe-ro*
 PTC 3SG.M tapir take.away AUX-PFTV-3F.O
 ‘So, the tapir, it took her away.’

b. *oposo uwa-kata su-pe o-txa*
 PTC 3SG.M-ASSOC go-PFTV 3F-AUX-PFTV
 ‘Then she went with it.’

c. *ĩ-imata-pe-ro owa*
 3M-mate-PFTV-3F.O 3SG.F
 ‘It had intercourse with her.’

As an instance of a non-floating special bound formative, take the gerund marker *-inhi*. *-inhi* is non-floating because it attaches only to verb bases, as was shown in 0. As the examples in (54) illustrate, *-inhi* can occur in host verb bases that are in clause-final, clause-medial or clause-initial position:

54a. *i-ye komeru i-ye katarokuru a-kam-inhi*
 M-PROX manioc M-PROX manioc.flour 1PL-make-GER
 ‘...our making of this manioc and of this manioc flour.’

b. *nh-ita-ru nhi-xinhik-inhi-ã n-ũpu wai-monhi*
 1SG-cousin.of-M 1SG-remember-GER-INSTR 1SG-come here-GOAL
 ‘In remembering of my cousin, I came here.’

- c. *a-yana-poko-t-inhi* *uwã*
 1PL-walk-DISTR-VBLZ-GER there
 ‘Our visiting around there...’

However, although examples such as (54c) can be attested in spontaneous discourse, it is the case that the verb base taking *-inhi* rarely occurs clause initially. That is, the norm is for *-inhi* to occur with host bases in clause-medial or clause-final position. This “dispreference” for the clause initial position is most likely to follow from two properties of the gerund marker: First, *-inhi* generally functions as a marker of subordinated clause (as will be shown in chapter 9, under 9.1), and it happens that Apurinã subordinate clauses tend to follow rather than precede the matrix clause. Second, *-inhi* attaches to verb bases and, as it happens, verbs normally occur in clause—medial or in clause-final position—when one or more free argument expression(s) is/are found in the clause (as will be shown in chapter 8, in 8.9.5). Hence, the “dispreference” for clause-initial position for the host base *-inhi* to attach to is a by-product of the functional properties of *-inhi* as well as of the distributional properties of its host verb base, NOT the result of any syntactic rule applying to *-inhi* itself.

As an instance of a quasi-floating special bound formative, take the restrictive marker *-nanu*. As (55) illustrates, *-nanu* occurs with (pro)nominal host bases that are in clause-initial or in clause-medial position:

- 55a. *a-serota-re-nanu-ra* *watxa ata nhi-pe*
 1PL-salt-POSSED-RESTR-FOC today 1PL eat-PFTV
 ‘Nowadays (it’s) only with salt that we eat.’
- b. *uwa-nanu* *su-pe*
 3SG.M-RESTR go-PFTV
 ‘Only he has gone (there).’

c. *i-ye* *kiyomane-txi-wako-ru* *sākire-nanhi-nhi* *ata*
 M-PROX elder-UNPOSS-PL-M language.of-RESTR-AFFECT 1PL

apa-monhika-āpo-ta
 fetch-GOAL-RANDOM-VBLZ

‘...it was only the language of the elders that we’d go about learning.’

In contrast to the gerund marker, the restrictive marker simply does not occur (in text material) in host bases that are in clause-final position. This restriction, however, again is more likely to follow from the meaning properties of the restrictive marker, rather than from a purely syntactic constraint on its distribution. *-nanu* individualizes the referential properties of the (pro)nominal base it attaches too roughly in the same way that the word *only*, *just* and *alone* do in English. In doing so, *-nanu* restricts the application of the meaning conveyed by the predicator of the clause and highlights the importance of the referent expressed by the (pro)nominal base which *-nanu* attaches to. Thus, the “dispreference” for clause-final position is likely to follow from the discourse-pragmatic properties associated with *-nanu*. Analogous discourse-pragmatic properties can be more easily shown to play a role in the placement of the focus of attention marker, *-ra* (described in 7.1.11). *-ra* is a floating special bound formative whose function is to bring the focus of attention onto the word base to which it attaches. Thus, the function/meaning of *-ra* is clearly a discourse one. As it happens, the host bases to which *-ra* attaches show strong preference for clause-initial position, although it can sometimes occur clause-medially. The examples in (56) illustrate the distribution of *-ra*:

56a. *nota-ra* *aōku-ta-pē-ka-ru* *uwa*
 1SG-FOC see-PFTV-PASS-3M.O 3SG.M
 ‘It’s I who have already seen him...’

- b. *wera hātu k^{an}anu-ra-ko a-sa-panhi uwã*
 that one year-FOC-FUT 1PL-go-IMPFTV there
 ‘It’s this coming year that we are still going to go there.’
- c. *uwã-ma-ra-ko a-muna-ma-ru*
 DISTAL-FRUSTR-FOC-FUT 1PL-bring-FRUSTR-3M.O
 ‘It would be from there that we would bring it.’
- d. *hāt-u k^{an}anu-ra-ko a-kama-ru*
 one-M year-FOC-FUT 1PL-make-3M.O
 ‘It’s the other year that we’ll make it.’
- e. *owa keruwako maku-putu-ka-ra kona awuru-ta-ru*
 3SG.F DISC.PTC Brazil.nut-EMPH-PRED-FOC not allow-VBLZ-3M.O
 ‘It’s the Brazil nut, it does not allow us...’
- f. *inhinhiã uwa-kata-ma-ra-ko a-sa-ma*
 DISC.PTC 3SG.M-ASSOC-FRUSTR-FOC-FUT 1PL-go-FRUSTR
 ‘Then it would be with him that we’d go.’

-ra occurs in the first word in the clause in (56a, c). Notice that, as it is clear in (56b, d), the actual preference is not for *-ra* to occur in the first word; instead, the strong preference is for the phrasal constituent (rather than simply the word form) with which *-ra* occurs to be positioned clause-initially. Moreover, as illustrated in (56e-f), when the phrasal constituents in which *-ra* is found do occur clause-medially, these phrasal constituents are generally preceded by a clause-initial discourse particle—which do not constitute constituents of the clause. (A detailed discussion of constituent structure will be presented in chapter 8, in 8.1-2) Here, again the strong preference for a specific position inside the clause is not necessarily determined by any syntactic constraint but, instead, it follows from the meaning and functional properties of the special formative in question. In the case of *-ra*, it makes perfect sense (from a discourse and cognitive perspective) to place in the beginning of the clause the construction whose focus of attention is called for.

One last important aspect of the distribution of special bound formatives in the clause is that at least some of them can occur more than once in different host bases in the same clausal construction—in a way reminiscent of agreement markers in other languages. It is this repetition of the same special bound formative in the same clausal construction that is illustrated by the examples in (57): (Repeated forms are underlined in these examples.)

- 57a. *kuki-nhi upũpe-kari-nhi*
 man-AFFECT die-REL.S.M-AFFECT
 ‘The man who died...’
- b. *uwa-kata-ma-ra-ko a-sa-ma*
 3SG.M-ASSOC-FRUSTR-FOC-FUT 1PL-go-FRUSTR
 ‘We would go there WITH HIM...’
- c. *wera-kata-ma-ko a-su-ã₃-ka₄-ma-ko*
 DEM-ASSOC-FRUSTR-FUT 1PL-go-HYPOTH-PRED-FRUSTR-FUT
 ‘If (hypothetically speaking) we go with that one...’
- d. *apo-pe i-txa-pe i-ye ð-uru*
 arrive-PFTV 3M-AUX-PFTV 3M-PROX 3F-father.of
 ‘He has arrived, this father of hers.’
- e. *hãtako-ro-nhi awãku-ta-ka₄ txa-ka₄-ru uwa*
 youth-F-AFFECT feel.pain-VBLZ-PRED AUX-PRED-3M.O 3SG.M
 ‘The young woman gave birth to it/him.’

(57a) illustrates the occurrence of the affectedness marker both in a subject expression and in a relativized verb form. (57b) illustrates the occurrence of the frustrative marker both in an associative expression and in a verb form. (57c) illustrates the occurrence of both frustrative and the future markers in an associative expression and in a verb form. Finally, (57d-e) illustrate, respectively, the occurrence of the perfective and the predicate markers both in the main verb and in the auxiliary forms. No case has been attested where the same special bound form occurs both in a verb form and in its

expression of its object. Also, no case has been attested of the same special bound formative being used both in the possessor and in the possessed forms in the same possession construction. Exactly what the factors determining if/when a special bound formative can or cannot be repeated in a clausal construction still needs to be determined. Nevertheless, there is no indication that there is any grammatical factor(s) that is/are systematically associated with the agreement-like property of some special bound formatives. In fact, the repetition of the same special bound formative within a syntactic construction is structurally optional, and, most likely, is motivated by discourse-pragmatic factors still to be determined. Nevertheless, regardless of what the motivating factors are, the fact that some special bound formatives can be repeated in the same construction constitutes an important distinction between these special bound formatives and any of the affix forms described in the previous chapters.

7.3. The Category Status of Special Bound Formatives

The purpose of this subsection is to discuss the arguments to be constructed on the basis of the data presented so far (but not yet systematically discussed as to what they mean) for treating special bound formatives as a special category of morphological units. While such special morphological units can be shown to resemble the more typical affix units (as the ones described in chapters 4-6) in terms of their distribution in the base they attach to, they can, nonetheless, be distinguished from typical affixes in at least two ways: first, in terms of their positioning outside of the more typical affixal morphology described in chapters 4-6, and, second in terms of their “floating” distribution in the clause and/or the way in which they interact with phrasal or clausal constructions. The

analysis of the status of special bound formatives as an extension of morphological strategies (rather than as a result of purely syntactic operations) has a twofold motivation: On the one hand, it follows from my perception of a general trend in Apurinã, namely to make use of morphological strategies to encode functions that apply at the level of the phrase or clause; and, on the other hand, it is partly inspired in Anderson (1992, and references there cited, especially chapter 8) —although I do not make use of the formal descriptive language nor necessarily of all axioms that accompany that framework. The discussions in chapter 8 of Spencer 1991 and in chapter 3 of Sadock 1991 were also helpful in organizing the content of this section.

I have so far intentionally avoided making use of the term “clitics” here due to the various meanings associated with it, and have chosen instead to work with language-specific labels. As a consequence, the distinctions being made here are clearly motivated by language internal factors. After all, as Sadock points out, “[t]he elements we call clitics are often characterized by a constellation of properties from diverse grammatical realms”, among which he lists the following:

58. Sample of wide range of properties associated with clitics, as given by Sadock (1991:52):

I. Morphology

- a. Clitics are bound morphemes.
- b. They attach outside inflection.
- c. They block further morphology.
- d. They attach without regard to the morphological class of the host.
- e. They are completely productive.

II. Syntax

- a. Clitics are independent elements of syntax.
- b. They are syntactically adjacent to their morphological host.

III. Semantics

- a. Clitics are semantic functions.
- b. They take the meaning of a phrase as argument.

IV. Phonology

- a. Clitics are phonologically dependent.

- b. They are agglutinative.
 - c. They are stressless.
 - d. They are subject to automatic phonological rules only.
- V. Lexicon
- a. Host plus clitic forms are not lexicalized.
 - b. Clitics alternate with free words.”

Clitics are defined over the property that some word-like elements have of being prosodically deficient. Among the various attempts to establish a typology of clitics, the one most often referred to in the literature is by Zwicky (1977). Zwicky classifies clitics into three types: **simple clitics**, **special clitics**, and **bound words**. A simple clitic “is an element of some basic word class, which appears in a position relative to the rest of the structure in which the normal rules of the syntax would (or at least could) put it” (Anderson 1992:200). A special clitic “is one whose position within some phrasal unit is determined by principles other than those of the non-clitic syntax” (Anderson 1992:201-202). Bound words “are the words which don’t correspond to a full form and thus can’t possibly be analyzed as reductions of ‘real’ words, but which nevertheless need a host and in some cases are restricted to a particular sentence position” (Spencer 1991:376).

Perhaps the best candidate for a simple clitic among the special bound formatives are the subject/possessor pronominal markers as well as the object pronominal markers. The special property of the subject/possessor pronominal markers (including here the plural marker, described in 7.1.13, that is in dependency relation with the third person plural subject/possessor marker), as shown in 7.1.1, is that they are in complementary distribution with coreferential pre-verbal nominal expression bearing the subject in a clause or the possessor in a possession construction. So, these pronominal forms are able to replace nominal expressions in some specific distributional and functional contexts, namely as pre-verbal subject free expression or as possessor free expression. However,

one first difference from simple clitics is that the pronominal markers, when used as subject or as object markers, are in complementary distribution ONLY with pre-verbal free coreferential nominal expressions, but NOT with postverbal free coreferential nominal expressions (as shown in 7.1.1 and in 7.1.12). Another difference is that, although the phonological similarity between subject/possessor pronominal markers and independent pronouns is quite clear, they have partially different functions, since while the former can only be used with subject or possessor function, the latter can be used with subject, object or possessor function, as represented in Table 6:

Table 6: Subject/Object Pronominal Markers versus Independent Pronominal Forms

Person & Gender	Pronominal Forms			
	Subject/Possessor SG	Subject/Possessor PL	Subject/object/Possessor SG	Subject/object/Possessor PL
1	<i>nu-</i>	<i>a-</i>	<i>nota</i>	<i>ata</i>
2	<i>pu-</i>	<i>hĩ-</i>	<i>pite</i>	<i>hĩte</i>
3M	<i>u-</i>	<i>u-...-na</i>	<i>uwa</i>	<i>unawa</i>
3F	<i>o-</i>	<i>o-...-na</i>	<i>owa</i>	<i>unawa</i>

While independent pronouns can bear subject as well as object grammatical relations, or yet bear the possessor relation (as described in detail in chapter 6, in section 6.1), the subject/possessor pronominal markers can be used to bear the subject or the possessor, but NOT the object (as described earlier in 7.1.1). Since independent pronouns and bound pronominal markers show some partial distinction in their grammatical meaning, the latter cannot be described as phonological reductions of the former —although there is likely to be a diachronic link between the two sets of pronominal forms. Therefore, subject/possessor pronominal markers cannot be described as simple clitics, that is, as simple phonological reductions of the independent pronouns.

As to the object pronominal markers (described in 7.1.12), they are also different from independent pronouns both in their phonological form and in their function. While object pronominal markers can only be used with object function, independent pronouns are used with subject, object or possessor function, as represented in Table 7:

Table 7: Object Pronominal Markers versus Independent Pronouns

Person & Gender	Pronominal Forms			
	Object SG	Object PL	Subject/Object/Possessor SG	Subject/Object/Possessor PL
1	<i>-no</i>	<i>-wa</i>	<i>nota</i>	<i>ata</i>
2	<i>-i</i>	<i>-i</i>	<i>pite</i>	<i>hĩte</i>
3M	<i>-ru</i>	<i>-ru</i>	<i>uwa</i>	<i>unawa</i>
3F	<i>-ro</i>	<i>-ro</i>	<i>owa</i>	<i>unawa</i>

Hence, there is no possibility of treating object pronominal markers as phonological reductions of the independent pronouns. Furthermore, although object pronominal markers are restricted to verb forms, they share with the subject/possessor pronominal markers the special property of being in complementary distribution with a pre-verbal coreferential argument expression—which, however, must bear the object (rather than the subject) grammatical relation.

The best candidate for a special clitic among the special bound morphemes are the oblique markers (described under 7.1.2). What is of interest to us here are the scope properties of oblique markers. In the following examples the associative marker *-kata* (identified in 7.1.2.2) is used to illustrate the general properties of oblique markers. In the example in (59a) the construction *nota hāke-ru* ‘my son’ is shown to function as the subject of the verb *apo-pe* ‘arrive-PFTV’. In (59b) it is shown that the oblique marker *-kata* can occur attached to this nominal construction:

59a. *nota hãke-ru₂ apo-pe*
 1SG child.of-M arrive-PFTV
 ‘My son has arrived.’

b. *hãtako-ro nota hãke-ru₂-kata apo-pe*
 youth-F 1SG child.of-M-ASSOC arrive-PFTV
 ‘The young woman has arrived with my son.’

Notice that the semantic scope of *-kata* is the whole nominal construction *nota hãke-ru₂*, not just the last word in this nominal construction.

Examples such as these, however, do not constitute sufficient evidence that the oblique markers are in any way words rather than morphological units. The fact is that, for being a phonologically bound formative, they need to attach somewhere. The best evidence that we could have would be to find a construction with a postnominal modification, and see where the oblique marker would go. The only type of postnominal modification found in the language are the relative clause constructions and, as it happens, the oblique marker does go in the postnominal modifier rather than in the noun being modified, as illustrated by (60) with the oblique marker *-mokaru* ‘GOAL’:

60. *i-txa kema owa hãtako-ro Ø-anhi-kuto-mokaru*
 3M-say tapir 3SG.F youth-F 3M-take-REL.F.O-GOAL
 ‘The tapir said to her, the woman whom she took away.’

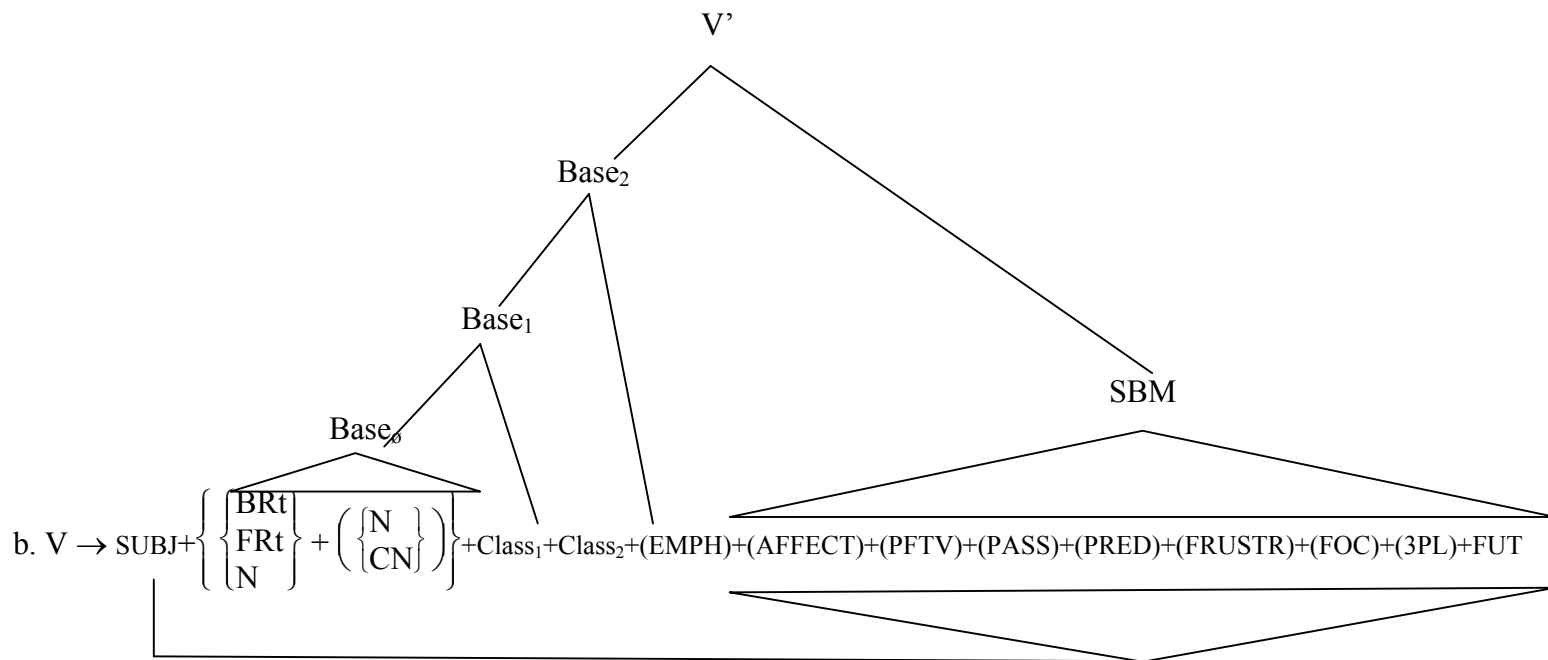
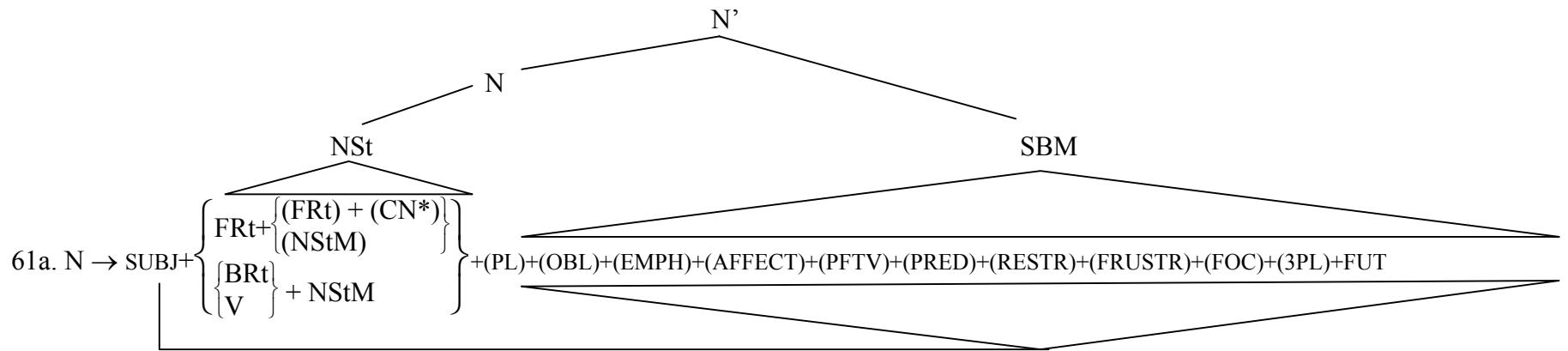
However, although examples such as (60), where the goal oblique marker attaches to the relativized verbal construction, can be found in text material, I have not been able to find similar examples for other oblique markers. Even in translating examples from Portuguese, speakers do not offer examples with oblique markers other than *-mokaru* attaching to the predicate of relative clauses or complement clauses. This may indicate that *-mokaru* is unique in attaching to deverbal constructions, aside from nouns and

pronouns. Regardless if one decides to use the syntactic properties of oblique markers to argue that they constitute special clitics in the language, it is important to recognize that there is an important interaction between morphological and syntactic properties as far as these markers are concerned. By recognizing this interaction we may be better able to understand the sort of atypical properties of the word structure and/or atypical properties of the clause structure. However, since Apurinã lacks any corresponding free form which oblique markers can be compared to, it is not possible to show that the placement of such markers in the clause is determined in any way by a syntactic rule different from that determining the placement of corresponding free words.

Finally, an analysis of all special bound formatives as bound words which lack a (phonologically) free corresponding form is, in principle, possible, though, as I will suggest, undesired. Since all special bound formatives require a host base to lean on, and since they all lack a corresponding free form, they all resemble bound words (except for the still unclear “passive” marker). That is, (quasi-)floating special bound formatives resemble bound words in that they can occur in two or more host bases; the object markers, though constituting a non-floating special bound formative, resemble a bound word in that they are in complementary distribution with pre-verbal coreferential object free expressions; and, the gerund marker resembles a bound word in that it marks a whole clause as subordinate, rather than just the verb itself, thus, in a way analogous to free complementizers in some other languages. The fact, however, is that clear cases of bound words were presented in chapter 4 as a subset of classificatory nouns. So, a classificatory noun such as *ku* ‘seed, kernel; small and roundish’ behaves like a noun in the language in that it can take a possessed marker such that *u-ku* [3M-seed/kernel] will mean ‘its/his seed/kernel’. As was shown in chapter 4, only nouns can take pronominal

markers functioning as possessors. However, *ku* is different from typical nouns in that it can never stand by itself as a free word form, thus behaving as a noun that is phonologically bound. Special bound formatives, on the other hand, can never take a possessed marker.

On the basis of the description of special bound formatives as elements that are integrated into the word structure, the structure of nouns and verbs given in (1-2), can be revised as in (61). In (61a) **N'** is the complex noun form that is formed of the nouns described in chapter 4 plus the relevant special bound morphemes (SBM). In (61b) **V'** is the complex verb form that is formed of the (non-descriptive) verbs described in chapter 5 plus the relevant special bound morphemes:



7.4. Unresolved Issues

The next subsections briefly illustrate some formatives that are likely to constitute additional instances of special bound formatives, but that, for being rarely used presently in the language or for being restricted to one or more speech varieties, still cannot be described in detail in this work.

7.4.1. *-yoka_I, -wara*

The attested instances of the formatives *-wara* and *-yoka_I* indicate that they are used with some types of locative functions, as the examples in (62) illustrate:

- 62a. *u-kama-rewa-ta* *kikio-wara*
3M-make-INTR-VBLZ field.farm-in
'I worked in the field farm.'
- b. *hāt-u* *kananu-yoka_I* *n-apoka*
one-M year-in 1SG-arrive
'I arrived in the other year.'

7.4.2. *-pakunu*

The occurrence of the morpheme *-pakunu* 'plus' with nouns also requires further investigation, especially about its distribution. From (63a) below it is possible to tell that this morpheme precedes oblique markers and whatever other formatives may follow them. In (63b), *-pakunu* attaches to a productive compound noun:

- 63a. *no-nurumane-pakunu-kata* *nhi-nhipoko-ta*
1SG-relative-PLUS-ASSOC 1SG-eat-VBLZ
'My relatives and I ate together.'

- b. *ximaku komeru-mata-pakunu nhi-nhika*
 fish manioc-skin.of-PLUS
 ‘I ate fish plus manioc bread.’

7.4.3. *-ne*⁹

The bound formative *-ne* simply means ‘again’, and it occurs among other special bound formatives in the verb, but its position class still needs to be determined. *-ne* occurs after the predicate marker *-ka₄* in the examples in (64a-b), and on the auxiliary in (64c):

- 64a. *i-nhika-panhi-ka₄-ne-ru-ko* *yapa*
 3M-eat-IMPFTV-PRED-AGAIN-3M.O-FUT capybara
 ‘He still will eat capybara again.’

- b. *uwa suka-panhi-ka₄-ne-ru-ko* *uwa*
 3SG.M give-IMPFTV-PRED-AGAIN-3M.O-FUT 3SG.M
 ‘He still will give it again to him.’

- c. *oko-tāta-pe-ka₄-ne* *ata makatxa-ka₄ txa-ne*
 oko-bark.of-PFTV-PRED-AGAIN 1PL take.out-PRED AUX-AGAIN
 ‘We get the “oko” bark again...’

7.4.4. *-yoka₂*

The formative *-yoka₂* means ‘no longer/anymore’ and is likely to be another special bound formative, but which also deserves further investigation:¹⁰

- 65a. *kona n-anhika-yoka₂-ru*
 not 1SG-take.out-NO.LONGER-3M.O
 ‘I no longer took it.’

⁹ The variant form *-nu* is also attested in some speech varieties.

¹⁰ In the speech of the Fortaleza village, the form *-ika* is used instead of *-yoka*, as in *kona* (not) *n-anhika-ika-ru* (1SG-take.out-NO.LONGER-3M.O) ‘I no longer took it.’

- b. *kona nota nuta-yoka₂-ru*
 not 1SG search-NO.LONGER-3M.O
 ‘I didn’t look for him/it anymore.’
- c. *kona n-etama-ta-yoka₂-ru*
 not 1SG-search-NO.LONGER-3M.O
 ‘I didn’t see him him/it anymore.’
- d. *kona Ø-apoka-yoka₂-ro-na*
 not 3M-find-NO.LONGER-3M.O-3PL
 ‘They no longer found her.’

It still deserves verification about whether there is any synchronic relationship between the bound formative *-yoka₂* ‘no longer/anymore’ and the bound formative *-yoka₁* used with (temporal) locative meaning and illustrated in (62).

Simplex Sentences

8.0. Introduction

This chapter describes both the constituency and relational properties of syntactic expressions (i.e. NPs and NP_{obis}) of the arguments of the verb and the various properties of clauses and predicates found in the language. Particular attention is given to the NPs encoding notional arguments required by the lexical meaning of the verb to show the evidence that can be used to construe the core syntactic relations subject and object. Chapters 3-7 have presented the internal morphological structure and the syntax of word categories. Now it is also time to show whether it is required to make use of syntactic notions different from the purely structural ones, and, furthermore, if such notions can be motivated, to show what types of constructions arise when relational and constituent syntactic properties are considered, and what their distribution in the clause is. Before describing the relevant data and their syntactic status, a few syntactic labels need to be introduced and properly defined.

In the previous chapters, I have used the term “clause” to refer to any construction involving a (pro)nominal form (including bound pronominal markers) plus some predication of it. In this and the next chapters I will continue to use **clause** to name any syntactic construction containing a single predicator. So, the examples in (1a-b) are both instances of clauses. In (1a), *su-pe-ka-ko* ‘go-PFTV-PRED-FUT’ is the predicator and

nota ‘1SG’ is the argument of the verb; in (1b), *sāpaka-pe-ka* ‘be.tired-PFTV-PRED’ is the predicator, and *nota* ‘1SG’ again is the argument of the verb:

- 1a. *nota su-pe-ka-ko*
 1SG go-PFTV-PRED-FUT
 ‘I’ll get going.’
- b. *nota sāpaka-pe-ka*
 1SG be.tired-PFTV-PRED
 ‘I’m already tired.’

Furthermore, I will reserve the term **sentence** to name any one or more clauses that can stand by themselves in Apurinã discourse. That is, an Apurinã sentence will consist of a single independent clause or of an independent clause plus one (or more) dependent (i.e. subordinate, see chapter 9, section 9.1) one(s). So, each one of the two examples in (1) above constitutes an instance of a sentence, as well as the combination of an independent and a dependent clause in (2):

2. *nu-su-pe-ka-ko* *kotxi* *nu-sāpaka-pe-ka*
 1SG-go-PFTV-PRED-FUT SUBORD 1SG-be.tired-PFTV-PRED
 ‘I’ll get going because I’m already tired.’

What is of interest in this chapter are the mono-clausal sentences, as represented by the examples in (1), rather than multi-clausal sentences, as represented by the example in (2). In order to facilitate the presentation of mono- versus multi-clausal sentences I will refer to the former as **simplex** sentences, and to the later as **complex** sentences. Complex sentences will be dealt with in the next chapter. I should note that the term “simplex” (rather than “simple”) is used here so as NOT to imply that the relevant sentences are necessarily simpler in any trivial way than complex sentences, since it is possible for certain simplex sentences to involve more complex structures than certain complex ones.

In using the terms just introduced I intend to make a compromise between presenting a description of the Apurinã syntax in terms of concepts that can be clearly motivated in the language on the basis of its internal properties and that, at the same time, are crosslinguistically sound.

Therefore, sentence, as it is defined in the syntax of Apurinã, is an abstract construct that can only achieve audible realization through clause(s). What the next sections will show is that such an abstract concept is not only useful but, also, it can be easily motivated on the basis of the data to be described in this and the next chapter. Moreover, such a definition of the Apurinã sentence will partly match the (perhaps) most often cited general definitions of “sentence” found in the linguistic literature, such as the ones represented by (3-8):

3. “The sentence is considered here not as a unit consisting of a predicate and nouns related to it (a simple clause), but rather as a combination of such units (clauses) into still larger structures of a sort here summarized.” (Longacre 1985:235)
4. “The sentence is the largest unit of grammatical description.” (Bloomfield, as presented in Lyons 1968:172)
5. “As a grammatical unit, the sentence is an abstract entity in terms of which the linguist accounts for the distributional relations holding within utterances.” (1968:176)
6. “[T]he sentence in turn can be defined as the maximal unit of syntax, or the largest unit over which constructional relations hold.” (Matthews 1981:29)
7. The sentence is “[t]he largest unit in terms of which the grammar of a language is organized.” (Crystal 1992:349)

8. “In generative grammar, [the sentence is] the syntactic category which is taken as the largest category capable of syntactic characterization, all of its component parts being bound together by rules of syntax and its entire structure being **well-formed**.” (Trask 1992:250-251)

However, one should also bear in mind that there are perhaps as many putative crosslinguistic definitions of “sentence” as the number of different syntactic theories. The definition used here follows from the properties of the Apurinã grammar as well as (partly) from what implicitly or explicitly is found in some of those putative crosslinguistic definitions of “sentence” (such as the ones given in 3-8). In the way conceived here, the notion of “sentence”, as unit of syntax, is an abstract construct in a way analogous to the way in which “phoneme”, as a unit of phonology, and “morpheme”, as unit of morphology, also are abstract constructs.¹

8.1. The Structure of Phrases

The goal of this section is to motivate and describe the constituent structure of clauses. In providing evidence for parts of speech as units involved in the organization of clauses, by implication, I have also provided motivation for treating words as constituents of the clause. What needs to be examined now is the extent to which words can combine into larger constituents within a clause. There is no question that words constitute individual constituents within the clause. So, for example, in the first of the three clauses in (9a), *suto* ‘woman’ occurs preceding the verb *apo-pe* ‘arrive-PFTV’. As shown by the

¹ I have found particular useful the discussions in Lyons 1968:172-180 and Matthews 1981:ch.2 on the various definitions of “sentence”, where detailed references on the subject are also provided.

example in (9b), *suto* can be replaced with its coreferential pronominal counterpart *owa* ‘3SG.F’. As shown by the third example in (9c), *suto* can be placed in a post-verbal position without changes in the propositional meaning of the construction. Finally, in (9d) the pronominal form *uwa* is placed in post-verbal position.

- 9a. [*suto*] *apo-pe*
 woman arrive-PFTV
 ‘The woman has already arrived.’
- b. [*owa*] *apo-pe*
 3SG.F arrive-PFTV
 ‘She has already arrived.’
- c. *o-apo-pe* [*suto*]
 3F-arrive-PFTV woman
 ‘The woman has already arrived.’
- d. *o-apo-pe* [*owa*]
 3M-arrive-PFTV 3SG.F
 ‘She has already arrived.’

These examples, thus, would simply illustrate two of the simplest forms a constituent of a clause can consist of, i.e. a noun and pronoun.

In arguing for the clustering of words into larger constituents within the clause, I will make use of two basic pieces of evidence, **replacement** and **movement**, and will use the traditional label **phrase** to refer to these clause constituents. The replacement and movement tests for constituency can be described as follows:

10. **Replacement test for phrase structure:** “If a sequence of words can be replaced by a single word, they may form a phrase.” (Fabb 1994:3)

11. **Movement test for phrase structure:** “If a sequence of words can be moved as a group, they may form a phrase.” (Fabb 1994:4)

In identifying the class of a phrase the following tests are used:

12. **Replacement test for phrase class:** “A phrase can be replaced by another phrase of the same class.” (Fabb 1994:22)
13. **Internal structure test for phrase class:** “The class of a component of a phrase (or some other aspect of its structure) can indicate the class of the phrase.” (Fabb 1994:20)
14. **Position test for phrase class:** “Each class of phrase appears in certain positions and not in others” (Fabb 1994:22)

Within the internal structure test for phrase class, the notion of head (to be properly defined below) can be used where applicable as an additional tool for identifying a phrase class. The test can be summarized as follows:

15. **Head rule as internal structure test for phrase class:** “A phrase of class ‘X phrase’ contains a word of class ‘X’ (where X stands for noun, [... or] verb).” (Adapted from Fabb 1994:21.)

Since, however, all pieces of evidence do not always point to the same result, they are used below as clusters of evidence so that, at the end, the simplest and most explanatory analytical description is arrived at.

8.1.1 The Structure of Noun Phrases

Noun phrases are nominal constructions that can be structurally motivated on the basis of negative/positive evidence from both the replacement and movement tests. NPs can be divided into **oblique** or **caseless** noun phrases on the basis of whether they take an oblique marker or not. The oblique markers were morphologically described in the

previous chapter, in 7.1.1 (and the syntactic function of the (pro)nominal expressions where they occur will be further discussed in the next chapter, in 8.2-3). The first subsection, below will describe caseless nouns phrases, whereas the second subsection will describe oblique noun phrases.

8.1.1.1 Caseless (Unmarked) Noun Phrases

A noun phrase is caseless (or unmarked) if it does not carry any oblique marker. Unless noted otherwise, I will be (hereafter) using the abbreviation **NP** to refer exclusively to caseless noun phrases. A NP can consist of the nominal construction that functions as the possessor in possession constructions, where possession is marked following the patterns discussed in 4.1. In the following example in (16) the nominal construction [*kema hãke-ru_i*] ‘tapir’s babe.of-M’ is the possessor of *kuwu* ‘head.of’:

16. [*kema hãke-ru_i*] *kuwu* *mita-ru*
 tapir child.of-M head.of be.big-3M.O
 ‘The tapir’s babe’s head is big.’

(17a) shows that [*kema hãke-ru_i*] can be replaced by the independent pronoun for third person singular masculine *uwa*, thus behaving as a phrasal unit on the basis of the replacement test. (17b), on the other hand, shows that a nominal construction that is used as the possessor element cannot occur preceded by the possessed noun:

- 17a. [*uwa*] *kuwu* *mita-ru*
 3SG.M head.of be.big-M.O
 ‘Its/his head is big.’
- b. **kuwu* [*kema hãke-ru_i*] *mita-ru*
 head tapir babe.of-M be.big-M.O
 (The tapir’s babe’s head is big.)

Although (17b) does not furnish positive evidence that [*kema hãke-ru_I*] behaves as a phrasal unit on the basis of the movement test, further examples will show that the restriction on the movement of [*kema hãke-ru_I*] (17b) follows from the function that this nominal construction has in that specific clause, namely to express the possessor. In possession constructions the nominal (or pronominal) possessor necessarily precedes the possessed noun, that is, both possessor and possessed elements have a fixed position. This is further demonstrated by the ungrammatical constructions in (18), where the possessed noun *kuwu* ‘head of’ precedes the possessor pronominal and possessor nominal forms respectively:

18a. **kuwu uwa*
 head.of 3SG.M
 (his head)

b. **kuwu kema*
 head.of tapir
 (tapir’s head)

Aside from functioning as the possessor, a NP can also function as subject/object of a verb. In (19) the nominal construction [[*kema hãke-ru_I*]_{NP} *kuwu*] ‘the tapir’s babe-M’s head’ functions as the object of the objective descriptive verb *mita-ru* ‘be.big-3M.O’ insofar as it is coreferential with the object pronominal marker, *-ru*, in the verb. As can be seen from (19a), the nominal constructions [[*kema hãke-ru_I*]_{NP} *kuwu*]_{NP} can be replaced by the third person singular masculine pronoun, *uwa*. Also, as shown in (19b), the whole of [[*kema hãke-ru_I*]_{NP} *kuwu*]_{NP} can occur also post-verbally. Hence, the examples in (19a-b) show that such a nominal construction passes both the replacement and movement test for NP:

- 19a. [*uwa*] *mita-ru*
 3SG.M be.big-3M.O
 ‘It’s big.’
- b. *mita-ru* [*kema hãke-ru_I kuwu*]
 be.big-M.O tapir babe.of-M head.of
 ‘The tapir’s babe’s head is big.’

NPs can also consist of a noun following a numeral. In (20a) the noun form *suto* follows the feminine numeral *hãt-o* ‘one-F’, forming the NP [*hãto suto*]_{NP}. The examples in (20b-c) show that such a nominal construction passes both the replacement and movement tests for phrasal constituency:

- 20a. [*hãt-o suto*]_{NP} *apo-pe-ka*
 NUM-F woman fall-PFTV-PRED
 ‘One woman has arrived.’
- b. [*owa*]_{NP} *apo-pe-ka*
 3SG.F arrive-PFTV-PRED
 ‘She has arrived.’
- c. *õ-apo-pe-ka* [*hãt-o suto*]_{NP}
 3F-arrive-PFTV-PRED NUM-F woman
 ‘The woman has arrived.’

The example in (21a) shows that demonstratives and numerals can co-occur within a complex NP. (21b-c) only confirms that this complex nominal construction is consistent with both the replacement and movement tests for phrasal constituency:

- 21a. [*o-ye hãt-o suto*]_{NP} *apo-pe-ka*
 F-PROX NUM-F woman arrive-PFTV-PRED
 ‘This one woman has arrived’
- b. [*owa*]_{NP} *apo-pe*
 3SG.F arrive-PFTV
 ‘She has arrived.’

- c. *o-apo-pe-ka* [*o-ye* *hãt-o* *suto*]_{NP}
 3F-arrive-PFTV-PRED F-PROX NUM-F woman
 ‘This one woman has arrived.’

In possession constructions in which the possessive noun is preceded by a modifier, it is the possessed element that is modified, not the possessor, as illustrated in (22) where the speaker refers to ‘the two arrows of Mipa’ rather than ‘the arrow of two Mipas’:

22. *n-atama-ta-ru* [*epi* *mipa* *serepi*]_{NP}
 1SG-see-VBLZ two Mipa arrow.of
 ‘I saw the two arrows of Mipa’s.’

Moreover, not only it is the case that in possession constructions it is the possessed (not the possessor) element that is modified, but, actually, in a possession construction ONLY the possessed element can be modified, as shown in (23). That is, in a nominal possession construction such as *o-ye suto unuro* [F-PROX woman mother.of] in (23a) the demonstrative *o-ye* can be interpreted as modifying the possessed noun, i.e. *unuro*, but not as modifying the possessor noun, i.e. *suto*. In translating an English construction such as ‘This woman’s mother has arrived’, where the possessor noun is modified, the construction in (23b) is used instead:

- 23a. [*o-ye* *suto* *unuro*]_{NP} *apo-pe-ka*
 F-PROX woman mother.of arrive-PFTV-PRED
 ‘This mother of the woman has arrived’
 *(This woman’s mother has arrived.)
- b. [*o-ye* *suto*]_{NP} [*õ-unuro*]_{NP} *apo-pe-ka*
 F-PROX woman 3F-mother.of arrive-PFTV-PRED
 ‘This woman’s mother has arrived.’
 Lit.: ‘This woman, her mother has arrived.’

In (23b) two NPs are used. The first NP consists of a noun followed by a demonstrative, whereas the second NP consists of a possessor marker (that is coreferential with the noun in the previous NP) plus the possessed noun it attaches to.

At the present time I have found few cases illustrating the restriction on the modification of possessed nouns. However, although it will be important to verify additional data with more speakers in order to determine the generality of the restriction on the modification of possessed elements as a grammatical constraint in the language, there is at least one independent grammatical factor that could help to motivate this restriction. The possessed element in a possession construction cannot be directly modified by anything other than the possessor (pro)nominal form. That is, a possessed noun cannot be immediately preceded by anything other than the possessor (pro)nominal form (including here the pronominal possessor markers). So, the constructions in (24) are ungrammatical because the modifier, the numeral in (24a) and the demonstrative in (24b), occur inside a possession construction, immediately preceding the possessed noun:

24a. **mipa epi serepi*
Mipa two arrow.of
(Mipa's two arrows...)
(two arrows of Mipa's...)

b. **mipa i-kira aiko-te*
Mipa F-DIST house-POSSED
(that Mipa's house...)
(that house of Mipa's...)

Since modifiers cannot occur immediately before a possessed noun (nor after it), they need to precede the possessor form which, in its turn, precedes the possessed noun. Preceding the possessor form could, in principle, cause ambiguity of interpretation, insofar as the modifier would be interpretable as modifying either the possessor or the

possessed element. One way of avoiding such a potential ambiguity would be to constrain the interpretation of the scope of the modifier so that, as it seems to be the case, only the possessed noun can be modified inside a NP containing a possession construction.

The examples in (25) illustrate the fact that both numeral and demonstrative forms can also precede a possessive nominal. This is what is illustrated in (25a), with the respective phrasal constituency tests in (25b-c):

- 25a. [*o-ye hãt-o suto unuro*]_{NP} *apo-pe-ka*
 F-PROX NUM-F woman mother.of arrive-PFTV-PRED
 ‘This one mother of the woman has arrived.’
- b. [*owa*]_{NP} *apo-pe-ka*
 3SG.F arrive-PFTV-PRED
 ‘She has arrived.’
- c. *o-apo-pe* [*o-ye hãt-o suto unuro*]_{NP}
 3F-arrive-PFTV F-PROX NUM-F woman mother.of
 ‘This one mother of the woman has arrived.’

Relative clauses constitute another type of constructions that show potential NP properties, but which will only be properly described along with other subordinate clauses in chapter 9, section 9.1.1. The examples in (26) briefly illustrate the fact that relativized clauses can be replaced by pronouns in exactly the same way as NPs:

- [O V-rel.s]Cl_{REL} V
 26a. *kuku karota-karo apo-pe-ka*
 man hurt-REL.F.POS.S arrive-PFTV-PRED
 ‘The (female) one who hurt the man has arrived.’)
- b. *owa apo-pe-ka*
 3SG.F arrive-PFTV-PRED
 ‘She has arrived.’

In this work I will not attempt to describe how NPs containing clauses fit into the general structure of NPs in the language. Although, as seen (26), it can be shown that there are clauses in the language that have properties of a NP, the full details about the properties of NPs containing a clause still remain to be described. Notwithstanding NPs containing clauses, the structure of NPs can be represented as in (27):²

$$27a. \text{ NP} \rightarrow \begin{bmatrix} (\text{DEM}) + (\text{NUM}) + (\text{NP}_{\text{POSS}}) + \text{N} \\ \text{PRO} \end{bmatrix}$$

$$b. \text{ NP}_{\text{POSS}} \rightarrow \begin{bmatrix} (\text{NP}_{\text{POSS}}) + \text{N} \\ \text{PRO} \end{bmatrix}$$

Although constituting a troublesome theoretical concept, the notion of syntactic **head** of a NP can nevertheless be motivated in Apurinã on the basis of two types of evidence. The evidence allows us to argue that nouns or independent pronouns can be such a head. The first piece of evidence comes from the fact that a noun or pronoun within a NP can control the person and gender of the pronominal marker in the verb within the same clause, or the gender of the numeral or of demonstrative forms within the same NP. The examples in (16-25) illustrate these controlling properties of nouns inside NPs. The additional examples in (28) show that it is in fact the noun within the NP that determines the inflecting properties of the person marker in the verb:

² There is one type of nominal construction formed of the juxtaposition of nouns, where the rightmost noun is interpreted as an attributive modifier of the noun to its left. So, *kema kuku* (tapir man) will be interpreted as ‘male tapir’, and *kema suto* (tapir woman) will be interpreted as ‘female tapir’. These constructions require further investigation, since they have been attested with only one speaker, and since there is the possibility that this particular speaker may have been highly influenced by similar constructions in Portuguese. For these reasons, I will not discuss such constructions in this work.

- 28a. o-apo-pe-ka [kuku unuro]_{NP}
 3F-arrive-PFTV-PRED man mother.of
 ‘The man’s mother has arrived’
- b. Ø-apo-pe-ka [kuku uru]_{NP}
 3M-arrive-PFTV-PRED man father.of
 ‘The man’s father has arrived’

So, this property that nouns (such as the underlined ones given in (28)) have of determining the inflecting properties of other elements inside the same phrasal construction or clause can be taken to be one of the defining properties of a head of a NP. The second is that various of the examples above also show that a noun (or pronoun) can be the only element within a bare NP. The control of inflecting properties, then, can be used to motivate the category head of a NP, and nouns and independent pronouns are the elements that can head a NP. Hence, following the “head rule as internal structure test for phrase class” given in (15), the presence of a noun or pronoun head constitutes a positive evidence of a NP. Also, following the “internal structure test for phrase class” given in (13), the presence of a numeral or demonstrative (as elements internal to NPs) will count as positive evidence of NPs—insofar as wherever one finds a demonstrative or a numeral, one will also find a NP.

In contrast to languages that require a determiner in order for the noun to function as the syntactic expression of a verbal argument, in Apurinã nouns can stand by themselves (without any determiner) as the sole nominal expression of a subject or an object. In the following examples *hātako-ro* ‘youth-F’, and *ximaku* ‘fish’ are instances of nouns that can stand by themselves as the nominal expression of notional subject and object, respectively:

- 29a. *o-su-pe* *hātako-ro*
 3F-go-PFTV youth-F
 ‘The girl left.’
- b. *hātako-ro nhika-ru ximaku*
 youth-F eat-3M.O fish
 ‘The girl ate fish.’
- c. *ximaku o-muna hātako-ro*
 fish 3F-bring youth-F
 The girl brought fish.’

There are some preliminary indications that in some Apurinã speech varieties the demonstrative forms constitute a subclass of independent pronouns, insofar as they can stand by themselves as a noun phrase. If further investigation confirms the existence of pronominal demonstratives in those speech varieties, the NP structure will need to be revised accordingly for those speech varieties, since in such cases demonstratives would constitute instances of pronouns.

One final note about subject/object/possessor NPs is that, as was shown in 7.3, pronominal markers are in complementary distribution with pre-verbal (but NOT post-verbal) coreferential subject/object (pro)nominals and with any coreferential possessor (pro)nominal. Now that NPs have been introduced, this complementary distribution can be thought of as involving subject/object/possessor NPs and coreferential person markers. The examples in (30) further illustrate this complementary distribution:

- 30a. *o-apo-pe*
 3F-arrive-PFTV
 ‘She has already arrived.’
- b. **[owa]_{NP} o-apo-pe*
 3SG.F 3F-arrive-PFTV
 (She has already arrived.)

- c. **owa* *o-unuro* *apo-pe*³
 3SG.F 3F-mother.of arrive-PFTV
 (Her mother has already arrived.)
- d. **o-unuro* *owa* *apo-pe*
 3F-mother.of 3SG.F arrive-PFTV
 (Her mother has already arrived.)

In (30a) this form *o-* ‘3F’ can stand by itself as the sole formal expression of an argument of the verb; (30b) shows that this same pronominal marker is in complementary distribution with the coreferential independent pronominal subject; (30c) shows that the pronominal marker is in complementary distribution with the pre-nominal possessor; and, in (30d) the pronominal marker is shown to be also in complementary distribution with the postnominal possessor. Insofar as pronominal markers can replace pre-verbal coreferential nouns or independent pronouns, they behave like NPs. However, they are NOT in complementary distribution (i.e. they can co-occur) with post-verbal NPs, as shown by (28) and various of the previous examples. The complementary distribution involving pronominal markers and a subset of coreferential NPs (i.e. subject, object and possessor NPs) under the circumstances just described is relevant for the identification of NPs insofar as it can be used to identify one important subset of NPs in the language.

8.1.1.2 Oblique Noun Phrases

Oblique noun phrases (hereafter **NP_{obl}**) consist of nominal forms that are marked with one of the oblique markers which were morphologically described in chapter 7, in 7.1.2, and whose syntactic function of the (pro)nominal expressions where

³ This sentence, however, could be grammatical if interpreted as ‘Her mother, she has left.’

they occur will be discussed in 8.3.2. Oblique markers are the bound forms that attach to a (pro)noun to form a NP_{obl}, as the examples in (31) illustrate:

- 31a. *n-awa-ru* *wai* [[*nota tanu-ro* *nurumane*]_{NP} *-kata*]_{NPobl}
 1SG-exist-3M.O here 1SG spouse.of-F relative-ASSOC
 ‘I live here with the relatives of my wife.’
- b. *p-ita-ru* *su-pe* [[*ata nurumane awapoko*]_{NP} *-mokaru*]_{NPobl}
 2SG-brother.of-M go-PFTV 1PL relative village-GOAL
 ‘Your brother has gone to the village of our people.’

As can be gathered from the two examples in (31), although the morphological “host” of the oblique marker is always the last word of a NP_{obl}, its semantic scope is the whole NP_{obl} within which it occurs, not the word base it is phonologically attached to. The ungrammatical examples in (32) are given to demonstrate the fact that oblique markers cannot attach to elements within a NP_{obl} other than the rightmost one:

- 32a. **n-awa-ru* *wai* *nota tanu-ro₁-kata* *nurumane*
 1SG-exist-3M.O here 1SG spouse.of-F-ASSOC relative
 (I live here with the relatives of my wife.)
- b. **n-awa-ru* *wai* *nota-kata* *tanu-ro₁* *nurumane*
 1SG-exist-3M.O here 1SG-ASSOC spouse.of-F relative.of
 (I live here with the relatives of my wife.)

The examples in (33) show that a NP_{obl} passes both the movement and replacement tests for constituency. If we compare (33a) to (31a) we can see that the NP_{obl} can move as a unit; and if we compare (33b) to (31b) we can see that a NP_{obl} can be replaced by a single word, where both clauses (with and without replacement) have related meanings in that they can refer to the same location/goal:

- 33a. [[*nota tanu-ro nurumane*]_{NP} *-kata*]_{NPobl} *n-awa-ru wai*
 1SG spouse.of-F relative-ASSOC 1SG-exist-3M.O here
 ‘I live here with the relatives of my wife.’
- b. *p-ita-ru su-pe [werã]*
 2SG-brother-M go-PFTV there
 ‘Your brother has gone there.’

A valid question about what is being treated here as NP_{obl}s regards the extent to which they are different from NPs and, moreover, whether such differences would justify creating a new phrasal category rather than simply positing a new NP subcategory. In terms of the structural definition given in the previous subsection for NPs, one could argue that the following examples in (34) present a piece of evidence for not treating the putative NP_{obl}s as NPs, where in (34b) a pronoun cannot replace the NP_{obl} given in (34a):

- 34a. *nota apo-pe [mipa-kata]*
 1SG arrive-PFTV Mipa-ASSOC
 ‘I came with Mipa.’
- b. **nota apo-pe [uwa]*
 1SG arrive-PFTV 3SG.M

For all NPs seen so far it is the case that they can be replaced with an independent coreferential pronoun. Thus, what is relevant in (34) is precisely the fact that, as shown by (34b), NP_{obl}s cannot be replaced by a coreferential independent pronoun. However, the ungrammaticality of (34b) follows directly from the semantics that the oblique marker *-kata* adds to the NP_{obl} *mipa-kata*, rather than necessarily from any structural distinction between caseless and oblique noun phrases. That is, the distinction between NPs and NP_{obl}s can be described solely in terms of their distribution in the clause that follows from the grammatical relations they bear. So, as an associative oblique grammatical

relation (described in detail in 8.3.2.3), *mipa-kata* can only be replaced by a semantically compatible “pro-form”, as illustrated in (35):

- 35a. *nota apo-pe [uwa-kata]*
1SG arrive-PFTV 3SG.M-ASSOC
'I came with him.'

Another possible argument for distinguishing NP_{oblS} from NPs in Apurinã follows from its internal structure. As was seen in the previous section and summarized in (27), a NP can precede a possessed noun. In (36) it is shown that NP_{oblS} cannot occur with a possessed noun:

36. **nu-suka-ru uwa [nota hãke-ru-monhi] suto-re*
1SG-give-3O.M 3SG.M 1SG child-M-GOAL woman-POSSED
(I gave it to the wife of my son.)

In (36), again the distinction can be argued to follow from the semantics of possession construction rather than from any structural syntactic property of NP_{oblS}.

In sum, aside from always taking an oblique marker, NP_{oblS} also differ from NPs in that they cannot be replaced by a coreferential independent pronoun, and in that they cannot function as possessor. However, a different interpretation of the evidence presented so far for distinguishing NP_{oblS} from NPs is that they follow from the semantic roles denoted by NP_{oblS}, rather than from any major structural syntactic distinctions they might have. In fact, the extent to which no crucial grammatical property is revealed by how the distinctions between NP_{oblS} and NPs are categorized by itself suggests that this may be ultimately a terminological issue. For the purpose of this work, I will continue to treat NP_{oblS} as a subtype of noun phrases in Apurinã. Furthermore, as will be seen in the

description of grammatical relations in 8.3, there is a strong correlation between each individual type of NP_{obl} and the semantic roles they denote.

8.1.2 *Verb and the Object NP*

Now that the structure of NP_(obl)S have been motivated and their structure described, it is worth inquiring whether there is any way that the verb plus the object NP constitute a separate phrasal constituent, different from NP_(obl)S. At the present time there is no convincing positive evidence to argue that a verb plus the object NP form a phrasal unit similar to, for example, the **verb phrase** (hereafter **VP**) in English or in other languages where such a constituent can be motivated. The closest thing we can find to a replacement test would consist of the replacement of the verb plus the NP object construction by the verbal form *txa* described under 5.11.4. So, in (37a) *suto* ‘woman’ is a NP subject of the clause, and *nhika-ru nhipoko-ru₁* ‘ate food’ is the predication about the subject. In (37b) we see that the whole predication about the subject can be replaced with the form *txa-ru* ‘do-3M.O’:

- 37a. *suto* [*nhika-ru* [*nhipoko-ru*]_{NP}]_?
 woman eat-3M.O food-UNPOSS
 ‘The woman ate food.’
- b. *o*-[*txa-ru*]
 3F-do-3M.O
 ‘She did it.’

The use of *txa-ru* to replace an intransitive verb or a transitive verb plus its NP object is common in the language. This particular use of *txa-ru* may be what led Aberdour (1985:46) to label *txa* a “summary verb”, since in a way it sort of “summarizes” the meaning of a predication previously expressed in the discourse. To the extent that *txa* is

used anaphorically to express the meaning of a previous predicate, it could be argued to serve as evidence, on the basis of the replacement test, for treating the verb plus NP object construction as a VP. In the next example in (38), however, we see that the NP expressing the notional object *nhipokoru*, that seemed to be internal to the predication in (37a), occurs clause initially, without the addition of any phonological pause:

38. [*nhipoko-ru*]_{NP} *suto* *nhipika*
food-UNPOSS woman eat
'The woman ate food.'

The fact that the verb and the NP object can be separated by the NP subject needs to be explained in order to maintain a VP analysis. It is possible that the clause initial NP object illustrated in (38) is restricted to clauses that are somehow marked (structurally and/or pragmatically) and derivable from clausal structures such as that represented by (37a). However, such a markedness would still need to be established in the language. The fact is that further evidence would need to be gathered in order to motivate a VP in Apurinã. Traditional tests such as conjoined constructions are not found in the language (as already noticed by Pickering 1974; see also discussion on juxtaposition in chapter 9, in 9.2) and, thus, cannot be used as a constituency test for VPs. Without the firmer support of other evidence, the predication will NOT be treated here as contained within a VP, but rather as a V and a (structurally optional) NP object both as immediate constituents of the clause.

8.2. The Structure of Clauses

In the previous sections I have described the distribution and clustering of words into phrases. In this section, the organization of clauses is described in terms of the words and phrasal constituents presented above. The types of constructions that fit into the definition of clause given in 8.0 are listed in the various examples described in the following paragraphs.

The simplest type of clause will consist of a single word, where the referring expression is a pronominal marker that is attached to the verb, as illustrated in (39a); or, also, a bare independent pronominal or lexical NP plus a verb, as illustrated in (39b-c), respectively. (39d) shows that a pronominal and a coreferential independent NP in post-verbal position can co-occur. In (39e) a “branching” NP is shown to also form a clause with a verb:

- 39a. [[*n-apo-pe*]_V]_S
1SG-arrive-PFTV
‘I have already arrived.’
- b. [[*nota*]_{NP} [*apo-pe*]_V]_S
1SG arrive-PFTV
‘I have already arrived.’
- c. [[*kuku*]_{NP} [*apo-pe*]_V]_S
man arrive-PFTV
‘The man has already arrived.’
- d. [[*n-apo-pe*]_V [*nota*]_{NP}]_S
1SG-arrive-PFTV 1SG
‘I have already arrived.’
- e. [[*iye hātu kuku*]_{NP} [*apo-pe*]_V]_S
PROX ONE man arrive-PFTV
‘This one man has already arrived.’

The examples in (40) illustrate the types of clause structures that includes both a NP and one or more NP_{obl}S, as immediate constituent of the clause:

- 40a. [[*uwa*]_{NP} [[*suto*]_{NP} -*kata*]_{NPobl} [*apo-pe*]_V]_S
 3SG.M woman-ASSOC arrive-PFTV
 ‘He has already arrived with the woman.’
- b. [[*uwa*]_{NP} [*apo-pe*]_V [[*suto*]_{NP} -*kata*]_{NPobl}]_S
 3PL arrive-PFTV woman-ASSOC
 ‘He has already arrived with the woman.’
- c. [[*∅-apo-pe*]_V [*uwa*]_{NP} [[*suto*]_{NP} -*kata*]_{NPobl}]_S
 3SG.M-arrive-PFTV 3SG.M woman-ASSOC
 ‘He has already arrived with the woman.’
- d. [[*u-apo-pe*]_V [*uwa*]_{NP} [[*suto*]_{NP} -*kata*]_{NPobl} [[*ããta*]_{NP} -*ã*]_{NPobl} [[*kukata*]_{NP} -*mokaru*]_{NPobl}]_S
 3M-arrive-PFTV 3SG.M woman-ASSOC canoe-INSTR afternoon-GOAL
 ‘Towards the afternoon he had already arrived with the woman in the canoe.’
- e. [[[*uwa*]_{NP} -*xika*]_{NPobl} [*nota-nhi*]_{NP} [*harita-pẽ-ka*]_V]_S
 3SG.M-C.SOURCE 1SG-AFFECT beat-PFTV-PASS
 ‘I have been beaten because of him.’
- f. [[*kukata-mokaru*]_{NPobl} [*o-su-pe*]_V [*o-nuro-kata*]_{NPobl}]_S
 afternoon-GOAL 3F-go-PFTV 3M-mother.of-ASSOC
 ‘Towards the afternoon she had left with her mother.’
- g. [[*suto*]_{NP} [*o-nuro-kata*]_{NPobl} [*su-pe*]_V [*kukata-mokaru*]_{NPobl}]_S
 woman 3M-mother.of-ASSOC go-PFTV afternoon-GOAL
 ‘The woman and her mother had left towards the afternoon.’
- h. [[*kukata-mokaru*]_{NPobl} [*suto*]_{NP} [*su-pe*]_V [*o-nuro*]_{NP} -*kata*]_{NPobl}]_S
 afternoon-GOAL woman go-PFTV 3M-mother.of-ASSOC
 ‘Towards the afternoon the woman had left with her mother.’

(40a-c) illustrate the most typical positions where a NP_{obl} occurs in a clause, and (40d) shows that NP_{obl}S can be recursively used in a clause. (40e-f) show clauses with both verb-initial and verb-final NP_{obl}S, where in (40e) the NP_{obl} precedes a NP pre-verbally, and in (40f) the NP subject is replaced with a coreferential pronominal marker in the verb. (40g) shows a NP preceding a NP_{obl} pre-verbally, and a clause-final NP_{obl}.

Finally, (40h) shows a NP_{obl} preceding a NP pre-verbally and clause-final NP_{obl}. NP_{obl}S preceding NPs are generally avoided in post-verbal position.

I should point out that, although the clausal structures with intransitive verbs described here are the ones that are generally accepted by speakers of the language, some individual speaker's variation has also been attested. It still needs to be determined which factors (grammatical or discourse-pragmatic) lead speakers to choose one or the other of the various types of structures illustrated above. Moreover, the auxiliary verb *txa* has not been illustrated here and, in principle, it can occur in any of these various structures immediately after the main verb. It still needs to be determined also when the auxiliary verb is used and when it is not.

The structure of clauses with transitive verbs is different (from that of clauses with intransitive ones) only in requiring an obligatory extra NP or NP_{obl} to express the object of the verb. (37a), repeated below as (41a), shows a clause where both object NP and subject NP precede the verb. The examples in (41b) (repeated from 38 and 41c-d) are added to show that the two independent NPs of a transitive clause can precede or follow the verb. As shown in (41c-d), when one or both of these NPs follow the verb, a coreferential pronominal marker is added to the verb. Moreover, as (41e-g) show, independent NPs are structurally optional when a coreferential pronominal marker is found in the verb:

41a. [[*nhipoko-ru*]_{NP} [*suto*]_{NP} [*nhika*]_V]_S
 food-UNPOSS woman eat
 'The woman ate food.'

b. [[*suto*]_{NP} [*nhika-ru*]_V [*nhipoko-ru*]_{NP}]_S
 woman eat-3M.O food-UNPOSS
 'The woman ate food.'

- c. [*[nhipoko-ru]*_{NP} *[o-nhika]*_V *[suto]*_{NP}]_S
 food-UNPOSS 3F-eat woman
 ‘The woman ate food.’
- d. [*[o-nhika-ru]*_V *[nhipoko-ru]*_{NP} *[suto]*_{NP}]_S
 3F-eat-3M.O food-UNPOSS woman
 ‘The woman ate food.’
- e. [*[mipa]*_{NP} *[umata-ru]*_V]_S
 Mipa know-3M.O
 ‘Mipa knows it.’ (Mod:2:32:C)
- f. [*[Ø-akiri-ta-ro]*_V *[owa]*_{NP}]_S
 3M-call-VBLZ-3F.O 3SG.F
 ‘He called her.’ (2:48:A)
- g. [*[o-nhika-ru]*_V]_S
 3F-eat-3M.O
 ‘She ate it.’

The examples in (42) illustrate the distribution of NP_{obl}S in the clause, in relation to the verb and to co-occurring NPs:

- 42a. [*[nhipoko-ru]*_{NP} *[suto]*_{NP} *[nhika]*_V *[kikio-monhi]*_{NPobl}]_S
 food-UNPOSS woman eat field.farm-GOAL
 ‘The woman ate food on the way to the field farm.’
- b. [*[ata]*_{NP} *[aminhanuka-ru]*_V *[komeru-pe]*_{NP} *[aiko]*_{NP-monhi}_{NPobl}]_S
 1PL carry-3M.O manioc-pulp house-GOAL
 ‘We carry the manioc mush to the house.’
- c. [*[hātako-ro]*_{NP} *[o-unuro]*_{NP-kata}_{NPobl} *[apa-nanu-ta-ru]*_V *[aōtu]*_{NP}]_S
 woman-3F 3F-mother.of-ASSOC fetch-PROGR-VBLZ-3M.O “uxi”
 ‘The young woman is gathering “uxi” fruit with her mother.’
- d. [*[takataru]*_{NP-mokaru}_{NPobl} *[ata]*_{NP} *[oka-pe-ta-ru]*_V *[komeru-pe]*_{NP}]_S
 oven-GOAL 1PL throw-pulp-VBLZ-3M.O manioc-pulp
 ‘We throw the manioc mush onto the oven.’
- e. [*[o-nhika-ru]*_V *[nota]*_{NP-takote}_{NPobl} *[a-nurumane]*_{NP-kata}_{NPobl}]_S
 3F-eat-3M.O 1SG-CONTIG 1PL-relative.of-ASSOC
 ‘She ate it next to me with our family.’

- f. [[kukata]_{NP-mokaru}]_{NPobl} [a-nurumane]_{NP-kata}]_{NPobl} [o-nhika-ru]_V [nota]_{NP-takote}]_{NPobl}]_S
 afternoon-GOAL 1PL-relative.of-ASSOC 3F-eat-3M.O 1SG-CONTIG
 ‘Toward the afternoon, with our family, she ate it next to me.’

The structure of clauses with (potentially) ditransitive verbs differs from that with regular transitive verbs in allowing for a third NP to occur expressing the recipient argument of the verb, as was shown in 5.1.1.2.2 and illustrated (17) in chapter 5, repeated below as (43) (with brackets added):

- 43a. [nhi-yowata-ne] [pita] [nota] [suka]
 1SG-knife-POSSED 2SG 1SG give
 ‘I gave you my knife.’
- b. *[i-yowata-ne] [uwa] [nota] [etuka]
 2SG-knife-POSSED 3SG.M 1SG look
 (I watched/looked over his knife for him.)

I need to point out, however, that examples such as (43) are rather unnatural, as they can be found only in elicited material gathered with rather collaborative speakers. As was shown in 5.1.1.2.2, and illustrated in (19) in chapter (repeated below as 44), ditransitive verbs behave like regular transitive ones in that they only require the subject and one object to be (morpho)syntactically expressed in a clause:

- 44a. *pu-suka-no* *nota*
 2SG-give-1SG.O 1SG
 ‘Give away to me.’
- b. *nu-suka-pe-ka-ru*
 1SG-give-PFTV-PRED-3M.O
 ‘I’ve given away to him.’

Moreover, the same recipient argument that was shown to be expressed as NP in (43) can also be expressed as a NP_{obl}, as the examples in (45) illustrate:

- 45a. *o-suka-ro* *uwa-mokaru* *nhi-serepe*
 3SG.F-give-3F.O 3SG.M-GOAL 1SG-arrow.of(F)
 ‘She gave my arrow to him.’
- b. *nu-suka-ro* *nu-serepi* *pita-monhi*
 1SG-give-3F.O 1SG-arrow.of(F) 2SG-GOAL
 ‘I gave my arrow to you.’

Clauses with ditransitive verbs also differ from clauses with transitive verbs (and, for that matter, also from clauses with intransitive verbs), however, in one particular way: They allow for a post-verbal NP_{obl} to be accompanied by a coreferential pronominal object marker in the verb, as illustrated in (46):

- 46a. [[*o-suka-ru*]_V [[*uwa*]_{NP}-*mokaru*]_{NPobl} [*nu-serepi*]_{NP}]_S
 3F-give-3M.O 3SG.M-GOAL 1SG-arrow.of(F)
 ‘She gave my arrow to him.’
- b. [[*o-suka-ru*]_V [*nu-serepi*]_{NP} [[*uwa*]_{NP}-*mokaru*]_{NPobl}]_S
 3F-give-3M.O 1SG-arrow.of 3SG.M-GOAL
 ‘She gave my arrow to him.’

In these particular examples in (46), it is clear that the third person masculine object pronominal marker in the verb is coreferential with the NP_{obl} *uwa-mokaru* ‘to him’ rather than with the NP *nu-serepi* ‘my arrow’, since the word for ‘arrow’ is feminine in Apurinã. The issue as to what it means for a NP_{obl} to be coreferential with an object pronominal marker in the verb will be addressed in subsection 8.3.1.2.

The general structures illustrated above, however, include types of clauses that only rather collaborative speakers can accept and which have never been attested in text material. Further research is required in order to determine whether any of these types of clauses can be associated with specific grammatical or discourse-pragmatic functions.

8.3. Grammatical Relations

The term **grammatical relations** is used as the super-ordinate label for notions referring to a cluster of grammatical behavior associated with NPs and NP_{obj}s expressing the arguments of verbs in a clause. In notional terms, grammatical relations are the syntactic constructs that express the things that are referred to in a clause. The different types of grammatical relations found in the language are motivated on the basis of a range of specific syntactic properties that can be associated with one but not other syntactic expressions of arguments of verbs. When grammatical relations take the form of NPs or NP_{obj}s expressing arguments required by the lexical meaning of the verb I will refer to them as **core grammatical relations**, and when they take the form of NPs or NP_{obj}s expressing arguments that are not required by the lexical meaning of the verb, I will refer to them as **oblique grammatical relations**.⁴

The full set of evidence for the different types of core grammatical relations is presented discontinuously throughout this chapter, and summarized (for convenience) at the end. As a consequence, the following subsection establishes the criteria to look for and a working definition of the types of core grammatical relations. As the different pieces of the language syntax are presented, the working definitions will be checked against each relevant syntactic property.⁵

⁴ The terms “core” versus “oblique” grammatical relations used here are partly based on Andrews 1985:80-82.

⁵ The reason for presenting the evidence for core grammatical relations discontinuously is that notions such as subject and object are important to describe certain syntactic operations that, reciprocally, are part of the evidence for the subject/object distinction. So, for example, it is not possible to talk about reflexivization as evidence for subject before presenting such syntactic operations, but the notion of subject/object helps to explain how reflexivization works.

8.3.1 Core Grammatical Relations

Core grammatical relations have been defined above both in terms of generally taking the form of a NP to express arguments of a verb, as well as in terms of expressing arguments that are required by the lexical meaning of the verb. The latter part of the definition can be considered of greater importance, since, as will be seen later (8.3.1.2, 8.3.2.4 and 8.3.2.5), there are two subclasses of oblique grammatical relations that can be encoded as NPs. There are two types of core grammatical relations that can be distinguished on the basis of a cluster of properties associated with one but not the other NPs expressing argument functions. These are referred to by the traditional labels **(grammatical) subject** and **(grammatical) object**. As will be seen later, in section 8.9, the distribution of clausal constituents in a sentence cannot be used as a defining criterion for subject- and objecthood, since the position of such clausal constituents may vary in ways that cannot be predicted on the basis of specific grammatical factors. That is, there is enough variation in the order of clausal constituents so as to make it impossible to tell whether a NP bears subject or object grammatical relation to the verb purely on the basis of its position in a sentence. The data on clausal constituent order variation will be systematically described in 8.9.

In earlier chapters, the notions that were referred to as “subject/object” were preliminarily defined over the morphological co-referential pronominal markers that occur on the verb. In motivating the notions of subject and object, it is counted as evidence for the existence of subject certain syntactic behavior which are intrinsically associated with the putative subject NPs and which the putative object NPs do not share. The reverse is also true. These distinctions in behavior are taken to represent the

realization of distinctive syntactic properties characterizing subject and object, and that also single out grammatical relations as distinct from semantic or pragmatic ones.⁶

The evidence generally considered in defining subject can be characterized as one of **overt coding properties**, **behavior-and-control properties**, or **functional properties** (Givón 1995:228-252, adapted from Keenan 1976). Overt-coding properties are those consisting of morphosyntactic distinctions between subject and object NPs; behavior-and-control properties are those consisting of syntactic operations (such as reflexivization, relativization etc.) which one but not the other NP argument can undergo; and functional properties consist of semantic, referential or pragmatic roles that can be associated with one but not the other NP argument. Since the analytical goal here is to determine whether subject and object can be distinguished syntactically, only overt coding and behavior-and-control properties are considered as evidence here. Functional properties, on the other hand, will be mentioned only to show that subject/object grammatical relations cannot be reduced to purely semantic or pragmatic notions.

8.3.1.1 Subject

It may be best to start by showing that subject cannot be identified/reduced to its most typical semantic or pragmatic correlate. Rather than illustrating the dissociation between subject/object and each relevant semantic role, I will illustrate the dissociation between subject/object and the **semantic macroroles** (Van Valin and LaPolla 1997:139-146). The notion of “semantic macroroles” subsumes a number of specific semantic roles on the basis of their meaning similarities and of how they are most often formally

⁶ Some of the major typological and theoretical discussions on grammatical relations that influenced the description presented here are found in Van Valin and LaPolla 1997, Givón 1995:225:304, Croft 1990:95-123, Comrie 1989:104-123, Dryer 1986, Andrews 1985:62-164, DeLancey 1984, and Keenan 1976.

encoded crosslinguistically. These generalized semantic notions will simplify the presentation of the dissociation between core grammatical relations and semantic roles but will NOT affect the final results of the analysis in the ways that are relevant for motivating subject and object in Apurinã. The generalized “agent”-like semantic role will be called **actor**, whereas the “patient”-like semantic role will be called **undergoer** (idem). The example in (47) aims to illustrate that subject can be dissociated from its most typical semantic correlate, i.e. actor. So, in the following example *uwa-nhi* ‘3SG.M-AFFECT’ is an undergoer subject:⁷

S	V
47. <i>uwa-nhi</i>	<i>iri-pe</i>
3SG.M-AFFECT	fall-PFTV
‘He/it has fallen down.’	

The next example shows that subject can also be dissociated from its most typical pragmatic role, i.e. **topic from previous discourse**. The following example could be an answer to the question “Who shot it?”, where the subject refers to a newly introduced participant in the discourse:⁸

⁷ The apparent assumption held here is that there is a strong correlation between subject and actor/cataphoric topic, and of object with undergoer. Rather than an assumption, however, such correlations are well documented in the works of Givón (e.g. 1995 ch. 3, 1992, 1990 ch. 20, 1988, 1983) and others.

⁸ The two examples above illustrate the type of test that needs to be done in order to show that grammatical relations are distinct from semantic or pragmatic relations. Although, in principle, one should perform such tests for each type of evidence presented for grammatical relations, in fact, this is not done here. Instead, in the following subsections I only perform the test with respect to the most typical semantic role associated with the relevant grammatical relation, making only textual mentions of the dissociation between a specific grammatical relation and its pragmatic role. This can only be done here because the evidence in the language against treating subject/object as performing purely pragmatic roles is so overwhelming that it would be redundant to repeat it for each time a property of a grammatical relation is presented.

	S	V-o	O
48.	<i>mipa</i>	<i>keta-ru</i>	<i>uwa-nhi</i>
	Mipa	shoot-3M.O	3SG.M-AFFECT
	‘Mipa shot it.’		

The primary overt-coding distinction that can be used to characterize subject is the (bound) pronominal marking system already mentioned in various parts of the previous chapters (particularly in 5.2.2.1.1.1, 5.2.2.1.1.11, 7.1.2, and in Table 5 in section 7.2.1.2). In the examples in (49) the underlined elements are the pronominal markers plus their corresponding (co-referential) subject NP. In (49a), for instance, the pronominal marker prefixed to the verb is *n-*, which is co-referential with the post-verbal independent pronoun *nota* for first person singular. The other examples in (49) illustrate the same for the different grammatical persons:⁹

	O	s-V	S
49a.	<i>pite</i>	<u><i>n-atama-ta</i></u>	<u><i>nota</i></u>
	2SG	1SG-see-VBLZ	1SG
	‘I saw you.’		

	O	s-V	S
b.	<i>nota</i>	<u><i>p-akirita</i></u>	<u><i>pite</i></u>
	1SG	2SG-call	2SG
	‘You called me.’		

	O	s-V	S
c.	<i>owa</i>	<u><i>u-tereta</i></u>	<u><i>uwa</i></u>
	3SG.F	3M-like	3SG.M
	‘He/it likes her/it.’		

⁹ In some speech varieties speakers hesitate or simply do not accept the use of some free subject pronominal expressions post-verbally even if the coreferential pronominal marker is present in the verb. The reasons for this restriction require further investigation, the restriction does not apply uniformly to all the independent pronouns. In the Fortaleza village, for example, one speaker rejected (49c,e,g), hesitated before accepting (49f), but accepted all other cases.

O s-V S
d. *uwa* *o-nhika* *owa*
3SG.M 3F-eat 3SG.F
‘She/it ate him/it.’

O s-V S
e. *unawa* *a-keta* *ata*
3PL 1PL-see 1PL
‘We shot them.’

O s-V S
f. *ata* *hĩ-arita* *hĩte*
1PL 2SG-beat 2PL
‘You (pl) beat us.’

O s-V S
g. *hĩte* *o-oka* *uwa*
2PL 3M-kill 3SG.M
‘He killed you (pl).’

The same pronominal markers are used for the subject regardless of the transitivity of the verb (as shown in chapter 5, under 5.1.1), semantic or pragmatic roles of the subject NP. What would appear to constitute an exception are the objective descriptive intransitive verbs, described in the chapter 5, in 5.1.1.1.2.2. If it could be shown that these verbs have different semantic properties from standard intransitive verbs, one could argue that pronominal subject markers are co-referential with arguments other than the single argument of verbs with the semantics of object descriptive verbs and other than the “patient”-like argument of transitive verbs. However, as was shown in the previous chapter (in subsection 5.1.1.1.2.2), although the class of descriptive verbs shows some semantic correlates, it cannot be reduced to a specifiable semantic class of verbs and, as such, can be more generally characterized as a grammatically (as opposed to semantically) motivated subclass of intransitive verbs, although one that strongly correlates with property-referring concepts. That is, the fact that object descriptive verbs

take object rather than subject as their single argument cannot be motivated on purely semantic grounds, thus constituting no exception to the claim that the pronominal subject markers are co-referential with grammatical rather than semantic relations, namely with the grammatical subject. As a consequence, subject pronominal markers are a reliable criterion that can be used for the identification of grammatical subjects in Apurinã, although not all grammatical subjects in other languages will translate as grammatical subjects in Apurinã.

8.3.1.2 Object

The pronominal marking system can be used to distinguish the object from the subject. As seen in various examples of previous chapters (e.g. 7.1.1, 7.1.12, and in Tables 6-7 in section 7.3), the pronominal marking system includes a set of (bound) object markers that is distinct from the set of (bound) subject pronominal markers. This object pronominal marking is further illustrated in (50), where, e.g. in (50a), the pronominal form that is suffixed to the verb, i.e. *-i*, is co-referential with the post-verbal independent pronoun for second person singular, *pite*, expressing the undergoer argument of the verb. The other examples below illustrate the same for the other grammatical persons of the object paradigm (where underlining marks coreference):

	S	V-o	O
50a.	<i>nota</i>	<i>atama-<u>i</u></i>	<u><i>pite</i></u>
	1SG	see-2O	2SG
	‘I see you.’		

	S	V-o	O
b.	<u><i>pita</i></u>	<i>akirita-no</i>	<u><i>nota</i></u>
	2SG	call-1SG.O	1SG
	‘You called me.’		

	S	V-o	O	
c.	<i>uwa</i>	<i>tereta-ro</i>	<i>owa</i>	
	3SG.M	like-3F.O	3SG.F	
	‘He/It likes her/it.’			

	S	V-o	O	
d.	<i>owa</i>	<i>nhika-ru</i>	<i>uwa</i>	
	3SG.F	eat-3M.O	3SG.M	
	‘She/it ate it/him.’			

	S	V-o	O	
e.	<i>ata</i>	<i>oka-ru</i>	<i>unawa</i>	
	1PL	kill-3M.O	3PL	
	‘We killed them.’			

	S	V-o	O	
f.	<i>hĩte</i>	<i>keta-wa</i>	<i>ata</i>	
	2PL	shoot-1PL.O	1PL	
	‘You (pl) shot us.’			

	S	V-o	O	
g.	<i>uwa</i>	<i>harita -i</i>	<i>hĩte</i>	
	3SG.M	beat-2O	2PL	
	‘They beat you (PL).’			

As was shown in (47), the subject can also be an undergoer argument of a verb, which by itself already suggests that a core grammatical relation encoding an undergoer argument is not an exclusive property of the object, and, by extension, that grammatical relations cannot be equated with semantic roles. This is confirmed by the examples in (50) where verbs expressing from the least to the most “patient”-like meanings all take the object marking paradigm coreferential with the independent pronominal forms. Furthermore, to the extent that the single argument of (intransitive) descriptive verbs can be accompanied by a coreferential object (rather than subject) markers (as was shown, for example, in chapter 5, in 5.1.1.1.2.2) justifies treating the syntactic expression of such arguments as bearing object (rather than subject) grammatical relation. So, the single arguments of each of the simplex sentences illustrated in (51) (repeated from 12 in

5.1.1.1.2.2) are all coreferential with object pronominal markers in the verb and, as such bear object relation in these sentences:

- 51a. *pooma-no* *nota*
 be.hot-1SG.O 1SG.
 ‘I’m/feel hot.’
- b. *katsopu-ru* *ũ-ũwu*
 be.white-3M.O 3SG.M-flower
 ‘The flower is white.’
- c. *pomama-ru* *māka-txi*
 be.black-3M.O clothes-UNPOSS
 ‘The clothes are black.’
- d. *mita-ru* *aiko*
 be.big-3M.O house
 ‘The house is big.’

Also, as was briefly mentioned in chapter 7 (7.1.1.2.2), the (bound) object pronominal markers can sometimes be coreferential with the undergoer and sometimes with the **goal** argument of verbs that can optionally take a third argument (where “goal” also functions as a macrorole semantically in that it includes “recipient” and “goal” semantic roles, and which is properly described in 9.1.2.4). This is precisely what is demonstrated in (52) (as highlighted by underlining). In (52a), the third person feminine object pronominal marker *-ru* is coreferential with the goal NP_{obl}, *uwa-mokaru* ‘to him’, whereas in (52b), the third person feminine object pronominal marker is coreferential with the undergoer NP, *nu-serepi* ‘my arrow’:

- | | | | |
|------|-----------------------------|-------------------|------------------|
| | s-V-o.goal | UNDERGOER | GOAL |
| 52a. | <i>o-suka-ru</i> | <i>uwa-mokaru</i> | <i>nu-serepi</i> |
| | 3F-give-3M.O | 3SG.M-GOAL | 1SG-arrow.of |
| | ‘She gave my arrow to him.’ | | |

- S V-o.underg GOAL UNDERGOER
 b. *nota suka-ro uwa-mokaru nu-serepi*
 1SG give-3F.O 3SG.M-GOAL 1SG-arrow.of(F)
 ‘I gave the arrow to him.’

The fact that either a NP_{obl} or a NP can be coded in the verb through the coreferential object pronominal marker (i.e., *-ro* (52)) indicates that the object of a (potentially) ditransitive verb can be expressed either as a NP or as a NP_{obl}. Moreover, the only non-subject argument whose (morpho)syntactic expression is obligatory in a clause with a ditransitive verb is the goal argument. So, in a clause such as (53a) the only obligatory non-subject argument is *suto* ‘woman’, rather than *kinharu* ‘“buriti” fruit’.¹⁰

- UNDERGOER s-V-o.goal GOAL
 53a. *kinharu u-suka-ro suto*
 buriti 3F-give-3F.O woman(F)
 ‘He gave the woman “buriti” fruit.’

- s-V-o.goal GOAL
 b. *u-suka-ro suto*
 3F-give-3F.O woman(F)
 ‘He gave (it) to the woman.’

Since the object has been defined over the object pronominal markers, it follows that NP_{obl} that are coreferential with an object pronominal marker bear an object relationship with the verb. However, object has also been classified above as a core grammatical relation, that is, one that is required by the lexical meaning of the verb and, as a result, obligatorily expressed (morpho)syntactically in a clause having such a verb. Hence, since the only non-subject argument required in a clause with a ditransitive verb is the goal argument, it would be logical to conclude that only the (morpho)syntactic

¹⁰ I have found more recently that this is not true of all dialects, since in some of them the example in (53b) is

expression of the goal argument should be considered the object of clauses with ditransitive verbs. So, in an example such as (52b), where it is the undergoer NP *nu-serepi* ‘my arrow.of’ that is coreferential with the pronominal marker in the verb (not the goal NP_{obl} *uwa-mokaru* ‘to him’), the question arises as to which element is the object of the verb, the goal NP_{obl} or the undergoer NP. I will maintain that the element that is coreferential with the pronominal marker in the verb is the object in the clause, thus postulating that object pronominal marking is the primary definitional property of grammatical objects. That is, in (52b), *uwa-mokaru* is the object in the clause. This question, however, about which element is the object of the verb only appears to arise in elicited data, as there is no instance of natural spontaneous data where the undergoer argument is expressed as a free syntactic expression that is coreferential with a pronominal object marker in the verb. In natural texts, only the goal arguments co-occur with such a pronominal marker. Instances of both goal and undergoer arguments co-occurring pre-verbally (thus, with no accompanying coreferential marker) is even less natural and, perhaps, an artifact of the method by which the data are collected, i.e. through elicitation.

On the face of the fact the syntactic expression of the goal argument can behave (for the purpose of coreference with the object marker in the verb) similarly to the syntactic expression of the undergoer argument in some clauses, but differently in others, one may be led to describe the former situations (i.e. goal behaving the same way as undergoer) as constituting instances of promotions of non-objects into objects. Although such an analysis has been suggested for other languages in the past (e.g., Givón’s

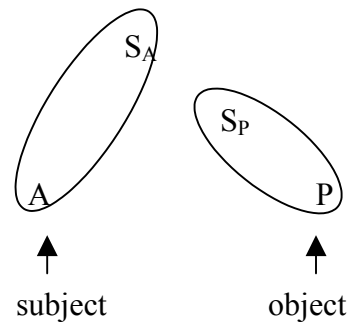
ambiguous, being interpretable as ‘He gave the woman (to somebody)’ or ‘He gave something to the woman.’

1994:233-234 analysis of a piece of data from Machiguenga, another Maipuran language), it would appear to be equally plausible to describe the marking syncretism attested for goal and undergoer marking in Apurinã as simply following from what defines object in Apurinã. In this case, the different ways in which objects are marked in languages like Apurinã would follow from the same principles that motivate the different mappings between semantic roles and the grammatical subject in various languages (see Dryer 1986). In sum, the object in a potentially ditransitive clause in this language will be the free expression of the non-subject argument that is coreferential with the object marker in the verb; the third non-subject argument in the clause will be described as an oblique, regardless of whether it is an undergoer or recipient.

8.3.1.3 Remarks on Subject/Object and the Co-referential Pronominal Marking Patterns

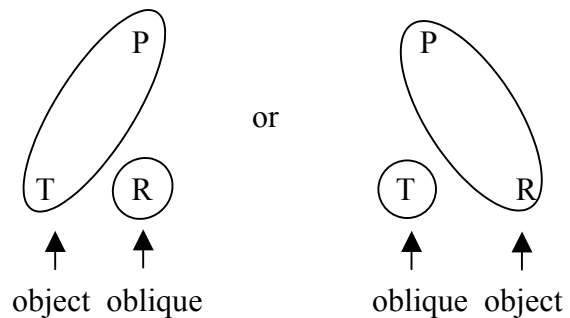
The coreferential marking patterns associated with the subject and object pronominal markers and the arguments of the verb can be described as involving a type of **Split-S Intransitivity**, where the single argument of descriptive (intransitive) verbs is marked in the same way as the object of transitive verbs, and differently from the single argument of (standard) intransitive verbs. Following the notation used by Dryer (To Appear), the grouping of arguments into what is the grammatical subject in Apurinã can be represented as follows: (Where ‘S’ = the single argument of an intransitive verb, ‘A’ = more “agent”-like argument of a transitive verb, and ‘P’ = more “patient”-like argument)

54. (Standard) Intransitive
 Descriptive (Intransitive)
 (Regular/Ditransitive) Transitive



The coreferential marking patterns involving the object pronominal markers and the arguments of the verb can be described in terms of a **split-object**. That is, in sentences with a (potentially) ditransitive verb the non-subject argument that is coreferential with the object pronominal marker in the verb will be the “patient”-like argument or the “theme”-like argument in some constructions, while in others it will be the “patient”-like argument or the “recipient”-like argument. Again following the notation used by Dryer (To Appear), this marking patterns of object in Apurinã can be represented as follows: (Where “R” = the “recipient”-like argument of a ditransitive verb, and “T” = the theme argument of a ditransitive verb.)

55. (Regular) Transitive
 (Potentially) Ditransitive
 (Regular/Ditransitive) Transitive



While the split-s pattern is determined by the (sub)classes of verbs, it remains to be determined what factors lead speakers to use one or the other pattern of object-split. While the latter type of split occurs with the same verb, the former type of split occurs with different (sub)classes of verbs.

8.3.1.4 Remarks on the Affectedness/Theme Marker *-nhi*

In an unpublished manuscript (Facundes 1992) on split-case marking in Apurinã I have described the affectedness marker *-nhi* (introduced in the previous chapter, in 7.1.4) as a marker of the theme semantic role, that is the argument changing place or location (literally or metaphorically), following DeLancey's (1984 and 1991) version of a localist case theory. In that work I also suggested that there was a close association between the putative theme marker and the syntactic role of the core arguments of the verb, and that such a close association was part of the major function of *-nhi* despite the fact that some of its usage was also determined by discourse-pragmatic factors. The origin of such an analysis was in examples such as the ones in (56), where *-nhi* marks the patient-like argument when it bears the subject of intransitive verbs or the object of transitive verbs:

S_A-affect V
 56a. *ata-nhi* *natxi-ta-pe*
 1PL-AFFECT be.hungry-VBLZ-PFTV
 'We're hungry.'

S_A-affect V
 b. *uwa-nhi* *upũpe*
 3SG.M-AFFEC die
 'He died.'

P-affect A V
 c. *uwa-nhi* *kuku oka-pe*
 3SG.M-AFFECT man kill-PFTV
 'The man has killed him.'

A V-p P-affect
 d. *nota hareta-ru amarinhi-nhi*
 1SG hit-3M.O boy-AFFECT
 'I hit the kid.'

As noticed in Facundes (1992), the fact that *-nhi* seemed to mark the theme and patient-like arguments of verb constituted a unusual typological manifestation of case-marking, since, in general, patient-like arguments are unmarked in a split case-marking system. What further investigation has revealed, however, is that both the semantic and discourse-pragmatic correlates of the affectedness marker are actually what constitutes its primary functions in Apurinã. Examples such as (59), where the element marked as affected is not even an argument of the verb, show that the *-nhi* is not restricted to NPs bearing subject/object roles in the language:

	S _A	V	ADJUNCT
59.	<i>aiko</i>	<i>xãpoãka-ta-pe</i>	<i>toi-txi-nu-ri-nhi</i>
	house	get.full-VBLZ-PFTV	thing-UNPOSS-PL-M-AFFECT
	‘The house is full... lots of things.’		

In order to illustrate the semantic and discourse-pragmatic functions *-nhi* I will use examples from the *kemasuto* text given in Appendix B. In the next example, I will follow the numbering sequence and format used in Appendix B for easy of illustration, where the line starting with \ref gives identifies the text and the sequential numbering of the clause being described; \mb gives the morpheme breaking; \tx gives the unsegmented text; \gl gives the morpheme glossing; and, \ft gives the free translation. The text is about the story a young woman who was kidnapped by a tapir. The story describes aspects of the relationship of the young woman with the tapir, and the struggle of the young woman’s family to retrieve her. The first illustrative sentence showing the use of the affectedness marker is 019, where the word for ‘young woman’ takes *-nhi*. In this part of the text *-nhi* is used to mark a psychological affectedness undergone by the woman as **empathically** felt and expressed by the narrator. That is, the use of *-inhi* has nothing to

do with the lexical meaning of the verb in the clause it occurs with but with the way the narrator construes the plot.

```
\ref kemasuto 019
\tx kema-tikinhi osupenhinhi...
\mb kema-tikinhi o-su-pe-nhi-inhi
\gl tapir-OBL 3F-go-PFTV-AFFECT-GER
\ps N-OBL 3F-V-PFTV-AFFECT-GER
```

```
\tx kemakatape.
\mb kema-kata-pe
\gl tapir-with-PFTV
\ps N-ASSOC-PFTV
```

\ft behind the tapir, she was going...

046 is where the family of the young woman first realize that she had mated with the tapir. The verbm ‘to mate, copulate’ by itself does not require or suggest any sort of affectedness; however, the narrator constructs the plot in such a way as reflect not only the fact that such ‘mating’ would be undesired but, also, it might even hurt the woman:

```
\ref kemasuto 046
\tx iimatapero owa
\mb u-himata-pe-ro owa
\gl 3M-mate-PFTV-3F.O she/her/it/its
\ps 3M-V-PFTV-3F.O PRON.3SG.F
```

```
\tx hātakoronhi.
\mb hātako-ro-nhi
\gl young.person-F-AFFECT
\ps Rt-F-AFFECT
```

\ft he had mated with the poor woman.

050 is uttered after the young woman’s family (referred to as ‘hunters’ in the text) has finally found the tapir and the young woman, when they beat the tapir to death. Here

the use of *-nhi* is motivated partly by the semantics of the verb expressing the event of ‘beating the tapir to death’. However, notice that the pronominal form used as the object of the verb (and referring to the extremely affected tapir) does NOT take the affectedness marker. Instead, the marker occurs with the appositive construction referring to the ‘woman’s spouse’ (i.e., the tapir). Here *-nhi* not only marked the affectedness undergone by the tapir itself but ALSO by the woman who, at that time, had developed a bond with the tapir. Thus, *-nhi* in 050 marks both the affectedness undergone by the tapir and the indirect affectedness as well as the solidarity/empathy of the woman —now the former tapir’s spouse.

```

\ref kemasuto 050
\tx iye      upururuta      txaperu      uwa
\mb iye      Ø-upururu-ta    txa-pe-ru    uwa
\gl then     3M-club-VBLZ    AUX-PFTV-3M.O he/him/his/it/its
\ps DISC.PTC 3M-N-VBLZ     AUX-PFTV-3M.O PRON.3SG.M

```

```

\tx kemanhi      ðtanurinhi.
\mb kema-nhi     o~tanu-ru-nhi
\gl tapir-AFFECT 3F-spouse.of-3M-AFFECT
\ps N-AFFECT     3F-Rt-3M-AFFECT

```

\ft They beat him up, the tapir, her husband.

068 is uttered after one of the woman’s family member, in disapproval of the woman’s bond with the tapir, cuts off the tapir’s genitalia and throws it at the woman. Here it is the expression for the tapir’s genitalia that takes affectedness marker, presumably for being physically affected now that it was detached from the tapir’s body. This reference to the affectedness undergone by tapir’s genitalia will make perfect sense as the rest of the plot develops further.

\ref kemasuto 068
\tx "ukara iye kerupa?
\mb u-kara iye ke-ru-pa
\gl 3M-DISTAL then WH-M-INTER
\ps 3M-DEM PTC WH-M-INTER

\tx pūtanuru pitximunahi."
\mb pu~tanu-ru pitxi-muna-nhi
\gl 2SG-spouse.of-3M penis-log-AFFECT
\ps 2SG-Rt-3M N-CN-AFFECT

\ft "What is it?!... The penis body of your husband!?"

073 constitutes a rather interesting use of affectedness marker which again has nothing to do with the lexical semantics of the verb occur in the sentences. The reason *-nhi* attaches to the expression for the ‘old woman’ is because the narrator here attempts to build up some (on the listeners) solidarity/empathy for the old woman, already anticipating the tragic event to be undergone by her.

\ref kemasuto 073
\tx uwā otxape kiyomanetxinhi iye
\mb uwā o-txa-pe kiyomane-txi-nhi iye
\gl then 3F-AUX-PFTV elder-UNPOSS-AFFECT then
\ps DISC.PTC 3F-AUX-PFTV N-UNPOSS-AFFECT PTC

\tx oirapokota.
\mb oira-poko-ta
\gl clean-DISTR-VBLZ
\ps Rt-DISTR-VBLZ

\ft Then an old woman was sweeping (the floor).

076 expresses the tragic event built up for earlier, where the old woman is tragically affected by the action of the tapir’s genitalia, whose state of affectedness had been marked in 068.

\ref kemasuto 076
 \tx *iyē keruwako oye kiyomanetxi-nhi uwaĩka*
 \mb *iyē keruwako o-ye kiyomane-txi-nhi uwaĩka*
 \gl then then F-this elder-UNPOSS-AFFECT so
 \ps DISC.PTC DISC.PTC F-PROX N-UNPOSS-AFFECT DISC.PTC

\tx *potoriākata kema pitxi:*
 \mb *potori-ã-ka-ta kema pitxi*
 \gl jump-INFER-INTENS-VBLZ tapir penis.of
 \ps Rt-INFER-INTENS-VBLZ N N

\ft Suddenly the tapir's penis jumped into the poor woman:

077 expresses the tragic end the old woman has, marking the nominal expression referring to her as (understandingly) affected:

\ref kemasuto 077
 \tx *iyē iyotsekupekataro*
 \mb then *u-yotseku-pe-ka-ta-ro*
 \gl DISC.PTC 3M-tear-PFTV-INTENS-VBLZ-3F.O
 \ps 3M-Rt-PFTV-INTENS-VBLZ-3F.O

\tx *kiyomanetxinhi.*
 \mb *kiyomane-txi-nhi*
 \gl elder-UNPOSS-AFFECT
 \ps N-UNPOSS-AFFECT

\ft It tore the poor woman apart.

In 078 the pronominal form referring to the deceased old woman is (again, understandingly) marked as affected. Here, however, more than the physical affectedness undergone by the poor woman, *-nhi* is used to bring some solidarity/empathy about her.

\ref kemasuto 078
 \tx *owanhi kema... uwa... uwa...*
 \mb *owa-nhi kema uwa uwa*
 \gl she/her/it/its-AFFECT tapir he/him/his/it/its he/him/his/i/its
 \ps PRON.3SG.F-AFFECT N PRON.3SG.M PRON.3SG.M

\tx *kema pitxi okape.*
 \mb *kema pitxi oka-pe*
 \gl tapir penis kill-PFTV
 \ps N N V-PFTV

\ft He, the tapir, he, the tapir's penis, killed her.

After becoming a “murderer” the tapir’s genitalia gets its turn to be physically affected to a completion. It takes the *-nhi* in 081 to mark its close-to-final physical affectedness.

\ref kemasuto 081
 \tx *oposo una... unawa purukupeta txaperu*
 \mb *oposo unawa unawa puruku-pe-ta txa-pe-ru*
 \gl later they they cut-PFTV-VBLZ AUX-PFTV-3M.O
 \ps ADV.PTC PRON.3PL PRON.3PL Rt-PFTV-VBLZ AUX-PFTV-3M.O

\tx *kema pitximunanhi.*
 \mb *kema pitxi-muna-nhi*
 \gl tapir penis-log.of-AFFECT
 \ps N N-CN-AFFECT

\ft For this, they... they cut the tapir's penis body (into small pieces),

083 marks the final physical affectedness undergone by the tapir’s genitalia as it is thrown out.

\ref kemasuto 083
 \tx *okaramuta txaperu*
 \mb *oka-ra-mu-ta txa-pe-ru*
 \gl throw-FOC-log-VBLZ AUX-PFTV-3M.O
 \ps V-?-CN-VBLZ AUX-PFTV-3M.O

\tx *upitximunanhi*
 \mb *u-pitxi-muna-nhi*
 \gl 3M-penis.of-log.of-AFFECT
 \ps 3M-N-CN-AFFECT

\ft and threw it, the penis body, out

084 again refers to the deceased old woman, again marked for affectedness perhaps also in order to bring about some more solidarity for the “poor old woman” as well as to justify the end given to the tapir’s genitalia.

```
\ref kemasuto 084
\tx kotxi   owa           kiyomanetxinhi      okape.
\mb kotxi   owa           kiyomane-txi-nhi    Ø-oka-pe
\gl because  she           elder-UNPOSS-AFFECT  3M-kill-PFTV
\ps ADV.PTC PRON.3SG.F N-UNPOSS-AFFECT  3M-V-PFTV
```

\ft because it had killed her, the poor old woman.

In 086 the expression referring to ‘young woman’ is again marked for affectedness, anticipated the pain and also tragic end she will have to go through.

```
\ref kemasuto 086
\tx oposo   owa           hãtakoronhi
\mb oposo   owa           hãtako-ro-nhi
\gl later    she           young.person-F-AFFECT
\ps ADV.PTC PRON.3SG.F Rt-F-AFFECT
```

```
\tx awãkuteka txakaru       uwa
\mb awãkute-ka3 txa-ka-ru     uwa
\gl suffer-CAUS AUX-CAUS-3M.O he/him/his/it/its
\ps Rt-CAUS   AUX-CAUS-3M.O PRON.3SG.M
```

```
\tx kema hãkeru,
\mb kema hãke-ru
\gl tapir child-3M
\ps N      Rt-3M
```

\ft After that, the poor young woman felt pain for the tapir's unborn child;

088 reveals the reason for the earlier anticipation of the affectedness, as it is again marked for affectedness for going into such an “unnatural” labor, and again perhaps anticipating her tragic end.

\ref kemasuto 088
 \tx *inhinhiã, owanhi*
 \mb *inhinhiã owa-nhi*
 \gl like.that she-AFFECT
 \ps DISC.PTC PRON.3SG.F-AFFECT

\tx *oawãkitekinhiru*
 \mb *o-awãkute-ka-inhi-ru*
 \gl 3F-suffer-CAUS-GER-3M.O
 \ps 3F-Rt-CAUS-GER-3M.O

\ft So, she painfully had it

Finally, 091 reveals the end (whose affectedness had already been anticipated in the preceding text) of the young woman as she is marked as affected as a result of the death caused by the birth of the tapir's child.

\ref kemasuto 091
 \tx *inhinhiã, aruwatxa uwa kema hãkeru iye oka*
 \mb *inhinhiã aru-watxa uwa kema hãke-ru iye oka*
 \gl like.that yes-today he/him/his/it/its tapir child.of-3M then kill
 \ps DISC.PTC PTC-ADV.PTC PRON.3SG.M N Rt-3M DISC.PTC V

\tx *txapero owa hãtakoronhi.*
 \mb *txa-pe-ro owa hãtako-ro-nhi*
 \gl AUX-PFTV-F she/her/it/its young.person-F-AFFECT
 \ps AUX-PFTV-F PRON.3SG.F Rt-F-AFFECT

\ft This way, he, the tapir's child killed her, the poor young woman.

Therefore, as is clear from the examples above the affectedness marker *-nhi* cannot be syntactically described in terms of the grammatical relations it occurs with. Instead, *-nhi* has a rich range of semantic and discourse-pragmatic functions which can be clustered under **physical or psychological affectedness** expressed as derived from the lexical meaning of verbs that take patient-like or theme arguments or from pragmatically construed context suggestive of affectedness, and under **solidarity/empathy** which can

be construed by speakers of the language as their feelings and/or which speakers can attempt to suggest on their hearers. Taking into consideration the strong role of the perspective of the speaker in determining the use *-nhi*, this morpheme can best be described as an **attitude marker**. The fact that there is a certain correlation between the use of the affectedness marker and S_p and P follows from their semantic properties, not syntactic ones —since it turns out that S_p and P refer to entities in contexts where they are the natural candidates to undergo affectedness in natural discourse. Furthermore, proof of the strong discourse-pragmatic function of *-nhi* is the fact that its use marking S_p and P is optional from a propositional semantics point of view (as was shown in Facundes 1992).

8.3.2 Oblique Grammatical Relations

Oblique grammatical relations have three basic formal properties: First, in general, they are either marked by oblique markers, by a verb morpheme, or by both; second, they cannot be accompanied by coreferential markers in the verb; and, third, they are structurally optional in the clauses where they can occur. The third property is interpreted here as indicating that oblique grammatical relations are not part of the lexical meaning of the verb. There are several types of oblique grammatical relations, having different syntactic functions in the clauses. The special bound formatives marking oblique forms were morphologically described in chapter 7, in subsection 7.1.2. The constituent structure of these oblique constructions was described as NP_{obl}S in earlier in 8.1.1.1. In the following subsections the oblique grammatical relations expressing different semantic roles are presented under the same heading for the cases where they take the same oblique marker.

8.3.2.1 Instrumental

Instrumental is the oblique grammatical relation whose function is to express ‘what something is done with’, taking the instrumental marker *-ã* (described in 7.1.2.1), as the examples in (60) are illustrative of:

[]INSTR s-V
60a. *uru tsapũãta-ã u-motoka-pe-wa*
father.of fish.hook-INSTR 3M-hook-PFTV-REFL
‘He hooked himself with the fish-hook.’

INSTR s-V-o
b. *kai-ã u-karota-no*
stone-INSTR 3M-hurt-1SG.O
‘He hurt me with a stone.’

8.3.2.2 Locative

Locative is the grammatical relation whose function is to express fixed spatial locations. Locatives can be marked in more than one way. They can be marked with the instrumental marker *-ã*, as in (61) where the locative forms occur clause finally:

O s-V LOC
61a. *komuru nu-taka itokori-ã*
manioc 1SG-put field-INSTR
‘He planted manioc in the field farm.’

S V-o O LOC
b. *ata taka-nu-ru komeru-pe i-ye takataru-ã*
1PL put-AGAIN-3M.O manioc-pulp M-PROX toasting.pan-INSTR
‘We put the manioc mush again in the toasting pan.’

A few instances of the bound forms *-wara* and *-yoka* can also be attested marking spatial and temporal locatives, as illustrated in (62) and (63):

LOC s-V
 62a. *kikio-wara nu-parīka-rewa-ta*
 field.farm-LOC 1SG-work-INTR-VBLZ
 ‘I worked in the field plantation.’

LOC s-V
 b. *kikio-wara nu-parīka-rewa-t-inhi*
 field.farm-LOC 1SG-work-INTR-VBLZ-GER
 ‘my working in the field plantation’

S V []LOC
 63a. *uwa una-ka-ta hāt-u kananu-yoka*
 3SG.M come-INTENS-VBLZ one-M year-LOC
 ‘He comes in another year.’

[]LOC s-V
 b. *hāt-u kasuru-yoka-ra Ø-una*
 one-M moon-LOC-FOC 3M-come
 ‘It was in another month that he came.’

8.3.2.3 Associative

Associative is used to express ‘things one does in the company of somebody else’, and is always marked with the associative oblique marker *-kata*. The following examples in (64) illustrate the associative grammatical relation. In (64a) the associative marker occurs with a nominal form, and in (64b) with a pronoun:

S ASSOC V-o O
 64a. *hātako-ro o-unuro-kata apa-nanu-ta-ru aōtu*
 youth-F 3F-mother.of-ASSOC fetch-PROG-VBLZ-3M.O umari
 ‘The young woman is gathering “umari” fruit with her mother.’

s-V ASSOC
 b. *o-su-pe uwa-kata*
 3F-go-PFTV 3SG.M-ASSOC
 ‘She has left with him.’

8.3.2.4 Goal (Allative)

The **goal** oblique grammatical relation is used to express either a point where something/someone (i.e. the theme) ends at, and is marked by either the *-monhi* or *-mokaru* postpositional markers, which appear to overlap in their function in all relevant terms.¹¹ In (65a-b) the goal construction is marked by *-mokaru*, and in (65c) by *-monhi*:

- | | | | | | |
|------|--------------------------------------|-----------------------|--------------------------|--------------------|---------------|
| | S | V | AUX-o | GOAL | |
| 65a. | <i>ata</i> | <i>aminhãka-pe-ta</i> | <i>txa-ru</i> | <i>aiko-mokaru</i> | |
| | 1PL | carry-PFTV-VBLZ | AUX-3M.O | house-GOAL | |
| | 'We carry the mush into the house.' | | | | |
| | GOAL | V | s-AUX-o | | O |
| b. | <i>takataru-mokaru</i> | <i>oka-pe-ta</i> | <i>a-txa-ka-ta-ru</i> | | <i>komeru</i> |
| | toasting.pan-GOAL | throw-PFTV-VBLZ | 1PL-AUX-INTENS-VBLZ-3M.O | | manioc |
| | 'We throw it onto the toasting pan.' | | | | |
| | GOAL | | s-V | | |
| c. | <i>nu-paraka-ne-monhi</i> | <i>nu-sa</i> | | | |
| | 1SG-hut-POSSED-GOAL | 1SG-go | | | |
| | 'I got to my hut.' | | | | |

The goal grammatical relation can be used to express **benefactives**, as the following examples illustrate. In both of the following examples the goal construction occurs clause-final and refers to the participant in favor of which the action is accomplished:

- | | | | | |
|------|--|-------------------|-------------|-------------------|
| | S | V-o | O | GOAL |
| 66a. | <i>youkake</i> | <i>ẽtirĩka-ro</i> | <i>suto</i> | <i>kuku-monhi</i> |
| | Youkake | steal-3F.O | woman | man-GOAL |
| | 'Youkake stole the woman for the man.' | | | |

¹¹ It is possible that their use may also be determined by speech varieties.

- | | | | | |
|----|-------------------------------------|----------------|-------------------|----------------------|
| | S | V-o | O | GOAL |
| b. | <i>mipake</i> | <i>kama-ro</i> | <i>serepi-txi</i> | <i>youkake-monhi</i> |
| | Mipake | make-3F.O | arrow-UNPOSS | Youkake-GOAL |
| | 'Mipake made an arrow for Youkake.' | | | |

Also, as was shown earlier (under section 8.3.1.2) in (52a), the goal marker is also used with “recipient” arguments, as the next examples in (67) further illustrate (where underlining marks coreference):

- | | | | | |
|------|---|------------------------|-----------------|--------------------|
| | S | V-o | O | GOAL |
| 67a. | <i>mipa</i> | <i>sukare-ta-pe-ru</i> | <i>aiko-nhi</i> | <i>suto-mokaru</i> |
| | mipa | sell-VBLZ-PFTV-3M.O | house(M)-AFFECT | woman-GOAL |
| | 'Mipa has sold the house to the woman.' | | | |

- | | | | | |
|----|----------------------------|----------------|------------------|-------------------|
| | S | V-o.goal | O | GOAL |
| b. | <i>nota</i> | <i>suka-ru</i> | <i>nu-serepi</i> | <i>uwa-mokaru</i> |
| | 1SG | give-3M.O | 1SG-arrow.of(M) | 3SG.M-GOAL |
| | 'I gave the arrow to him.' | | | |

- | | | | |
|----|-----------------------|----------------|-------------------|
| | S | V-o.goal | O.goal |
| c. | <i>nota</i> | <i>suka-ru</i> | <i>uwa-mokaru</i> |
| | 1SG | give-3M.O | 3SG.M-GOAL |
| | 'I gave away to him.' | | |

In (67a), while the NP_{obl} *suto-mokaru* ‘woman-GOAL’ is not accompanied by any object pronominal marker in the verb, the NP *aiko-nhi* ‘house-AFFECT’ is coreferential with the third person masculine object pronominal marker *-ru* in the verb. It is the latter then that bears the object grammatical relation (following the arguments presented in 8.3.1). In (67b), however, it is the NP_{obl} *uwa-mokaru* 3SG.M-GOAL’, co-referential with the pronominal marker in the verb, that bears the object grammatical relation, whereas the NP *nu-serepi* ‘1SG-arrow.of’ bears an oblique grammatical relation, since *nu-serepi* has no corresponding coreferential object pronominal marker in the verb and, also, as shown by (67c), it is structurally optional in sentences with the structure of (67b). The word for

‘arrow’ is a feminine noun in the language, in the relevant speech variety (as in *hãt-o serepi-txi* [one-F arrow.of-UNPOSS] ‘one/an arrow’), thus requiring the feminine coreferential pronominal marker *-ro*, rather than the masculine pronominal marker *-ru* found in the verb in (67b).

8.3.2.5 Directional Source (Ablative)

The (**directional**) **source** oblique grammatical relation is used to express an initial directional point of an event, and takes no morphological marker. In both of the examples in (68) the sources are clause-initial:

	SOURCE	s-V	S
68a.	<i>ĩtopa</i>	<i>Ø-una</i>	<i>ãkiti</i>
	jungle	3M-come	jaguar
	‘The jaguar came from the jungle.’		

	SOURCE	s-V
b.	<i>belém</i>	<i>n-una</i>
	Belém	1SG-come
	‘I came from Belém.’	

8.3.2.6 Causal Source

The **causal source** oblique grammatical relation is used to express the participant who somehow is the instigator or the one who indirectly brings an event to come about. This grammatical relation is always marked with the form *-xika*. In the examples in (69), the causal source occurs clause-initial in the first, and clause-final in the second example:

	C.SOURCE	S	V
69a.	<i>uwa-xika</i>	<i>nota-nhi</i>	<i>harita-pẽ-ka</i>
	3SG.M-C.SOURCE	1SG-AFFECT	beat-PFTV-PASS
	‘I got beaten because of him.’		

	S	V-o	O	C.SOURCE
b.	<i>uwa</i>	<i>harita-pe-no</i>	<i>nota-nhi</i>	<i>uwa-xika</i>
	3SG.M	beat-PFTV-1SG.O	1SG-AFFECT	3SG.M-C.SOURCE
	‘He beat me because of him.’			

8.3.2.7 Temporal

The **temporal** grammatical relation is used to express the notion of time for events such as activities, parts of a day and longer/shorter periods, and is marked with the same form as the temporal subordinator described at the end of this chapter, *-sawaku*.¹² In the examples in (70), the temporal grammatical relation occurs preceding the subject, in clause-medial position:

		TEMPORAL	s-V
70a.	<i>katana</i>	<i>ata kũũnuru-sawaku</i>	<i>a-sãki-rewa-ta</i>
	tomorrow	1PL xingané-TEMP	1PL-talk-INTR-VBLZ
	‘Tomorrow we, at/during our “xingané” festival, we’ll talk.’		

		TEMPORAL	S	V-o
b.	<i>katana</i>	<i>kũũnuru-sawaku</i>	<i>ata</i>	<i>nhika-ru</i>
	tomorrow	xingané-TEMP	1PL	eat-3M.O
	‘Tomorrow we eat it at/during our “xingané” festival.’			

8.3.2.8 Contiguous

The **contiguous** grammatical relation is used to express spatial proximity between elements, thereby also specifying the location of one or more element in to relation another/others. The examples in (71) illustrate some of the few examples that have been attested in text for such a grammatical relation:

¹² Some speakers use the variant form *-saaku*.

- 71a. *n-awa-ru* *nh-ita-ru₁-takote*
 1SG-live-3M.O 1SG-brother.of-M-CONTIG
 ‘I live near/next to my brother/cousin’
- b. “*agostinho*”-*takote* *n-awa-ta*
 Agostinho-CONTIG 1SG-live-VBLZ
 ‘...I live near Agostinho.’
- c. *uwa* *surũka-powa-ta* *owa-takote*
 3SG.M lie.down-AUG-VBLZ 3SG.F-CONTIG
 ‘He was lying down beside her.’

8.4. Types of Clauses

The previous section of this chapter described constituent structure and the ways in which the arguments of the verb bear core or oblique grammatical relations in a clause. This section describes the types of clauses that can be identified in the language on the basis of the class and sub-class of the word used with **predicative function** in a clause. Words used with predicative functions in a clause are defined over the presence of argument roles of the sort described in the previous section, accordingly with the lexical specifications of these words and/or with syntactic rules. Clauses having a verb as its predicator will be termed **verbal clauses**, whereas clauses having a noun as its predicator will be termed **non-verbal clauses**.¹³

¹³ In writing this section I found particularly stimulating the discussion in Givón 1995:ch5 on predication and on the origin and ontological nature of the term “predicate”, especially as it relates to the structural term “VP”, as well as the discussions in Lyons 1968:334-341 and Matthews 1981:ch5).

8.4.1 Verbal Clauses

Verbal clauses can be grouped into different types on the basis of the class of verbs defined in the previous chapter 5, in section 5.1.1). Following this verb classification, clauses can be intransitives or transitives.

Intransitive clauses consist of those formed of intransitive verbs. Various examples of intransitive clauses have been illustrated in various places above. In the example in (72a) the subject is the independent pronominal NP *uwa-nanu* ‘3SG.M-RESTR’, and the verb form *su-pe* ‘go-PFTV’ is the predicator, whereas in (72b) *kapataka* ‘be.hot’ is a descriptive verb predicator and the sole manifestation of the argument of the verb is the object pronominal marker for first person singular, i.e. *-no*:

	S	V
72a.	<i>uwa-nanu</i>	<i>su-pe</i>
	3SG.M-RESTR	go-PFTV
	‘He alone has gone.’	

	V-o
b.	<i>kapataka-no</i>
	be.hot-1SG.O
	‘I’m hot.’

As seen in (72b), clauses with attributive predicates require the use of intransitive verb predicates, as described in chapter 5, in 5.1.1.1.

Transitive clauses consist of those formed of transitive verbs, and they also have been illustrated in various places above. In (73) the subject is the independent pronominal NP subject *ata* ‘1PL’, *nhika* ‘eat’ is the predicator, and the lexical NP *ximaku* ‘fish’ is the object:

O S V
 73a. *ximaku ata nhika*
 fish we eat
 ‘We ate fish.’

Transitive clauses in Apurinã also include those with verbs that admit a third NP argument, since, as was shown earlier in 8.1.1), the third argument of these verbs is structurally optional. This is further illustrated in (74), where *ĩporãã* ‘water’ is an independent NP encoding the undergoer, *pu-* ‘2SG’ is the subject pronominal marker encoding the subject, *-no* ‘1SG’ is the object pronominal marker encoding the object, and the predicator is the verb *suka* ‘to give’:

UNDERGOER s-V-o
 74a. *ĩporãã pu-suka-no*
 water 2SG-give-1SG.O
 ‘Give me water.’

s-V-o
 b. *pu-suka-no*
 2SG-give-1SG.O
 ‘Give away to me.’

Presentational clauses consist of those formed with the presentational verb *awa*, described in 5.1.1.3. The examples in (75) (repeated from 21 in 5.1.1.3) illustrate the presentational clauses:

75a. *i-ye sãko awa-ru*
 M-PROX traíra there.be-3M.O
 ‘There was the “traíra” fish.’

b. *nhikitxi awa-ka-sawaku*
 game there.be-PRED-TEMP
 ‘When there’s game...’

- c. *apoka-koru yowata awa*
 find-REL knife there.be
 ‘There’s a knife that was found.’

Finally, other types of clauses can be distinguished on the basis of the uses of the verb form *txa*, described in 5.1.1.4. The examples in (76) **quotation clauses** in which the verb form *txa* is used to introduce direct or indirect quotations:

- 76a. *kuku-ka-ne-ra-no i-txa*
 man-PRED-ALSO-FOC-1SG.O 3M-say
 ‘He said “It’s a man that I also am.”’
- b. *∅-oka-pe-no-na-ko i-txa kema owa-mokaru*
 3M-kill-PFTV-PL-FUT 3M-say tapir 3SG.F-GOAL
 ‘“They’ll kill me”, the tapir said to the woman.’
- c. *kuku-ka-ne-ra uwa o-txa-ru*
 man-PRED-ALSO-FOC 3SG.M 3F-say-3M.O
 ‘She said that he’s also a man.’
- d. *akirita i-txa-ro owa*
 call 3M-say-3F.O 3SG.F
 ‘He called her.’

In (77) the examples illustrate **copula clauses**, that is, those formed with the verb *txa* meaning ‘to be’, in which case the reflexive marker *-wa* is also found in the verb:

- 77a. *owa-kanera suto o-txa-wa*
 3SG.F-ALSO woman 3SG.F-be-REFL
 ‘She is also a woman.’
- b. *uwa-kanera kuku i-txa-wa*
 3SG.M-ALSO man 3SG.M-be-REFL
 ‘He is also a man.’
- c. *k-owere-ka-re-ru₁ i-txa-wa*
 ATTR-teach-PRED-POSSED-M 3SG.M-be-REFL
 ‘He is a professor.’

- d. *kuku popũka-ru₁ i-txa-wa*
 man Apurinã-M 3SG.M-be-REFL
 ‘The man is Apurinã.’

8.4.2 Non-Verbal Clauses

The non-verbal clauses described here are restricted to those that are formed solely of the juxtaposition of two NPs, where the second one has a nominal predicative function. So, all clauses in (78) consist of two juxtaposed NPs, where the second one is interpreted as the predicator:¹⁴

- 78a. *kuku popũka-ru*
 man apurinã-M
 ‘The man is Apurinã.’

- b. *u-kira aiko owa aiko-te*
 3M-DISTAL house 3SG.F house-POSSED
 ‘That house is her house.’

- c. *emu suto-ra*
 baby woman-FOC
 ‘It’s a girl that the baby is.’

- d. *uwa kuku*
 3SG.M man
 ‘He/It’s man/male.’

In (78a) *kuku* ‘man’ functions as argument in the clause and *popũka-ru* ‘Apurinã-M’ is functioning as the predicator. In (78b), the second NP, i.e. *owa aiko-te* ‘her house’, is a possession construction that also is interpreted as the predicator of the clause. The examples in (78c-d) follow a similar pattern.

¹⁴ However, when only two nouns are juxtaposed some speakers tend to interpret them as constituting a complex nominal phrasal construction such that (78a,b,c) are respectively interpreted as ‘the Apurinã man’, ‘the baby woman’ and ‘that man’. This is particularly true in the speech of the Fortaleza village.

8.5. Valence Changing Operations

The previous sections have described the structure NPs, their roles as relational categories and the types of clauses in which these relational categories occur. The assumption held above was that the fact that the core grammatical categories (which verbs subcategorize for) are generally required to occur with the verbs in a clause (with verbal predicates) indicates that these core grammatical relations are part of the lexical meaning of the verb. In this section I describe the ways in which the number of core grammatical relations a verb subcategorizes for can be modified with the addition of bound forms to the verb. The number of arguments of a verb is referred to as **valence**.

8.5.1 Valence-Increasing Operations

In the following subsection the causative markers used in operations that result in increased valence are first described.

8.5.1.1 Causatives

As seen in 5.2.1.1.1.2, 5.2.1.1.1.5 and 5.2.1.2.1.4, there are three forms of morphological causatives in the language. The first causativizer is the class₁ bound verbal form *-kūtaka*, used with transitive verbs, and described in 5.2.1.1.1.5 above. *-kūtaka* is illustrated in clausal context in (79a), where it attaches to the transitive verb *nhika* ‘to eat’; *p-ita-ru* ‘2SG-cousin.of-M’ refers to the one caused to do something (i.e. the **causee**); *yapa* ‘“capibara”’ is what was caused to be eaten; and the subject marker *a-* refers to the one who causes the causee to do something (i.e. the **causer**). *nhika* is a bivalent verb, but in this example it works as a trivalent one as a result of the presence of the causativizer: (In these and in other examples below, underlining is used just to

highlight the causativizer, whereas double underlining indicates coreference between double-underlined forms.)

- 79a. O.CAUSEE ? s.causer-V-CAUS
hamo p-ita-ru yapa a-nhika-kūtaka-ta
HORT 2SG-cousin.of-M capybara 1PL-eat-T.CAUS-VBLZ
‘Let’s make your cousin eat “capybara”.’
- ? s.causer-V-CAUS-o.causee O.CAUSEE
b. *hamo yapa a-nhika-kūtaka-ta-ru uwa-nhi*
HORT capybara 1PL-eat-T.CAUS-VBLZ-3M.O 3SG.M-AFFECT
‘Let’s make him eat “capybara”.’

The example in (79b) illustrates the fact that, in causative constructions, the causee can be marked in the verb as the object marker. Thus, the NP-causee bears the subject whereas the NP-causer bears the object grammatical relations. The question left unanswered is what the grammatical relation of ‘what is caused to be V-ed’ is. In other words: What is the grammatical relation of *yapa* in (79)? One possible analysis of this third argument of causative constructions is to treat it as bearing an oblique grammatical relation. The problem, however, of treating arguments such as *yapa* in (79) as an oblique is that this argument is not structurally optional in the clause in the same way as other obliques are in the language. Another possible analysis is to treat it as a secondary object that is restricted to causative constructions. The problem with this second analysis is that there is no independent evidence to treat such an argument as an object. The notion of a grammatical object was defined for Apurinã over the possibility of a free expression co-occur with a coreferential object marker in the verb. As was shown in (79), the object marker in the verb of causative constructions is coreferential with the causee and not with ‘what is caused to be V-ed’. Hence, either analyses have problems. In order to avoid positing an ill motivated solution to this problem, I will choose to leave undetermined

what the grammatical relation of ‘what is caused to be V-ed’ is in a causative construction. I suspect that further research on the intrinsic properties of objects and obliques in Apurinã will reveal ways that will help to resolve the issue.

The second and third causativizers have the same phonological form, *-ka*, and the same function, occurring with both transitive and intransitive verbs. They only differ in their affix position within the verb: One belongs to class₁ bound verbal forms (5.2.1.1.1.3) whereas the other belongs to class₂ bound forms (5.2.1.2.1.4). In the example in (80a) *n-* is the causer and *amarunu* ‘boy’ is the causee; in (80b) (repeated from chapter 5), *nhi-* is the causer, *-ru* the causee, and *yapa* the object. In the first case a monovalent verb is made bivalent, and in the second case a bivalent verb is made trivalent:

- | | | | |
|------|------------------------------------|---------------------------------------|--|
| | O.CAUSEE | s.causer-V | |
| 80a. | <i>amarunu</i> | <i>n-umaka-ka₂-nanu-ta</i> | |
| | boy | 1SG-sleep-CAUS-PROG-VBLZ | |
| | | ‘I am making the kid sleep.’ | |
| | causer-V-o.causee | O.CAUSEE | |
| b. | <i>nhi-nhika-ka₃-ru</i> | <i>yapa</i> | |
| | 1SG-eat-CAUS-3M.O | capybara | |
| | | ‘I made him eat capybara.’ | |

That the causee of an intransitive verb behaves as a grammatical object is shown by the next example in (81). In this example the causee is *anãpa* ‘dog’ and it co-occurs with a coreferential object pronominal marker, i.e. *-ru* ‘3M.O’, in the verb:

- | | | | |
|-----|-------------|------------------------------------|--------------|
| | S.CAUSER | V-CAUS-o.causee | O.CAUSEE |
| 81. | <i>kuku</i> | <i>muteka-ka₃-pe-ru</i> | <i>anãpa</i> |
| | boy | run-CAUS-PFTV-3M.O | dog |
| | | ‘The man made the dog run.’ | |

Notice also that, as can be seen by comparing (80a) and (80b), the causer maps onto subject regardless of whether the verb is transitive or intransitive. On the other hand, as can be seen by comparing (80b) and (81), the causee is mapped onto the object regardless of whether the verb is transitive or intransitive.

Presently, aside from the transitivity distinction there is no evidence that other grammatical properties play a role in the decision to use one or the other of the causativizers. This may suggest that any such a distinction, instead, comes from subtle semantic or discourse-pragmatic properties that are not grammaticalized in the language—and which still need to be determined. So far I have not been able to find any grammatical or discourse-pragmatic factor that can be used to distinguish the use of *-ka₂* versus *-ka₃*. The co-occurrence of *-ka₂* and *-ka₃* in the same verb base does not occur in natural speech. Only very collaborative speakers can sometimes accept the use of two causativizers in the same verb base. Finally, notice that, as demonstrated by (80a) when compared to (82), whereas the causer is always the subject (since the causer can be coreferential with or expressed as the subject pronominal marker), never the object, the causee is always the object (since the causee can coreferential or expressed as the object pronominal marker), never the subject:

S.CAUSEE V-causer.o
 82. **amarunu umaka-ka-nanu-ta-no*
 boy eat-CAUS-PROG-VBLZ-1SG.O
 (I am making the kid sleep.)

Thus, the mapping between causer and causee and the grammatical relations borne by their syntactic expressions further confirms the subject-object distinction, insofar as the

former always maps onto the grammatical subject whereas the latter always maps onto the grammatical object.

8.5.2 *Valence-Decreasing Operations*

In the following subsection the formal markers used in operations that result in decreased valence are described.

8.5.2.1 **Intransitivization**

Bivalent verbs may become monovalent as result of the suffixation of the class₁ bound form *-rewa* (morphologically described in 7.12) to the verb. As shown in (83), a bivalent verb such as *akatsata* ‘to bite’ in (83a) can be made into a monovalent verb, as seen in (83b):

	S	V-o	O
83a.	<i>ākiti</i>	<i>akatsa-ta-ru</i>	<i>kuku</i>
	jaguar	bite-VBLZ-3M.O	man
	‘The jaguar bit the man.’		

	S	V-intr
b.	<i>ākiti</i>	<i>akatsa-rewa-ta</i>
	jaguar	bite-INTR-VLBZ
	‘The jaguar did some biting.’	

The same holds for verbs that translate as ditransitive verbs in languages like English, as illustrated for the verb *suka* ‘give’ in (84a) (repeated from chapter 5), compared with *suka-rewa-ta* in (84b), where the presence of *-rewa* again intransitivizes the verb:

	S	V-o	GOAL	O
84a.	<i>nota</i>	<i>suka-ro</i>	<i>uwa-mokaru</i>	<i>nu-serepi</i>
	1SG	give-3F.O	3SG.M-GOAL	1SG-arrow.of
	‘I gave the arrow to him.’			

- s-V-intr
 b. *nu-suka-rewa-ta*
 1SG-give-INTR-VLBZ
 ‘I did some giving.’

Finally, the last example in (85) is given just to show that intransivized verbs cannot take an object with or without the object pronominal marker:

- | | | |
|-------------------------------------|----------------------------|-------------|
| S | V-o | O |
| 85. * <i>ãkiti</i> | <i>akatsa-rewa-ta(-ru)</i> | <i>kuku</i> |
| jaguar | bite-INTR-VBLZ-3M.O | man) |
| (The jaguar did biting to the man.) | | |

8.5.2.2 Reflexivization

A reflexive clause, in general terms, is one where subject and object refer to the same participant. In Apurinã, reflexivization occurs when the class₃ bound form *-wa* (morphologically described in 5.2.2.1.1.11) occurs in the verb, replacing the object of a transitive verb, occupying the same position class as object pronominal markers. In (86a) *nhi-* ‘1SG’ is the subject of the bivalent verb *yõka-ta* ‘to paint-VBLZ’ to which the reflexive marker attaches to form a monovalent verb. In (86b) the only difference is that the subject is an independent pronominal form. In (86c) an analogous process is illustrated for the verb *suka* ‘to give’, making this verb monovalent:

- s-V-refl
 86a. *nhi-yõka-ta-wa*
 1SG-paint-VBLZ-REFL
 ‘I painted myself.’

- | | |
|--------------------|---------------------|
| S | V-refl |
| b. <i>uwa</i> | <i>harita-ta-wa</i> |
| 3SG.M | beat-VBLZ-REFL |
| ‘He beat himself.’ | |

Oblique	s-V-refl
c. <i>toi-txi</i>	<i>o-suka-wa</i>
thing-UNPOSS	3F-give-REFL
‘She gave herself a gift.’	

As was shown in (77) above (and repeated below as 87), the reflexivizer is also found in copula clauses marked with the verb form *txa*:

- 87a. *owa-kanera suto o-txa-wa*
 3SG.F-ALSO woman 3SG.F-be-REFL
 ‘She is also a woman.’
- b. *uwa-kanera kuku i-txa-wa*
 3SG.M-ALSO man 3SG.M-be-REFL
 ‘He is also a man.’

At this stage I cannot provide any convincing motivation for having the reflexive marker in copula clauses. Further study is required on this issue.

8.5.2.3 Reciprocity

Reciprocity can be generally defined as “a grammatical feature expressing the meaning of mutual relationship” (Crystal 1992:328), and is marked in Apurinã with the bound verbal form *-kaka*. *-kaka* (morphologically described under 5.2.1.2.1.6) can occur with transitive verbs that have inherent/potential reciprocal meaning, such as ‘see, meet, talk, fight, etc.’ For a predicate to be formally marked as reciprocal there are three requirements that need to be fulfilled: (i) the event being expressed by the clause must be one where two or more participants act upon one another (that is, reciprocals cannot be used as reflexives —where there would be only one participant acting upon him/it/herself); (ii) although there have to be two or more participants in the event being encoded by the clause, there must be only one grammatical person overtly expressed in

the clause; and, moreover, (iii) the participant must be expressed as subject. It follows from (i-iii) that only plural subjects can be found in reciprocal clauses. The example in (88a), repeated from chapter 5, is a case where the subject is first person plural; in (88b) the subject is second person plural; and in (88c) the subject is third person plural. The example in (88d) has been constructed to show, first, that singular persons cannot be used in reciprocal constructions, and, second, that the object cannot be overtly expressed when the predicate is marked as reciprocal:

- S V-recipr
 88a. *ata atama-ta-kaka*
 1PL see-VBLZ-RECIPR
 ‘We saw each other.’
- S V-recipr
 b. *hĩte pitxoka-kaka*
 2PL kiss-RECIPR
 ‘You (PL) kissed each other.’
- S V-recipr
 c. *iyē suto-wakoro akirita-kaka*
 PTC woman-PL call-RECIPR
 ‘So, the women call one another.’
- S V-recipr-o
 d. **nota txita-kaka-I*
 1SG argue-RECIPR-2O
 (You and I argued with each other.)

The fact that only the NP that can be coreferential with pronominal subject markers (or the pronominal subject markers themselves) can (potentially) be overtly realized in reciprocal constructions further confirms the grammatical distinction between the subject and object NPs. The reciprocal marker does not occur with intransitive verbs.

8.6. Tense and Aspect

In the following subsections the formal markers for tense and aspect are described.

8.6.1 *Tense*

The tense grammatical category can be understood as “[t]he grammatical expression of the time of a situation described in a proposition, relative to some other time” (Crystal 1992:386). In a general sense, tense “locates the event in time” (Chung and Timberlake 1985:202). It is this deitic/indexical nature inherent to tense that is absent in the aspect category (described in 8.6.2 below). On the basis of its formal marking properties, tense can be described in terms of two types in Apurinã: **future** and **non-future**. These two types of tenses have as reference center the **speech locus** (i.e. the moment in which speech takes place).¹⁵

8.6.1.1 **Future**

The **future tense** in Apurinã refers to a non-immediate time frame in the future (in relation to the speech locus), and is marked with the class₃ bound form *-ko* (morphologically described in 7.1.14). In (89a) the sentence expresses an imperative speech act (described and defined in 8.8.3) where an advice is being given about the behavior of the addressee in the time to come. In (89b) the sentence (extracted from a folk Apurinã story) is uttered in a context where the speaker just realizes he is being followed by hunters after his kidnapping of a woman; in this case future is used to refer

¹⁵ The description of tense presented here is restricted to its use in simple sentences. Tense resolution in complex sentences is not included here.

to a non-immediate future. In (89c) future is used to refer to a time period following a season:

- 89a. V-fut s-AUX
hare-ka-ko *pi-txa* (M)
 be.good-PRED-FUT 2SG-AUX
 ‘Be good.’
- b. s-V-o-fut
Ø-oka-pe-no-na-ko
 PTC 3M-kill-PFTV-1SG.O-3PL-FUT
 ‘So, they will kill me.’
- c. PTC-fut PTC-FUT LOC s-V-o
apakata-ko kamōi-sawaku (...) *apakata-ko uwã a-sa-ru*
 after-FUT summer-TEMP (...) after-FUT there 1PL-go-3M.O
 ‘Later in the summer (...) then we go there.’

The future marker *-ko* is frequently used in combination with the frustrative marker *-ma* to express the sense of conditional, as illustrated in (90) (repeated from 33b-c, given in 7.1.10):

- 90a. *Ø-oka-ma-ru-ko*
 3M-kill-FRUST-3M.O-FUT
 ‘He’d kill it but...’
- b. *nhi-nhipoko-ta-ma-ko* (M)
 1SG-eat-VBLZ-FRUST-FUT
 ‘I’d eat but...’

8.6.1.2 Non-Future

The **non-future** tense in Apurinã can refer to a time frame anterior to the speech locus (**past**), or it can include the speech locus (**present**), or, still, it can refer to a time frame immediately posterior to the speech locus (**immediate future**). In the following example (91a), the proposition is a simple statement about another person, made in the

present; in the second example in (91b) (repeated from 25a, in 5.1.1.2) the proposition is an event that happened in the past; and, in (91c) the proposition is an event that will happen in the day immediately posterior to the day of the speech locus:

S V-o O
 91a. *mipa imata-ru a-sākire*
 Mipa know-3M.O 1PL-language
 ‘Mipa knows our language.’

V s-V-o O
 b. *akirita i-txa-ro owa*
 call 3M-AUX 3SG.F
 ‘He called her.’

PTC TEMPORAL S V
 c. *katana kuunuru-sawaku ata kako-rewa-ta*
 tomorrow kuunuru-TEMP 1PL chew.katsoparu-INTR-VBLZ
 ‘Tomorrow we’re going to chew “katsoparu” during the Apurinã festival.’

The difference between future and immediate future in the language cannot be measured in an exact manner, since speakers can vary as to the extent that they mark an event as future or immediate future. It is the case that when a time frame exceeds a couple of days, it is more likely that the proposition is marked as future rather than immediate future. Nevertheless, different perspectives/convictions imposed by speakers may allow event construals where either type of tenses is used in ways marginal to their prototypical function. Moreover, since future refers to a time frame farther from the speech locus than immediate future, the former is also used with other functions such as modality (e.g. irrealis) or evidentiality (e.g. source of information). This interaction of future with other grammatical functions, however, requires further research.

8.6.2 *Aspect*

As a general definition, **aspect** constitutes the relationship of an event/state to the time period over which it occurs.¹⁶ To use the terms given in Comrie 1976, and on the basis of the formal markings found in the language, aspects in Apurinã can be of two general types: perfective and imperfective. As many of the examples above suggest, aspect is not obligatorily marked in the language. Moreover, at the present time there is no conclusive evidence as to what the absence of any aspect marker in a clause means. The next subsections describe the circumstances in which aspect markers can be used and what their meanings are.

8.6.2.1 **Perfective**

In general terms, **perfective** can be understood as marking “that the situation is viewed as bounded temporally” (Bybee et al 1994:54), or, in other terms, as the “morphological category that signals closure [... of the] inherent limit actually reached within the event frame.” (Chung and Timberlake 1985:219). However, the definitions above should only be taken as reflecting the most typical use of the Apurinã perfective marker. As the examples presented in this subsection will show, various (secondary) other uses, in addition to completion and temporal boundedness, are attested for the aspect form here labeled perfective.

The perfective aspect is marked by the class₃ verbal bound form *-pe* (morphologically described in 7.1.6.1). In the first examples below, this aspect marker is used (in its most typical function) to mark that the event/state is bounded temporally. For

¹⁶ This definition is an adaptation of that given in Chung and Timberlake 1985:213.

an event to be bounded temporally it is necessary that it take place within the time frame over which it occurs (Chung and Timberlake 1985:219). For a state to be bounded temporally it is necessary that it remain unchanged during the time frame over which it takes place. In (92a) the sentence is part of a narrative where the speaker describes one of the steps necessary to make the tobacco powder. The initial temporal particle delimitates the time frame within which the event is bounded. In the example in (92b) the narrator presents another bounded event where, as result of the young woman having gone see the tapir, she (the young woman) ends up having to accompany the tapir into the jungle:

	TEMPORAL	O.PFTV		S	V	AUX
92a.	<i>oposo</i>	<i>oko-tãta-pe-ka-ne</i>		<i>ata</i>	<i>makatxaka</i>	<i>txa-nu</i>
	after	oko-bark-PFTV-PRED-again	1PL	remove		AUX-AGAIN
	‘Then we get the bark of the oko tree.’					

	TEMPORAL	ASSOC	V-PFTV	s-AUX	S
b.	<i>oposo</i>	<i>uwa-kata</i>	<i>su-pe</i>	<i>o-txa</i>	<i>hãtako-ro</i>
	after	3SG.M-ASSOC	go-PFTV	3F-AUX	youth-F
	‘Then the young woman went with the tapir.’				

As the following examples in (93) are illustrative of, the perfective marker can also be used to mark stative predicates when the state they express remains within the bounds of the established time frame. In both (93a-b) the stative predicates are located within the time frame expressed by the initial particles, and they take the perfective marker:

	TEMPORAL	V		s-AUX-PFTV
93a.	<i>aru-watxa</i>	<i>ka-mixi-pe-ka</i>		<i>o-txa-pe</i>
	yes-today	ATTR-pregnancy-PFTV-PRED		3F-AUX-PFTV
	‘By then the woman got pregnant.’			

- TEMPORAL PROX-PFTV-o
 b. *watxa wai-pě-ka-ru*
 today be.here-PFTV-PASS-3M.O
 ‘Now he’s here.’

The first of the “secondary” uses of the perfective marker illustrated below is that of **completive**. As a general definition, the completive aspect is one where an event is done “thoroughly and to a completion” (Bybee et al 1994:54, 57-61). The example in (94a) describes a step in the process of making manioc flour. The example in (94b) narrates what happened to a tapir after some hunters beat it and shoot arrows at it to death. It should be noted that, in general, the contexts where the perfective also marks completion, the temporal “boundedness” is also present.

- S s-V-PFTV
 94a. *uwa ě-ěsu-pe-ka-ta-pe-ka-nu*
 3SG.M 1PL-grate-polp-INTENS-VBLZ-PFTV-PRED-AGAIN
 ‘We grate the (manioc) mush up again.’

- S V AUX-PFTV-o
 b. *unawa oka txa-pe-ru*
 3PL kill AUX-PFTV-3M.O
 ‘They killed it.’

Moreover, the meaning of completive aspect is particularly reinforced when the perfective marker is combined with the passive marker *--ka*, as the examples given in (27) in the previous chapter, in 7.1.8, (repeated below as 95) illustrated.

- 95a. *Ø-oka-pě-ka*
 3M-kill-PFTV-PASS
 ‘He was killed.’
 b. *n-apoka-pě-ka*
 3M-kill-PFTV-PASS
 ‘I have been found.’

- c. *u-pata-pě-ka*
 3M-cover-PFTV-PASS
 ‘It has been covered.’
- d. *uwa-nhi ākiti oka-pě-ka*
 man-AFFECT jaguar kill-PFTV-PASS
 ‘The man was killed by the jaguar.’

Another “secondary” use of the perfective marker is as **anterior** aspect. Anterior (also called perfect) aspect “signals that the situation occurs prior to reference time and is relevant to the situation at reference time” (Bybee et al 1994:54, 61-63). In the example in (96a) the sentence consists of two clauses: The first clause establishes the reference time (the moment when somebody arrives at the village), and the second clause describes an event that has happened prior to the reference time (the making of the manioc bread), but still relevant to it (the availability of the manioc bread to be then eaten). The example in (96b) also comes with two clauses: In the first clause the speaker tells about what is going on with the kid (he is crying), while in the second clause the speaker tells about an event that happened prior to the kid’s crying (his getting injured with the fish-hook) and which led to the kid’s crying (it must have hurt him).

- | | | | | |
|------|-----------------------|--------------|----------------------|---------------|
| | s-V-TEMP | S | V-PFTV-o | O |
| 96a. | <i>Ø-apoka-sawaku</i> | <i>unawa</i> | <i>kama-pě-ka-ru</i> | <i>komeru</i> |
| | 3M-arrive-TEMP | 3PL | make-PFTV-PRED-3M.O | manioc |
- ‘When he arrives they have already made the manioc bread.’

- | | | |
|--|---|---|
| | S | V |
|--|---|---|
- b. *amarunu txiapa-nanu-ta...*
 kid cry-PROGR-VBLZ
 ‘The kid is crying...’

- | | | | |
|--------------|-------------------|--------|-----------------------|
| [| |]INSTR | s-V-PFTV-refl |
| <i>Ø-uru</i> | <i>tsapuãta-ã</i> | | <i>u-motoka-pě-wa</i> |
| 3M-father | fish.hook-INSTR | | 3M-hook-PFTV-REFL |
- ‘He hooked himself in his father’s fish-hook.’

A third “secondary” use of the perfective marker is to mark a sort of **resultative** aspect. A resultative aspect “signal[s] that a state exists as a result of past action” (Bybee et al 1994:54, 63-68). In (97a) two clauses are given as illustrations: The second clause is the same as the one given in (93a) above as an instance of a temporally bounded state; and the first clause is the one that preceded the second clause in the text where they are extracted from. When the two clauses are analyzed together, what can be seen is that the second one (with perfective marker) expresses the state (of being pregnant) as a consequence/result of the event expressed in the first clause (i.e. having had sexual intercourse with the tapir). In (97b) the sentence refers to the same young woman who, as a result of living with the tapir in the jungle, having just seen the tapir be killed in front of her, and for having her relatives after her trying to take her back to the village, now “is afraid”. Since in this second example the temporal “boundedness” is not emphasized, it seems plausible to conclude that here the perfective marker is functioning more as a resultative marker.

s-V-PFTV-o O
 97a. *i-imata-pe-ro* *owa hātako-ro-nhi...*
 3M-copulate-PFTV-3F.O 3SG.F youth-F-AFFECT
 ‘It had sexual relations with her, the poor young woman...’

TEMPORAL V s-AUX-PFTV
aru-watxa ka-mixi-pe-ka o-txa-pe
 yes-today ATTR-pregnancy-PFTV-PRED 3F-AUX-PFTV
 ‘By then the woman got pregnant.’

V-pftv s-AUX-PFTV S
 b. *kapīkare-pe o-txa-pe hātako-ro*
 be.afraid-PFTV 3F-AUX-PFTV youth-F
 ‘She was afraid.’

The last “secondary” aspectual function of the perfective marker is **inchoative**. An inchoative aspect highlights a change of state expressed by the predicate (Bybee et al 1994:75). For example, the context in which (98a) is used is one where the furnace for frying the manioc flour reaches the state of being hot. As to the other sentence in (98b), it is used in a context where the speaker is talking about the things his relatives forgot about the Apurinã ways of being, the new habits acquired and all other things that make them nowadays ‘be like “white people”’.

	V-PFTV		s-AUX		S
98a.	<i>aru pooma-ta-pe-ka</i>		<i>o-txa</i>		<i>takataru</i>
	yes be.hot-VBLZ-PFTV-PRED		3F-AUX		toasting.pan
	‘So, the toasting pan is already hot.’				

	TEMPORAL	S		V-PFTV
b.	<i>watxa-ra</i>	<i>ata</i>		<i>ĩporanuru-ta-pe</i>
	today-FOC	1PL		be.white-VBLZ-PFTV
	‘It’s nowadays that we’ve become like “whites”.’			

Finally, perfectivity in Apurinã is not necessarily temporally bounded within past time frames. As shown by (99a) (repeated from 89b), a situation can also be marked as perfective in the future. So, in (99a) the speaker is a (human-like) tapir who “kidnapped” a young woman, was being tracked down in the jungle by the young woman’s relatives, and, having realized it was being hunted, tells the young woman that her relatives are going to kill it (the tapir) when they find them (the young woman and the tapir). The use of the perfective marker in clauses expressing future situations may also be associated with the discourse use of *-pe* to also mark a certain degree of **emphasis** of the predicate. This emphasis is clearer in (99b) where the narrator tells us of what happened to the tapir once it was found by the woman’s relatives. In (99b) the meaning of the predicate is emphasized with the presence of *-pe*:

s-V-o-PFTV-FUT

99a. *iyē Ø-oka-pe-no-na-ko*
 PTC 3M-kill-1SG.O-3PL-FUT
 ‘So, they will kill me.’

V AUX-PFTV O

b. *iyē upuru-ta txa-pe-ru uwa kema-nhi*
 PTC club-VBLZ AUX-PFTV-3M.O 3SG.M tapir-AFFECT
 ‘So, they beat it up, the tapir.’

By way of concluding this section, I will now show that past sentences do not automatically take the perfective marker. The context in which (100a) is used is one where the narrator tells about the decision of some the woman’s relatives (mentioned above) to go after a tapir who had “kidnapped” a young woman from their village. The sentence is in the past but no perfective marker is used. The example in (100b) is uttered by the narrator to describe what had happened to the young woman before they found her; and here the event not only is in the past but, also, is one that already came into a completion. With these last examples, I want to show that it is not the case that any event that came into a completion will automatically take the perfective marker.¹⁷

TEMPORAL V s-V-o O

100a. *oposo yotita i-txa-ru-na kema*
 after track 3M-AUX-3M.O tapir
 ‘Then they went track the tapir.’

S V-o

b. *kema mixi-ta-ro*
 tapir pregnancy-VBLZ-3F.O
 ‘The tapir made her pregnant.’

¹⁷ Further research is necessary on the lexical semantics of the verb and the discourse-pragmatics that may be associated with aspectual markers.

8.6.2.2 Imperfective

Imperfective can be roughly defined as the aspect that “views the situation not as a bounded whole, but rather from within, with explicit reference to its internal structure (Bybee et al 1994:125, based on Comrie 1976:24). Or, in different terms, imperfective can be understood as the aspect that signals the absence of closure of an event (Chung and Timberlake 1985:219). Different from perfectivity, subtypes of imperfectivity take different morphological markers. The following subsections describe the various types of imperfective aspects found in the language.

8.6.2.2.1 *Incompletive Imperfective*

The **incompletive (imperfective)** is when the imperfective form is used to mark situations that do not come to a completion (either because they ended incomplete or because they never even started to happen). The morphological form marking incompletive aspect is the class₃ bound form *-panhi* (morphologically described in 7.1.6.2). In (101a) the speaker tells the addressee that he (the speaker) has never been to the place that they are talking about. The imperfective marker is added to the predicate to mark that the event of ‘going to a specific place does not come into being.’ In (101b) the same speaker tells the same addressee that both of them ‘still’ will be able to go to such a specific place. In this latter case, the incompletive marker is used to mark the event as of ‘going to the specific place as incomplete because in another time period it (the event) will come into being’. Notice that while (101a) is used in the past, (101b) is used in the future, though both being incomplete:

LOC s-V-IMPFTV
 101a. *kona uwã nu-sa-panhi*
 not there 1SG-go-IMPFTV
 ‘I have not gone there yet.’

[]TEMPORAL s-V-IMPFTV LOC
 b. *hãt-u kananu-ra-ko a-sa-panhi uwã*
 one-M year-FOC-FUT 1PL-go-IMPFTV there
 ‘It’s in the other year that we still will go there.’

The additional examples in (102) show that stative situations can also be marked for “incompletion”. The example in (102a) is a non-verbal clause marked with the incompletive form. In (102b), although the clause has a verbal predicator with an intransitive subject, this predicator is semantically stative. As these examples illustrate, for a state to be marked as incompletive it means that the state expressed by the stative predicate does not come to an end:

PRO N-IMPFTV
 102a. *uwa popũka-ru-panhi*
 3SG.M Apurinã-M-IMPFTV
 ‘He still is Apurinã.’

S V-IMPFTV
 b. *ata awãku-panhi*
 1PL live-IMPFTV
 ‘We’re still alive.’

8.6.2.2.2 *Progressive*

Progressive can be generally defined as the type of imperfective aspect that “views an action as at reference time” (Bybee 1994:127). In other words, situations are viewed as in progress within a temporal frame that, in principle, could be located in the past, present or future. The progressive aspect is marked with the class₁ bound form *-nanu* (morphologically described in 5.2.1.1.1.7). In (103a) the event expressed by the

predicate is about ‘eating the “uxi” fruit’, a situation that was progressing during an undetermined time period in the past. In (103b) the predicate is about ‘causing somebody to sell a lot of something’, and the progressive event is located at an undetermined time period in the future. In (103c) the predicate is about ‘the fall of somebody’ that is in progress at the present time. In (103d) the predicate is about ‘sleeping’, and is also located in the present time. Finally, (103e) is given to show that descriptive verbs cannot take the progressive form:

- | | | | |
|--|---|-----------|---|
| | S | V-PROGR-o | O |
|--|---|-----------|---|
- 103a. *kema nhika-nanu-ta-ru aōtu*
 tapir eat-PROGR-VBLZ uxi
 ‘The tapir was eating “uxi” fruit.’
- s-V-PROGR-FUT
- b. *nhi-suka-rewa-powa-nanu-ta-panhi-ka₄-ka₃-ru-ko*
 1SG-give-INTR-A.LOT-PROGR-VBLZ-IMPFTV-PRED-CAUS-3M.O-FUT
 ‘I still will make him be selling a lot of it.’
- s-V-PROGR
- c. *nh-irika-nanu-ta*
 1SG-fall-PROGR-VBLZ
 ‘I’m falling down.’
- s-V-PROGR
- d. *n-umaka-nanu-ta*
 1SG-sleep-PROGR-VBLZ
 ‘I’m sleeping.’
- s-V-PROGR
- e. **here-nanu-ta*
 be.pretty-PROGR-VBLZ
 ‘He’s being handsome.’

The fact that descriptive verbs, that is, those generally expressing properties, do not occur in the progressive in the language suggests that the opposition between eventive/process/dynamic verbs versus stative/state/descriptive verbs is reflected in the

Apurinã aspectual system. However, more research on the lexical semantics of verbs in this language is required to determine which other restrictions may apply to the different verb classes. At the present time, it still is not possible to determine reliably whether there are any non-descriptive verbs that also share similar restrictions with the descriptive ones, or the converse. Furthermore, in terms of Comrie's (1976) definitions, what is being called progressive in Apurinã is not a **continuative** aspect. For Comrie, the distinction between the two would be that the latter would also occur with stative/states/descriptive verbs.¹⁸

8.6.2.2.3 *Habitual*

As a general definition, **habitual** marks “situations that are customarily repeated on different occasions” (Bybee et al 1994:127). What is being called habitual aspect here is a form of imperfective that marks events as part of a habit that the subject participant has; the habitual marker is the class₂ bound form *-pi* (morphologically described in 5.2.1.2.1.5). In (104a) the event described is about ‘an opossum that has the bad habit of coming to the speaker’s backyard to eat chickens’. In (104b) the speaker tells of ‘his habit of planting things’; here the habitual marker co-occurs with the progressive marker. Finally, in (104c) the event could be about ‘somebody that is already fat enough but still maintains the habit of eating very often’. In all cases in which the habitual marker is used, there is a sense in which the predicate marked as habitual occurs more often than it may be naturally expected or desired (if desired at all).¹⁹

¹⁸ But see discussion in Bybee et al 1994:137-139, section 5.4, and references there cited, for the possible typological inadequacy of Comrie's classification.

¹⁹ This and other discourse related functions of the habitual aspect marker require further analysis.

- O S V-HAB
 104a. *pataru sutumaro nhika-pi-ka*
 chicken opossum eat-HAB-PRED
 ‘The opossum always eats chicken.’
- S V-PROGR-HAB-o
 b. *no#taka-nanu-ta-pi-putu-ka-ru*
 1SG#put-PROGR-HAB-EMPH-PRED-3M.O
 ‘I’m indeed always planting it.’
- S V-HAB-IMPFTV
 c. *uwa nhipoko-ta-pi-panhi-ka*
 3SG.M eat-VBLZ-HAB-IMPFTV-PRED
 ‘He still always eats.’

8.6.2.2.4 *Imminent*

Another type of imperfectivity marker is used when events are about to come to a start or completion. This is what, for lack of a better term, is being called here the **imminent** aspect, which is marked with the class₂ bound form *-napano* (morphologically described in 5.2.1.2.1.3). The most approximate English translation of *-napano* would be ‘about to’ or, in some cases, ‘nearly’. Examples illustrating the imminent marker are given in (105):

- s-V-IMMIN
 105a. *n-umaka-napano*
 1SG-sleep-IMMIN
 ‘I’m about to sleep.’
- s-V-IMMIN-PFTV
 b. *nhi-nhipoko-ta-napano-pe-ka*
 1SG-eat-VBLZ-IMMIN-PFTV-PRED
 ‘I’m already about to eat’
- s-V-IMMIN-IMPFTV
 c. *nhi-nhipoko-ta-napano-panhi-ka*
 1SG-eat-VBLZ-IMMIN-IMPFTV-PRED
 ‘I’m still about to eat.’

In (105a) the event described by the clause is that the speaker is ‘about to fall asleep’. In (105b) the imminent marker *-napano* combines with the perfective marker *-pe* in the verb to mark in the predicate the sense of ‘already being about to eat’. As the example in (105b) illustrates, when the imminent marker is combined with the perfective marker, completive perfectivity is canceled out, changing into an “emphatic/highlighting/underscoring” marker of situations about to come into being. In (105c) the imminent marker combines with the incompleted *-panhi* to describe a state that ‘still is about to come into being’. As this last example illustrates, when imminent and incompleted markers are combined the result is that again the ‘state of about to come into being’ is “emphasized/highlighted/underscored”. However, the difference of the imminent + completive versus imminent + incompleted combination is in terms of the perspective imposed on the “imminence” of what is come into being’: So, while for (105b) the perspective is that the event ‘will come into being’ sooner rather than later, for (105c) there is the invited inference that the event ‘will come into being’ later rather than sooner. This invited inference explains why (105c) may also be translated as ‘It still will take me some time before eating’.

The combination of imminent + completive and imminent + incompleted can also be described, conversely, from the point of view of the (in)completive marker. The presence of the completive marker with the imminent form in the verb changes the unmarked pragmatic meaning of the latter. The use of the imminent marker carries with it the invited inference that the event ‘will come into being’. While the presence of the completive marker along with the imminent form reinforces this inference, the presence of the incompleted marker along with the imminent cancels out the invited inference. Although the cancellation of this invited inference can be accomplished with the

imminent + incompletive combination, there also is in the language another morphological form whose primary pragmatic function is precisely to impose the opposite invited inference on the predicate, as described in the next subsection.

8.6.2.2.5 *Anti-Perfective*

The last type of imperfectivity marker found in the language is *-wari* ‘almost’, which, as the gloss suggests, occurs when a situation stops close to beginning or completing. Since this imperfectivity marker blocks a situation from beginning or completing (and also for the lack of a better term), I refer to *-wari* as a marker of an **anti-perfective** aspect. In (106a) the situation reported is about ‘the near death of somebody’. In (106b) the event is about ‘the speaker nearly getting bitten by a snake’. (106b) shows the anti-perfective marker in a state about ‘the temperature being almost too hot’:

- s-V-APFTV
 106a. Ø-*upũpe-wari-ta*
 3M-die-APFTV
 ‘He almost died.’
- S V-APFTV-o
 b. *kaikiripi akatsa-wari-ta-no*
 surucucu bite-APFTV-VBLZ-1SG.O
 ‘The “surucucu” snake almost bit me.’
- V-APFTV-o
 c. *ka-pataka-powa-wari-ru*
 ATTR-be.hot-AUGM-APFTV-3M.O
 ‘It’s almost too hot.’

When only events are considered (i.e. disregarding descriptive verbs), the imminent and the anti-perfective are semantically similar insofar as both have the general property of marking a situation approaching a start or completion. They are different, however, as to the perspective they impose on events that can be objectively described as

identical in the real world. When the imminent aspect is used, the interpretation tends to be one where the event is more likely than not to begin or reach a completion. When the anti-perfective is used, the interpretation tends to be one where the event is more likely than not to not have begun or completed. Compare for example the example in (107) to that in (105a):

s-V-APFTV
107. *n-umaka-wari-ta*
1SG-sleep-APFTV-VBLZ
'I almost slept.'

The default interpretation for (105a) is that the speaker will sleep, whereas the opposite interpretation is the default one for (107). Further, while both sentences can be interpreted as expressing present and past events, (105a) but not (107) can be interpreted as expressing an event that takes place in the immediate future. More than that, in pragmatic terms, it is common to use the imminent (but not anti-perfective) marker in the present. Although anti-perfective can be used in the present, it is less commonly used in such a way. It is due to these semantic and pragmatic reasons that imminent and anti-perfective markers carry with them opposite invited inferences: While the former invites a positive inference that the event will begin or complete, the latter invites the negative inference that the event will not begin or complete.

8.7. Negation

Two basic types of negative forms can be found in the language, namely **periphrastic negation** and **morphological negation**. These types of negation are presented here in terms of forms rather than scope because it is not the aim of this section

to present an in-depth description of negation in terms of its scope. Also, for the most part, the sentence versus constituent scope of negation (Keenan 1964, Payne 1985) follows from their periphrastic and morphological form, respectively. In Pickering 1978 the author presents a description specifically on negation in Apurinã, where he applies the traditional tests for determining the scope of negation and the classification thereby reached. Morphological negation is marked with the negative attributive marker *m(a)-* (described in 5.3.2), yielding an objective descriptive verb. The example in (108) illustrates *m(a)-* in a verb that also takes the negative relative marker *-katu* in a relative clause (described in detail in the next chapter, in the subsection 9.1.1.1.4):

- | | | | |
|------|---|------------------------------|--------------|
| | O | NEG-V-REL.NEG.o | V |
| 108. | <i>kuki-nhi</i> | <i>m-areka-kati-nhi</i> | <i>upũpe</i> |
| | man-AFFECT | NEG-be.good-REL.NEG.M-AFFECT | die |
| | ‘The man who is bad died.’ | | |
| | Lit.: ‘The man who is “non-good” died.’ | | |

Thus, the Apurinã negative morphological marker is comparable to the English negative prefixes *un-* (as in *undo*, *uneasy*, *unborn* etc.), *iC-* (as in *impossible*, *illogical* etc.), and *non-* (as in *non-existent*, *non-sense*, etc.), except that *m(a)-* is restricted to the subclass of objective descriptive intransitive verbs. See 5.3.2 for more on *m(a)-*.

As the examples in (109a-b) indicate, the periphrastic negation particle *kona* (introduced in 6.7.3 as a negative polarity particle) can precede or follow a pre-verbal constituent:

- | | | | |
|-------|------------------------|-------------|--------------|
| | S | NEG | V-o |
| 109a. | <i>nota</i> | <i>kona</i> | <i>sa-ru</i> |
| | 1SG | not | go-3M.O |
| | ‘I’m not going there.’ | | |

NEG S V-o
 b. *kona nota sa-ru*
 not 1SG go-3M.O
 ‘I’m not going there.’

NEG V-o
 c. *kona hareka-ru*
 not be.good
 ‘It’s not good’

NEG V-o
 d. ??*hareka-ru kona*
 be.good not
 ??‘It’s not good’

As can be seen from (109c), *kona* is also the form used in sentences with descriptive predicates. The example given in (109d), is preceded by question markers to illustrate the fact that I have no attested instance of a negative particle occurring post-verbally.

As already mentioned in 6.7.3, *kona* is also the form normally used as the shortest (linguistic) answer to a polar question, in the role of counterpart of the positive polarity particle *aru*. Furthermore, in some speech varieties (for example, the one spoken in the northern-most village, i.e. Jaturana) the negative can undergo extreme phonological shortening. As shown in (110), *kona* can be shortened to /a/ before a consonant-initial word or to /n/ before a vowel-initial word:²⁰

NEG#s-V
 110a. *a#n-ayata-panhi*
 NEG#hunt-IMPFTV
 ‘I’m not going to go hunt.’

²⁰ In these speech varieties, sometimes *kona* is reduced to just nasalization in fast speech rates.

NEG#V-o
b. *n#ereka-ru*
NEG#be.good-3M.O
'It's not good.'

NEG#S V-o
c. *n#owa* *apoka-ru*
NEG#3SG.F find-3M.O
'She didn't find him.'

I have not been able to detect any functional distinction between the periphrastic negative particle and its shortened forms for the specific speech variety in which I have attested them.

Finally, I should note that further investigation needs to be done with respect to the details of the scope properties of this periphrastic negative form and its place in the sentence structure.

8.8. Major Speech Acts

This section describes the **major speech acts** found in the language. The definition of a "speech act" used here is rather narrow. Major speech act types combine conversational use with specific grammatical structures in a systematic manner, and, also, they are mutually exclusive (Sadock and Zwicky 1985:155-160).²¹ In terms of Austin's (1962) traditional notation, the speech acts described here are the illocutionary ones that pass the mutual exclusion criterion described above.

²¹ Cf. Givón 1995:781, footnote 2, where a prototype approach is proposed for the analysis of major speech acts and their various subvariants.

8.8.1 Declarative Speech Acts

A **declarative** speech act “is typically used in the expression of a statement —that is, a ‘declaration’ that something is or is not the case.” (Crystal 1992:95). Most of the Apurinã sentences given as examples above are declarative. Declarative sentences can be contrasted with interrogative sentences (described further below) prosodically insofar as the former has no marked intonational pattern while the latter do. That is, prosodically speaking, a declarative sentence can be characterized as having **neutral intonation**. Declarative sentences can, moreover, be **regular/unmarked** or **frustrative**.

8.8.1.1 Regular/Unmarked Declarative Speech Act

Regular/unmarked declarative sentences require no formal marker, and they can be considered the prototypical declarative sentences. All the examples presented above in this chapter are instances of regular/unmarked declarative sentences.


8.8.1.2 Frustrative/Adversative Declarative Speech Act

A **frustrative (or adversative) declarative** sentence is used in the expression of events that might have brought about certain results (under other circumstances), but that (in actuality) they did not. Frustrative sentences are declarative because they consist of statements of events with frustrated results and, thus these sentences cannot take an interrogative or imperative form. The initial clause in each of the following examples in (111a-b) is marked with the frustrative bound form *-ma*, and the final clause justifies the characterized frustration. (111a,c) shows a special use of the frustrative marker when combined with the future marker *-ko* to express a meaning analogous to the main clause of a counterfactual conditional (see 8.6.1.1):


analysis. Minor differences may be due to a speech variety I have not yet had the chance to investigate.

8.8.2.1 Polar (Yes/No) Questions

Polar questions are used to seek “a comment on the degree of truth of the questioned proposition” (Sadock and Zwicky 1985:179), normally elicit as answers the positive or negative polarity particles *aru* ‘yes’ or *kona* ‘no’ (described in 6.7.3), and are only marked prosodically by the rising intonation. This conventionalized use of rising intonation to mark polar questions can, nevertheless, be characterized as a grammaticalized property of interrogative sentences. In (112), the first two examples (112a-b) illustrate polar questions for clauses with transitive verbs, and the two last examples (112c-d) illustrate polar questions for clauses with intransitive verbs. In all of these examples, the only element that distinguishes the interrogative clauses from their declarative counterpart is the rising intonation.²²




112a. *p-oka-pe-ru* *ãkiti?*
 2SG-kill-PFTV-3M.O jaguar
 ‘Have you killed the jaguar yet?’




b. *pi-keta-ru* *ãkiti?*
 2SG-shoot-PFTV-3M.O jaguar
 ‘Did you shoot the jaguar?’

²² I have only recently attested that the speech variety of the Fortaleza village has the morpheme *-ta*, used in the verb base to mark polar questions. The equivalent of the sentence in (112b) in this speech community will be *pi-keta-ta-ru ãkiti* ‘Did you shoot the jaguar?’. This same morpheme is not present in the speech of the Japiim village.


 S V

c. *uwa su-pe?*
 3SG.M go-PFTV
 ‘Has he left yet?’


 s-V

d. *u-muteka?*
 3M-run
 ‘Did he run?’

8.8.2.2 Information Questions

Generally speaking, **information questions** (also known as **WH questions**) “are used typically when the speaker and the hearer share the knowledge of a proposition —it is presupposed or backgrounded —but the speaker does not know one element in the proposition” (Givón 1990:2.793). As seen in the next subsections, various elements in a sentence can be questioned. The major elements within a sentence that can be questioned using a set of systematic question forms include subject/object, place, time, reason and manner. The interrogative words are always sentence-initial.

8.8.2.2.1 Questioning subject and object

The form used to question the subject or object of a verb is *ke-pa* (or *ki-pa*, depending on speech variety). As described in chapter 6, interrogative words in Apurinã can be compared with interrogative words in other languages. *ke-* and *-pa* can be compared with the WH initial in English or the QU initial in Romance languages such as Portuguese. The difference is that *ke-* and *-pa* are more clearly segmentable as morphemes in Apurinã, whereas the others are synchronically more opaque forms, and also that *ke-* and *-pa* are two recurring forms in interrogative words, whereas there is only

one recurring form in English and Portuguese. The following examples are illustrative of interrogative words questioning subject/object:

- 113a. *ke-pa oka-pe-ru uwa-nhi?*
 WH-INT kill-PFTV-3M.O 3SG.M-AFFECT
 ‘Who/what has killed kill him/it?’
- b. *ke-pa p-oka-pe?*
 WH-INT 2SG-kill-PFTV
 ‘What/who have you killed?’

As the following examples show, when nouns such as *suto* ‘man’ and *xenhi* ‘meat’ occur as part of the interrogative word, the argument being questioned is more specific, being semantically modified by the interrogative word:

- 114a. *ke-suto-pa kariwa txa-wa?*
 WH-woman-INT white.person be-REFL
 ‘Which woman is a white person?’
- b. *ke-xenhi-pa hare-ka?*
 WH-meat-INT be.good-PRED
 ‘Which meat is good?’

The interrogative forms in which a noun occurs as part of interrogative words have been clearly attested in some speech varieties, and were also reported in Pickering 1977b. However, at least one speaker from the Pacia village reported that he himself would rather use forms such as the following, where *nhi-* is added to mark subject/object as a specific one:

- 115a. *nhi-ke-ro-pa kariwa txa-wa?*
 SPEC-WH-3F-INT white.person be-REFL
 ‘Which woman is a white person?’

- b. *nhi-ke-ru-pa* *ãkiti* *oka-pe?*
 SPEC-WH-3M-INT jaguar kill-PFTV
 ‘Which jaguar has killed him/it?’

Further research is necessary in order to determine the extent to which this second type of question marking is common in other speech varieties.

8.8.2.2.2 *Questioning Time*

In order to question time the TEMPORAL bound form *-sawaku* is added as part of *ke-pa* subject/object interrogative word form, following the gender marker *-ru*, as the following example illustrates:

- 116a. *ke-ru-sawaku-pa* *p-oka-pe-ru* *ãkiti?*
 WH-3M-TEMP-INT 2SG-kill-PFTV-3M.O jaguar
 ‘When have you killed the jaguar?’

8.8.2.2.3 *Questioning Reason*

In questioning reasons it is the noun form *nere* ‘will, volition’ that is added as part of the subject/object interrogative word form, as the following examples illustrate:

- 117a. *ke-nere-pa* *kariwa* *i-txa-pẽ-ka-wa?*
 WH-will-INT white.person be-PFTV-PASS-REFL
 ‘Why has he become a white person?’
- b. *ke-nere-pa* *p-oka-pe-ru* *ãkiti?*
 WH-will-INT 2SG-kill-PFTV-3M.O jaguar
 ‘Why have you killed the jaguar?’

8.8.2.2.4 *Questioning Place*

In order to question places the interrogative word form *nhã-pa* (or *yã-pa*, depending on speech variety) is used. The place interrogative word can occur by itself

introducing an interrogative sentence questioning a place, as illustrated in (118a), or it can have a pronominal bound form or the GOAL postpositional marker added into the interrogative word form, as the examples in (118b-c), respectively, illustrate:

- 118a. *nhã-pa p-oka-pe-ru ãkiti?*
 PLACE-INT 2SG-kill-PFTV-3M.O jaguar
 ‘Where did you kill the jaguar?’
- b. *nhã-õ-pa o-su-pe-ru?*
 PLACE-3F-INT 3F-go-PFTV-3M.O
 ‘Where has she gone?’
- c. *nha-monhi-pa p-oka-pe-ru ãkiti?*
 PLACE-GOAL-INT 2SG-kill-PFTV-3M.O jaguar
 ‘Where have you killed the jaguar?’

There is also an unrelated form that is used to question places, namely *atapa-ru* (or *ĩtepa-ru*, depending on the speech variety). This second interrogative word form for places does not allow the addition of other forms into it and is generally used in sentences with nominal predicates, such as the one illustrated in the next example:

119. *ata-pa-ru ãkiti?*
 PLACE-INT-3M jaguar
 ‘Where is the jaguar?’

8.8.2.2.5 *Questioning Manner*

In order to question manner, the manner interrogative word *kanhi-pa* is used. The manner interrogative word does not allow the addition of other forms into it. The following examples are instances of *kanhi-pa* being used to introduce interrogative sentences questioning manner:

- 120a. *kanhi-pa o-txa?*
 MANNER-INT 3F-do
 ‘How did she do (it)?’
- b. *kanhi-pa pi-txa-pe?*
 MANNER-INT 2SG-do-PFTV
 ‘How did you do (it)?’

For interrogative sentences questioning manner there is also an unrelated form that can be used, in addition to *kanhi-pa*, namely *natoko-pa*, as the following example demonstrates. This second manner interrogative word also does not allow the addition of other forms into it.

121. *natoko-pa p-oka-pe-ru ãkiti?*
 MANNER-INT 2SG-kill-PFTV-3M.O jaguar
 ‘In which way have you killed the jaguar?’

8.8.2.3 Indirect Content Questions

Indirect questions (or **dependent interrogatives** or **embedded-WH questions**, (Sadock and Zwicky 1985:186 and Givón 1990:2.804-806) consist of interrogative clauses whose verbs take an information question as complement. Examples of such verbs may include ‘ask’, ‘know’, and ‘announce’. Different from languages like English and Portuguese, however, Apurinã does not make use of interrogative words in indirect question. Instead, indirect questions use the same formal device of relative clauses (described in detail in the next chapter, subsection 9.1.1), as illustrated in (122).

- 122a. *nota umaru-ta-ru u-kama-kutu*
 1SG know-VBLZ-3M.O 3M-make-REL
 ‘I know what he made.’
- b. *nota umaru-ta-ru o-sãbire-ta-kutu*
 1SG know-VBLZ-3M.O 3F-talk-VBLZ-REL
 ‘I know what she talked about.’

8.8.3 Imperative Speech Acts

Imperative speech acts consists of “syntactic forms that explicitly convey some subset of requests/commands/orders/suggestions/instructions/entreaties, and so on” (Sadock and Zwicky 1985:170). Pickering (1971:28) lists various forms as marking subsets of “imperative verbs”. However, commands, requests and instructions take no special markers in the spontaneous discourse of any the speech varieties I have observed. The only form I have observed to occur marking these imperative speech acts is the bound verbal morpheme *-poka*, but this form was given by one speaker in elicited data. The fact that this bound morpheme has been only found in elicited speech may suggest that it is being left out of the language in more contemporaneous speech varieties. *-poka* was described by Pickering as marking a “polite command”. The way they are used now is more as commands, as the following examples illustrate:

- 123a. *ĩporãã p-apa-poka watxa*
water 2SG-fetch-IMPER now
‘Go get water now.’
- b. *p-umaka-poka*
2SG-sleep-IMPER
‘Go sleep.’

Other than examples such as these above, commands, orders etc. take no additional marking forms. Instead, they lack a subject expressed by an independent NP; their subject is expressed solely by the bound pronominal form for the second person singular subject. In the following examples in (124), the sentences can be uttered as command in (124a), a request in (124b) (repeated from (74)), and a warning in (124c):

- 124a. *xamuna pu-taka xãã-poki-ã*
 firewood 2SG-put flame-border-INSTR
 ‘Put firewood in the fire.’
- b. *ĩporãã pu-suka-no*
 water 2SG-give-1SG.O
 ‘Bring me water.’
- c. *tsora! pu-muteka!*
 Tsora 2SG-run
 ‘Tsora! Run!’

8.8.3.1 Hortative Speech Act

Hortative sentences can be considered the subtype of imperative speech act where “the speaker is encouraging or inciting someone to action” (Bybee et al 1994:179), thus different from commands, orders, instructions and the like. Hortative sentences are marked with the clause-initial (*h*)*amo* ‘HORTATIVE’ particle already mentioned in chapter 6. (*h*)*amo* is found in clauses about inviting someone to go somewhere, do something (e.g. eat, dance, etc.) and so on. Aside from occurring only clause initially, another restriction of this hortative marker is that it can only be used with first person plural, as the following examples illustrate:

- 125a. *hamo a-su-pe*
 HORT 1PL-go-PFTV
 ‘Let’ get going.’
- b. *hamo a-nhipoko-ta*
 HORT 1PL-eat-VBLZ
 ‘Let’s eat.’

c. *hamo a-serena*
 HORT 1PL-dance
 ‘Let’s eat.’

HORT [s-V-o O]
 d. *hamo [a-kama-ro ããta]*
 HORT 1Pl-make-3M.O canoe
 ‘Let’s build a canoe”.’

8.9. Summary: Evidence for Subject-Object

Distinctions

The notions of grammatical subject and grammatical object can be motivated on the basis of various ways that the syntactic expressions of notional subject and notional object behave in the clause, as summarized in Table 1. The distinct marking or behavioral properties that the syntactic expressions of subject and object have in the same set of clauses characterize a syntactic distinction between the two.

Table 1: Distinctions between Subject and Object

CONSTRUCTION	SUBJECT	OBJECT
POST-VERBAL POSITION	proclitics in the verb	enclitics in the verb
CAUSATION	causer	causee
REFLEXIVE	maintained	replaced with <i>-wa</i>
RECIPROCAL	maintained	replaced with <i>-kaka</i>

At this stage in the description of the language no other unambiguous syntactic evidence has been attested for distinguishing subject from object syntactically. Some of the syntactic tests generally used to distinguish core grammatical relations are not conclusive, since the results can be accounted for on semantic or discourse-pragmatic grounds rather than syntactically. For this reason, I have defined subject and object over the coreferential

properties of NPs with the pronominal markers in the verb. However, there are certain problems that arise from defining subject and object over such morphosyntactic markers (as will be seen in the discussion of relative clauses in the next chapter, in 9.1.1.6).

Finally, the distribution of subject and object NPs in simplex sentences cannot be predicted on grammatical grounds. Further research is necessary in order to establish whether/which specific discourse-pragmatic factors play any significant role in the “decision” of Apurinã speakers to use one or another of the clausal constituent orders found in the language. Nevertheless, it would appear that none of the clausal constituent order types in the language can be argued to be more basic/neutral/unmarked than the other in any way other than in terms of rather theory-specific assumptions or principles, as will be shown in the next section.

8.10. Clausal Constituent Order Variation in Simplex Sentences

The (morpho)syntactic properties considered in the next subsections correspond, respectively, to the distribution of the NP-subject and the NP-object in the clause, and to the patterns of bound pronominal markers in the verb as they correlate with the distribution of NP-subject and NP-object in simplex sentences. The information provided below on constituent order variation has already been made partly explicit in various parts of this and the previous chapters, and will be systematically presented now. The analysis presented below is restricted to NP-subjects and NP-objects, the distribution of clausal constituents bearing oblique grammatical relations is not included here. As was shown in the previous chapter, in section 7.5, NP_{obl} can occur almost anywhere in the

clause, except that they depend in part on the individual properties of each of the various types of oblique constituents. These individual properties require further investigation before a detailed analysis of oblique constituents can be presented, and they will not be discussed in this work.

8.10.1 Clauses with Co-Occurring NP-Subject and NP-Object

If we only consider clauses in which subject and object co-occur as NPs, we can describe Apurinã as a language that has **semi-free constituent order variation**. This is so because, of the six logically possible constituent order types in a language,

i.e. SOV SVO VOS
 OSV OVS VSO

five types can be attested in the elicitation of Apurinã sentences,

i.e. SOV SVO VOS
 OSV OVS *VSO

and at least four of them are attested in Apurinã texts:

i.e. SOV SVO *VOS
 OSV OVS *VSO

The next examples are illustrative of each type. The example in (126) shows the subject preceding the object when both subject and object are pre-verbal (i.e. SOV):

S O V
 126. *ata uwa maporoka*
 1PL 3SG.M root.up
 ‘We pulled it up.’

(127) shows the object preceding the subject when object and subject are pre-verbal (i.e. OSV):

O S V
 127. *uwa ata maporoka*
 3M.SG 1PL root.up
 ‘We pulled it up.’

(128) shows the pre-verbal subject co-occurring with the post-verbal object (i.e. SVO):

S V-o O
 128. *owa maporoka-ru uwa*
 3F.SG root.up-3M.O 3M.SG
 ‘She pulled it up.’

(129) shows the pre-verbal object co-occurring with the post-verbal subject (i.e. OVS):

O s-V S
 129. *uwa o-maporoka owa*
 3M.SG 3F.S-root.up 3F.SG
 ‘She pulled it up.’

(130) shows the object preceding the subject in post-verbal position (i.e. VOS):

s-V-o O S
 130. *a -maporoka-ru uwa ata*
 1PL-root.up-3M.O 3M.SG 1PL
 ‘We pulled it up.’

Finally, (131) shows that it is not acceptable for the subject to precede the object in post-

verbal position (i.e. VSO):

	s-V-o	S	O
131.	<i>*a-maporoka-ru</i>	<i>ata</i>	<i>uwa</i>
	1PL-root.up-3M.O	1PL	3SG.M
	‘We rooted it up.’		

Although in all of the examples in (126-131) subject and object are, for convenience, expressed as independent pronouns, as further data will illustrate in the subsections below, the facts are the same when subject and object are expressed as lexical NPs.

In the examples in (126-131), I have ignored the presence of the bound pronominal forms attached to the verbs. These forms and their relation to constituent order variation will be discussed in the following subsections. What I wish to underscore here is the fact that except for VSO, all clausal constituent order patterns are acceptable in the language. Furthermore, of the five order types attested in the elicitation of transitive clauses, only the orders VOS and VSO are not attested in text material. I must also notice that although VOS and VSO are not found in text material, VO and VS are.

8.10.2 Pre- versus Post-Verbal Subject/Object-NPs

In any order type in which there is a post-verbal NP functioning as subject or object, there has to be also a bound pronominal marker attached to the verb that is coreferential with the post-verbal subject or object. In contrast, in any order type in which the NP-subject/object is pre-verbal, no bound pronominal marker that cross-references the NP-subject/object can be found on the verb.²³ Examples such as those

²³ It is true, however, in my database (as it was in Aberdour’s 1985) that some rather marginal exceptions can be attested in text material.

given in (126-131) have already illustrated the bound pronominal marking forms cross-referencing some of the independent pronouns. The following examples in (132-134) will show the same bound pronominal marking elements also cross-referencing lexical NP-subject/object in post-verbal position. Thus, in (132), the NP-subject *hātako-ro* ‘youth-F’ occurs pre-verbally with no corresponding coreferential marker on the verb; whereas, the NP-object *aōtu* ‘umari (fruit)’ occurs post-verbally and is cross-referenced by the bound pronominal marker *-ru*:

S	V-o	O
132. <i>hātako-ro</i> ₁	<i>apa-nanu-ta-ru</i>	<i>aōtu</i>
youth-F	fetch-PROG-VBLZ-3M.O	umari
‘The girl is fetching “umari” (fruit).’		

In (133), the NP-object *txipoko-ru*₂ ‘fruit-UNPOSS’ occurs pre-verbally with no corresponding bound pronominal marker in the verb, while the post-verbal nominal NP-subject *hātako-ro*₁ ‘youth-F’ is cross-referenced by the bound pronominal marker *o-*:

O	s-V	S
133. <i>txipoko-ru</i> ₂	<i>o-txima-āpo-ta-pe</i>	<i>hātako-ro</i> ₁
fruit-UNPOSS	3F-eat.fruit-RANDOM-VBLZ-PFTV	youth-F
‘The girl would go eating fruit.’		

In (134), both the post-verbal NP-subject, *suto* ‘woman,’ and NP-object, *uwa* ‘it,’ are cross-referenced on the verb by, respectively, the subject bound pronominal marker *o-* ‘3F’ and the object bound pronominal marker *-ru* ‘3M.O’:

s-V-o	O	S
134. <i>o-txa-ru</i>	<i>uwa</i>	<i>suto</i>
3F-do/say-3M.O	3SG.M	woman
‘The woman did it / Said the woman.’		

In (135), both the NP-object, *kema pitxi* ‘tapir’s penis,’ and the NP-subject, *unawa* ‘they,’ occur pre-verbally with no corresponding bound pronominal marker attached to the verb. The example in (136) follows the same pattern as the one in (135).

135. []O S V AUX
oposo kema pitxi unawa muna txa
 then tapir penis.of they bring AUX
 ‘Then they brought the tapir’s penis.’

136. O S V
maku ata apa
 Brazil.nut we fetch
 ‘We gather Brazil-nut.’

As expected, the sentences in (137-140) are ungrammatical, since there is a bound pronominal marking on the verb co-referential with the pre-verbal NP:

137. O S s-V
**uwa ata a-maporoka*
 3M.SG 1PL 1PL-root.up
 (We rooted it up.)

138. O S V-o
**uwa ata maporoka-ru*
 3M.SG 1PL root.up-3M.O
 (We rooted it up.)

139. O S s-V
**maku ata u-makatxaka*
 Brazil.nut 1PL 3M-fetch
 (We gather Brazil.nut.)

140. S s-V
**uwa u-pitxeka*
 3SG.M 3M-grow
 (It grew up.)

The examples in (141-142) are analogous and show that intransitive subjects follow the same bound pronominal marking pattern as the transitive ones:

s-V		S	
141. <i>o-napa-ãpo-ta</i>		<i>suto-wako-ro₁</i>	
3F-pass-RANDOM-VBLZ		woman-PL-F	
‘The women pass by.’			
OBL	V	s-AUX	S
142. <i>uwa-kata</i>	<i>su-pe</i>	<i>o-txa</i>	<i>hãtako-ro₁</i>
3M.SG-ASSOC	go-PFTV	3F-AUX	youth-F
‘(Then) the girl went with the tapir.’			

The data above, thus, show that pre-verbal NP-subject/object cannot be cross-referenced by bound pronominal markers on the verb. In this sense, pre-verbal nominal expressions of subject and object and the coreferential bound pronominal markers on the verb are in **complementary distribution**. Similar facts have also been reported by Pickering (1973, 1974), Aberdour (1985) and Facundes (1994a).

8.10.3 *SO versus OS*

Pickering also claimed that the sequence SO (i.e. NP-subject immediately preceding NP-object) is ungrammatical. Indeed I have not attested VSO in texts, and at least some speakers reject VSO in elicitation. Example (131) above was illustrative of this ungrammaticality, and the example in (143) further supports Pickering’s observation. The sentence in (143), is ungrammatical, as was the one in (131), because the NP-subject precedes the NP-object. However, although SOV is extremely rare in the text material I have gathered, some speakers accept SOV in elicitation, as illustrated in (126) (repeated below as 144):

*s-V-o S O
 143. o-txa-ru suto uwa
 3F-do-3M.O woman 3M.SG
 (The woman did it.)

S O V
 144. *ata uwa maporoka*
 1PL 3M.SG root.up
 ‘We rooted it up.’

Aberdour (1985) also reports cases of SOV clauses in texts, except that in her data SOV is only found in reported speech.

8.10.4 Constituent Order Resolution in Potentially Ambiguous Sentences

In Facundes 1994 I described clauses with no bound pronominal markers attached to the verb. In principle, unless semantics or discourse-pragmatics made it clear who the subject or object was, such clauses would be ambiguous as to their interpretation of who did what to whom. In clauses such as the following in (145), semantics and/or discourse-pragmatics would suffice to provide the correct interpretation of the clause. This is true since ‘I ate the food’ expresses a trivial and natural event. ‘The food ate me,’ on the other hand, would require a conception rather distinct from the way the event of ‘eating’ is normally conceived in the Apurinã world of natural events—which, of course, could be licensed by the specific context of mythological stories but less likely in the context of everyday language.

 O S V
 145a. *nhipoko-ru₂* *nota* *nhika*
 food-UNPOSS 1SG eat
 ‘I ate the food.’
 (*The food ate me.)

- | | | | |
|----|---------------------|-------------------------------|--------------|
| | S | O | V |
| b. | <i>nota</i> | <i>nhipoko-ru₂</i> | <i>nhika</i> |
| | 1SG | food-UNPOSS | eat |
| | ‘I ate the food.’ | | |
| | (*The food ate me.) | | |

Clauses such as those in (146) could have a default interpretation in which the man is thought to be a hunter, and, since more stories are about the hunters than about the hunted animals, the hunter would more typically be interpreted as the subject of the clause. Here however, one just needs to change the perspective of the person uttering the clause (to, e.g., one in which the tapir escaped because it saw the man and ran away) for the second interpretation to be more natural. That is, a minor addition of contextual specific information here would suffice to change the default interpretation.

- | | | | |
|-------|--------------------------|-------------|--------------|
| | O | S | V |
| 146a. | <i>kema</i> | <i>kuku</i> | <i>atama</i> |
| | tapir | man | see |
| | ‘The man saw the tapir.’ | | |
| | ‘The tapir saw the man.’ | | |

- | | | | |
|----|--------------------------|-------------|--------------|
| | S | O | V |
| b. | <i>kuku</i> | <i>kema</i> | <i>atama</i> |
| | man | tapir | see |
| | ‘The man saw the tapir.’ | | |
| | ‘The tapir saw the man.’ | | |

In the next example in (147), however, there is nothing semantically or pragmatically associated with *Mipatu* or *Mipake* to make either of them ‘the one who sees’ or ‘the one who is seen.’ There is no pragmatic default interpretation, as far as I can tell, that can be associated with *Mipatu* or *Mipake*, as the two individuals are cousins who live in the same village. Thus, in this example, neither semantics nor a default pragmatic interpretation can be used as clues as to what the correct interpretation of the clause is. In

Facundes (1994a), I used similar data to argue that OSV was the default interpretation for examples that lack semantics or default pragmatic properties that could resolve the ambiguity. Indeed, it is true that some speakers choose OSV as default interpretation when ambiguity cannot be resolved by semantics and pragmatics. However, now it is also clear that the strategy used to resolve ambiguity varies across different speakers. I have not been able to confirm OSV as default order for more than a handful of speakers.

O/S	S/O	V
147. <i>mipatu</i>	<i>mipake</i>	<i>atama</i>
		see
		‘Mipatu saw Mipake.’
		‘(*)Mipake saw Mipatu.’

The fact that I was not able to reproduce with various speakers the same behavior in which OSV is interpreted as the default constituent order suggests that OSV cannot be considered as an order type that is syntactically structured. That is, there is no general syntactic template such as OSV in Apurinã that can override semantic or pragmatic information. As a consequence, it would appear that the various types of constituent order patterns are more likely to be motivated by discourse-pragmatic factors. If that were the case, it would be natural for speakers to vary when evaluating clauses with certain ambiguities as to ‘who did what.’

8.10.5 Frequency Distribution of Constituent Order Types

On the basis of the data provided above, we can conclude that there are 5 transitive and 2 intransitive general clausal constituent order types in Apurinã, as listed in Table 2. Since the presence of AUX is also structurally optional, it has been omitted here. Also omitted was the oblique argument of potentially ditransitive, described in 5.1.1.2..2. Table 2

summarizes the information on the bound pronominal markers and on the optionality property of post-verbal subject/object NPs:

Table 2: Clausal Constituent Orders

TRANSITIVE			INTRANSITIVE	
O S V	O s-V (S)	s-V-o (O) (S)	S V	s-V (S)
S O V	S V-o (O)	*s-V-o (S) (O)		

In the remaining of this subsection, I will present a text frequency count based on 8 texts that include 3 traditional narratives, 1 personal narrative, 2 procedural texts, and 2 dialogs. The total number of clauses in the 8 texts is 744 units. No significant difference in text genera has been attested, which, thus, justifies lumping them together here. That is, when the texts are considered individually, no contradictory numbers appear. Lexical and pronominal subject/object are not distinguished in the counts presented below. I have ignored such a distinction for the purpose of this paper because the dominant distribution of lexical subject and lexical object is not different from the dominant distribution of pronominal subject and object respectively. Furthermore, in analyzing constituent order types, I only considered clauses with verbal predicates. As a result, out of 745 clauses, 244 non-verbal or objective descriptive predicates were excluded from the count, thus leaving 501 clauses with verbal predicates. Both non-verbal and object descriptive predicates differ from other non-descriptive verbal predicates in their pronominal marking patterns and, as such, require a separate description. Further investigation is required on the constituent order variation involving non-verbal and objective descriptive predicates.

The next table shows the numbers for clauses with no NP-subject/object, clauses

with only one NP-subject/object, and clauses with both NP-subject and NP-object co-occurring. As Table 3 shows, a little more than half of all clauses have at least one NP-subject/object. The second most frequent type is that in which there is no NP-subject/object. In only 8.6% of all clauses do we find NP-subject and NP-object co-occurring.

Table 3: General Types of Clauses

V	V, NP	V, NP, NP	Total
200 (40%)	258 (52%)	43 (8%)	501 (100%)

If we first consider the 43 clauses where subject and object co-occur, the types of clauses are distributed as given in Table 4.

Table 4: Clauses with both Subject and Object

SV-oO	OSV	SOV	Os-VS	s-V-oOS	s-V-oSO	Total
33 (77%)	8 (19%)	1 (2%)	1 (2%)	0 (0%)	0 (0%)	43 (100%)

As seen in the table above, SV-oO occurs with frequency of 76.8% and is by far the most frequent type of clause with co-occurring subject and object; OSV comes in second place with frequency of 18.6%; SOV and Os-VS come in third both with 2.3%. s-V-oOS and s-V-oSO do not occur in any of the texts counted.

The next table shows the number for pre- versus post-verbal subject. Table 5 shows an unequivocal tendency for subjects to occur pre-verbally rather than post-verbally:

Table 5: Clausal Order of Subject

SV	s-VS	Total
155 (91%)	15 (9%)	170 (100%)

Table 6, on the other hand, shows that post-verbal (rather than pre-verbal) position is dominant for object. The higher frequency of post-verbal over pre-verbal object, however, is not as more frequent as the higher frequency of pre-verbal over post-verbal subject.

Table 6: Clausal Order of Object

OV	V-oO	Total
62 (40%)	91 (60%)	153 (100%)

Therefore, the frequency results that are of greater interest on the issue of clausal constituent order variation in Apurinã are as summarized in Table (7):

Table 7: Summary of Results on Clausal Constituent Order Variation

-
- (i) Clauses with co-occurring subjects and objects are the least frequent general types of clauses found in texts, i.e. 8%;
 - (ii) among such types of clauses SV-oO is the most frequent type, i.e. 77%;
 - (iii) also among such clauses, co-occurring post-verbal subject and object have not been attested;
 - (iv) pre-verbal subjects are much more frequent than post-verbal ones, cf. 91% versus 8.9%;
 - (v) and, post-verbal objects are more frequent than pre-verbal ones, cf. 60% versus 40%.
-

8.10.6 Brief Note on the Discourse-Pragmatics of Constituent Order

Variation

No clear-cut association between the discourse-pragmatic status of the information being encoded and the constituent order type used to encode such information has been as yet established for Apurinã. In work still in progress, a text-distributional study is being developed following the methodology given in Givón 1983, 1988, 1992 and 1995. The preliminary results are still inconclusive, only suggesting that a complex interaction of discourse-pragmatic functions beyond what Referential Distance and Topic Persistence can describe, but for which such measurements can be useful heuristic tools. One of the problems, however, with these preliminary results is that they are based on a pilot project for which the data are NOT based on a representative sample of text material. The results of a more representative data sample (on which the frequency count described in the previous subsection was based) have not yet been tabulated in terms of the Givónian text-based quantitative analysis and, as such, cannot yet be reproduced in this work.

The fact that clauses where one NP-subject/object occurs and clauses where both NP-subject and NP-object co-occur constitute only 60% of the total number of clauses attested in the language (i.e., in my text database; cf. numbers in Table 3) requires that a rather large corpus of texts be used in analyzing discourse-pragmatic factors involved in constituent order variation. Nevertheless, the fact that no clear-cut relationship can be attested between discourse-pragmatic factors and the type of constituents order used by itself suggests the unlikelyhood that a single constituent order type can be convincingly associated to a single (unmarked/neutral) discourse-pragmatic factor.

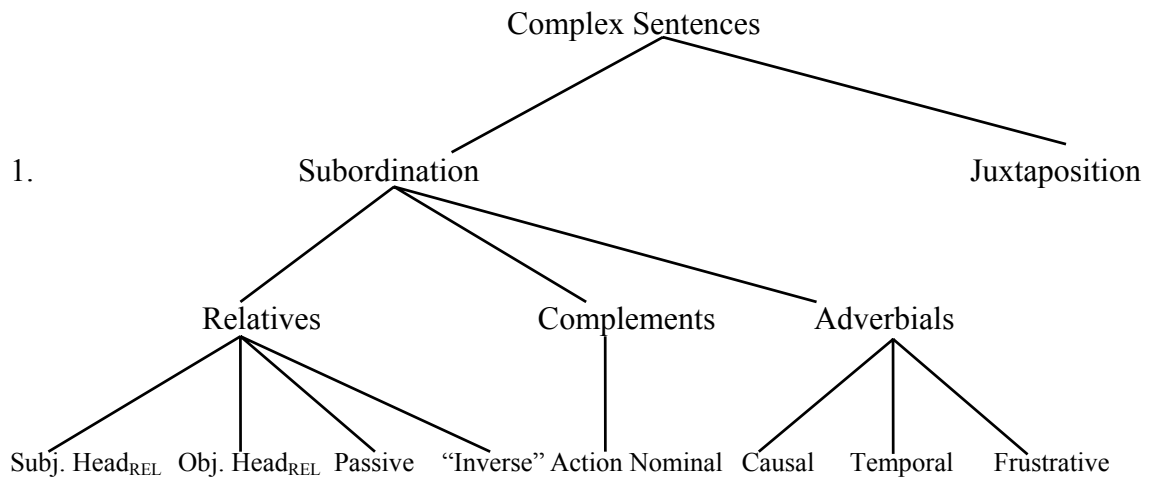
8.11. Concluding Remarks

As it is clear from the data and analysis presented in this chapter, to a great extent, a syntactic description of simplex sentences in Apurinã consists of analyzing the functional behavior of bound morphemes. As a consequence, the interaction of morphological and syntactic structures pervades in the language. Furthermore, although a more detailed description of the data can be done, each of the topics discussed above refers to the major processes that require an explicit or implicit mention of the notion of clause in order for these processes to be accounted for.

Complex Sentences

9.0. Introduction

The purpose of this chapter is to describe the ways that two or more clauses can combine to form a complex sentence, that is, a sentence with more than one predicate, and the way that sentences can be juxtaposed. The following diagram summarizes the types of complex sentences and sentence juxtaposition described in this chapter:



9.1. Subordination

Subordination is here defined as the process by which a complex sentence is formed out of two (or more) clauses, wherein one of the clauses (the subordinate one)

“function[s] as noun phrases, as modifiers of nouns, and as modifiers of verb phrases or entire propositions.” (Longacre 1985:237). Three types of subordination can be distinguished: **relatives**, **complements** and **adverbials**.

9.1.1 Relatives

As a general definition, a **relative clause** is one that “codes a proposition one of whose participants is coreferential with the head noun that is modified by the clause” (Givón 1990:646). In Pickering 1977a there is a first attempt to describe relative constructions in Apurinã. In attempting to verify Pickering’s analysis, I found that various of the examples he gave were not acceptable to the speakers I worked with. It still is not clear to me whether some of Pickering’s examples come from a particular speech variety different from the ones I have been exposed to, or whether they arose from his attempt to apply one of the earliest versions of a transformational generative framework to the Apurinã data. Following the general types of relative clauses discussed in the literature (e.g. Keenan 1985, Comrie 1989 and Givón 1990), relative clauses in Apurinã can be **restrictive** or **non-restrictive**. The division between restrictive and non-restrictive relative clauses, however, is made here for the purpose of showing how the two types of relative clauses found in some other languages are manifested in Apurinã. I can anticipate already that, as the following subsections will demonstrate, no formal distinction follows from making such an a priori division.

9.1.1.1 Restrictive Relative Clauses

Restrictive relative clauses are used to delimit/identify/constrain/restrict the meaning of the referent of a NP. The NP modified by the relative clause is hereafter called **head_{REL}**, and the clause modifying the head_{REL} is hereafter abbreviated to **Cl_{REL}**.

So, in the following example in (2) the head_{REL} is *suto* ‘woman’, which is modified by the Cl_{REL} *kuku karota-karo* ‘who hurt the man’:¹ (In the examples below coreferential elements are underlined.)

S/S	[	O	V-rel.s	]Cl _{REL}	V
2. <u>suto</u>		<u>kuku</u>	<u>karota-karo</u>		<u>apo-pe</u>
woman		man	hurt-REL.F.POS.S		arrive-PFTV
‘The woman who hurt the has man arrived.’					

In (2) there is also the bound form *-karo* which, as will be demonstrated in the next subsections, is representative of a set of (morphologically complex) bound forms that are always marked as coreferential with the head_{REL}. (These bound forms will be further segmented morphologically in 9.1.1.5.) The set of bound forms coreferential with the head_{REL} will be hereafter called **relative pronominal markers** (and they were briefly mentioned in chapter 4, in section 4.4.6); their pronominal status is motivated by their coreference properties in relation to the head_{REL}, and this will be made fully explicit in the various subsections described below. The notion of head_{REL}, thus, can be motivated independently of its semantic function, insofar as head_{REL} is the NP that is coreferential with the relative pronominal marker (described in the next subsection) in a Cl_{REL}.

In addition to being marked by relative pronominal markers, restricted relative clauses can consist of the simple juxtaposition of a clause and a(n) (intransitive) descriptive predicator. For example, the simplex sentences in (3) can be combined into a

¹ The notation S/S is used to indicate that *suto* is subject in the matrix clause and subject in the relative clause. Following this notation S/O will indicate that the relevant NP is subject in the matrix clause and object in the relative clause, O/S will indicate that the relevant NP is object in the matrix clause and subject in the relative clause, and so on.

complex sentence such as (4) where the descriptive predicator is interpreted as modifying the subject of the matrix clause, i.e. *suto*:

O V-o
 3a. *suto* *here-ro*
 woman be.pretty-3F.O
 ‘The woman is pretty.’

S V
 b. *suto* *apo-pe*
 woman arrive-PFTV
 ‘The woman has arrived.’

O/S [V-o]Cl.REL V
 4. *suto* *here-ro* *apo-pe*
 woman be.pretty-3F.O arrive-PFTV
 ‘The woman who’s pretty has arrived.’

Although complex sentences such as (4) constitute the most typical type of sentences involving a relative clause with a descriptive predicator, there are examples of relative clauses with a descriptive predicator that is accompanied of the verb form *inha*, the latter taking the relative pronominal marker, as illustrated in (5):

S/S V V-rel.s V
 5. *suto* *here-ro* *inha-karo-wa* *apo-pe*
 woman be.pretty-3F.O be-REL.F.S-REFL arrive-PFTV
 ‘The woman who’s pretty has arrived.’

I will not attempt to present a definitive analysis of the use of *inha* in (5). At the present time, this sort of example has only been attested with one speaker, in elicited data. As will be shown later, in 9.1.1.3, *inha* is a verb form that is used in relative clauses with nominal predicators. The use of this verb form in relative clauses with a descriptive verb predicator requires further verification with other native speakers of Apurinã. If

further analysis confirms that *inha* can be used in such relative clauses, it is conceivable that such a form might be best described as an auxiliary verb form that is restricted to nominal and descriptive relative clauses. (See also 9.1.1.3).

9.1.1.1.1 *The Relative Pronominal Markers*

The **relative pronominal markers/forms** correspond, morphologically, to the relativizing markers mentioned in 4.4.6, and they attach to the verb in a Cl_{REL}. The whole set of relativizers (to be revised in 9.1.1.5) was given in chapter 4, under 4.4.6, and is repeated for convenience in Table 1:

Table 1: System of Relative Pronominal Markers

		Subject		Object	Actorless Relative		3 > 1, 2 PRO 3 > 1, 2 PROCL
		Positive	Negative		Positive	Negative	
SG.	M	-karu	-katu	-kutu	-koru	-kotu	-keru
	F	-karo	-kato	-kuto	-koro	-koto	-kero
PL.	M/F	-kanu		-kunu	-konu		-keno

The question marks in Table 1 are used to mark the forms whose existence I am still uncertain of, as will be made explicit in the subsections where they are respectively described. Except for the forms having a question mark, all other relative pronominal markers in the language have been clearly attested. As suggested by the information summarized in Table 1, the relative pronominal markers form a rich system for coding various piece of information about the relative clause and its components: i.e. the grammatical relation of the head_{REL} in the relative clause, as well as its gender and number; the (positive/negative) polarity of the verb; the “actorlessness” of the verb; and a sort of hierarchical role of the participants when expressed as pronominal forms.

Although it is possible to break down the relative pronominal markers given in Table 1

into component parts, for the moment they will be described in terms of the general function these four-segment phonemic clusters have as markers of Cl_{REL} . The final subsection in 9.1.1.5 will present a more detailed morphological breakdown of these tetrad-partite phonemic clusters, with a discussion on the syntactic status of the verb which results from the presence of such clusters.

Various of the examples illustrating the use of relative pronominal markers originate in elicited material. I have chosen to use such data here for two major reasons: First, because they are used systematically enough in elicited material so as to suggest that speakers are aware of their function in the language grammar, and, second, because some of the relative pronominal forms are not easily found in text material (in, general, regardless of genre). The extent to which they are not found so often in text material may suggest that (at least for some speakers) they are in the process of going out of use, either due to language contact influence or just as a natural consequence of internal language change. The next subsections describe each of the functions of the relative pronominal forms listed in the table above, and the subtypes of Cl_{REL} distinguished by these pronominal forms.

9.1.1.1.2 *The Role of the Head_{REL} in the Relative Clause*

The first opposition encoded by the relative markers that is illustrated below is that concerning their role in the clause while encoding core grammatical relations, i.e. subject and objects. The sentences in (6) illustrate two independent clauses. The subject of the first and second clauses are both *suto* ‘woman’, and (in the context used here) they are coreferential. In order to relativize the subject of the first clause, i.e. *suto*, making this subject a head_{REL}, the coreferential relative pronominal marker *-karo* is added to the

verb of the first clause. The resulting complex sentence (containing a relative clause) in (7) (already given above in (2)) is formed when the two sentences in (6) are combined:

O S V
 6a. *kuku* *suto* *karota*
 man woman hurt
 ‘The woman hurt the man.’

S V
 b. *suto* *apo-pe*
 woman arrive-PFTV
 ‘The woman arrived.’

S/S [O V-rel.s]Cl_{REL} V
 7. *suto* *kuku* *karota-karo* *apo-pe*
 woman man hurt-REL.F.POS.S arrive-PFTV
 ‘The woman who hurt the man arrived.’

That is, as a result of adding *-karo* to the verb of the sentence in (6a), this sentence is “nominalized”, becoming a relative clause embedded as the subject of the matrix clause. (The meaning of the term “nominalized” as it applies to Cl_{RELS} is discussed in detail in 9.1.1.6.)

In contrast to (7) the next example in (8) has *suto* again as the head_{REL} and *kuku karota-kuto* ‘whom the man hurt’ is the Cl_{REL}:

S/O [S V-rel.o]Cl_{REL} V
 8. *suto* *kuku* *karota-kuto* *apo-pe*
 woman man hurt-REL.F.O arrive-PFTV
 ‘The woman whom the man hurt has arrived.’

While in (7) the relative pronominal marker is *-karu*, the example in (8) shows a different pronominal marker attached to the verb, namely *-kuto*. As is clear in (8), when the relative pronominal marker *-karo* is replaced with the relative pronominal marker *-kuto*

the result is that the head_{REL} *suto* is interpreted as the object of the Cl_{REL}. Note that since *suto* ‘woman’ is the head_{REL} in both the complex sentences in (7) and (8) there is no difference in person or gender information. Moreover, since everything else in (7) and (8) is the same, the only distinct grammatical functions *-karo* and *-kuto* may correspond to is that of subject and object, respectively. Hence the relative pronominal markers directly encode the subject versus object grammatical distinction.

In (9a), the example illustrates a case where the head_{REL}, *suto*, is the goal argument of the verb of the Cl_{REL}, *nhipoko-ru₂ nu-suka-kuto* ‘whom I gave the food to’, whereas in (9b) it is *nhipoko-ru₂* ‘food-UNPOSS’ that is the head_{REL}, showing that both the expressions for undergoer (here including the argument of objective descriptive verbs) and the expressions for goal arguments follow the same relativization strategy:

S/O [UNDERGOER s-V-rel.o]Cl_{REL} V
 9a. *suto nhipoko-ru₂ nu-suka-kuto su-pe*
 woman food-UNPOSS 1SG-give-REL.F.O go-PFTV
 ‘The woman whom I have given the food to has left.’

O/O [GOAL s-V-rel.o]Cl_{REL} V
 b. *nhipoko-ru₂ suto-moni nu-suka-kutu hare-ka*
 food-UNPOSS woman-GOAL 1SG-give-REL.M.O be.good-PRED
 ‘The food that I gave to the woman was good.’

In complex sentences containing Cl_{RELS} the only grammatical relation which is relevant for relativization is that played by the head_{REL} in the Cl_{REL}. That is, the role of the head_{REL} in the matrix clause is completely irrelevant for the formal encoding of relativization in Apurinã. This irrelevance of the role of the head_{REL} in the matrix clause for the formal markings of Cl_{RELS} can be seen by comparing the examples given in (7), (8) and (9) with the following examples in (10). In all the examples of Cl_{RELS} in (7), (8) and (9a) the head_{REL} is subject in the matrix clause, and both the relative pronominal

markers *-karo* and *-kuto* occur in all those examples. In the examples in (10), the object pronominal marker *-ro* in *n-apoko-ro* shows that the head_{REL} *suto* is object in the matrix clause, and, again, both *-karo* and *-kuto* occur:

s-V-o O/S [O V-rel.s]
 10a. *n-apoka-ro* *suto* *kuku* *oka-karo*
 1SG-find-3F.O woman man kill-REL.F.S
 ‘I found the woman who killed the man.’

s-V-o O/O [S V-rel.o]
 b. *n-apoka-ro* *suto* *kuku* *oka-kuto*
 1SG-find-3F.O woman man kill-REL.F.O
 ‘I found the woman whom the man killed.’

9.1.1.1.3 **Redundant Markings of the Role of Head_{REL}: Gender and Number**

In addition to being specifically marked for core grammatical relations, Cl_{REL} can also be marked for gender and number in ways that can potentially help to identify the role of the head_{REL}. Insofar as gender and number help to (indirectly) determine the core grammatical relation of the head_{REL} they function as redundant markers of the syntactic role of the head_{REL} in the Cl_{REL}.

In order to demonstrate how gender is encoded by the relative pronominal markers, we can start by observing the gender of the head_{REL} in (7) above, contrasting it with the following example in (11). While in (7) the head_{REL} is *suto* ‘woman’, which is modified by the Cl_{REL} *kuku karota-karo* ‘who hurt the man’, in (11) the head_{REL} is *kuku* ‘man’, which is modified by the Cl_{REL} *suto karotakaru* ‘who hurt the woman’. When we contrast examples (7) and (11), where the head_{REL}s differ in that one is feminine and the other is masculine, we see that the relative pronominal marker agrees with the gender of

its respective coreferential head_{REL}. The way this gender agreement is shown is by alternating the last vowel of the relative pronominal marker, i.e. /o/ versus /u/:

- S/S [O V-rel.s]Cl_{REL} V
 11. *kuku suto karota-karu apo-pe*
 man woman hurt-REL.M.POS.S arrive-PFTV
 ‘The man who hurt the woman has arrived.’

Analogously to (7) and (11), (8) and (12) can be compared to produce similar results for the relative object pronominal markers. So, while *-kuto* in (8) was shown to agree with the head_{REL} *suto*, in (12) the relative object pronominal form *-kutu* is shown to agree with the head_{REL} *kuku*.

- S/O [S V-rel.o]Cl_{REL} V
 12. *kuku suto karota-kutu apo-pe*
 man woman hurt-REL.M.O arrive-PFTV
 ‘The man whom the woman hurt has arrived.’

Finally, another piece of information about the head_{REL} that is encoded in the relative pronominal marker is the number. In the examples in (13) the clauses illustrate the plurality expressed in the pronominal relative markers for subject and object, respectively. *-kanu* is used for subject plural in (13a), coreferential with the plural head_{REL} *suto-wako-ro* ‘women’; whereas in (13b) *-kunu* is used for object plural, also coreferential with the plural head_{REL} *sutowakoro*:

- S/S [V-rel.s] V-o O
 13a. *suto-wako-ro apo-ã-kanu atama-ta-ru kuku-wakoru*
 woman-PL-F arrive-HYPOT-REL.PL.S see-VBLZ-3M.O man-PL.F
 ‘The women who arrived saw the men.’

- O/O [s-V-rel.o] S V
 b. suto-wako-ro n-atama-ta-kunu kona pita atama-ta
 woman-PL-F see-VBLZ-REL.PL.S not 2SG see-VBLZ
 ‘The women whom I saw you didn’t see.’

The following examples in (14) are analogous to those in (13), and they have the masculine head_{REL} *kuku-wako-ru* ‘men’ coreferential with the plural relative pronominal markers in the verbs. These examples are only given to show that plural relative pronominal markers (both subject and object forms) do not encode the gender distinction. That is, the relative pronominal forms *-kanu* and *-kunu* can agree with both masculine and feminine nouns, as the examples below show; in other words, there are no feminine plural forms such as **-kano* or **-kuno*.

- S/S [V-rel.s] V-o O
 14a. kuku-wakoru apo-ã-kanu atama-ta-ru suto-wako-ru
 man-PL.F arrive-HYPOTH-REL.PL.S see-VBLZ-3M.O woman-PL-F
 ‘The men who arrived saw the woman.’

- O/O [s-V-rel.o] S V
 b. kuku-wako-ru n-atama-ta-kunu kona pita atama-ta
 man-PL-F see-VBLZ-REL.PL.S not 2SG see-VBLZ
 ‘The men whom I saw you didn’t see.’

9.1.1.1.4 *Relative Clauses and the Polarity of the Verb*

In order to illustrate the polarity agreement, we can compare the examples in (7) and (10) with the following examples in (15). The first difference to note is the addition of the privative marker *ma-* to the verb. As shown in 5.3.1, *ma-* is a negation marker that forms descriptive verbs. When the example in (15a) is compared with (7), it becomes clear that the relative pronominal marker changes its form to agree with the negative marker *ma-*. The comparison can also be made between (10) and (15b) to produce the

same analytical result. The way the relative pronominal marker changes is by alternating between the polarity markers *-r* and *-t*, where the first marks positive and the latter marks negative polarities:

- | | | |
|------|--|---------------|
| | S/S [neg-V-rel.s] | V |
| 15a. | <i>suto ma-kirāta-rewa-ta-kato</i> | <i>mireka</i> |
| | woman PRIV-snore-INTR-VBLZ-REL.NEG.F | wake |
| | ‘The woman who does not snore woke up.’ | |
| | Lit.: ‘The woman who is a non-snorer woke up.’ | |
| | | |
| | S/S [neg-V-rel.s] | V |
| b. | <i>kuku ma-kirāta-rewa-ta-katu</i> | <i>mireka</i> |
| | man PRIV-snore-INTR-VBLZ-REL.NEG.F | wake |
| | ‘The man who does not snore woke up.’ | |
| | Lit.: ‘The man who is a non-snorer woke up.’ | |

Notice that, although polarity markers are restricted to descriptive verbs (i.e. intransitive verbs that take object rather than subject pronominal markers), subject but not object relative pronominal markers inflect for polarity. This is unexpected, since descriptive verbs take object rather than subject pronominal markers.

9.1.1.1.5 *The Distribution of Relative Clauses*

In analyzing the position of the Cl_{REL} in relation to the head_{REL} (or vice-versa) there are three possible outcomes. The first possibility is for the Cl_{REL} to precede the head_{REL}; the second is for the Cl_{REL} to follow the head_{REL}; and, the third is for the Cl_{REL} to occur discontinuously on both sides of the head_{REL}. The labels **prenominal**, **postnominal**, and **circumnominal** (or **internal-head**) relative clauses are found in the literature (Keenan 1985:143, Comrie 1989:45-46) referring to Cl_{RELS} when they occur, respectively, before, after, or on both sides of the head_{REL}. These labels are used here in the description of the distribution of Cl_{RELS}.

the Cl_{REL}. So, in (17a) *nota karota-kutu* ‘whom I hurt’ is the Cl_{REL} that precedes the head_{REL} *kuku*; and, in (17b), *pita atama-ta-kuto* ‘whom you saw’ is the Cl_{REL} that precedes the head_{REL} *suto*:

[S V-rel.o]Cl_{REL} S/O V
 17a. *nota karota-kutu kuku apo-pe-ka*
 1SG hurt-REL.M.O man arrive-PFTV-PRED
 ‘The man whom I hurt has arrived.’

[S V-rel.o]Cl_{REL} S/O V
 b. *pita atama-ta-kuto suto kuna apo-ka₄*
 2SG see-VBLZ-REL.F.O woman not arrive-PFTV-PRED
 ‘The woman whom you saw didn’t arrive.’

Although both pre- and postnominal nominal Cl_{RELS} can also be found in text material, there are some indications that the prenominal ones are, to some extent, of a more limited use. The exact nature of “markedness” as it applies to pre- versus postnominal Cl_{REL} requires further investigation. However, the somewhat more marked nature of prenominal Cl_{REL} can be observed in the speakers’ grammaticality judgments of these Cl_{RELS}. When judging the grammaticality of complex sentences containing Cl_{RELS}, speakers were systematically more uncertain when evaluating prenominal (rather than postnominal) Cl_{RELS}. Although prenominal Cl_{RELS} were never completely judged as ungrammatical, speakers often were confounded when these clauses were presented to them. At the present time, the most likely source of this confusion is related to the discourse-pragmatics of such Cl_{RELS}, or, more specifically to the tendency for the initial NP of a complex sentence containing a relative clause to be interpreted as the subject of the matrix clause. In fact, this is not only a tendency for complex sentences with relative clause, but a tendency that is also generally true of other sentences in Apurinã discourse.

I will return to this issue when discussing some preliminary information on discourse-pragmatics at the end of this chapter.

The third distribution of Cl_{RELS} is the circumnominal one, i.e. one in which the head_{REL} occurs internal to the Cl_{REL}. Since the head_{REL} is accompanied by a coreferential relative pronominal marker in the verb of the Cl_{REL}, one might expect that head internal Cl_{RELS} may also be found in the language. However, circumnominal Cl_{RELS} are either ungrammatical or only marginally acceptable to speakers. So, in both sentences in (18) the head_{REL} is *kuku* (between brackets to highlight its position in the clause), and it occurs between the object (*suto*) and the verb of the Cl_{REL} (*karota-karu* in 18a and *atama-nanu-ta-karu* in 18b). In the sense that the head_{REL} occurs between the object and the verb of the Cl_{REL}, it can be viewed as internal to the Cl_{REL}:

- [S/O {S} V-rel.s]Cl_{REL} V
- 18a. ?*suto* *kuku* *karota-karu* *apo-pe-ka*₄
 woman man hurt-REL.M.S arrive-PFTV-PRED
 ?‘The man who hurt the woman has arrived.’
- [S/O {S} V-rel.s]Cl_{REL} V
- b. **suto* *kuku* *atama-nānu-ta-karu* *apo-pe-ka*₄
 woman man see-PROG-VBLZ-REL.F.S arrive-PFTV-PRED
 (The man who was looking at the woman has arrived.)

Therefore, in terms of its distribution in relation to the head_{REL}, Cl_{RELS} in Apurinã can be pre- or postnominal, though the latter can be characterized as somewhat less marked. Moreover, circumnominal or internal-head Cl_{RELS} are pretty much ungrammatical in the language.

In order to make each of these two pairs of simplex sentences into a complex sentence containing a relative clause, it is necessary to make use of a special form of relative pronominal marker, as the following examples illustrate. The complex sentence in (21a) can be construed as a combination of the simplex sentences in (19). (21a) is analyzable as consisting of the head_{REL} *kuku* that is modified by the Cl_{REL} *keta-koru* ‘who was shot’, and the matrix clause verb *upũpe* ‘died’. In a similar fashion, the complex sentence in (21b) can be construed as a combination of the simplex sentences in (20), such that this latter complex sentence consists of the matrix clause *n-atama-ta-ru* ‘I saw it’, following the head_{REL} *manhiti* ‘deer’ plus its modifying Cl_{REL} *nhika-koru* ‘that was eaten’. Furthermore, the examples in (21c-d) are given to show that actorless passive Cl_{RELS} do not admit an actor to be present in them. These two sentences are ungrammatical because of the presence of the actor subjects *kuku* and *suto* in (21c) and (21d), respectively:

- 21a. S/O [V-rel.pass]Cl_{REL} V
kuku keta-koru upũpe
 man shoot-REL.M.PASS die
 ‘The man who was shot died.’
- b. s-V-o O/O [V-rel.pass]Cl_{REL}
n-atama-ta-ru manhiti nhika-koru
 1SG-see-VBLZ-3M.O deer eat-REL.M.PASS
 ‘I saw the remaining of the deer.’
 Lit.: ‘I saw the deer that had been eaten.’
- c. s-V-o O/O S [V-rel.pass]Cl_{REL}
 **n-atama-ta-ru kuku suto oka-koru*
 1SG-see-VBLZ-3M.O man woman kill-VBLZ-REL.M.PASS
 (I saw the man who was killed by the woman).

- s-V-o O/O S [V-rel.pass]Cl_{REL}
 d. **n-atama-ta-ro* suto *kuku* oka-koro
 1SG-see-VBLZ-3F.O woman man kill-VBLZ-REL.F.PASS
 (I saw the woman who was killed by the man).

The following example is given to show that the relative pronominal marker of actorless passive Cl_{RELS} also inflects for gender. In (22) the head_{REL} is *serepi-txi* ‘arrow’, an inherently feminine noun, and, as a result, the masculine relative pronominal marker *-koru* gives place to *-koro* in the verb. And, the example in (23) shows that this same relative pronominal marker inflects for (negative/positive) polarity as well. In (23) the negative marker is attached to the verb and, as result, the positive relative marker *-koro* gives place to *-koto*:

- s-V-o O/S [V-rel.pass]Cl_{REL}
 22. *n-apoka-ro* serepi-txi kapataka-koro
 1SG-see-3F.O arrow-UNPOSS break-REL.F.PASS
 ‘I found a broken arrow.’
 Lit.: ‘I found an arrow that had been broken.’

- s-V-o O/S [neg-V-rel.pass]Cl_{REL}
 23. *n-apoka-ro* serepi-txi ma-kapataka-koto
 1SG-find-3F.O arrow-UNPOSS PRIV-break-REL.F.NEG.PASS
 ‘I found an arrow that had not been broken.’

In addition to the attested forms, Table 1 also gives the putative form for the plural form of the actorless passive relative pronominal marker, ??-*konu*, that could be arrived at by internal reconstruction, on the basis of its singular counterparts. This form has not been attested in modern Apurinã and, thus, may never have existed at all.

9.1.1.1.7 “Inverse” Relative Clauses

Aside from the relative pronominal markers described above and the types of Cl_{RELS} they mark, there is one last subset left. This subset was given in the last column in Table 1 above, and it consists of *-keru* and *-kero*. The form *??-keno*, also given in Table 1, is a putative form that can be arrived at by internal reconstruction, that has not been attested in the language and, as such, that may never have existed at all. In the present analysis only the attested singular forms (i.e. *-keru* and *-kero*) are described. The basic facts about these markers may sound complex at first and can be best described in two parts: First, in purely distributional terms, *-keru* and *-kero* occur attached to transitive verbs in Cl_{RELS} containing an overt (phonologically) free argument expression that refers to first or second person singular, or an argument encoded as a pronominal marker; and, second, in functional terms, *-keru* and *-kero* invert the semantic roles of subject and object when the former is encoded as first or second person singular or as a bound pronominal marker. These descriptive facts are observable in the following examples. First, take the simplex sentences in (24), where the subjects of both sentences are coreferential:

O s-V
24a. *kuku* *n-/pu-/a-/h-atama-ta*
man 1SG/3M/2SG/1PL/2PL-see-VBLZ
'I/you(SG)/we/you(PL) saw the man.'

s-V
b. *kuku* *apo-pe*
man arrive-PFTV
'The man has arrived.'

If the two sentences above are combined to form a complex sentence where (24a) is embedded in (24b) as a Cl_{REL} marked with *-keru*, the result is the complex sentence in (25):

	S/ACTOR	[undergoer-V-rel.inv	]	Cl _{REL}	V
25.	<i>kuku</i>	<i>n-/pu-/a-/h-atama-ta-keru</i>			<i>apo-pe</i>
	man	1SG/2SG/1PL/2PL-see-REL.M.INV			arrive-PFTV
	‘The man who saw me/him/you/us/you(PL) has arrived.’				

In (25) *kuku* is the head_{REL}, *n-/pu-/a-/h-atamatakeru* ‘who saw me/you/us/you(PL)’ is the Cl_{REL}, and *apo-pe* ‘has arrived’ is the verb of the matrix clause. Note that there is NOT an error in the gloss, the bound subject pronominal forms *n-/pu-/a-/h-* that encoded the actor semantic role in the simplex sentence in (24a) indeed now encode the undergoer semantic role in the Cl_{REL} in (25); and the form *kuku* that encoded an undergoer semantic role in (24b) now encodes the actor semantic role of the Cl_{REL} in (25). Hence, my use of “S/ACTOR” (i.e. subject of the matrix clause/actor in the Cl_{REL}) on top of *kuku* and of “s-“ (i.e. bound subject marker) on top of *n-/pu-/a-/h-* in (25) reflects the syntactic roles that would be associated with these forms if there was not an “inverse” Cl_{REL} pronominal marker. This inversion of the semantic roles of subject and object (from actor to undergoer and vice-versa) is the most interesting aspect of these relative pronominal markers, and is what has led me to refer to the type of Cl_{RELS} marked with *-keru/-kero* as “inverse” Cl_{RELS} —the quotation marks being justified in the following paragraphs.

Take now the simplex sentences in (26-27), which can be combined into complex sentences such as those in (28):

O S V
 26a. *kuku nota/pita karota*
 man 1SG/2SG hurt-VBLZ
 ‘I/you(SG) hurt the man.’

S V
 b. *kuku apo-pe*
 man arrive-PFTV
 ‘The man has arrived.’

O S V
 27a. *suto nota/pita atama-ta*
 woman 1SG/2SG see-VBLZ
 ‘I/you(SG) saw the woman.’

S V
 b. *kona suto apo-pe*
 not woman arrive-PFTV
 ‘The woman has not arrived.’

S/ACTOR [UNDERGOER V-rel.inv]Cl_{REL} V
 28a. *kuku nota/pita karota-keru apo-pe*
 man 1SG/2SG hurt-REL.M.INV arrive-PFTV
 ‘The man who hurt me/you(SG) has not arrived.’

S/UNDERGOER [undergoer-V-rel.inv]Cl_{REL} V
 b. *suto p-atama-ta-keru kona apo-ka*
 woman 2SG-see-REL.F.INV not arrive-PRED
 ‘The woman who saw you did not arrive.’

The purpose of the examples in (28) is twofold. First, the example in (28a) shows that the “inverse” relative pronominal markers can also be used when the argument of the Cl_{REL} is expressed as independent pronouns for first or second person singular. So, in (28a) *kuku* is the head_{REL}, *nota/pita karota-keru* ‘who saw me/you’ is the Cl_{REL}, and *apo-pe* the verb of the matrix clause. And, second, the examples in (28) also demonstrate the gender distinction, also marked in “inverse” relative pronominal markers. In (28b) *suto* is the feminine head_{REL}, *p-atama-ta-keru* ‘who saw you’ is the Cl_{REL} taking the

relative marker (*-kero*) inflected for the feminine gender to agree with the head_{REL} *suto*, and *kona apoka* ‘not arrive’ is the predicate of the matrix clause:

The examples in (29) are analogous to the ones above, except that the head_{REL} both in (29a) and in (29b) is object in the matrix clause, whereas in the previous examples given in this section the head_{REL} is subject in the matrix clause. The data in (29) are given (for the sake of completeness) to demonstrate that, as is the case with the other pronominal relative markers described in previous sections, the role of the head_{REL} in the matrix clause is irrelevant for the marking of “inverse” Cl_{RELS}.

s-V-o O/ACTOR [s-V-rel.inv]Cl_{REL}
 29a. *n-apoka-ru* *kuku* *nu-karota-keru*
 1SG-find-3M.O man 1SG-hurt-REL.M.INV
 ‘I found the man who hurt me.’

s-V-o O/ACTOR [s-V-rel.inv]Cl_{REL}
 b. *n-apoka-ro* *suto* *nu-karota-kero*
 1SG-find-3F.O woman 1SG-hurt-REL.M.INV
 ‘I found the woman who hurt me.’

The final examples of this subsection are given in (30), and they demonstrate one of the properties mentioned above for “inverse” Cl_{RELS}: These clauses are restricted to the ones where the overt argument is expressed by a pronominal marker or by first or second person independent pronouns. Hence, the example in (30a) is ungrammatical because the undergoer argument of the Cl_{REL} is a third person singular independent nominal expression; and the one in (30b) is ungrammatical because the undergoer of the Cl_{REL} is neither first nor second person singular:

S/ACTOR [UNDERGOER V-rel.inv]Cl_{REL} V
 30a. **kuku* *suto* *karota-keru* *apo-pe*
 man woman hurt-REL.M.INV arrive-PFTV
 (The man who hurt the woman has arrived.)

	S/ACTOR	[UNDERGOER	V-rel.inv	]Cl _{REL}	V
b.	* <i>kuku</i>	<i>owa/uwa/ata/hĩte/unawa</i>	<i>karota-keru</i>		<i>apo-pe</i>
	man	1PL/3SG.F/3SG.M/1PL/2PL/3PL	hurt-REL.M.INV		arrive-PFTV
	(The man who hurt her/him/us/you has arrived.)				

There are two ways in that “inverse” Cl_{RELS} may be seen (under one specific view) as reminiscent to **inverse systems** such as the one of North American Algonquian languages (Foley and Van Valin 1985:296-399 and references there cited). The first is that affixes otherwise associated with actors are associated instead with undergoers. The second is that part of the constraints on the use of the “inverse” relative pronominal marker is that the inverse is required when the actor is third person and the undergoer is first or second person, partially following a person hierarchy. While the first way in which a comparison can be made between “inverse” Cl_{RELS} and inverse systems is clear, the second way put forth here is not so straightforward, thus requiring some further justification below.

The “inverse” Cl_{RELS} constitute a type of restrictive clause. The semantics and pragmatics of first and second person pronouns are such that, in most usual circumstances, they are incompatible with those inherent to a head_{REL} modified by a restrictive Cl_{REL}. Since the most common function of a restrictive relative clause is to specify, identify, restrict, etc., the meaning of the head_{REL}, it cannot in principle modify first or second person. It follows then that the head_{REL} modified by a restrictive Cl_{REL} refers, by definition, to third person, not first or second. Therefore, it follows that the constraint on the kinds of independent pronouns that can function as undergoer of “inverse” Cl_{RELS} plus the semantics and pragmatics inherent to restrictive Cl_{RELS} and (exclusively) to first and second persons singular will produce only “inverse” Cl_{RELS} with

independent subjects where $3 > 1,2$ (i.e. third person acts on first and second persons singular). However, at the same time that this analysis of the data can be used to justify an analogy between “inverse” Cl_{RELS} and inverse systems in other languages, it can also be used to understand the properties of “inverse” Cl_{RELS} as a development which is independent and (perhaps) unrelated to true inverse systems.

An explanation, however, is still needed for why pronominal forms are among the elements that can be the overt argument of “inverse” Cl_{REL} , and for why constraints that apply to independent pronouns referring to first and second persons singular do not apply to those referring to first and second persons plural. Of all the types of restrictive Cl_{RELS} found in Apurinã, “inverse” Cl_{RELS} are the ones that require further investigation the most. The data presented here are mostly based on the speech of one speaker and, although, the speaker was very consistent in producing data with the same cluster of properties given above, further verification needs to be done with more speakers, even if only to confirm that the speech of more speakers shares such properties. It is possible, for example, that what is described here as “inverse” Cl_{RELS} is actually the residue of another subsystem of relativization that is pretty much out of use in the language nowadays.

9.1.1.2 Headless Relative Clauses

In all types of relative clauses described above there is a $head_{REL}$ that is modified by the Cl_{REL} . The purpose of this subsection is to show that Cl_{RELS} can also be **headless**, that is, they can occur with no $head_{REL}$. The pair of examples in (31) illustrates headless Cl_{RELS} marked, respectively, with the subject and the object relative pronominal markers. In (31a) the headless Cl_{REL} is *suto oka-karu* ‘who/what killed the woman’, and the

- [V-rel.pass]Cl_{REL}
 34. *nhipoko-ta-koru* ...
 eat-VBLZ-REL.F.PASS
 ‘What was devoured...’
 Lit.: ‘The devoured one...’

9.1.1.3 Relative Clauses with Non-Verbal Predicators

In 8.4 two general types of clauses were identified in the language, verbal and non-verbal. For all Cl_{RELS} described above the clauses are verbal rather than non-verbal. This subsection describes Cl_{RELS} with non-verbal predicators. Simplex sentences constituted of non-verbal predicators may consist of the juxtaposition of word forms, and they can only encode states (as seen in 8.4.2). A non-verbal clause can occur inside a complex sentence where one NP (from the non-verbal clause) is interpreted as the head_{REL} that is modified by another NP (also from the non-verbal clause) functioning as a Cl_{REL}. So, in (35a), the nominal form *popũka-ro* ‘Apurinã-F’ works as a nominal predicator modifying *suto* ‘woman’, and in (35b) *suto-nhi* ‘woman-AFFECT’ works as the nominal predicator that modifies *amarunu* ‘child’:³

- | | | | |
|-----|--|-------------------|---------------|
| S/S | [NP] | Cl _{REL} | V |
| 35a | <i>suto</i> | <i>popũka-ro</i> | <i>apo-pe</i> |
| | woman | Apurinã-F | arrive-PFTV |
| | ‘The woman who was Apurinã has arrived.’ | | |

- | | | | |
|-----|---|-----------------|--------------|
| S/S | [NP] | V | |
| b. | <i>amarunu</i> | <i>suto-nhi</i> | <i>upũpe</i> |
| | child | woman-AFFECT | die |
| | ‘The child who was a female died.’ | | |
| | Lit.: ‘The child who was a woman died.’ | | |

³ Although the noun form *amarunu* is partially segmentable, as *ama-* ‘child’ *-ru* ‘M’ and *-nu* ‘?’, its former morpheme boundaries are nowadays opaque in some speech varieties, and the word is used to mean as a hybrid now to mean ‘child’, interpretable as masculine or feminine.

However, although non-verbal Cl_{RELS} of the type illustrated in (35) can be found both in elicited as well as in text material, it is more common (both in elicited and text material) for clauses with non-verbal predicators to make use of the verb form *inha* (briefly mentioned in 9.1.1.1, in association with Cl_{RELS} with descriptive verb predicators). In (36a) *suto* is the head_{REL} that is modified by Cl_{REL} *popũka-ro inha-karo-wa* ‘who is Apurinã’. In (36b) *amarunu* ‘child’ is the head_{REL} that is modified by the Cl_{REL} *suto-nhi inha-karo-wa* ‘who is woman’:

	S/S	[	O		V-rel.s]	Cl _{REL}		V
36a	<i>suto</i>		<i>popũka-ro</i>		<i>inha-karo-wa</i>			<i>apo-pe</i>
	woman		Apurinã		be-REL.F.POS.S-REFL			arrive-PFTV
	‘The woman who was Apurinã has arrived.’							

	S/S	[	O		V-rel.s]	Cl _{REL}		V
b	<i>amarunu</i>		<i>suto</i>		<i>inha-karo-wa</i>			<i>upũpe</i>
	child		woman		be-REL.F.POS.S-REFL			die
	‘The child who was a female died.’							
	Lit.: ‘The child who was a woman died.’							

Notice that in while in (36a) the reflexive marker *-wa* occurs attached to the verb form, no such a marker is found in (36b). Although the reflexive marker is often found in these types of nominal Cl_{RELS}, its presence is structurally optional and is likely to be conditioned by discourse-pragmatic factors which, however, remain to be determined.

As the examples in (36) show, non-verbal Cl_{RELS} are marked with the subject relative pronominal markers plus, in some cases, the reflexive marker. Therefore, both the strategies used for relativizing clauses with descriptive verbs and for relativizing clauses with non-descriptive verbs can be used with clauses with non-verbal predicators. That is, simplex sentences with non-verbal predicators can either take no formal marker

when embedded as a Cl_{REL} in a complex sentence (as in 35), or they can make use of the verb form *inha* plus the subject relative pronominal marker (as in 36). The verb form *inha* is only found in Cl_{RELS} with descriptive verbs (as shown in 9.1.1.1) or non-verbal predicators. Although *inha* can be described in this work as a copula verb that is restricted to certain Cl_{RELS}, it is possible (as mentioned in 9.1.1.1) that more data will show that some uses of it can be best described as an auxiliary verb that is restricted to a subset of Cl_{RELS}. Finally, so far there is no evidence of any grammatical factor that may condition the presence versus absence of *inha* in the Cl_{RELS} in which they can occur.

9.1.1.4 Non-Restrictive Relative Clauses

Non-restrictive relative clauses are generally defined in other languages as Cl_{RELS} that do not constrain the head_{REL}, and whose head_{RELS} are “fully specified, definite NPs such as proper nouns” (Keenan 1985:169); as Cl_{RELS} that add information “about an already identified entity, but not to identify that entity” (Comrie 1989:138); or, as Cl_{RELS} encoding a “proposition [that] tends NOT to be presupposed” (Givón 1990:649). On the basis of these definitions, we would like to then find an example of a complex clause formed out of the combination of sentences such as the ones given in (37). In (37) both simplex sentences have a common argument, *kayãparo*, which is a proper noun:

37a. *kayãparo nu-suto-re*
 Kayãparo 1SG-woman-POSSED
 ‘Kayãparo is my wife.’

S V
 b. *kayãparo apo-pe*
 Kayãparo arrive-PFTV
 ‘Kayãparo has arrived.’

The combination of these two simplex sentences into a complex one produces the sentence in (38). In (38) *kayãparo* ‘name of a woman’ is the head_{REL} that is modified by the Cl_{REL} *nu-suto-re inhakaro* ‘who is my wife’. The head_{REL} *kayãparo*, as a proper noun, is a fully specified, identified, NP, and the information expressed by the Cl_{REL} is not presupposed. What this example then shows is that non-restrictive Cl_{RELS} make use of the same formal marking strategy as restrictive Cl_{RELS}; that is, both restrictive and non-restrictive Cl_{RELS} are marked with relative pronominal markers:

	S/UNDERGOER [	O	V-rel.s]	V
38.	<u><i>kayãparo</i></u>	<i>nu-suto-re</i>	<i>inha-karo</i>	<i>apo-pe</i>
	Kayãparo	1SG-woman-POSSED	be-REL.SG.F.POS.S	arrive-PFTV
	‘Kayãparo, my wife, has arrived.’			
	Lit.: ‘Kayãparo, who’s my wife, has arrived.’			

However, non-restrictive Cl_{RELS}, by definition, also allow for certain Cl_{RELS} that are unlikely to be encoded as restrictive Cl_{RELS}. For example, aside from proper nouns, non-restrictive Cl_{RELS}, in principle, also allow for pronouns to be relativized. In fact, in Apurinã, the relativization of pronouns is more than a logical possibility, as the examples in (39) illustrate. In (39a-e) all independent pronouns (with the exception of third person singular) are “modified” by a Cl_{REL}. Although there is nothing special about the relativization of pronouns per se, it is surprising (based on what has been shown so far) to find that these pronouns are accompanied of a coreferential OBJECT pronominal marker (highlighted with double underlining in 39a-c) on the verb, in addition to the relative pronominal markers that themselves are also coreferential (in gender) with the head_{REL} pronouns:

- 39a. S/S [V-rel.s-o] V-o O
nota okatsããta-karu-no kona nhika-ika-ru ximaku
 1SG fish-REL.SG.M.S-1SG.O not eat-ANYMORE-3M.O fish
 ‘I, who did fishing, did not eat fish anymore.’
- b. S/S [V-rel.s-o] V-o O
pita okatsããta-kari-i kona nhika-ika-ru ximaku
 2SG fish-REL.SG.M.S-2SG.O not eat-ANYMORE-3M.O fish
 ‘You, who did fishing, did not eat fish anymore.’
- c. S/S [V-rel.s-o] V-o O
ata okatsããta-kanu-wa kona nhika-ika-ru ximaku
 1PL fish-REL.PL.M.S-1PL.O not eat-ANYMORE-3M.O fish
 ‘We, who did fishing, did not eat fish anymore.’
- d. S/S [V-rel.s-o] V-o O
hĩte okatsããta-kanu kona nhika-ika-ru ximaku
 2PL fish-REL.PL.M.S not eat-ANYMORE-3M.O fish
 ‘You (PL), who did fishing, did not eat fish anymore.’
- e. S/S [V-rel.s-o] V-o O
nunawa okatsããta-kanu kona nhika-ika-ru ximaku
 3PL fish-REL.PL.M.S not eat-ANYMORE-3M.O fish
 ‘They, who did fishing, did not eat fish anymore.’

The problem is not so much in having coreference marked twice in the same Cl_{REL} , but that there is a conflict in what the coreference is marked for. The relative pronominal markers *-karu* and *-kanu* are also SUBJECT markers (as shown in 9.1.1.1.2), whereas the bound pronominal forms following the relativizers are OBJECT markers (as shown in 5.1 and 7.1.1.2). Aside from marking object, the bound pronominal markers found in the examples in (39) also add another parameter of coreference, namely person marking. The following paragraphs present two partial accounts of the data in (39), in an attempt to explain what appears to be conflicting markings for core grammatical relations in non-restrictive Cl_{RELS} .

One first possible account of the presence of the bound pronominal markers in non-restrictive Cl_{RELS} is that they are also “present” in restrictive Cl_{RELS} , and that it

simply happens that restrictive Cl_{RELS} by definition modify head_{RELS} in third person. In this account the assumption is that the marker for third person in Cl_{RELS} is not audible phonologically (or, in other words, is not morphologically marked). One potential problem with this account is that not only the marker for third person but also the one for second person plural will be not audible phonologically (or is not morphologically marked) —a potential but not critical problem. On this account, restrictive and non-restrictive Cl_{RELS} are NOT distinguishable syntactically. The following example in (40), where the head_{REL} is a third person independent pronoun, supports this first account. In this example, a non-restrictive Cl_{REL} “modifies” an identifiable NP, and there is no formal difference between this non-restrictive Cl_{REL} and the comparable restrictive Cl_{RELS} seen so far:

- | | | | | | | | | |
|-----|---|---|-----------------------|---|-------------|---------------------|--|---------------|
| | S/S | [| V-rel.s-o |] | | V-o | | V |
| 40. | <i>owa</i> | | <i>okatsããta-karo</i> | | <i>kona</i> | <i>nhika-ika-ru</i> | | <i>ximaku</i> |
| | 3SG.F | | fish-REL.SG.F.S | | not | eat-ANYMORE-3M.O | | fish |
| | ‘She, who did fishing, did not eat fish anymore.’ | | | | | | | |

Another possible account of the data in (39) is that person markers are restricted to non-restrictive Cl_{RELS}, and the morphological distinction between the two follows from the semantics and discourse-pragmatics inherent to both types of relative clauses. Even in this second account, however, restrictive and non-restrictive Cl_{RELS} can be considered as non-distinguishable syntactically, since their only formal marking distinction follows from non-syntactic properties they have. This second account would work in the same way as the first one, except that there would be no null morpheme for third person in restrictive relatives clauses. So, in (40), third person would be null or unmarked in the verb.

Either of the accounts in the foregoing discussion provides a motivation to find the person markers in the data in (39). What these accounts, nonetheless, do not explain is why such person markers mark object rather than subject, if the latter is what is marked in the relative pronominal markers. This latter question is dealt with in the next section.

To finalize the discussion on non-restrictive Cl_{REL} , I should add that, as far as I have been able to observe, no evidence of a pause preceding and/or following non-restrictive Cl_{REL} has been detected so far. Nonetheless, it would not surprise me to find Apurinã speakers with higher proficiency in Portuguese (than in Apurinã) making use of such a prosodic strategy to distinguish non-restrictive from restrictive Cl_{REL} —since this strategy is available for speakers of Portuguese.

9.1.1.5 Relative Pronominal Markers as Tripartite Morphemic Clusters

Now that all the syntactic distinctions found in Cl_{REL} have been described, the glossing of the various relative pronominal markers given in Table 1 earlier in the chapter can be finally revised into a more detailed morphemic description, such as the one provided in Table 2. In this table the first column shows the types of Cl_{REL} that can be distinguished on the basis of the grammatical role of the $head_{REL}$ in the Cl_{REL} and on the basis of how the $head_{REL}$ is affected by the presence of the coreferential relative pronominal marker in the verb.⁴ The second column (and sub-columns under GRs & Voice, where GRs=Core Grammatical Relations) lists the bi-phonemic morphemes that mark whether the $head_{REL}$ is subject, object, or whether the Cl_{REL} is actorless or the

⁴ The fact that all markers of grammatical relations and voice in Cl_{REL} start with *-k* may be used to argue that *-k* is also a morpheme—for example, a marker of relativization. I have chosen to analyze *-k* as part of the markers of grammatical relations and voice so as to reduce the number of ambiguities which is already very large even in the current morpheme breaking used here.

semantic role of its subject is converted into undergoer. The third column (and sub-columns under Polarity & Number) lists the morphemes that may mark cumulatively both polarity and number. Finally, the fourth column (and sub-columns under Gender) lists the morphemes for masculine and feminine. Notice also that, as is made explicit in the table below, the major distinctions in the types of Cl_{RELs} can be described in terms of distinctions of GRs & Voice, Polarity & Number, and Gender, thus producing **tripartite morphemic clusters**. That is, at the same time that relative pronominal markers are segmentable into three morphological markers (GRs & Voice, Polarity & Number, and Gender), they also cluster together to function as relativizers.

Table 2: System of Relative Pronominal Markers (revised)

Types of Cl_{RELs}	GRs & Voice				Polarity & Number				Gender	
	GRs		Voice		Positive		Negative		M	F
	Subj.	Obj.	Pass	Inv	SG	PL	SG	PL		
Subj Head _{REL}	<i>-ka</i>				<i>-r</i>	<i>-n</i>	<i>-t</i>	<i>-n</i>	<i>-u</i>	<i>-o</i>
Obj Head _{REL}		<i>-ku</i>			<i>-t</i>	<i>-n</i>	<i>-t</i>	<i>-n</i>	<i>-u</i>	<i>-o</i>
Actorless			<i>-ko</i>		<i>-r</i>	<i>-n</i>	<i>-t</i>	<i>-n</i>	<i>-u</i>	<i>-o</i>
“Inverse”				<i>-ke</i>	<i>-r</i>	<i>-n</i>	<i>-r</i>	<i>-n</i>	<i>-u</i>	<i>-o</i>

When these tripartite morphemic clusters are contrasted to the way languages generally mark Cl_{RELs} , they are found to be somewhat comparable to the **relative pronouns** commonly found in European languages (Keenan 1985:149-152, Comrie 1989: 149-150, Givón 1990:656-658). Similar to relative pronouns, relative pronominal markers in Apurinã occur inside the Cl_{REL} indicating the role of the head_{REL}, and functioning as subordinators. So, for example, the pairs *-k-a-r-u/r-o* vs. *-k-u-t-u/t-o*, in Apurinã, and *who* vs. *whom*, in English, are both relative pronominal forms that occur inside the Cl_{REL} , marking the head_{REL} as subject and object respectively. The differences

between these two pairs are in their phonological status (as bound vs. free forms), in the number of functional properties they encode (i.e. grammatical relation, voice, polarity, number and gender in Apurinã vs. grammatical relation and animacy in English), in their position inside the Cl_{REL} (i.e. following the verb in Apurinã vs. initial in the Cl_{REL} in English), and, finally, in that only the Apurinã forms can also mark headless Cl_{RELS}. Relative pronominal markers can also be compared with nominalizers, as the following discussion shows.

9.1.1.6 The Syntactic Category of the “Verb-REL” in Relative Clauses: Verbal or Nominal?

One final issue about Cl_{RELS} is with respect to the syntactic status of the verb of the Cl_{RELS} as a result of taking the relative pronominal markers. (V_{REL} is used hereafter to refer to the verb of a Cl_{REL}.) In the description of the noun morphology in chapter 4, relative pronominal markers are listed as relativizing nominalizers under 4.4.6. Since to refer to the tripartite morphemic clusters marking the predicate of V_{RELS} as both nominalizers and pronominal forms suggests a misapplication of typical derivational-like versus typical inflectional-like properties, some clarification is in order.

It is certainly possible for a language to make use of nominalizations to mark Cl_{RELS} (Givón 1990:663-666)⁵. In Apurinã there are two major pieces of evidence that the V_{RELS} marked with the tripartite morphemic clusters listed in the table above are nominalized forms: one morphological and the other syntactic. In the discussion that follows, to say that V_{REL} is “nominal” (or “deverbal”) or “verbal” means that V_{REL} can

⁵ Where examples from Turkish, Ute and Lhasa Tibetan are cited.

have some properties that are more typical of NPs and/or complex nouns in Apurinã, and other properties that are more typical of verbs in this language.

The morphological evidence for the nominal status of V_{RELS} can be illustrated by examples like the one in (41):

s-V	S	GOAL	APPOS	[s-V-rel.o-goal]
41. <i>i-txa</i>	<i>kema</i>	<i>owa</i>	<i>hãtako-ro</i>	<i>Ø-<u>anhi-kuto-mokaru</u></i>
3M-say	tapir	3F.SG	youth-F	3SG.M-take-REL.F.O-GOAL
‘The tapir said to her, the woman whom she took away.’				

In this example the V_{REL} is *anhi-kuto-mokaru* ‘to whom it took’, which follows the appositive head $_{\text{REL}}$ *hãtako-ro* ‘young woman’. What is relevant in this example is the presence of the goal bound oblique marker *-mokaru* following the V_{REL} . As shown in chapter 7, in 7.1.2.4, the goal oblique marker is part of the (pro)noun morphology, and, as shown in chapter 8, in 8.3.1.2, it can be used to mark a goal object, as well as, as shown in 8.3.2.4, a directional goal (allative) grammatical relation. The presence of an oblique marker such as *-mokaru* attached to a V_{REL} would suggest that V_{RELS} are somewhat nominalized (or “deverbalized” forms).

The syntactic evidence for the nominal status of V_{RELS} is that complex sentences can have a Cl_{REL} and, at the same time, lack a head $_{\text{REL}}$ —as shown in 9.1.1.2 with the description of headless Cl_{RELS}). The existence of headless Cl_{RELS} is evidence for the nominal status of V_{RELS} to the extent that intransitive V_{RELS} in headless Cl_{RELS} will function as the NP subject/object in the complex clauses where they occur —as the example in (31b) is illustrative of.

Therefore, based on these two morphological and syntactic properties associated with Cl_{RELS} , a preliminary conclusion is that the tripartite morphemic forms involved in

relativization nominalize (or deverbalize) the verbs they attach to and, hence, form nominal (or deverbal) constructions.

The first problem, however, with the conclusion above is that the simple fact that these same tripartite morphemic clusters encode gender, number and core grammatical relations (typical nominal properties) shows that they are pronominal forms as well. Thus, one can argue that if relativizing morphemes are pronominal forms they are less likely to change the category of the verbs they occur with and, as a result, V_{REL} s are expected to be verbal, not nominal. The assumption held here is that pronominal elements are not generally used in most languages to yield new word categories. Furthermore, in addition to these pronominal properties, the following examples show other properties that the morphemes in question also have and that suggest that they mark verbal rather than nominal constructions. In (42) (repeated from 36a), the Cl_{REL} is a nominal predicate with two interesting aspects that require observation: First, the relativization is marked with *-karo* attached to the copula verb *inha*, and, second, the verbal reflexive bound form *-wa* follows the relativizing form. The presence of *-karo* attached to the main verb is ambiguous because this specific copula verb form occurs both with nominal predicates and with descriptive verbal predicates,⁶ but, the presence of the verbal reflexive morpheme *-wa* following *-karo* constitutes unambiguous evidence that the V_{REL} is somehow verbal —not nominal:

	S/S	[	O	V-rel.s]	Cl_{REL}	V
42.	<i>suto</i>		<i>popũka-ro</i>	<i>inha-karo-wa</i>		<i>apo-pe</i>
	woman		Apurinã	be-REL.M.POS.S-REFL		arrive-PFTV
	‘The woman who was Apurinã arrived.’					

⁶ No example is available to decide whether the relativizing forms can also attach to the purely verbal auxiliary form *txa*.

syntactic expression of this notional object can be demonstrated to behave as a grammatical object or, for example, as possessive. Further research is necessary here.

9.1.2 Complement Subordination

Complement subordination is here defined as the process by which a complex sentence is formed of two or more clauses, wherein one functions as the subject/object of the other. Although complex sentences (and hence complementation) are less common in Apurinã than, for example, in languages like English, two general types of complements can be distinguished on the basis of whether they carry any formal marker of subordination. In other words, complements can be described in terms of how (dis)similar they are to a full sentence. Complements that carry no formal marking of subordination and that, thus, resemble the most complete sentences, are described under **full sentence complements**. Complements that carry a formal marking of subordination and/or that are reduced forms of full sentences are described under **marked complements**. A full sentence complement is to be understood as a complete sentence that minimally has all the (morpho)syntactic expressions of the core arguments (i.e. subject and/or object), where such (morpho)syntactic expressions may take the form of the phrasal units described in chapter 8, section 8.1.1, or of the subject/object pronominal markers described in chapter 7, in subsections 7.1.1 and 7.1.12. The constituent structure of the clauses that realize a complete sentence was provided in 8.1.1.1, and the types of these clauses were described in chapter 8.4.

The current description of complementation is more of a general survey of the complement types found in the language based on their formal properties than an in-depth analysis of each of these types. Further analysis on the behavioral properties of the

complements and their sub-components is necessary, as well as analysis specifically about the semantics of the complement-taking verbs. The terms used here to label the semantic category of the complement-taking verbs (i.e. utterance, perception, knowledge... verbs) as well as the semantic classification itself are partly based on Noonan (1985:110-133).

9.1.2.1 Full Sentence Complements

Full sentence complements are those that carry no formal subordination marking and that can stand by themselves as a sentence. Full sentence complements can function as objects of utterance verbs, immediate perception verbs, and at least one manipulative verb.

In the first pair of examples in (44) the full sentence complements (between brackets) are direct quotations that function as objects of the utterance verb *txa* 'say': (In the examples below brackets are used to highlight the complement of the sentence.)

44a. [s-V-o] s-V APPOS GOAL
 [Ø-oka-pe-no-na-ko] i-txa kema owa-mokaru
 3M-kill-PFTV-1SG.O-3PL-FUT 3M-say tapir 3SG.F-GOAL
 'It, the tapir, said to her, the woman, "they'll kill me".'

b. [S V] s-V
 [nota su-pẽ-ka] o-txa-nanu-ta
 1SG go-PFTV-PASS-PRED 3M-say-PROGR-VBLZ
 'She's saying "I have left".'

In the next examples in (45) the full sentence complements are indirect quotations that function as objects (again) of the utterance verb *txa*:

- APPOS [S V-o O] s-V
 45a. *owa* [*kuku oka-pe-ru* *ãkiti*] *o-txa-nanu-ta*
 3SG.F man kill-PFTV-3M.O jaguar 3F-say-PROGR-VBLZ
 ‘She, she’ is saying that the man has killed the jaguar.’
- [S V-o O] APPOS S V-o
 b. [*o-kura suto atama-ta-ru kema*] *pita txa-ru*
 3F-DISTAL woman see-VLBZ-3M.O tapir 2SG say-M.O
 ‘You said it, that the woman saw the tapir.’

As can be seen from (44) and (45a), there is no formal distinction between direct and indirect quotation as a complement object of the utterance verb. The distinction between direct and indirect quotation, however, can be made prosodically, with a longer pause between the verb form and its complement for direct quotations. I should also note that the utterance verb *txa* has one property that distinguishes it from other complement taking verbs, namely that its complement necessarily precedes it. So, the following example in (46) can be compared to the one given in (44b) to illustrate the property that the utterance verb *txa* has of allowing only pre-verbal complement clauses. As shown by both of the ungrammatical translations of the example in (46), this distributional restriction on the complement of the utterance verb *txa* applies regardless of whether the complement *txa* is a direct or indirect quotation:

- s-V [S V]
 46. **o-txa-nãnu-ta* [*nota su-pẽ-ka*]
 3M-say-PROGR-VBLZ 1SG go-PFTV-PASS
 (She’s saying “I have left”.)
 (She’s saying that I have left.)

The next pair of examples in (47) further illustrates full sentence complement objects of utterance verbs, here with the verb *sãpire-ta* ‘to tell’:

- 47a. S V-o [S APPOS V-o O]
pita sãpire-ta-ru [*owa suto atama-ta-ru kema*]
 2SG tell-VLBZ-3M.O 3SG.F woman see-VBLZ-3M.O tapir
 ‘You said that the woman saw the tapir.’
- b. S V-o [S APPOS V-o O]
pita sãpire-ta-ru [*uwa kuku oka-pe-ru kema-nhi*]
 2SG tell-VLBZ-3M.O 3SG.M man kill-PFTV-3M.O tapir-AFFECT
 ‘You said that he, the man, has killed the tapir.’

The semantic difference between *sãpire-ta* and *txa*, is that the former is the one used to mean ‘to tell a story’, but that, different from ‘tell’ in English, does not take a third core argument. Otherwise, there is a partial overlap in the semantics of these two utterance verbs. Moreover, the pre-verbal restriction on the complements of *txa* does not apply to *sãpire-ta*:

The examples provided in (48) illustrate the immediate perception complement-taking verb *etuka* ‘to see’, in (48a-b), and a manipulative complement-taking verb *akirita* ‘to call’, (48c):

- 48a. s-V-o O [GOAL O s-V]
n-etuka-ru mipa [*youka-monhi sãkire-txi u-sãpireta*]
 1SG-see-3M.O Mipa Youka-GOAL speech.of-UNPOSS 3M-say
 ‘I saw Mipa telling stories to Youka.’
- b. s-V-o [S V GOAL]
n-etuka-ru kuku muteka-nãnu-ta ãtopa
 1SG-see-3M.O man run-PROGR-VBLZ jungle
 ‘I saw the man running into the jungle.’
- c. s-V-o [S V]
p-akirita-ru Chico Velho nhipoko-ta-ko
 2SG-call-3M.O eat-VBLZ-FUT
 ‘Call Chico Velho to do the eating.’

9.1.2.2 Marked Complement Clauses

Aside from the unmarked full sentences that function as the complement in the examples presented above, there are marked complement clauses that carry the gerund marked *-inhi*, morphologically described in chapter 4, subsection 4.4.7, and that constitute the most common type of complement clauses found in the language. In 4.4.7 the gerund marker was described as part of the noun stem morphology; at the end of this subsection the syntactic category of the verb forms to which *-inhi* attaches will be revised on the basis of the syntactic properties presented below. Further distinctions among complement clauses can be established on the basis of the formal marking properties of their major components.

The first type of marked complement clauses to be described is one marked with *-inhi* in the verb and whose undergoer is marked as object of the matrix clausal verb. That is, insofar as the formal marking goes, these examples can be described as constructions where the undergoer object of the transitive verb in the complement clause is “raised” into the object of the verb in the matrix clause. The term “**raising**” (and its derived forms) is with quotation marks so as to highlight the fact that the term is being used here to refer to linguistic phenomena that only partially fit into the established typology of raising constructions (as, e.g., the one discussed in Noonan 1985:68-73).

As the example in (49) shows, complements with object-object “raising” can occur with a knowledge verb. In this example, *-inhi* occurs in the second clause to make it a subordinate clause functioning as the object of the first clause:

- | | | |
|---------------------------------|---------------|------------------------|
| s-V-o | [O | s-V-GER-o] |
| 49. <i>Ø-umarota-putu-ka-ro</i> | [<i>ããta</i> | <i>u-kam-inhi-ro</i>] |
| 3M-know-EMPH-PRED-3F.O | canoe | 3M-make-GER-3F.O |
| ‘He knows how to make canoe.’ | | |

In (49) *ããta* ‘canoe’ is the object of the verb *u-kam-inhi-ro* in the complement clause.

Although the presence of the coreference marker *-ro* in this verb would normally indicate that *ããta* is the grammatical object in the complement clause (see grammatical properties of the object under 8.3.1.2), there are two additional properties in the sentence suggesting otherwise. The first is that, as shown in 8.3.1.2, it is a post-verbal (rather than pre-verbal) object that is accompanied of the coreferential pronominal marker in the verb; and the second is that there is also a coreferential pronominal marker *-ro* in the verb of the matrix clause, thus indicating that *ããta* is in fact object in the matrix clause. One way to account for the coreference marking in both the verbs of the matrix and the subordinating clause is by postulating that the object of the complement clause has been “raised” to be the object in the matrix clause, leaving a pronominal “copy” in the complement clause.

At the present time, this object-object “raising” analysis is a hypothesis that is based on the formal marking of the objects in sentences such as the one illustrated above. Further information on the behavior of the object in question is required in order to demonstrate the viability of such a hypothesis.

The next examples in (50) illustrate complement clauses with *-inhi* attached to a desiderative verb. In (50a) *nu-serepi* ‘my arrow’ is the undergoer and *kuku* is the recipient of the verb marked with *-inhi* in the complement clause. However, the recipient of the verb in the complement clause is marked (by the coreferential pronominal marker *-ru*) as the object of the verb in the matrix clause. The undergoer *serepi* ‘arrow of’, as a feminine noun, would require the pronominal marker *-ro*, rather than the masculine *-ru*.

Moreover, as shown by the ungrammaticality of (50b), the marking of the undergoer object of the verb in the complement clause as the object of the verb in the matrix clause is an obligatory property of complex sentences with complements containing a potentially ditransitive predicate. The example in (50b) is only ungrammatical because the pronominal marker attached to the verb in the matrix clause is coreferential with the undergoer (rather than with the recipient) of the verb:

- 50a. s-V-o [UNDERGOER O s-V-GER]
nu-nereka-ka-ru [*nu-serepi* *kuku* *nu-suk-inhi*]
 1SG-want-PRED-3M.O 1SG-arrow.of(F) man 1SG-give-GER
 ‘I want to give the man my arrow.’
- b. s-V-o [O RECIPIENT s-V-GER]
 **nu-nereka-ka-ro* [*nu-serepi* *kuku* *nu-suk-inhi*]
 1SG-want-PRED-3F.O 1SG-arrow.of(F) man 1SG-give-GER
 (I want to give the man my arrow.)

One way to explain the marking of the recipient of the verb in the complement clause as the object of the verb in the matrix clause is by positing a “raising” of the “recipient” expression in the complement clause into the object in the matrix clause. Here, again, although this “raising” hypothesis would explain the formal marking properties involving the objects of these complex sentences, it would be desirable to find additional information on the behavioral properties of such objects that would confirm (or disprove) this hypothesis. Ideally, a more detailed investigation into the behavioral properties of core grammatical relations should reveal further distinctions between subject and object. However, it remains to be shown whether such additional behavioral distinctions are actually found in the language.

While the types of complements presented above are analyzable as object to object “raising” constructions, the second type to be described would seem to involve an

equi-object-control deletion, where the object of the complement-taking verb and the subject of the verb in the complement clause are identical. In this second type of complement the subject of the verb in the complement clause marked by *-inhi* is coreferential with the object of the verb in the matrix clause. In both the examples in (51) the subordinate clause is a complement of the manipulative verb *awirita* ‘allow’, is marked by *-inhi* in the verb, and its subject is coreferential with the subject pronominal marker *n-* in the complement clause and with object pronominal marker *-no* in the matrix clause:

	S		V-o	[s-V-GER]
51a.	<i>natxi</i>	<i>kona</i>	<i>awirita-no</i>	<i>[n-umak-inhi]</i>
	hunger	not	allow-1SG.O	1SG-sleep-GER
	‘The hunger didn’t let me sleep.’			

	S		V-o	[s-V-GER]
b.	<i>posonata-txi</i>	<i>kona</i>	<i>awirita-no</i>	<i>[n-umak-inhi]</i>
	be.thirsty-UNPOSS	not	allow-1SG.O	1SG-sleep-GER
	‘The thirst didn’t let me sleep.’			

The third and last type of complement clauses marked with *-inhi* consists of those that differ from full sentences in that they take the gerund marker *-inhi* and in that they take a pronominal marker attached to the verb where such a marker could be interpreted as coreferential with the complement itself, rather than with one of its arguments. In the first pair of examples given in (52) the complex sentences have, respectively, the commentative complement-taking verb *potxita* ‘like’ and the desiderative complement-taking verb *nereka* ‘want’. In these examples the verbs of the complement clauses are intransitive, they take the gerund marker as well as the bound pronominal forms for first person singular subject. Moreover, the complement clauses in these

examples function as object of the complement-taking verbs, being marked as such with the default gender marker for third person object, *-ru*, in the matrix verb:

S V-o [s-V-GER]
 52a. *nota potxita-ru* [*n-okatsã-t-inhi*]
 1SG like-3M.O 1SG-fish-VBLZ-GER
 ‘I like fishing.’

S V-o [s-V-GER]
 b. *nota nereka-ka-ru* [*nhi-nhipoko-t-inhi*]
 1SG want-PRED-3M.O 1SG-eat-VBLZ-GER
 ‘I want to eat.’

It is important to observe that this third type of marked complements is translatable into English as **equi-subject** constructions (i.e. where the subject of the complement clause is deleted under identity with the subject of the matrix clause.) Different from English, however, in Apurinã the subject of the complement clause is not deleted, but rather expressed as a bound pronominal marker in the verb of the complement clause.

In concluding this subsection, I must reiterate that the analysis just presented above for the three types of marked complements is not intended to be a definitive, since supporting evidence is still required to (dis)prove its validity. Finally, it would be conceivable to posit a very distinct analysis where the marked complement clauses would only be syntactically different from full sentence complements in that the latter lack the gerund marker *-inhi*. Nonetheless, the fact that the argument of the complement clause is marked as argument of the matrix clause needs somehow to be explained. What is presented here is one possible account of such marking patterns.

9.1.2.3 The Syntactic Category of the “Verb-*inhi*”: Verbal or Nominal

The purpose of this section is to describe the syntactic category of the verb marked by *-inhi* in the complement clause. Similar to the relativizers described above in 9.1.1.5, the gerund marker *-inhi* was morphologically described as a part of the noun stem morphology in 4.4.7. However, as became clear from the previous discussion on complementation, *-inhi* functions syntactically to mark clausal complements. The following paragraphs analyze the sort of properties that can be used in deciding whether the gerund marker indeed nominalizes the verbs it attaches to, or whether it simply attaches to verbs to form other verbal forms. Some initial discussion of this issue was briefly introduced in 4.4.7 in a morphological context, and is now reviewed in a syntactic context.

Of all the data on complement clauses marked with *-inhi* presented in 9.1.2.2 there is one first major piece of evidence that can be gathered from the examples in (49) in favor of analyzing V-*inhi* as a verbal (rather than nominal) construction. In (49) the complement clause is [*ããta u-kam-inhi-ro*] (canoe.POSSED 3M-make-GER-3F.O). In this complement clause *-inhi* precedes an object pronominal marker, *-ru* in (49). As far as the morphological structure of words in Apurinã goes, these pronominal markers could not be added to a form unless such a form were a verb (as shown by the detailed morphological analysis of the verb category in chapter 5). Notice that the pronominal markers in these complement clauses are definitely object pronominal markers, and not, for example, their homonym gender markers described under 4.4.1. As is clear in these complement clauses, the object pronominal markers can express or be coreferential with an independent NP also referring to the object of the verb (as was shown in further details

under 8.3.1.2), whereas the gender markers simply assign the masculine/feminine gender to the noun form they attach to (as shown in 4.4.1). Hence on the basis of examples such the ones in (49), *V-inhi* has a verbal (rather than nominal) morphological property.

A second piece of evidence for the verbal status of *V-inhi* is found in all grammatical examples in 9.1.2.2, except for the ones in (51) and (52) —which have an intransitive verb in the complement clause. Except for the two latter examples, all the ones described in 9.1.1.2.2 include forms corresponding to the subject and the object in the complement clause. That is, while an argument could be made that complement clauses with intransitive predicates such as the ones in (51) and (52) have been nominalized and that the notional subject is expressed as possessor whereas the verb is expressed as possessed forms, the same argument cannot be made for complement clauses with transitive predicates.⁷ Hence, notwithstanding the fact that further information on their syntactic behavior is required, the presence of syntactic forms corresponding to the subject and object in complement clauses marked with *-inhi* would suggest *V-inhi* to be a verbal construction.

However, in contrast to the verbal properties presented for *V-inhi* above, there are two other properties suggesting that *V-inhi* is also a nominal construction, where “nominal” is to be understood as “associated with typical complex noun and/or NP properties” (as described in 4.6 and in 8.1.1, respectively). The first nominal property can be motivated on the basis of the examples described in (52) for the third type of

⁷ Notice that in English clauses such as ‘my killing of the jaguar’, the two types of possession markings available in the language are used in nominalizing a transitive clause. There is no reason to believe that a corresponding strategy is available in Apurinã, even because in this language there is only one general strategy for marking possession, namely the one involving juxtaposition of nominal forms combined with the possibility of marking the possessed form with a suffix, depending on its lexical properties, as shown under 4.1.

complements marked with *-inhi* in the previous subsection. In both of the examples in (52a) and (52b) the complex sentence has a complement clause with an intransitive verb, and a matrix clause with a complement-taking verb that is marked with the object pronominal marker *-ru*. The presence of *-ru* indicates that its complement is functioning as object of the matrix verb, in which case *V-inhi* would have a nominal (not verbal) distribution. That is, in order for the *V-inhi* to function as the object argument of the matrix verb it must be nominalized. This nominal distribution as evidence for the nominal status of *V-inhi* is, however, a weak one, since (as seen under 9.1.2.1) even a full sentence can also function as the object of a matrix verb, for example, for utterance verbs.

The second type of evidence, nonetheless, is stronger. This latter evidence can be gathered from examples other than those involving a complement clause. As shown in (53), *-inhi* is not restricted to complement clauses; that is, the gerund marker can also occur with other types of subordinate clauses. In both of the examples in (53a-b) *-inhi* precedes the goal oblique marker *-mokaru*:

S/GOAL [S V-GER-GOAL]Cl_{REL}
 53a. *aiko nota s-inhi-mokaru*
 house 1SG go-GER-GOAL
 ‘My going to the house...’

S/GOAL [S V-GER-GOAL]Cl_{REL}
 b. *aiko nota sa-nanu-t-inhi-mokaru*
 house 1SG go-PROGR-VBLZ-GER-GOAL
 ‘My being going to the house...’

As far as the organization of the Apurinã grammar is concerned, the presence of an oblique marker is a clear evidence of the nominal property of the form it attaches to. Hence, here we have a strong evidence for the nominal status of *V-inhi*. The properties relevant to determining the syntactic status of *V-inhi* can then be summarized as follows:

Table 4: Properties of Complement Clauses with *V-inhi*

Verbal Properties	Nominal Properties
. take object pronominal markers	. function as NP subj/obj
. maintain forms corresponding to subj/obj	. take oblique markers

The conclusion that arises as a result of analyzing the verbal/nominal properties listed in Table 4 is that *V-inhi* shares both a subset of nominal and a subset of verbal properties, and that only a more in-depth analysis that takes into consideration other factors such as, for example, the ones described in Comrie and Thompson 1985:358-391 for action nominals can reveal whether there are more reasons to place *V-inhi* into the verbal rather than the nominal category or vice-versa. In this particular fashion, the gerund marker then bears some similarities with the relative pronominal markers described earlier in the chapter.

9.1.3 Adverbial Subordination

The subordinate clauses presented under adverbial subordination are those that do not function as subject/object of a verb (the way complement clauses or headless Cl_{REL} do), and that do not modify a $head_{REL}$ (the way non-headless Cl_{REL} do). Adverbial subordinate clauses have meanings and syntactic functions and/or distribution of the sorts generally associated with adverbs in other languages. In the following subsection, adverbial subordinate clauses are clustered according to the meaning they are associated with.

9.1.3.1 Causal/Reason Subordinate Clauses

Causal or reason subordination occurs when the adverbial subordinator particle *kotxi* ‘because’ precedes the subordinate clause to express the cause/reason for what is said in the matrix clause. The clause preceded by *kotxi* then functions as subordinate to the matrix clause. The following examples are instances of complex sentences where the subordinate clause is marked with the adverbial subordinator particle *kotxi*. As the examples in (54) show, the subordinate clause can both precede or follow the matrix clause:

54a. S V-o [SUBORD V-o S]
kona nota sa-ru kotxi ka-kama-re-wa watxa ata
 not 1SG go-3M.O SUBORD ATTR-make-POSSED-1PL.O today 1PL
 ‘I’m not going because we have a lot of work now.’

b. S V [SUBORD S V-o O]
uwa-nanu su-pe kotxi a-nurumane umarota-ru a-sãkire.
 3SG.M-RESTR go-PFTV SUBORD 1PL-relative know-3M.O 1PL-language
 ‘He goes alone because our relatives know our language.’

c. [SUBORD s-V] s-V
kotxi nu-sãpaka-pe-ka₄ nu-su-pe-ka₄.
 SUBORD 1SG-be.tired-PFTV-PRED 1SG-go-PFTV-PRED
 ‘Because I am tired, I am leaving.’

9.1.3.2 Temporal Subordinate Clauses

Temporal subordination is one where the subordinate clause locates temporally the situation described in the matrix clause. A bound temporal subordinate clause is marked with the addition of the temporal adverbial bound morpheme *-sawaku* to the subordinate clause. Temporal subordinate clauses can also precede and follow the matrix clause as the examples in (55) are illustrative of:

s-V AUX-o O [s-V-subord]
 55a. *a-makatxaka txa-ru komeru-pe u-payaka-sawaku.*
 1PL-take AUX-3M.O manioc-pulp 3M-be.soft-TEMP
 ‘When it’s soft, we take the manioc pulp’

O s-V [LOC s-V-subord]
 b. *uwa nhi-yotipira-ta uwã nu-su-ka-sawaku*
 3SG.M 1SG-company-VBLZ there 1SG-go-PRED-TEMP
 ‘I traveled with him when I went there.’

[O s-V-subord] O
 c. *hãtakoru-panhi-ka a-nha-pẽ-ka-sawaku kona kariwa pirana*
 youth-IMPTV-PRED 1PL-be-PASS-PRED-TEMP not white language

S V
ata koseka
 1PL pull
 ‘When we were younger we didn’t speak the language of the white people.’

9.1.3.3 Frustrative/Adversative Subordinate Clauses

The last type of subordinate clauses consists of those marked in the verb with the frustrative marker *-ma*. This type of subordinate clause was already illustrated in 8.8.1.2 because it also constitutes a major type of speech act. The following examples in (56) are repeated from subsection 8.8.1.2. These clauses are subordinate insofar as they cannot stand by themselves as a sentence as result of having the frustrative marker *-ma*.

[s-V] V-o O
 56a. *nhi-nhipoko-ta-ma-ko kona awa-ru nhipoko-ru*
 1SG-food-VBLZ-FRUST-FUT not there.be-3M.O food-UNPOS
 ‘I would eat but there’s no food.’

[s-V-o] s-V-o
 b. *nu-nuta-pe-ka-ma-ru kona n-apoka-ru*
 1SG-search-PFTV-PRED-FRUST-3M.O NEG 1SG.S-find-3M.O
 ‘I searched it but didn’t find it.’

9.2. Juxtaposition

The other way that clauses can be combined in Apurinã is through **juxtaposition**. The notion of juxtaposition is a rather straightforward one: It differs from subordination in that it consists of clustering two independent clauses (i.e. simplex sentences) with no formal marking. The examples in (57) illustrate various juxtaposed sentences:

- 57a. [S V_{INTR}] [S#V_{INTR}]
nota muteka no#iri-pe
 1SG run 1SG-fall-PFTV
 ‘I ran and fell.’
- b. [S V_{INTR}] [V_{TRANS} s-AUX O]
owa muteka mayaka o-txa-ru amarunu
 3SG.M run catch 3F-AUX-3M.O boy
 ‘She ran and caught the boy.’
- c. [S V_{TRANS-O} O] [V_{INTR} s-AUX]
uwa nhika-ru nhipokoru su-pe i-txa
 3SG.M eat-3M.O food go-PFTV 3M-AUX
 ‘He ate the food and left.’
- d. [S V_{TRANS-O} O] [O s-V_{TRANS}] PTC
mipa keta-ru kayatu ximaku u-kumataka munu
 Mipa shoot-3M.O paca fish 3M-arrow.shoot today
 ‘Mipa shot a paca and shot (with arrows) fish today.’

The example in (57a) is an instance of juxtaposition where both verbs are intransitive; in (57b) the first clause has an intransitive verb, and the second a transitive one; in (57c) the first clause has a transitive verb and the second an intransitive one; and in (57d) both clauses have transitive verbs. Where the semantics of the verbs in the clauses being conjoined does not make it clear, the default interpretation is that the event that occurs first is the one expressed in the first sentence.

Concluding Remarks

In this work I have presented a somewhat typologically informed grammatical description of the Apurinã language. In the first chapter the socio-cultural context where the language is spoken was summarized. The group of Apurinã speakers is nowadays mainly made of elders, and few of the children are learning the language. These characteristics, in addition to the others described in the first chapter, place Apurinã among the endangered languages of the Amazon region of Brazil.

As seen in chapter 2, the segmental phonology of the language is organized in relatively simple terms. The language has a (C)(V)V syllable template and its morphophonological alternations are restricted to the subject/possessor markers and a few other bound morphemes. Stress is mostly predictably penultimate, although sensitive to syllable weight—as determined by nasality and lengthening. Further research needs to be done in order to explain the exceptions to the general patterns described in chapter 2, especially with respect to the possibility of the same word form to vary in its primary stress position. Only a tentative analysis was presented on intonation in Apurinã; more research is necessary in the prosodic structure of the language.

Perhaps to compensate for the simplicity of the phonological system of the language, its morphology is extremely rich. Bound morphemes abound in the language, especially in the verb, with a great variety of functions. Due to this typological characteristic of this language with respect to its morphological system, five chapters (3-

7) were spent describing, respectively, a general introduction to morphology, the noun morphology, verb morphology, closed word class morphology, and special bound morphology. It is this richness in morphological forms and their specific functions that give Apurinã characteristics associated with so-called polysynthetic languages. Nouns and verbs can be independently motivated as distinct parts-of-speech on morphological as well as syntactic grounds. Adverbial and adjectival meanings, on the other hand, have their typical functions expressed by means of bound morphemes or particles, in the first case, and, in the second case, by bound morphemes, classificatory nouns and descriptive verbs. Special bound morphemes are less than typical affix forms that can be classified as floating, quasi-floating, or non-floating in terms of whether they occur with different word categories or not. Aside from the floating characteristics of bound morphemes they show the common property of occurring as the “outer”-most layers of bound morphemes in their word bases. Moreover, some of them interact in special ways with syntactic phenomena as, for example, the complementary distribution that is found between subject/object pronominal markers and coreferential pre-verbal subject/object expressions, or subject/possessor markers and free coreferential possessor expressions. These particular properties of special bound formatives are comparable to properties associated with independent words, thus making them behave as clitic-like forms. On the other hand, the fixed linear position of special bound formatives is a property they share with the more typical affixes found in the language.

Two features of the morphosyntax of the language can be considered somewhat particular. First, certain inalienable noun forms are productively used as part of compound nouns in ways reminiscent to numeral classifiers. Such nouns are used with classificatory functions to refer to (or impose) semantic features related to the shape and

consistency of the referent expressed by the compound noun. Not only that, these classificatory nouns can also occur incorporated in the verb and, in this position, be used with anaphoric-like functions. Second, the bound formatives can be seen as organized in hierarchical “layers” that are motivated by the distribution of distinct sets of these bound forms. From a cross-linguistic and theoretical perspective, while the description of classificatory nouns can contribute to a better understanding of the ontology as well as, perhaps, the ontogeny of classifying systems, the properties of special bound formatives may serve as an important source of information on the interaction of syntactic and morphological processes.

Since the present description of the Apurinã grammar is part of an on-going research project, it was not possible to be equally specific about every part of the grammar. As a consequence, chapters 8-9 describe only the major parts of the syntax of the language. I should also note that the lack of a more detailed description of the syntax of the language does not imply that there is little of specific behavior of forms that can be characterized as syntactic in this language. Although it is the case that the Apurinã syntax is not so much about inter-clausal operations, but much more about what happens intra-clausally, much of the morphology of the language cannot be accounted for without making reference to the clause or other clause-level elements.

To a great extent, the syntax of Apurinã consists of the functional or distributional behavior expressed by bound formatives. The notions of a grammatical subject and a grammatical object can be established partly on the basis of two paradigms of bound pronominal forms, one used for subject and the other for object grammatical relations, and the way these grammatical relations pattern in causative, reciprocal, reflexive and relative constructions. Oblique grammatical relations are generally marked with oblique

markers that attach to (pro)nominal forms. A VP constituent cannot be easily motivated on the basis of language internal evidence and empirical grounds. Inter-clausal relations can be marked with a few subordinator forms, but such relations are more often (in terms of token as well as type sentences) expressed by juxtaposition —as is the case of sentence conjoining.

Although Apurinã discourse-pragmatics and a detailed sociolinguistic description of the language and its socio-cultural correlates have been left out of this study, they constitute very important aspects of the language description that shall be part of future revisions of this work. A part of the language where discourse and pragmatic factors play a very important role is with respect to clausal constituent order variation, which is quite free in the language. The socio-cultural variables that may play a significant role in language variation may turn out to explain part of the “irregularities” attested in the present description of the language grammar. Finally, in this work I have not attempted to establish comparisons between Apurinã and other Arawak languages (except for the preliminary reconstruction for Proto-Apurinã-Piro-Iñapari given in appendix D); however, further investigation on diachronic developments in the grammar as well as further typological-comparative work within Arawak might also shed new lights on phenomena that seem to be arbitrary from a purely synchronic point of view.

Language Variation and the Design of the Apurinã Orthography

Language Variation and the Phonological System

If we consider the large geographic scattering of the Apurinã speech communities, it is not surprising to find that there are different speech varieties that make up the Apurinã language. Such language internal diversity is a major feature of the language that cannot be ignored in the study of the language grammatical system. In order to investigate the several speech varieties and verify in which aspects they diverge or converge, a standardized word list was used in collecting data samples from different communities. In the analysis of language variation presented here the phonological processes found in the speech variety of the Japiim community is compared to the speech of 11 other communities. Although this study served as the basis for the design of an orthographic system for the language, it still cannot be taken as a complete survey of the Apurinã speech varieties. In order to do a more complete survey of these Apurinã speech varieties, the speech of other communities will also need to be described in detail, as was done for the Japiim speech community.

It is important to mention that there also are types of speech distinctions motivated by the different degrees of mono/bilingualism and their interplay with degrees of fluency attested in different speech communities. This part of the process of language change falls within the domain of language obsolescence/death/coalescence and deserves more specific and systematic investigation. The data used in the comparative analysis of the speech of 11 Apurinã communities, through which the information given in the rest of this appendix was arrived at, are described in detail in Facundes 1997a.

All oral vowels which represent the phonemes of the Japiim speech variety are attested in the data sample representing the speech of the other 11 communities. In two cases of allophony also considered

here, [i] is more frequent than [ɪ], and [u] is more frequent than [o]. All inherently nasal vowels are also attested.

As to the consonants (including their allophones), some general observations are as follows:

1. The consonant /p/ is attested across speech communities in the data sample, occurring less frequently with /u/ than with the other vowels;

2. /t/ is less frequent only with /ɛ/, otherwise it occurs with all the other vowels;

3. /tʃ/ is very frequent preceding /i/ and, to a lesser extent, /u/, which suggests a possible recent development for its current contrastive status. The fact that /tʃ/ does not occur with /a/, /e/, and /i/ is not a coincidence. I have been able to confirm in additional data that /tʃ/ occurs with /a/ or /e/ only in very few examples (e.g. tʃa ‘AUX’, pitʃeka ‘to grow’) and it never occurs preceding /i/. All of this reinforces the idea that /tʃ/ has become contrastive only recently;

4. /ts/ occurs less frequently preceding /e/ and /i/, but common otherwise;

5. /k/ is absolutely common across all speech communities;

6. /m/ is less common before /u/, but otherwise very common with the other vowels;

7. /n/ is less common only when preceding /i/ and /u/;

8. /ɲ/ is the clearest case of a recent development of phonological contrastiveness; it is widely more frequent preceding or following /i/. /ɲ/ can be contrastive only in some speech varieties, while in others it only occurs adjacent to /i/. In older varieties of Apurinã (see Polak 1894 and Pickering 1964) /ɲ/ does not distinguish words and is in complementary distribution with /n/, supporting an analysis suggesting the recent development of its phonological status in some speech varieties;

9. /s/ is not attested in the data sample when preceding /i/. At this point, it is not clear whether this simply constitutes a phonotactic constraint or a sound alternation that has been missing in my analysis. Some additional data available confirm the rare occurrence of /s/ preceding /i/. In some of Pickering’s (1964) data, /i/ corresponds to [ɪ] while preceding /s/;

10. /ʃ/ has a narrow distribution across speech communities following the same pattern as /tʃ/ and /ɲ/, suggesting that palatal or palato-alveolar consonants occur more frequently preceding the vowel /i/;

11. /h/ is a clear case of a difference between speech varieties. /h/ does not exist in some speech communities, and in those in which /h/ is attested, this consonant only occurs word initially or preceded by the reduced form of the first person pronoun {no-};

12. /r/ is well attested across speech varieties without restriction on its distribution, except that it never occurs word initially;

13. /j/ is more frequently found preceding /a/ and /u/, although, in very few cases, it also occurs preceding /e/ (e.g. *jejemina* “‘yeye’ tree”). What is even rarer is the occurrence of /j/ before /i/, confirming the phonological constraint described in (119) of chapter 2, section 2.5. There are rare occasions in which /j/ occurs before /i/; however, speakers never actually distinguish /ji/ from the long vowel /i:/;

14. /w/ is normally attested across speech communities in all environments, except preceding /o/;

As to the long vowels, nasal long vowels are more frequent than oral long nasals. The fact that long nasal vowels are more frequent than long oral vowels follows naturally from the existence of derived long vowels, as described under 2.1.1.4 in chapter 2.

Once we have established that the same phonological chart identified for one of the villages can be distributionally attested in other speech communities, with very few exceptions, we would expect language variation in Apurinã to consist of the alternation of phonetic values of certain phonologically less pertinent elements within the language overall sound system. That is, basically the language varies its allomorphs across speech communities without, however, varying much on its phonemes. The only clear exceptions are /ɲ/, which does not contrast with /n/ or /j/ in some speech varieties, and /h/, which is indubitably absent in some speech communities.

Although a description of every speech community is not yet available, the data obtained from the 11 speech communities confirm overall the results described in chapter 2 for the Japiim speech community. Nonetheless, it is important to mention again that this seems to be less true when we consider the speech of the Apurinã people who, in different ways, have acquired Portuguese as their first language. In the Japiim speech community there is one clear case of an Apurinã speaker who learned Apurinã only when he was

already 10 years old. His phonology is slightly distinct from that of another Apurinã from the same community who learned Apurinã as his first language. At this stage, however, such observations are still impressionistic, since a detailed and systematic study of the Portuguese influence on the Apurinã phonology of young speakers still is required.

Standardization of the Apurinã Writing System

Now that we have seen a detailed description of one speech variety (described in chapter 2) and have noticed how this speech variety's phonological features are distributed in the speech (sample) of other speech communities that would potentially constitute different dialects, we can propose a writing system for the language.

The choice of the letters used to represent the phonemes of Apurinã is influenced not only by the IPA but also by the Portuguese alphabet. As there is the tendency in the Americas, and in other regions of the world, to use an alphabet that bears similarities to that of the dominant language of the region, in Brazil there is the tendency to approximate the writing of the indigenous languages to that of the Portuguese alphabet. However, my tendency to do the same here is only as strong as these choices do not make the learning or teaching of Apurinã much more difficult. Moreover, the fact that very few Apurinã speakers read or write Portuguese makes it possible to choose for Apurinã only the letters that are more consistently used in Portuguese. For example, rather than using “s” and “ç” to write the phoneme /s/, I simply use one of them, “s”. The following subsections summarize the properties of the Apurinã orthography.

Vowels

The letters used to write the vowels will differ insofar as short vowels will have one script while the corresponding long vowels will be written with two scripts —thus avoiding the use of diacritics. However, the distinction between oral and nasal vowels will be marked by the tilde diacritic, following the Portuguese orthography. The difference is that Portuguese also makes use of postvocalic “n” and “m” to write nasal vowels (e.g. *canto* /ˈkātu/ ‘corner; singing’ *campo* /ˈkâpu/ ‘field’). In Apurinã I do not make use of nasal consonants to mark nasal vowels because they would produce ambiguities in the writing of

diphthongs. By doing this, the only thing the Apurinã speakers will need to be taught is that the nasal vowels will be written with a tilde on top of them.

The high central vowel /i/ will be written as “u” while the phoneme /o/ will be written as “o”.

This is a major distinction in the writing of the vowel system which will need to be taught in Apurinã, but that only will be problematic for the speakers that already are familiar with the Portuguese writing system.

Tables 1-2 list, respectively, the orthography for short and long vowels:

Table 1: Short vowels

ORTHOGRAPHY	IPA	EXAMPLES	GLOSS
a	a	ata	‘we, us, our’
e	e	epi	‘two’
		keropa	‘Who’s she?’
i	i	ijirata	‘down hill’
o	o	okomuna	‘“oko” tree’
		Tsora	‘“Tsorá”’
		kokoi	‘hawk’
u	i	uku	‘seed, kernel’
		kuku	‘man’
		oku	‘eye of’
ã	ã	tãta	‘bark of’
ẽ	ẽ	tatapẽ	‘“umari” juice’
ĩ	ĩ	ĩtopa	‘jungle’
ũ	ũ	ũtanoro	‘his wife’
õ	õ	õtanoru	‘her husband’

Table 2: Long vowels

ORTHOGRAPHY	IPA	EXAMPLES	GLOSS
aa	a:	aapokotxi	‘village’
ee	e:	ateeneka	‘so, then’
ii	i:	anhiiro	‘tumor’
oo	o:	pooma	‘to be hot’
uu	ɨ:	kuunuru	‘seed, kernel’
ãã	ã:	ããta	‘“jatobá” canoe/bark’
ẽẽ	ẽ:	tẽẽ	‘seagull’
ĩĩ	ĩ:	ĩĩtxi	‘fat’
ũũ	ũ:	kũũru	‘“coró” rat’
õõ	õ:	otõõ	‘her face’

Diphthongs

The writing of the Apurinã diphthongs will follow the Portuguese pattern. As shown below, diphthongs will consist of the vowels /a/, /e/, /i/, /ɨ/ or /o/ preceding a short /i/ or /o/ in the same syllable.

- | | |
|---------------------|------------------|
| 15a. op <u>ai</u> | duck |
| b. nh <u>aonhao</u> | type of sea-gull |
| c. kik <u>io</u> | field plantation |
| d. kok <u>oi</u> | hawk |
| e. mos <u>ɨi</u> | big cooking pan |

Consonants

The orthographic consonants correspond to the phonemic consonants. The letters which are different from Portuguese are “k” (/k/), “ts” (/ts/), “tx” (/tʃ/), “y” (/j/) and “w” (/w/). Another difference is that the letter “s” in Apurinã represents the phoneme /s/ only, while in Portuguese it represents /s/, /ʃ/ or /z/, depending on the neighboring letters and its (initial/medial/final) position within a word. /x/ represents only /ʃ/ in Apurinã, whereas in Portuguese it represents /ʃ/, /z/ and /ks/. “r” represents only /r/ in Apurinã, whereas in Portuguese it represents /r/ and /h/. /h/ is represented in Apurinã by “h”, which is silent in the Portuguese alphabet. Finally, “nh” represents /ɲ/ in Apurinã in the same manner as it does in Portuguese.

I have chosen to write /h/, even though it is not present in every speech variety, because, conceivably, it will be easier for the Apurinã speaker to read “h” as “silent” (as it is done in Portuguese) if /h/ is absent in the relevant speech variety, than for the speaker to read “silent” as /h/ if this sound is present in the relevant speech variety. This is especially true for Apurinã individuals trying to (re-)learn the Apurinã language. The consonant letters are then as in Table 3:

Table 3: Consonants

ORTHOGRAPHY	IPA	EXAMPLES	GLOSS
p	p	p ite anã p a	‘you/your’ ‘dog’
t	t	t ata a t a õ t anuru	‘“umari” fruit’ ‘we/us/our’ ‘her husband’
k	k	k eta k uro k okoi ser ēk atxi	‘shoot’ ‘grandma’ ‘hawk’ ‘dance’
m	m	p m a	‘pama fruit’
n	n	n ota	‘I/me/my’
nh	ɲ	kin ha nh aon h ao	‘“guariba” monkey’ ‘type of heron’
ts	ts	u ts a	‘liana, string’
tx	tʃ	tx iparu	‘banana’
s	s	s otu	‘brown deer’
x	ʃ	x amuna	‘fire’
h	h	h ātu	‘one’
r	r	r aru	‘wild (big) pig’
w	w	w atxa a w iri	‘today, now’ ‘“rapé” tobacco’
y	j	y apa ma y oru	‘capybara’ ‘black vulture’

Stress

Stress is not being written in the Apurinã orthography because, despite the fact that there may be some cases in which it is not entirely predictable, it is never used to distinguish words, and, in some speech communities (e.g. Japiim), stress may vary its position in the same word when uttered in different times with no change of the segmental elements.

Morphologically Conditioned Phonological Alternations

Phonological alternations involving sound changes conditioned by morphological (in addition to phonological) factors are also represented in the orthography. In other words, allomorphs of a single morpheme that do not result from purely phonological rules (but rather from phonological rules that are restricted to specific morphological environments) are all represented orthographically. For example, the

underlying form of morpheme for third person feminine singular, /o-/, is nasalized when attached to any word base starting with a nasal vowel; so that /o-/ + /maka/ (where /maka/ ‘to sleep’) is pronounced as [ʼmaka] ‘she sleeps’, but orthographically represented as “omaka” because vowel nasalization preceding nasal consonants is a purely phonological sound alternation without any morphological conditioning. On the other hand, the nasalization of the final vowel of certain noun stems taking the unpossessive marker /-tʃi/ is represented orthographically because the nasalization in such contexts is morphologically conditioned insofar as it requires the presence of the unpossessive marker /-tʃi/ (in addition to also being lexically conditioned to a few specific noun stems). An example of this latter kind is /pitʃi/ ‘male’s genitals of’ + /-tʃi/, which result in [piʼtʃiʃi] ‘male’s genitals’ phonetically, and in “pitxĩtxi” orthographically.

Testing and Applying the Orthographic System

The writing system above was tested, and improved, in five communities in the Fall of 1995. In doing so I used selected words to verify the speech differences in those communities. It became clear that close attention must be paid while teaching them the letter “u” (/i/) in order to avoid confusion with the same letter “u” used in Portuguese to represent /u/. Moreover, special sessions must be designed for the teaching of “y” (/j/), “w” (/w/), and the long vowels. These letters require more drills than the others do, but not so many that would justify finding an alternative representation for the corresponding phonemes.

Appendix B

Apurinã Text Sample

\ref kemasuto 001
\tx *uwaĩka iye hãtakoro õunurokata*
\mb *uwaĩka iye hãtakoro o-unuro-kata*
\gl so then young.person-F 3F-mother.of-with
\ps DISC.PTC DISC.PTC N-F 3F-N-ASSOC

\tx *apananutaru aõtu.*
\mb *apa-nanu-ta-ru aõtu*
\gl gather-PROG-VBLZ-3M.O uxi.fruit
\ps V-PROG-VBLZ-3M.O N

\ft So, this girl and her mother were picking “uxi” fruit.

\ref kemasuto 002
\tx *apananutaru aõtu uwaĩka*
\mb *apa-nanu-ta-ru aõtu uwaĩka*
\gl gather-PROG-VBLZ-3M.O uxi.fruit so
\ps V-PROG-VBLZ-3M.O N DISC.PTC

\tx *etiyãkuntaruna kema.*
\mb *Ø-eti-yãkunu-ta-ru-na kema*
\gl 3M-see-footprint.of-VBLZ-3M.O-PL tapir
\ps 3M-V-N-VBLZ-3M.O-PL N

\ft Then while they were picking “uxi” they saw tapir footprints.

\ref kemasuto 003
\tx *aru iye kema iye nhikananutaru aõtu.*
\mb *aru iye kema iye nhika-nanu-ta-ru aõtu*
\gl yes then tapir then eat-PROG-VBLZ-3M.O uxi.fruit
\ps PTC PTC N PTC V-PROG-VBLZ-3M.O N

\ft Yeah, the tapir was eating “uxi”.

\ref kemasuto 004
\tx *õnurokata osukasawaku kona*
\mb *o-unuro-kata o-su-ka-sawaku kona*
\gl 3F-mother.of-with 3F-go-PRED-when not
\ps 3F-N-ASSOC 3F-V-PRED-TEMP NEG.PTC

\tx *õãõkutaru.*
\mb *o-aõkuta-ru*
\gl 3F-see-3M.O
\ps 3F-V-3M.O

\ft When she went with her mother, she didn't see it.

\ref kemasuto 005

\tx *iyē owa osukasawaku aōkuta*
\mb *iyē owa o-su-ka-sawaku aōkuta*
\gl then she/her/it/its 3F-go-PRED-TEMP see
\ps DISC.PTC PRON.3SG.F 3F-V-VBLZ-TEMP V

\tx *txaru iye kema.*
\mb *txa-ru iye kema*
\gl AUX-3M.O then tapir
\ps AUX-3M.O DISC.PTC N

\ft Then, when she went see the tapir

\ref kemasuto 006

\tx *oposo uwa kema anhika txapero*
\mb *oposo uwa kema anhika txa-pe-ro*
\gl later he/him/his/it/its tapir take.away AUX-PFTV-3F.O
\ps ADV.PTC PRON.3SG.M N V AUX-PFTV-3F.O

\tx *hātakoro,*
\mb *hātako-ro*
\gl young.person-F
\ps NRt-F

\ft he, the tapir, took the young woman away

\ref kemasuto 007

\tx *ūtanurotinhiro nere.*
\mb *u~tanu-ro-ta-inhi-ro nere*
\gl 3M-spouse.of-F-VBLZ-GER-F will
\ps 3M-NRt-F-VBLZ-GER-F Rt

\ft for her to be his wife.

\ref kemasuto 008

\tx *oposo uwakata supe otxa,*
\mb *oposo uwa-kata su-pe o-txa*
\gl later he/him/his/it/its-with go-PFTV 3F-AUX
\ps PTC PRON.3SG.M-ASSOC V-PFTV 3F-AUX

\ft She went with him,

\ref kemasuto 009

\tx *otxa hātakoro.*
\mb *o-txa hātako-ro*
\gl 3F-AUX young.person-F
\ps 3F-AUX N-F

\ft the young woman did.

\ref kemasuto 010
\tx *oposo ðunuro, ðuru nuta*
\mb *oposo o-unuro o-uru nuta*
\gl later 3F-mother.of 3F-father.of search
\ps PTC 3F-N 3F-N V

\tx *txapero.*
\mb *txa-pe -ro*
\gl AUX-PFTV-3F
\ps AUX-PFTV-3F.O

\ft Later, her mother and her father searched for her.

\ref kemasuto 011
\tx *nhā-pa osuperu?*
\mb *nhā-pa o-su-pe-ru*
\gl PLACE-INT 3F-go-PFTV-3M.O
\ps WH.PLACE 3F-V-PFTV-3M.O

\ft Where did she go?

\ref kemasuto 012
\tx *unutarona,*
\mb *u-nuta-ro-na*
\gl 3M-search-3F.O-3PL
\ps 3M-V-3F.O-PL

\ft They searched,

\ref kemasuto 013
\tx *unutarona,*
\mb *u-nuta-ro-na*
\gl 3M-search-3F.O-3PL
\ps 3M-V-3F.O-3PL

\ft searched,

\ref kemasuto 014
\tx *unutarona:*
\mb *u-nuta-ro-na*
\gl 3M-search-3F.O-3PL
\ps 3M-V-3F.O-3PL

\ft and searched:

\ref kemasuto 015
\tx *kona apokayokarona.*
\mb *kona Ø-apoka-yoka-ro-na*
\gl not 3M-find-anymore-3F.O-3PL
\ps NEG.PTC V-NEG-3F.O-PL

\ft They no longer found her.

\ref kemasuto 016
 \tx *ōireka ayatakaru*
 \mb *ōireka ayata-karu*
 \gl so hunt-REL.S
 \ps PTC V-REL.M.POS.S
 \ft Then they went hunting him.

\ref kemasuto 017
 \tx *etiyākunutararu* *kema,*
 \mb *Ø-eti-yākunu -ta-ru-na* *kema*
 \gl 3M-see-footprint.of-VBLZ-3M.O-PL tapir
 \ps 3M-V-N-VBLZ-3M.O-PL N

\ft They spotted the tapir's footprints.

\ref kemasuto 018
 \tx *etiyākunutaro* *owa,*
 \mb *u-eti-yākunu-ta-ro-na* *owa*
 \gl 3M-see-footprint.of-VBLZ-3F.O-3PL she/her/it/its
 \ps 3M-V-N-VBLZ-3F.O-PL PRON.3SG.F

\ft They saw her,

\ref kemasuto 019
 \tx *kema-tikinhi osupenhinhi...*
 \mb *kema-tikinhi o-su-pe-nhi-inhi*
 \gl tapir-OBL 3F-go-PFTV-AFFECT-GER
 \ps N-OBL 3F-V-PFTV-AFFECT-GER

\tx *kemakatape.*
 \mb *kema-kata-pe*
 \gl tapir-with-PFTV
 \ps N-ASSOC-PFTV

\ft behind the tapir, she was going...

\ref kemasuto 020
 \tx *eye aōtu kinharu usukapero.*
 \mb *eye aōtu kinharu u-suka-pe-ro*
 \gl then uxi.fruit buriti 3M-give-PFTV-3F.O
 \ps DISC.PTC N N 3M-V-PFTV-3F.O

\ft He would give “uxi” (fruit) and “buriti” (fruit) to her.

\ref kemasuto 021
 \tx *eye owa otximāāpotape.*
 \mb *eye owa o-txima-āpo-ta-pe*
 \gl then she/her/it/its 3F-eat.fruit-RANDOM-VBLZ-PFTV
 \ps DISC.PTC PRON.3SG.F 3F-V-RANDOM-VBLZ-PFTV

\ft Then she would go around eating “uxi”.

\ref kemasuto 022
 \tx *iko* *txipokoru oye*
 \mb *iko* *txipoko-ru o-ye*
 \gl then food-3M 3F-PROX
 \ps DISC.PTC N-3M 3F-DEM

\tx *tximããpotape,*
 \mb *txima-ãpo-ta-pe*
 \gl eat.fruit-RANDOM-VBLZ-PFTV
 \ps V-RANDOM-VBLZ-PFTV

\ft (She) had been going around eating uxi;

\ref kemasuto 023
 \tx *onhikããpotape,*
 \mb *o-nhika-ãpo-ta-pe*
 \gl 3F-eat-RANDOM-VBLZ-PFTV
 \ps 3F-V-RANDOM-VBLZ-PFTV

\ft she'd go already eating (it).

\ref kemasuto 024
 \tx *anhika itxapero.*
 \mb *anhika u -txa-pe -ro*
 \gl take.away 3M-AUX-PFTV-3F.O
 \ps V 3M-AUX-PFTV-3F.O

\ft He had taken her.

\ref kemasuto 025
 \tx *oposo onurimane*
 \mb *oposo o-nurumane*
 \gl later 3F-relatives
 \ps ADV.PTC 3F-N

\tx *etiyãkunuta txaru*
 \mb *eti-yãkunu-ta txa-ru*
 \gl see-footprint.of-VBLZ AUX-3M.O
 \ps V-N-VBLZ AUX-3M.O

\tx *uwa kema:*
 \mb *uwa kema*
 \gl he/him/his/it/its tapir
 \ps PRON.3SG.M N

\ft Later, her relatives spotted his footprints, him the tapir.

\ref kemasuto 026
 \tx *"hã owara okora hãtakoro.*
 \mb *hã owa-ra okora hãtako-ro*
 \gl hã she-FOC F-that young.person-F
 \ps INTERJ PRON.3SG.F-FOC F-DISTAL N-F

\ft "Hã! It's her, the young woman!

\ref kemasuto 027
\tx *hamo ayotitaru kema*".
\mb *hamo a-yoti-ta-ru kema*
\gl let's 1PL-footprint.of-VBLZ-3M.O tapir
\ps HORT 1PL-N-VBLZ-3M.O N

\ft Let's track him, the tapir."

\ref kemasuto 028
\tx *oposo yotuta itxaruna kema...*
\mb *oposo yotu-ta u-txa-ru-na kema*
\gl later footprint.of-VBLZ 3M-AUX-3M.O-3PL tapir
\ps PTC N-VBLZ 3M-AUX-3M.O-PL N

\ft Then they tracked him, the tapir.

\ref kemasuto 029
\tx *iyē yotuta itxaruna kema...*
\mb *iyē yotu-ta u-txa-ru-na kema*
\gl then footprint.of-VBLZ 3M-AUX-3M.O-3PL tapir
\ps DISC.PTC Rt-VBLZ 3M-AUX-3M.O-3PL N

\ft They tracked him, the tapir...

\ref kemasuto 030
\tx *iyē yotutaruna.*
\mb *iyē yotu-ta-ru-na*
\gl then footprint.of-VBLZ-3M.O-3PL
\ps DISC.PTC N-VBLZ-3M.O-PL

\ft They tracked him.

\ref kemasuto 031
\tx *yotuta epixinhi uwã*
\mb *yotu-ta epi-xinhi uwã*
\gl footprint.of-VBLZ two-half then
\ps Rt-VBLZ NUM-N DISC.PTC

\tx *iyotutaruna,*
\mb *u-yotu-ta-ru-na*
\gl 3M-footprint.of-VBLZ-3M.O-3PL
\ps 3M-N-VBLZ-3M.O-3PL

\ft ...tracked... They tracked him half the way

\ref kemasuto 032
\tx *epixinhi yotutaru.*
\mb *epi-xinhi yotu-ta-ru*
\gl two-half footprint.of-VBLZ-3M.O
\ps NUM-N N-VBLZ-3M.O

\ft ... half the way (they) tracked.

\ref kemasuto 033

\tx *oposo uwa kema umarota txa...*
\mb *oposo uwa kema umaro-ta txa*
\gl later he/him/his/it/its tapir know-VBLZ AUX-PL
\ps DISC.PTC PRON.3SG.M N Rt-VBLZ AUX-PL

\ft Then the tapir realized. ...,

\ref kemasuto 034

\tx *umarota txaru inawa, popūkarunuru,*
\mb *Ø-umaro-ta txa-ru inawa popūka-ru-nu-ru*
\gl 3M-know-VBLZ AUX-3M.O they Apurinã-3M-PL-M
\ps 3M-Rt-VBLZ AUX-3M.O PRON.3PL Rt-M-PL-3M

\ft He realized that they, the Apurinã people,

\ref kemasuto 035

\tx *asiketikinhitinhiru*
\mb *asike-tikinhi-ta-inhi-ru*
\gl follow-after-VBLZ-GER-3M.O
\ps Rt-N-VBLZ-GER-3M.O

\tx *iyākunuã.*
\mb *u-yākunu-ã*
\gl 3M-footprint.of-in/on/at
\ps 3M-N-LOC

\ft they followed his footprints.

\ref kemasuto 036

\tx *uwaïka iye akirita itxaro owa*
\mb *uwaïka iye akiri-ta u-txa-ro owa*
\gl so then call-VBLZ 3M-AUX-3F.O she/her/it/its
\ps DISC.PTC DISC.PTC Rt-VBLZ 3M-AUX-3F.O PRON.3SG.F

\tx *hātakoro:*
\mb *hātakoro*
\gl young.person-F
\ps Rt-F

\ft Then, he called the woman:

\ref kemasuto 037

\tx *"ate! punurumane iye*
\mb *ate pu-nurumane iye*
\gl DISC.PTC 2SG-relatives.of then
\ps DISC.PTC 2SG-N DISC.PTC

\tx *asiketikinhitawa,*
\mb *asike-tikinhi-ta-wa*
\gl follow-after-VBLZ-1PL.O
\ps Rt-N-VBLZ-1PL.O

\ft "Hey, your folks are following us;

\ref kemasuto 038
 \tx *ie* *okapenonako*.
 \mb *ie* *Ø-oka-pe-no-na-ko*
 \gl then 3M-kill-PFTV-1SG.O-PL-FUT
 \ps DISC.PTC 3M-V-PFTV-1SG.O-PL-FUT

\ft They will kill me."

\ref kemasuto 039
 \tx *itxa* *kema owa* *hātakoro*
 \mb *u-txa* *kema owa* *hātakoro-ro*
 \gl 3M-say/do tapir she/her/it/its young.person-F
 \ps 3M-V N PRON.3SG.F Rt-F

\tx *anhikitomokaru*.
 \mb *anhika-kito-mokaru*
 \gl take.away-REL.M.O-GOAL
 \ps V-REL-GOAL

\ft The tapir said to the woman whom he kidnapped.

\ref kemasuto 040
 \tx *oposo* *ie unawa* *asiketikhita*
 \mb *oposo* *ie unawa* *asike-tikhita*
 \gl later then they follow-after-VBLZ
 \ps DISC.PTC PTC PRON.3PL Rt-N-VBLZ

\tx *iyākunuã*.
 \mb *u-yākunu-ã*
 \gl 3M-footprint.of-in/on/at
 \ps 3M-N-INSTR

\ft Then they followed his footprints

\ref kemasuto 041
 \tx *apoka* *txaro* *ie* *keruwako owa* *hātakoro*.
 \mb *Ø-apoka* *txa-ro* *ie* *keruwako owa* *hātakoro-ro*
 \gl 3M-find AUX-3F.O then then she/her/it/its young.person-F
 \ps 3M-V AUX-3F.O DISC.PTC DISC.PTC PRON.3SG.F Rt-F

\ft They then found her, the woman.

\ref kemasuto 042
 \tx *oyotipakananuta* *ããmuna* *nopenhi*
 \mb *o-yotipaka-nanu-ta* *ãã-muna* *nopenhi*
 \gl 3F-sit.down-PROG-VBLZ plant-log.of on.top.of
 \ps 3F-V-PROG-VBLZ Rt-CN N

\ft She was sitting on a log,

\ref kemasuto 043
 \tx *inhakasawaku* *uwa*
 \mb *u-nhaka-sawaku* *uwa*
 \gl 3M-be-when he/him/his/it/its
 \ps 3M-V-TEMP PRON.3SG.M

\tx *surīkapowata* *o#takote.*
 \mb *surīka-powa-ta* *owa#takote*
 \gl lie.down-AUGM-VBLZ her#NEXT
 \ps V-AUGM-VBLZ PRO.3SG.F-NEXT

\ft while he was lying next to her.

\ref kemasuto 044
 \tx *uwāpeka* *uwa*
 \mb *uwā-pe-ka* *uwa*
 \gl then-PFTV-PRED he/him/his/it/its
 \ps PTC-PFTV-PRED PRON.3SG.M

\ft He, by then,

\ref kemasuto 045
 \tx *umoyanatakasawakuro,*
 \mb *u-moyana-ta-ka-sawaku-ro*
 \gl 3M-partner-VBLZ-CAUS-when-F
 \ps 3M-N-VBLZ-CAUS-TEMP-F

\ft while he made her his partner,

\ref kemasuto 046
 \tx *iimatapero* *owa*
 \mb *u-himata-pe-ro* *owa*
 \gl 3M-mate-PFTV-3F.O she/her/it/its
 \ps 3M-V-PFTV-3F.O PRON.3SG.F

\tx *hātakoronhi.*
 \mb *hātako-ro-nhi*
 \gl young.person-F-AFFECT
 \ps Rt-F-AFFECT

\ft he had mated with the poor woman.

\ref kemasuto 047
 \tx *aruwatxa* *kamixipeka*
 \mb *aru-watxa* *ka-mixi-pe-ka*
 \gl yes-today ATTRIB-pregnancy-PFTV-PRED
 \ps PTC-ADV.PTC ATTRIB-Rt-PFTV-ATTRIB-PRED

\tx *otxape.*
 \mb *o-txa-pe*
 \gl 3F-AUX-PFTV
 \ps 3F-AUX-PFTV

\ft Yes, she was already pregnant.

\ref kemasuto 048
 \tx *kamixipe* *otxapeka*
 \mb *ka-mixi-pe* *o-txa-pe*
 \gl ATTRIB-pregnancy-PFTV she-AUX-PFTV
 \ps ATTRIB-Rt-PFTV PRO.3SG.F -AUX-PFTV

\tx *uwasawaku.*
\mb *uwa-sawaku*
\gl he/him/his/it/its-when
\ps PRON.3SG.M-TEMP

\ft By then, she was already pregnant.

\ref kemasuto 049
\tx *oposo unawa iye kimatããpita*
\mb *oposo unawa iye kimatãã-pi-ta*
\gl later they then shoot.arrow-LONG-VBLZ
\ps ADV.PTC PRON.3PL PTC V-CN-VBLZ

\ft So, they shot him (with arrows).

\ref kemasuto 050
\tx *iyē upururuta txaperu uwa*
\mb *iyē Ø-upururu-ta txa-pe-ru uwa*
\gl then 3M-club-VBLZ AUX-PFTV-3M.O he/him/his/it/its
\ps DISC.PTC 3M-N-VBLZ AUX-PFTV-3M.O PRON.3SG.M

\tx *kemanhi ðtanurinhī.*
\mb *kema-nhi o~tanu-ru-nhi*
\gl tapir-AFFECT 3F-spouse.of-3M-AFFECT
\ps N-AFFECT 3F-Rt-3M-AFFECT

\ft They beat him up, the tapir, her husband.

\ref kemasuto 051
\tx *unawa oka txaperu.*
\mb *unawa oka txa-pe-ru*
\gl they kill AUX-PFTV-3M.O
\ps PRON.3PL V AUX-PFTV-3M.O

\ft They killed him.

\ref kemasuto 052
\tx *unawa omimata txaro,*
\mb *unawa omima-ta txa-ro*
\gl they run-VBLZ AUX-3F.O
\ps PRON.3PL Rt-VBLZ AUX-3F.O

\ft They ran after her,

\ref kemasuto 053
\tx *kapikarepe otxape hãtakoro.*
\mb *ka-pikare-pe o-txa-pe hãtako-ro*
\gl ATTRIB-fear-PFTV 3F-AUX-PFTV young.person-F
\ps ATTRIB-Rt-PFTV 3F-AUX-PFTV N-F.SUF

\ft The young woman was afraid.

\ref kemasuto 054
 \tx *oposo unawa määyaka txapero.*
 \mb *oposo unawa määyaka txa-pe-ro*
 \gl later they catch AUX-PFTV-3F.O
 \ps ADV.PTC PRON.3PL V AUX-PFTV-3F.O

\ft They caught her;

\ref kemasuto 055
 \tx *oposo unawa mûpe txaro.*
 \mb *oposo unawa muna-pe txa-ro*
 \gl later they bring-PFTV AUX-3F.O
 \ps PTC PRON.3PL V-PFTV AUX-3F.O

\ft they brought her (back to the village).

\ref kemasuto 056
 \tx *oposo unawa...*
 \mb *oposo unawa*
 \gl later they
 \ps DISC.PTC PRON.3PL

\ft Then they (said)...

\ref kemasuto 057
 \tx *"hamo asupeka."*
 \mb *hamo a-su-pe-ka*
 \gl let's 1PL-go-PFTV-VBLZ
 \ps HORT 1PL-V-PFTV-VBLZ

\ft "Let's go!"

\ref kemasuto 058
 \tx *...oposo unawa txaru.*
 \mb *oposo unawa txa-ru*
 \gl later they say/do-3M.O
 \ps ADV.PTC PRON.3PL V-3M.O

\ft ... and they did so.

\ref kemasuto 059
 \tx *apope itxape iye õuru,*
 \mb *apo-pe u-txa-pe iye o-uru*
 \gl arrive-PFTV 3M-AUX-PFTV then 3F-father.of
 \ps V-PFTV 3M-AUX-PFTV DISC.PTC 3F-N

\tx *õunuro, oye õurutaru,*
 \mb *o-unuro o-ye o-uruta-ru*
 \gl 3F-mother.of 3F-PROX 3F-paternal.uncle.of-3M.O
 \ps 3F-N 3F-PROX 3F-N-3M.O

\tx *õunurotanuro, oye*
 \mb *o-unurota-nu-ro o-ye*
 \gl 3F-maternal.aunt.of-PL-F 3F-PROX
 \ps 3F-N-PL-F 3F-PROX

\tx *ōutaruwakoru,*
\mb *o-utaru-wako-ru*
\gl 3F-cousin.of-PL-3M.O
\ps 3F-N-PL-3M.O

\tx *ōumatukuruwakoru,*
\mb *o-umatuku-ru-wako-ru*
\gl 3F-maternal.uncle.of-3M.O-PL-3M.O
\ps 3F-N-3M-PL-3M.O

\ft As they arrived... her father, her mother, her paternal uncle, her maternal aunt, her cousins, her maternal uncle...

\ref kemasuto 060
\tx *iyē awinhiā owapekara*
\mb *iyē awinhi-ā owa-pe-ka-ra*
\gl then house-in/on/at she/her/it/its-PFTV-VBLZ-FOC
\ps PTC N-INSTR PRON.3SG.F-PFTV-VBLZ-FOC

\tx *oye watxa hātakoro.*
\mb *o-ye watxa hātako-ro*
\gl 3F-PROX today young.person-F
\ps 3F-DEM ADV.PTC Rt-F

\ft ... it was her now, the young woman (was back)... in the house.

\ref kemasuto 061
\tx *ateeneka.*
\mb *ateeneka*
\gl DISC.PTC
\ps PTC

\ft And so it is.

\ref kemasuto 062
\tx *aru, kamixipekara otxa.*
\mb *aru ka-mixi-pe-ka o-txa*
\gl yes ATTRIB-pregnancy-PFTV-PRED-FOC 3F-AUX
\ps PTC ATTRIB-Rt-PFTV-PRED-FOC 3F-AUX

\ft Yes, she was already pregnant.

\ref kemasuto 063
\tx *kamixipetararu ateeneka.*
\mb *ka-mixi-pe-ta-ra-ro ateeneka*
\gl ATTRIB-pregnancy-polp-VBLZ-FOC-F DISC.PTC
\ps ATTRIB-Rt-PFTV-VBLZ-FOC-F DISC.PTC

\ft That's right, she was pregnant.

\ref kemasuto 064
\tx *kema mixitaro.*
\mb *kema mixi-ta-ro*
\gl tapir pregnancy-VBLZ-3F.O
\ps N Rt-VBLZ-3F.O

\ft The tapir made her pregnant.

\ref kemasuto 065

\tx *oposo una... aruwatxa unawa*
\mb *oposo una aru-watxa unawa*
\gl later come yes-today they
\ps ADV.PTC V PTC-ADV.PTC PRON.3PL

\ft So, they then come.

\ref kemasuto 066

\tx *kema pitxi unawa muna txa.*
\mb *kema pitxi unawa muna txa*
\gl tapir penis.of they bring AUX
\ps N N PRON.3PL V AUX

\ft They bring the tapir's penis.

\ref kemasuto 067

\tx *aruwatxa unawa oka txaru:*
\mb *aru-watxa unawa oka txa-ru*
\gl yes-today they kill AUX-3M.O
\ps PTC-ADV.PTC PRON.3PL V AUX-3M.O

\ft Yes, they killed him.

\ref kemasuto 068

\tx *"ukara iye kerupa?*
\mb *u-kara iye ke-ru-pa*
\gl 3M-DISTAL then WH-M-INTER
\ps 3M-DEM PTC WH-M-INTER

\tx *pūtanuru pitximunanhi."*
\mb *pu~tanu-ru pitxi-muna-nhi*
\gl 2SG-spouse.of-3M penis-log-AFFECT
\ps 2SG-Rt-3M N-CN-AFFECT

\ft "What is it?!... The penis body of your husband!?"

\ref kemasuto 069

\tx *unawa okamuta.*
\mb *unawa oka-muna-ta*
\gl they kill-log-VBLZ
\ps PRON.3PL VSt-CN-VBLZ

\ft They had killed (him).

\ref kemasuto 070

\tx *owa iye apotouta txaru.*
\mb *owa iye apo-tou-ta txa-ru*
\gl she/her/it/its then find-thing.of-VBLZ AUX-3M.O
\ps PRON.3SG.F DISC.PTC V-N-VBLZ AUX-3M.O

\ft She grabbed it.

\ref kemasuto 071
 \tx *owa morōkamuta,*
 \mb *owa morōka-muna-ta*
 \gl she/her/it/it take-log-VBLZ
 \ps PRON.3SG.F V-CN-VBLZ

\ft She put the long round thing away.

\ref kemasuto 072
 \tx *ukirāātāā otaka.*
 \mb *u-kira-ātāā-ā o-taka*
 \gl 3M-DISTAL-place-with/in/on/at 3F-put
 \ps 3M-DISTAL-LOC-INSTR 3F-V

\ft She kept (it) on a corner (of the house).

\ref kemasuto 073
 \tx *uwā otxape kiyomanetxinhi iye*
 \mb *uwā o-txa-pe kiyomane-txi-nhi iye*
 \gl then 3F-AUX-PFTV elder-UNPOSS-AFFECT then
 \ps DISC.PTC 3F-AUX-PFTV N-UNPOSS-AFFECT PTC

\tx *oirapokota.*
 \mb *oira-poko-ta*
 \gl clean-DISTR-VBLZ
 \ps Rt-DISTR-VBLZ

\ft Then an old woman was sweeping (the floor).

\ref kemasuto 074
 \tx *oye oyatoupokotape;*
 \mb *o-ye o-yatou-poko-ta-pe*
 \gl 3F-PROX 3F-sweep-DISTR-VBLZ-PFTV
 \ps 3F-DEM 3F-Rt-DISTR-VBLZ-PFTV

\ft She was going around sweeping (the floor).

\ref kemasuto 075
 \tx *oye iye metikape;*
 \mb *o-ye iye metika-pe*
 \gl 3F-PROX then bend.over-PFTV
 \ps 3F-DEM DISC.PTC V-PFTV

\ft Then she bent over;

\ref kemasuto 076
 \tx *iye keruwako oye kiyomanetxi-nhi uwaika*
 \mb *iye keruwako o-ye kiyomane-txi-nhi uwaika*
 \gl then then F-this elder-UNPOSS-AFFECT so
 \ps DISC.PTC DISC.PTC F-PROX N-UNPOSS-AFFECT DISC.PTC

\tx *potoriākata kema pitxi:*
 \mb *potori-ā-ka-ta kema pitxi*
 \gl jump-INFER-INTENS-VBLZ tapir penis.of
 \ps Rt-INFER-INTENS-VBLZ N N

\ft Suddenly the tapir's penis jumped into the poor woman:

\ref kemasuto 077
\tx *iyē iyotsekupekataro*
\mb then *u-yotseku-pe-ka-ta-ro*
\gl DISC.PTC 3M-tear-PFTV-INTENS-VBLZ-3F.O
\ps 3M-Rt-PFTV-INTENS-VBLZ-3F.O

\tx *kiyomanetxinhi.*
\mb *kiyomane-txi-nhi*
\gl elder-UNPOSS-AFFECT
\ps N-UNPOSS-AFFECT

\ft It tore the poor woman apart.

\ref kemasuto 078
\tx *owanhi kema... uwa... uwa... kema pitxi okape.*
\mb *owa-nhi kema uwa uwa kema pitxi oka-pe*
\gl she/her/it/its-AFFECT tapir he/him/his/it/its he/him/his/i/its tapir penis kill-PFTV
\ps PRON.3SG.F-AFFECT N PRON.3SG.M PRON.3SG.M N N V-PFTV

\ft He, the tapir, he, the tapir's penis, killed her.

\ref kemasuto 079
\tx *aruwatxa inhinhiã:*
\mb *aru-watxa inhinhiã*
\gl yes-today/now like.that
\ps DISC.PTC-ADV.PTC DISC.PTC

\ft So, then:

\ref kemasuto 080
\tx *"hã ikatoko itxa!"*
\mb *hã ikatoko u-txa*
\gl hã this.way 3M-say/do
\ps INTER DISC.PTC 3M-V

\ft "Hã, he did this!"

\ref kemasuto 081
\tx *oposo una... unawa purukupeta txaperu*
\mb *oposo unawa unawa puruku-pe-ta txa-pe-ru*
\gl later they they cut-PFTV-VBLZ AUX-PFTV-3M.O
\ps ADV.PTC PRON.3PL PRON.3PL Rt-PFTV-VBLZ AUX-PFTV-3M.O

\tx *kema pitximunanhi.*
\mb *kema pitxi-muna-nhi*
\gl tapir penis-log.of-AFFECT
\ps N N-CN-AFFECT

\ft For this, they... they cut the tapir's penis body (into small pieces),

\ref kemasuto 082
 \tx *una...* *u-munuka* *txaperu,*
 \mb *unawa* *u-munu-ka-na* *txa-pe-ru*
 \gl they finish-PRED-3PL AUX-PFTV-3M.O
 \ps PRO.3PL V-PRED-3PL AUX-PFTV-3M.O

\ft They... they finished with it,

\ref kemasuto 083
 \tx *okaramuta* *txaperu*
 \mb *oka-ra-mu-ta* *txa-pe-ru*
 \gl throw-FOC-log-VBLZ AUX-PFTV-3M.O
 \ps V-?-CN-VBLZ AUX-PFTV-3M.O

\tx *upitximunanhi*
 \mb *u-pitxi-muna-nhi*
 \gl 3M-penis.of-log.of-AFFECT
 \ps 3M-N-CN-AFFECT

\ft and threw it, the penis body, out

\ref kemasuto 084
 \tx *kotxi* *owa* *kiyomanetxinhi* *okape.*
 \mb *kotxi* *owa* *kiyomane-txi-nhi* *Ø-oka-pe*
 \gl because she elder-UNPOSS-AFFECT 3M-kill-PFTV
 \ps ADV.PTC PRON.3SG.F N-UNPOSS-AFFECT 3M-V-PFTV

\ft because it had killed her, the poor old woman.

\ref kemasuto 085
 \tx *ipitxinoka* *uwa*
 \mb *u-pitxi-noka* *uwa*
 \gl 3M-penis.of-only he/him/his/it/its
 \ps 3M-N-ONLY PRON.3SG.M

\tx *kokanupeka* *i-txaru.*
 \mb *ka-oka-nu-pe-ka* *u-txa-ru*
 \gl ATTRIB-kill-?-PFTV-VBLZ 3M-AUX-3M.OBJ
 \ps ATTRIB-V-?-PFTV-VBLZ 3M-AUX-3M.OBJ

\ft His penis alone had become a murderer, it did it.

\ref kemasuto 086
 \tx *oposo* *owa* *hātakoronhi*
 \mb *oposo* *owa* *hātako-ro-nhi*
 \gl later she young.person-F-AFFECT
 \ps ADV.PTC PRON.3SG.F Rt-F-AFFECT

\tx *awākuteka* *txakaru* *uwa*
 \mb *awākute-ka₃* *txa-ka-ru* *uwa*
 \gl suffer-CAUS AUX-CAUS-3M.O he/him/his/it/its
 \ps Rt-CAUS AUX-CAUS-3M.O PRON.3SG.M

\tx *kema hākeru,*
\mb *kema hāke-ru*
\gl tapir child-3M
\ps N Rt-3M

\ft After that, the poor young woman felt pain for the tapir's unborn child;

\ref kemasuto 087

\tx *arine kotxi emikanhi iye kotxi uwa amarikanhi*
\mb *arine kotxi emi-kanhi iye kotxi uwa amaru-kanhi*
\gl PTC because babe-big? then because he/him/his/it/its child-big?
\ps DISC.PTC ADV.PTC Rt-? DISC.PTC ADV.PTC PRON.3SG.M N-?

\tx *uwa, kema hākeru.*
\mb *uwa kema hāke-ru*
\gl he/him/his/it/its tapir child.of-3M
\ps PRON.3SG.M N Rt-3M

\ft yes, because of the big unborn baby... because of him, his unborn baby, the tapir's child.

\ref kemasuto 088

\tx *inhinhiã, owanhi*
\mb *inhinhiã owa-nhi*
\gl like.that she-AFFECT
\ps DISC.PTC PRON.3SG.F-AFFECT

\tx *oawākitekinhiru*
\mb *o-awākute-ka-inhi-ru*
\gl 3F-suffer-CAUS-GER-3M.O
\ps 3F-Rt-CAUS-GER-3M.O

\ft So, she painfully had it

\tx *nerema otxapema*
\mb *nerema o-txa-pe-ma*
\gl will-FRUST 3F-AUX-PFTV-FRUST
\ps Rt-FRUST 3F-AUX-PFTV-FRUST

\ft for wanting (it) but...

\ref kemasuto 089

\tx — *nhã-pa unapa?*
\mb *nhã-pa u-napa*
\gl PLACE-INTER 3M-pass
\ps PLACE-INTER 3M-V

\ft Where could it pass through?!

\ref kemasuto 090

\tx *kanhipa otxa otsamakuta*
\mb *kanhi-pa o-txa o-tsamakuta*
\gl WH.MANNER-INTER 3F-say/do 3F-hips.of
\ps WH.MANNER-INTER 3F-V 3F-N

\tx *waxepitika?*
 \mb *waxe-putu-ka*
 \gl small-INTENS-PRED
 \ps Rt-INTENS-VBLZ

\ft How so, with her small hips?!

\ref kemasuto 091

\tx *inhinhiã, aruwatxa uwa kema hãkeru iye oka*
 \mb *inhinhiã aru-watxa uwa kema hãke-ru iye oka*
 \gl like.that yes-today he/him/his/it/its tapir child.of-3M then kill
 \ps DISC.PTC PTC-ADV.PTC PRON.3SG.M N Rt-3M DISC.PTC V

\tx *txapero owa hãtakoronhi.*
 \mb *txa-pe-ro owa hãtako-ro-nhi*
 \gl AUX-PFTV-F she/her/it/its young.person-F-AFFECT
 \ps AUX-PFTV-F PRON.3SG.F Rt-F-AFFECT

\ft This way, he, the tapir's child killed her, the poor young woman.

\ref kemasuto 092

\tx *aruwatxa sitxinei, umupe.*
 \mb *aru-watxa sitxinei umu-pe*
 \gl yes-today Sidney finish-PFTV
 \ps DISC.PTC-ADV.PTC N V-PFTV

\ft That's it, Sidi, it's the end.

Appendix C

Word List

The following vocabulary list constitutes a sample of the Apurinã lexicon, and may be useful for historical-comparative work involving other Arawak languages. In the list below, a few significant variants of the same words used in different communities are also provided; otherwise, the data presented below have been standardized to represent the speech variety spoken in the Japiim village. The symbols used for the transcription below are the same as those given in chapter 2 (in 2.6) and in appendix A as the Apurinã orthographic system; however, different from the previous transcription, in the following list the morphophonemic variants are not represented, i.e., only the underlying forms are represented.

1. “bacaba” palm fruit	<i>kitxiti</i>
2. “buriti”	<i>kinharu</i>
3. “forno” (pan for toasting manioc flour)	<i>takataru</i>
4. “macaxeira” tuber	<i>komiyãru</i>
5. “matrinxão” fish	<i>mamoru</i>
6. “pacu” fish	<i>tõparu, pataru</i>
7. “surubim” fish	<i>tsokerimã</i>
8. “tipiti” (manioc squeezer)	<i>mano</i>
9. “uxi” fruit	<i>aõtu</i>
10. 1PL	<i>ata</i>
11. 1PL	<i>ata</i>
12. 1PL.O	<i>-wa</i>
13. 1SG	<i>nota</i>
14. 1SG	<i>nu-</i>
15. 1SG.OBJ	<i>-no</i>
16. 2SG	<i>hi</i>
17. 2SG	<i>pite</i>
18. 2SG	<i>pu-</i>
19. 2SG	<i>pite</i>

20. 3F	<i>o-</i>
21. 3F.O	<i>-ro</i>
22. 3M	<i>u-</i>
23. 3M.O	<i>-ru</i>
24. 3PL	<i>unawa</i>
25. 3PL	<i>...-na</i>
26. 3PL	<i>unawa</i>
27. 3SG.F	<i>owa</i>
28. 3SG.M	<i>uwa</i>
29. armadillo, anteater	<i>exiwa(ta)</i>
30. accompany	<i>yotipira</i>
31. AFFECTEDNESS MARKER	<i>-nhi</i>
32. after	<i>tikinhi</i>
33. after	<i>oposo</i>
34. afternoon	<i>kukata</i>
35. agouti	<i>kupetuna</i>
36. all	<i>ukunhipe</i>
37. alligator	<i>kayokuru</i>
38. allow	<i>awirita</i>
39. also	<i>kana</i>
40. also	<i>-na</i>
41. anaconda	<i>wainhamaru, umunu, kũyatu</i>
42. anymore	<i>-yoka</i>
43. Apurina	<i>popũka-</i>
44. armadillo	<i>kayowana</i>
45. arrive	<i>apo</i>
46. arrow of (1)	<i>kimatãã</i>
47. arrow of (2)	<i>serepi, xerepi</i>
48. ash of	<i>-panhi</i>
49. ASSOCIATIVE	<i>-kata</i>
50. ATTRIBUTIVE	<i>k(a)-</i>
51. AUX	<i>txa</i>
52. awããi	<i>Awããi</i>
53. baby	<i>emi</i>
54. ball	<i>sutu</i>
55. banana	<i>txiparu</i>
56. bark of; scale/shell of	<i>-tãta</i>

57. basket	<i>kotaru</i>
58. bat	<i>xiyo(ku), xiyopiri</i>
59. be black, to	<i>pomama-</i>
60. be cold, to (1) (weather)	<i>katxĩkaru</i>
61. be cold, to (2)	<i>potsaya</i>
62. be daylight, to	<i>pokama</i>
63. be dry, to	<i>sonāka</i>
64. be far, to	<i>wayowaka</i>
65. be fast, to	<i>katuma</i>
66. be full, to	<i>xāpoke</i>
67. be good, to	<i>hareka</i>
68. be green, to	<i>posētaka</i>
69. be heavy, to	<i>minha</i>
70. be here, to	<i>wai</i>
71. be hot, to	<i>pooma</i> (e.g. water) , <i>kapataka</i> (weather)
72. be large, to	<i>mita-</i>
73. be long, to	<i>ōtano-</i>
74. be lying down, to	<i>porōka</i>
75. be new, to	<i>ēēĩto-</i>
76. be pregnant, to	<i>mixi-</i>
77. be red to	<i>pōkamara-</i>
78. be round, to	<i>kapoko</i>
79. be small, to	<i>(w)axe-</i>
80. be sweet, to;sugar	<i>potxowa</i>
81. be tired, to	<i>sāpaka</i>
82. be yellow, to	<i>posētaka</i>
83. be, to	<i>(i)nha</i>
84. beak of	<i>yomaku</i>
85. beat with club, to	<i>upururu</i>
86. because	<i>kotxi</i>
87. belly	<i>tikako</i>
88. bench of	<i>yotipa-na</i>
89. bend over	<i>metĩka</i>
90. beverage	<i>ĩaruã</i>
91. big	<i>mita-</i>
92. big armadillo	<i>kemapiri</i>
93. big lizard	<i>tamakore, kamakorero, xakorero</i>

94. bird	<i>kotupereku</i> (generic for small birds)
95. bite, to (1)	<i>katsata</i>
96. bite, to (2)	<i>akitsa</i>
97. black monkey	<i>etxikuru</i>
98. black vulture	<i>mayoru</i>
99. blood	<i>(h)erēka</i>
100. bone of	<i>apu</i>
101. bow of	<i>tapo</i>
102. branch of	<i>-poru</i>
103. Brazi-nut	<i>maku</i>
104. break, to (1)	<i>pakata</i>
105. break, to (2)	<i>kapirinhika</i>
106. breast of	<i>tenu</i>
107. bring, to	<i>muna</i>
108. broil, to	<i>urotika</i>
109. brother/sister, cousin	<i>ita-</i>
110. brown deer	<i>sotu</i>
111. bunch of	<i>kawa(na), kana</i>
112. burn, to	<i>arita</i>
113. bury, to	<i>upa-pe-ta</i>
114. butterfly	<i>katatu, kanatataru</i>
115. buy, to	<i>hamo-</i>
116. call, to	<i>akiri-</i>
117. canoe	<i>kanawa</i>
118. capybara	<i>yapa</i>
119. carry, to	<i>tukanaka</i>
120. catch, to	<i>mayaka</i>
121. CAUSATIVE	<i>-ka</i>
122. change, to	<i>mama-</i>
123. chew coca leaf	<i>kakure-</i>
124. chief/big one	<i>hāwite</i>
125. child (1)	<i>ama-</i>
126. child (2)	<i>hāke-</i>
127. cicada	<i>kītoru</i>
128. claw of	<i>sawata</i>
129. clay	<i>atariro</i>
130. clean, to	<i>oira-</i>

131.cloud	<i>yanhĩĩ</i>
132.cloud, to be cloud	<i>ka-txĩyã-ru</i>
133.coati	<i>kaapixi</i>
134.coca leaf	<i>katsoparu</i>
135.cockroach	<i>tsopata</i>
136.COLLECTIVE MARKER	<i>-pirĩka</i>
137.come	<i>una</i>
138.CONTIGUOUS MARKER	<i>-takote</i>
139.cook, to	<i>axita</i>
140.corner	<i>ikirããtã</i>
141.cousin, brother/sister	<i>ita-</i>
142.cut down, to	<i>ĩyãpataĩ</i>
143.cut into small pieces	<i>puruku-</i>
144.cut, to	<i>sawaka</i>
145.cutter ant	<i>katxitu, katxipokuru</i>
146.dance, to	<i>serena</i>
147.deer	<i>manhitu</i>
148.deer, brown	<i>sotu</i>
149.destroy, to	<i>xipoka</i>
150.die, to (1)	<i>ãtaka</i>
151.die, to (2)	<i>upũpe</i>
152.dig up, to	<i>maporo</i>
153.dig, to	<i>ruko-</i>
154.diminish, to	<i>xitika</i>
155.DISTAL DEMONSTR.	<i>-kara</i>
156.DISTAL DEMONSTRATIVE	<i>-ye</i>
157.DISTRIBUTIVE ACTION MARKER	<i>poko</i>
158.do, to	<i>txeyoka</i>
159.do/say/be, to	<i>txa</i>
160.dog	<i>anãpa(naru), arãpanaru</i>
161.door (2)	<i>tipukũyã</i>
162.door of (1)	<i>sereta</i>
163.drink, to	<i>ãta</i>
164.drop into water, to	<i>imããta</i>
165.dry, to (INTRANS.)	<i>posona-</i>
166.dry, to (TRANS.)	<i>(i)txarika</i>

167.ear of	<i>kēpita</i>
168.earth, land	<i>xiti</i>
169.eat fruits/chew, to	<i>txima</i>
170.eat, to (INTRANS.)	<i>nhipoko-</i>
171.eat, to (TRANSIT.)	<i>nhika</i>
172.egg of	<i>naku</i>
173.elder	<i>kiyomane-</i>
174.electric eel (1)	<i>pētsotu</i>
175.electric eel (2)	<i>tūturu</i>
176.EMPHATIC MARKER	<i>putu</i>
177.enter, to	<i>huroã</i>
178.eye of	<i>oku</i>
179.F	<i>-ro</i>
180.fall into the water, to	<i>umããta</i>
181.fall, to	<i>iri(ka)</i>
182.farm field (1)	<i>itokoru</i>
183.farm field (2)	<i>kikio</i>
184.father of	<i>uru</i>
185.fear/be afraid, to	<i>pīka-</i>
186.feather of	<i>-piti</i>
187.FEM. OBJ. RELATIVIZER	<i>kuto</i>
188.find, to	<i>apoka</i>
189.finish, to (1)	<i>munuka</i>
190.finish, to (2)	<i>posota</i>
191.finish, to; to end	<i>umu</i>
192.fire; firewood	<i>xamu-na</i>
193.first, in the first place	<i>mitxi</i>
194.fish	<i>xima-ku</i>
195.flea	<i>sawatxi, sawayatu</i>
196.flesh of	<i>xenhi</i>
197.flute (2)	<i>hāpoku-ru</i>
198.flute of (1)	<i>koi</i>
199.fly (insect)	<i>awētunuku, xikiru</i>
200.fly, to	<i>arã</i>
201.FOCUS MARKER	<i>-ra</i>
202.follow, to	<i>asike</i>
203.food	<i>txipoko-</i>

204.foot of	<i>-kiti</i>
205.footprint (1)	<i>yotu</i>
206.footprint of (2)	<i>yakunu, yākunu</i>
207.fruit	<i>txipokoru</i>
208.FUTURE MARKER	<i>-ko</i>
209.game (from hunting)	<i>nhikitxi</i>
210.gather, to	<i>apa</i>
211.GERUND	<i>-inhi</i>
212.get acquainted, to	<i>imarota</i>
213.get dark, to	<i>īketa</i>
214.give, to	<i>suka</i>
215.go, to (1)	<i>su</i>
216.go, to (2)	<i>sa</i>
217.GOAL MARKER (1)	<i>-mokaru</i>
218.GOAL MARKER (2)	<i>-monhi</i>
219.grandfather of	<i>imaku-ru</i>
220.grandma	<i>kuro</i>
221.grass	<i>katsotu</i>
222.grate, to	<i>eso(ka)</i>
223.grease of	<i>-ĩĩ</i>
224.grow, to	<i>pitxeka</i>
225.HABITUAL MARKER	<i>-pi</i>
226.hair of (1)	<i>yāko</i>
227.hair of (2)	<i>-xike</i>
228.hand of (1)	<i>wako,</i>
229.hand of (2)	<i>piyo</i>
230.have intercourse, to	<i>imata</i>
231.hawk	<i>kokoi, kokoyo</i>
232.head of	<i>kuwu</i>
233.hear, to	<i>kemako-</i>
234.heart if	<i>(h)ākupa</i>
235.hips of	<i>tsamakuta</i>
236.hit (a target), to	<i>weereka-</i>
237.horn of	<i>iko</i>
238.HORTATIVE	<i>hamo</i>
239.house (1)	<i>aiko</i>
240.house (2)	<i>awinhi</i>

241. hummingbird	<i>pirōtu</i>
242. hunt, to	<i>ayata</i>
243. hurt, to; to feel pain; “arder”	<i>tsuwu-</i>
244. I	<i>nota</i>
245. IMMINENT MARKER	<i>napanoka</i>
246. IMPERFECTIVE MARKER	<i>-panhi</i>
247. in ancient times (1)	<i>kitxaka, kitxeka</i>
248. in ancient times (3)	<i>kutatu</i>
249. in/during	<i>-yoka</i>
250. inhale, to	<i>īketa</i>
251. INSTRUMENTAL/LOCATIVE MARKER	<i>ā</i>
252. INTENSIFIER	<i>-ka</i>
253. INTRANSITIVIZER	<i>-rewa</i>
254. irara bird	<i>mapaana(ru)</i>
255. jaguar	<i>hākiti</i>
256. juice of (1)	<i>ārūā</i>
257. juice of (2); water, LIQUID (2),	<i>-pē</i>
258. jump, to	<i>potori</i>
259. jungle	<i>ītopa</i>
260. kill, to	<i>oka</i>
261. killer	<i>oka-muna</i>
262. knee	<i>poto-ru-ku</i>
263. kneel, to	<i>ka-poto-re-</i>
264. knock down, to	<i>toka</i>
265. know, to	<i>umata, umarota</i> (to get acquainted)
266. lake	<i>ipowa</i>
267. language of	<i>sākire</i>
268. LARGE DIMENSION, A LOT	<i>-powa</i>
269. large wild pig	<i>iraru</i>
270. LARGE, FAT	<i>-tu</i>
271. later	<i>oposo</i>
272. lay down, to	<i>ixiri</i>
273. leaf	<i>-tsopa, -xike</i>
274. lie down, to (1)	<i>xiri</i>
275. lie down, to (2)	<i>surūka</i>
276. lie, to(tell untruths)	<i>oxirata</i>
277. like that	<i>atoko</i>

278. like this	<i>uwetoko</i>
279. lip of, margin of, edge of	<i>poto</i>
280. LIQUID (1)	<i>-pē̃</i>
281. LIQUID (2)	<i>-ĩ</i>
282. listen, to	<i>kenoka</i>
283. liver of	<i>opana</i>
284. lizard	<i>kutsuna</i>
285. log of, trunk of	<i>muna</i>
286. LONG.DIMENSION?	<i>?pi</i>
287. look at, to	<i>aõku-</i>
288. lose, to	<i>onhipa-</i>
289. lower, to	<i>xitika</i>
290. M	<i>-ru</i>
291. macaw	<i>kamēẽru</i>
292. make manioc patty, to	<i>yosarika</i>
293. make, to	<i>kama</i>
294. man	<i>kuku</i>
295. manioc	<i>komeru</i>
296. manioc flour	<i>katarokuru</i>
297. manioc starch	<i>nakanhi</i>
298. many	<i>itonhi-</i>
299. martim-pescador bird	<i>kixĩareru</i>
300. MASC. OBJ. RELATIVIZER	<i>katu</i>
301. MASC. SUBJ. RELATIVIZER	<i>karu</i>
302. maternal aunt	<i>unurota</i>
303. maternal uncle	<i>umatuku-</i>
304. milk	<i>tenu-ã</i>
305. miss (a target), to	<i>keroka-powa-</i>
306. mix, to (1)	<i>kaxirãka</i>
307. mix, to (2)	<i>kayamaka</i>
308. money of	<i>xãpana</i>
309. moon	<i>kasuru</i>
310. mosquito (“borrachudo”)	<i>mitaturo</i>
311. mother of	<i>unuro</i>
312. mountain	<i>kai-xiti, ixirata (sierra)</i>
313. mouth of (1)	<i>sona</i>
314. mouth of (2)	<i>nama</i>

315.mutum bird	<i>irāka</i>
316.nambu bird	<i>kamūkutaro, mamūkutaro</i>
317.name of	<i>(h)iwāka</i>
318.neck of	<i>noku</i>
319.neck, back of	<i>nopi</i>
320.necklace of	<i>noku-tsa</i>
321.nest	<i>-kowa</i>
322.night (1)	<i>īkanōka</i>
323.night (darkness) (2)	<i>piyāka</i> (darkness)
324.nose of	<i>kiri</i>
325.not, no	<i>kona</i>
326.one	<i>(h)āt-u</i> (M), <i>(h)āt-o</i> (F)
327.owl	<i>pero, uapura, mosa</i>
328.paca (rodent)	<i>kayatu</i>
329.paddle of	<i>keko</i>
330.paint, to	<i>yōka-</i>
331.parrot (1)	<i>kīkōwē, korero, kōkoero</i>
332.partner of	<i>moyana</i>
333.pass, to	<i>napa</i>
334.PASSIVE MARKER	<i>--ka</i>
335.past (?)	<i>akoka</i>
336.paternal uncle of	<i>uruta</i>
337.path	<i>kimaporu</i>
338.paw of	<i>-piyo</i>
339.peccary	<i>meritu</i>
340.penis of	<i>pitxi</i>
341.PERFECTIVE MARKER	<i>-pe</i>
342.person	<i>kākutu</i>
343.pick, to	<i>maporōa-</i>
344.pierce, to	<i>yoro-</i>
345.pineapple (?)	<i>koriwa</i>
346.pineapple (1)	<i>anana</i>
347.pineapple (2)	<i>tsayoku</i>
348.piranha fish	<i>homa, ooma(ku), omakuru</i>
349.pium mosquito	<i>kemitxito</i>
350.PL	<i>-nu</i>
351.PL.RELZ	<i>kanu</i>

352.plant	<i>ãã-</i>
353.plus	<i>-pakunu</i>
354.poison	<i>kiyana-ru</i>
355.POSSESSED ALIENABLE MARKER	<i>-re</i>
356.POSSESSED ALIENABLE MARKER	<i>-te</i>
357.PREDICATE MARKER	<i>-ka</i>
358.press tight, to	<i>atxiteka</i>
359.press, to; to squeeze	<i>katso-(naka)</i>
360.PRIVATIVE	<i>m(a)-</i>
361.PROGRESSIVE MARKER	<i>-nanu</i>
362.pull, to	<i>koseka</i>
363.pulp of	<i>pe</i>
364.push, to	<i>katika</i>
365.put away, to	<i>tããka</i>
366.put, to	<i>taka</i>
367.rain	<i>ĩporã, ãparã, ĩparã</i>
368.raise, to	<i>õtano-ka</i>
369.RANDOM MARKER	<i>-ãpo</i>
370.rat	<i>kũũru(ku), kutxi</i>
371.receive, to	<i>apokapa</i>
372.RECIPROCAL	<i>-kaka</i>
373.red-hot	<i>xamu-menuku</i>
374.relatives of	<i>nurumane</i>
375.remainder	<i>apanakunu</i>
376.RESTRICTIVE MARKER (1)	<i>-nanu</i>
377.RESTRICTIVE MARKER (2)	<i>-noka</i>
378.right	<i>ateeneka</i>
379.ripen, to	<i>enẽẽ</i>
380.river	<i>wenu</i>
381.river stream	<i>kawããru</i>
382.roasted meat	<i>irotu</i>
383.roof, cover of	<i>upa-re</i>
384.root	<i>-kotsa</i>
385.rope of	<i>keko-tsa</i>
386.round	<i>-porõĩ, -ku</i>
387.ROUND, CIRCULAR	<i>-ĩ</i>
388.run, to (1)	<i>omima</i>

389.run, to (2)	<i>muteka</i>
390.salt	<i>serotaru</i>
391.sand	<i>kupatxi</i>
392.sap of	<i>tsiripe</i>
393.say, to	<i>txa</i>
394.scrape, to	<i>kixēĩ</i>
395.scrape, to	<i>kixēĩ-rewa-</i>
396.scrape, to; scratch, to	<i>kixeta</i>
397.search, to	<i>nuta</i>
398.see,to	<i>atama, etama</i>
399.seed of, kernel of	<i>-ku</i>
400.sell, to	<i>sukare</i>
401.set on fire, to	<i>yotika</i>
402.shoot arrows, to	<i>keta,</i>
403.sift, to	<i>yowēka</i>
404.sing,to	<i>xika-</i>
405.sister/brother, cousin	<i>ita-</i>
406.sit down	<i>yotipaka, yotipāka</i>
407.skin of	<i>-mata</i>
408.sky	<i>u-kira-xiti</i>
409.sleep, to	<i>umaka</i>
410.sloth (1)	<i>iyō</i>
411.sloth (2)	<i>mayaparo, yaaparo</i>
412.small “mandi” fish	<i>katxīperu</i>
413.small agoti	<i>kupetu(ku)</i>
414.small scorpion	<i>kaxipiro, xirika</i>
415.smoke of	<i>-txīyā</i>
416. snail shell	<i>mekaro</i>
417. snake (general)	<i>umunu</i>
418.so (1)	<i>ōireka</i>
419.so (2)	<i>uwaīka</i>
420.soften	<i>payaka</i>
421.son/daughter in law of	<i>omunapa-</i>
422.spider	<i>kasakutoro</i>
423. spider monkey 1	<i>txikotu</i>
424. spider monkey 2	<i>etxikuru</i>

425. squirrel	<i>yāputuru</i>
426. stand, to	<i>-tuma</i>
427. star	<i>yōruku, uwuruku</i>
428. steal, to	<i>hētirika</i>
429. sting ray	<i>kamaro</i>
430. stir, to	<i>yataro-</i>
431. stone	<i>kai</i>
432. stove	<i>poku</i>
433. suck, to	<i>asīkaā-</i>
434. suffer, to	<i>awāku-</i>
435. summer	<i>kamōī</i>
436. sun	<i>atokatxi</i>
437. sweep, to	<i>yatou</i>
438. sweet potato	<i>kuparu</i>
439. swim, to	<i>noāta</i>
440. tail of	<i>-xipi</i>
441. take a bath, to	<i>kipa</i>
442. take away, to	<i>anhika</i>
443. take out of water, to	<i>ōkanhīkēī</i>
444. take out, to (1)	<i>makatxa-</i>
445. take out, to (2)	<i>mapika</i>
446. take, to; catch, to	<i>morōka</i>
447. talk, to	<i>sākire-</i>
448. tapir	<i>kema</i>
449. tear out, to	<i>yotseku</i>
450. tell, to	<i>sāpira-</i>
451. TEMPORAL MARKER	<i>sa(w)aku</i>
452. termite	<i>tsarī, tsarīī(tu)</i>
453. that, there	<i>u-kara (M), o-kara (F)</i>
454. then (1)	<i>ane</i>
455. then (2)	<i>inhinhīā</i>
456. then (3)	<i>īko</i>
457. then (4)	<i>keruwako</i>
458. then (5)	<i>uwā</i>
459. there (1)	<i>uwā</i>
460. there (2)	<i>werā</i>

461. there. be/have	<i>awa</i>
462. thing of	<i>tou</i>
463. THING.LONG	<i>-ke</i>
464. this	<i>u-ye (M), o-ye (F)</i>
465. this way	<i>atoko</i>
466. this way	<i>ikatoko</i>
467. throw, to	<i>(p)oka</i>
468. thunder	<i>karōkanaka-ru</i>
469. tie, to	<i>ētxika</i>
470. toad (1)	<i>patxiri</i>
471. toad (2)	<i>atunuro</i>
472. toast, to	<i>kakiriika</i>
473. tobacco, “rapé”	<i>awiru</i>
474. today/now	<i>watxa</i>
475. tomorrow	<i>atana</i>
476. tongue of	<i>nunu</i>
477. too bad	<i>poxi</i>
478. top of	<i>-nope</i>
479. toucan	<i>xīkane</i>
480. tree	<i>āā-muna</i>
481. tree trunk of	<i>kiyota</i>
482. true!	<i>neka</i>
483. turtle	<i>xotoyo, xitoi</i>
484. two	<i>epi</i>
485. type of opossum (“mucura”) (1)	<i>sutuko, sutu(pa)ko</i>
486. type of opossum (“mucura”) (2)	<i>xapa(ko)ru</i>
487. type of plant	<i>yeyero</i>
488. UNPOSSESSED MARKER	<i>-ru</i>
489. UNPOSSESSED INALIENABLE MARKER	<i>-txi</i>
490. vagina of	<i>soko</i>
491. VBLZ	<i>-ta</i>
492. village of	<i>awapoko</i>
493. wake up, to	<i>marewa</i>
494. walk, to	<i>ayana</i>
495. wall of	<i>pirike</i>
496. want, to	<i>nereka</i>
497. wash, to	<i>eroka</i>

498. wasp (1)	<i>sanu</i>
499. wasp (2)	<i>ximeru</i>
500. water	<i>īporā</i>
501. water, LIQUID (1)	<i>-ā</i>
502. water, LIQUID (2), juice	<i>-pē</i>
503. water, LIQUID (2)	<i>-ī</i>
504. well, deep part of river	<i>pokōī</i>
505. WH QUESTION	<i>ke-</i>
506. WH.MANNER	<i>kanhi</i>
507. WH.PLACE	<i>nhaō-pa</i>
508. what	<i>ke-pa, ke-ru-pa</i>
509. white	<i>kasero-</i>
510. who	<i>ke-ru-pa, ke-pa</i>
511. wild cat	<i>txowīriēru, txowiriana, txowirianuro</i>
512. wild dog	<i>aripa, kapasanuku, awātunuku</i>
513. will	<i>nerē</i>
514. woman	<i>suto</i>
515. wood like insect	<i>kurunetu, kaurupāte</i>
516. woodpecker	<i>kōka(ru), kōkaana</i>
517. wooly monkey	<i>atsanaru</i>
518. work	<i>parīka</i>
519. yam	<i>moto</i>
520. year	<i>kananu</i>
521. yes	<i>ari</i>
522. yesterday	<i>kuta</i>
523. youth	<i>hātako-</i>

Preliminary Reconstruction of Proto- Apurinã-Piro-Iñapari

This appendix summarizes the results of a partial comparison between Apurinã, Piro and Iñapari, presenting preliminary reconstruction of the segmental inventory for **P**(roto-)**A**(purinã-)**P**(iro-)**I**(ñapari). The current results are still preliminary, since the reconstruction did not include morphological or syntactic properties, and nasalization, vowel lengthening and supragments (i.e. stress and tone) are not considered in this preliminary reconstruction.¹

The data from Apurinã are, obviously, derived from my own research and visits to the field. The data from Piro come from Matteson (1965 and 1972b). The data from Iñapari come from Parker (1995). The clustering of Apurinã, Piro and Iñapari as the members of a branch of Arawak has already been suggested by a classification given in Payne (1991:364), the successful reconstruction presented here will, however, need to be verified in contrast to other subgroups of Arawak in search of shared innovations. The fact that a successful (though preliminary) reconstruction of P-API will be arrived at here does not exclude the possibility that further research may show that other languages (in addition to Apurinã, Piro and Iñapari) should form a single subgroup within Arawak; rather, it means that a specific subgroup will have been determined to which other language(s) may or may not be added pending further research. Furthermore, there is no need to worry about whether API are all Arawak languages, since this has already been demonstrated by previous comparative works (see Valenzuela 1991, Payne 1991 and Aikhenvald 1999). The terminology used in this section is primarily based on Campbell 1999:111-112.

327 words were examined, including body parts, kinship terms, various animal and plant names, descriptive and grammatical words, among others. There were a total of 122 cognate sets shared by API, 56 shared by Apurinã and Piro (but not by Iñapari), 28 shared only by Apurinã and Iñapari (but not by

Piro), and 12 shared by Piro and Iñapari (but not by Apurinã). The 122 cognate sets represent 39% of shared lexical (i.e. vocabulary) retention in API. Although such a vocabulary similarity confirms earlier suspicion that API are closely related and may descend from a proto-language, i.e. API, as part of an intermediary branch of Arawak, shared lexical similarities alone cannot be used to show how closely related to one another these three languages are, nor can they be used to prove that API indeed form a subgroup of Arawak. Table 1 (where \emptyset marks the cases where the reflex of the proto-sound is phonologically null, i.e. absent, in the vocabulary item in question) gives only a partial list of the cognate sets illustrating the most obvious sound correspondences that were used to reconstruct a preliminary segmental inventory for P-API. From left to right, the first column of Table 1 provides the English gloss of the cognate sets given in the second, third and fourth columns for Apurinã, Piro and Iñapari, respectively; whereas the fifth column gives the reconstructed proto-sounds for P-API. These reconstructed forms are easily arrived at when their reflexes remain the same in all the sister languages, as shown by most of the sound correspondences given in the table above. So, for example, in the cognate set *pekiri:pexØri:pehiri* ‘agouti’, since the word initial sound *p* remains constant in the same environment across the three items being compared, **p* can be posited as the ancient (proto-sound) which the reflexes *p:p:p* descend from. In other cases, however, a number of sound changes needs to be posited in order to determine which proto-sound will be reconstructed. For example, in the cognate set *kotfi:kotfi:Øoti* ‘rat’, the word initial phoneme *k* is found both in Apurinã and in Piro, respectively, but the same phoneme is absent in the word initial position in Iñapari in pretty much the same environment (where the absence of the phoneme is represented by \emptyset). Since the odds are that it is more likely that one language alone changed, while the other two did not, rather than the reverse (there being no evidence to the contrary), and since the dropping of a consonant is quite common as a historical phonological process (i.e. more common than the addition of it) across languages, we can posit that in the correspondence set *k:k:Ø*, **k* was originally found in P-API, and that this original sound was preserved in Apurinã and in Piro, but **k* was dropped in word initial environment in Iñapari. In fact, to give a more complete picture, **k* was preserved (as *k*) in all environments in Apurinã (as

¹ The content of this appendix is presented with a slightly different wording in Facundes 2000.

Table 1: Sound correspondences and a preliminary reconstruction of the proto-phonemes

GLOSS	APURINÃ	PIRO	IÑAPARI	PROTO-PHONEME
	<i>*p > p</i>	<i>*p > p</i>	<i>*p > p</i>	<i>*p</i>
agouti	<i>pekiri</i>	<i>pexØri</i>	<i>pehiri</i>	
	<i>t* > t</i>	<i>*t > t</i>	<i>*t > t</i>	<i>*t</i>
butterfly	<i>katato</i>	<i>katato</i>	<i>Øatfaú</i>	
	<i>*ts > ts</i>	<i>*ts > ts</i>	<i>*ts > t</i>	<i>*ts</i>
urine	<i>tsína-ka</i>	<i>tsíná-ka</i>	<i>tíní-ʔa</i>	
	<i>*tx > ts</i>	<i>*tx > t</i>	<i>*tx > tf</i>	<i>(*tx)</i>
breast	<i>-tenɪ</i>	<i>tØnɪ</i>	<i>tʃini-</i>	
	<i>*tf > tf</i>	<i>*tf > tf</i>	<i>*tf > tf</i>	<i>*tf</i>
sand, beach	<i>kípatʃi</i>	<i>xØpatʃi</i>	<i>hipáʃi</i>	
	<i>*k > k</i>	<i>*k > k</i>	<i>*k > Ø / # {*a, *u}</i>	<i>*k</i>
rat	<i>kotʃi</i>	<i>katʃi</i>	<i>Øutʃi</i>	
	<i>*s > s</i>	<i>*s > s</i>	<i>*s > Ø / {*a, *e, *o, *u}</i>	<i>*s</i>
moon	<i>kasíri</i>	<i>kØsíri</i>	<i>ØaØírí</i>	
	<i>*f > f</i>	<i>*f > f</i>	<i>*f > h</i>	<i>*f</i>
fish	<i>ʃima-</i>	<i>ʃima</i>	<i>himá</i>	
	<i>*x > f / _i</i>	<i>*x > x</i>	<i>*x > Ø / i_i</i>	<i>(*x)</i>
earth, land, soil	<i>tíʃi</i>	<i>tʃØxi</i>	<i>tʃiØí</i>	
	<i>*h > h</i>	<i>*h > h</i>	<i>*h > h</i>	<i>*h</i>
piranha fish	<i>homa</i>	<i>homa</i>	<i>huma</i>	
	<i>*r > r</i>	<i>*r > r</i>	<i>*r > r</i>	<i>*r</i>
nose	<i>kiri</i>	<i>xØri</i>	<i>hiri-</i>	
	<i>*l > r</i>	<i>*l > l</i>	<i>*l > r</i>	<i>(*l)</i>
buzzard	<i>mayori</i>	<i>mayØli</i>	<i>mayúri</i>	
	<i>*m > m</i>	<i>*m > m</i>	<i>*m > m</i>	<i>*m</i>
piranha	<i>homa</i>	<i>homa</i>	<i>huma</i>	
	<i>*n > n</i>	<i>*n > n</i>	<i>*n > n</i>	<i>*n</i>
tongue	<i>nmi</i>	<i>nØni</i>	<i>neni(pa-)</i>	
	<i>*y > y</i>	<i>*y > y</i>	<i>*y > y</i>	<i>*y</i>
squirrel	<i>yõpáíri</i>	<i>yopitxri</i>	<i>yupítʃiri</i>	
	<i>*w > w</i>	<i>*w > w</i>	<i>*w > w</i>	<i>*w</i>
canoe	<i>kanawa</i>	<i>kanawa</i>	<i>Øanawá</i>	
	<i>a</i>	<i>a</i>	<i>a</i>	<i>*a</i>
canoe	<i>kanawa</i>	<i>kanawa</i>	<i>Øanawá</i>	
	<i>e</i>	<i>e</i>	<i>e</i>	<i>*e</i>
younger brother	<i>epɪɪ</i>	<i>hepɪɪ</i>	<i>epɪɪ́</i>	
	<i>i</i>	<i>i</i>	<i>i</i>	<i>*i</i>
earth, land	<i>tíʃi</i>	<i>tʃixi</i>	<i>tʃiØí</i>	
	<i>*l > í</i>	<i>*l > í</i>	<i>*l > i</i>	<i>(*l)</i>
breast	<i>-tenɪ</i>	<i>tØnɪ</i>	<i>tʃini-</i>	
	<i>í</i>	<i>í</i>	<i>-í</i>	<i>*í</i>
younger brother	<i>epɪ́í</i>	<i>hepɪ́í</i>	<i>epɪ́í́</i>	
	<i>o</i>	<i>o</i>	<i>o</i>	<i>*o</i>
eye, face	<i>oki</i>	<i>hoxi</i>	<i>oxi-</i>	
	<i>o</i>	<i>o</i>	<i>u</i>	<i>*u</i>
arrive	<i>apo-ka</i>	<i>hapoka</i>	<i>apú ʔa-</i>	

Proto-forms given in parentheses still require further verification before the status of their reconstruction can be confirmed.

in *katfiiti* ‘type of ant’, *katato* ‘butterfly’, *naki* ‘egg of’, *hākipa* ‘heart of’, etc.); in Piro, **k* was preserved only when preceding the proto-API vowels **a* and **o* (as in *katfiiti* ‘type of ant’, *katato* ‘butterfly’ etc., but not in *naxi* ‘egg’, *haxi* ‘heart’, etc.); finally, in Iñapari, **k* changed into \emptyset also preceding the proto-API vowels **a* and **o* (as in *Øatitfi* ‘type of ant’, *Øatfato* ‘butterfly’, etc., but not in *(a)nahi(rɨ)* ‘egg’, *hāhipa* ‘heart’, etc.). That the historical sound change posited here is real is confirmed by its regularity in the cognate sets attested, and, that it was **k* that changed into \emptyset in Iñapari, and not, for example, that the absence of *k* (i.e. * \emptyset) changed into *k* in Apurinã and Piro, can be confirmed by the fact that words which started with **a* and **o* in P-API can be found without an initial *k* both in Apurinã (as in *apɨ* ‘bone of’, *okɨ* ‘eye of’, etc.) and in Piro (as in *hapɨ* ‘bone’, *hoxi* ‘eye’ —where the presence of *h* in Piro is independently required by an obligatory insertion rule in words which, otherwise, would start with a vowel).

Additional examples attested in the languages being compared that corroborate the linguistic analysis indicate that the processes needed to posit the reconstruction given in Table 1 occur regularly enough in these languages, suggesting that such a reconstruction is, at the very least, a plausible one. The cognate sets given in Table 1 are obviously incomplete and constitute a group of some of the most obvious cognates (selected here for ease of illustration) that were actually used in the reconstruction of the segmental inventory of P-API listed in the rightmost columns of Table 1.

Finally, as seen in Table 2, a higher number of shared innovations is attested for Apurinã and Piro. Thus, this partial segmental phonological reconstruction would suggest that Iñapari might have split earlier from, possibly, Proto-Apurinã-Piro, thus allowing Proto-Apurinã-Piro to develop some innovations which were preserved by Apurinã and Piro after their (later) split from one another. Obviously, we not only need a separate phonological reconstruction for Proto-Apurinã-Piro in order to verify such a chronological sequencing of splits, but, also, we need to reconstruct elements of the grammars of these languages, aside from reconstructing some vocabulary.

Table 2: Preliminary set of shared phonological innovations

APURINĀ & PIRO INNOVATIONS	APURINĀ & IÑAPARI INNOVATIONS	PIRO & IÑAPARI INNOVATIONS
<p style="text-align: center;"><i>*tx > t</i></p> <p>Apurinā: <i>kāk̄i</i> ‘non-Indian person’ Piro: <i>kaxi</i> ‘non-Indian person’ cf. Iñapari: <i>Øah̄fi</i> ‘non-Indian person’</p>	<p style="text-align: center;"><i>*l > r</i></p> <p>Apurinā: <i>mayor̄i</i> ‘buzzard’ Iñapari: <i>mayuri</i> ‘buzzard’ cf. Piro: <i>mayOl̄i</i> ‘buzzard’</p>	<p style="text-align: center;"><i>*l > e / {*k}_</i></p> <p>Piro: <i>xexi</i> ‘man’ Iñapari: <i>Øehi</i> ‘man’ cf. Apurinā: <i>kiki</i> ‘man’</p>
<p style="text-align: center;"><i>*ts > tf / _*i</i></p> <p>Apurinā: <i>nat̄fi-</i> ‘hunger’ Piro: <i>nat̄fi-</i> ‘hunger’ cf. Iñapari: <i>nat̄i</i> ‘hunger’</p>		
<p style="text-align: center;"><i>*i > i / h_ {*r, *t}</i></p> <p>Apurinā: <i>h̄īto</i> ‘body of’ Piro: <i>hīto</i> ‘flesh’ cf. Iñapari: <i>Ø̄fi-</i> ‘flesh’</p>		
<p style="text-align: center;"><i>*u > o</i></p> <p>Apurinā: <i>ap̄oka</i> ‘arrive’ Piro: <i>hap̄oka</i> ‘arrive’ cf. Iñapari: <i>ap̄uka</i> ‘arrive’</p>		
<p style="text-align: center;"><i>*l > i</i></p> <p>Apurinā: <i>ten̄i</i> ‘breasts of’ Piro: <i>tOn̄i</i> ‘breasts’ cf. Iñapari: <i>tf̄in̄i-</i> ‘breasts’</p>		
Total of innovations: 5	Total of innovations: 1	Total of innovations: 1

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