A REFERENCE GRAMMAR OF WANANO

by

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ABSTRACT

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This dissertation is a descriptive reference grammar of Wanano, an Eastern Tukano language spoken by approximately 1600 people living on the Vaupés River in northwestern Amazonia (Brazil and Colombia). Typologically, Wanano is a polysynthetic, agglutinating, nominative/accusative language whose prominent characteristics include suprasegmental nasalization and tone, an elaborate system of noun classification, and highly complex verbal morphology involving root serialization and obligatory coding of clause modality.

The grammar is organized into seven chapters. Chapter 1 provides important socio-linguistic background information on the Wanano people: their location, demographics, and social organization, which is grounded in a marriage system based on linguistic exogamy. It also outlines current language maintenance efforts, which include the development of an orthography and materials for a Wanano bilingual education program. Chapter 2 discusses phonology, giving the phonemic inventory and presenting the basic features of suprasegmental nasalization and tonal phenomena. Chapter 3 analyzes grammatical categories: types of morphemes and criteria by which grammatical and phonological words are distinguished. Chapter 4 describes nouns and noun phrases. It includes an overview of the noun classification system, categories of nominal morphology, and types of modification in noun phrases. Chapters 5-7 address different aspects of Wanano verbs. Chapter 5 presents verbal syntax: the coding of arguments and adjuncts, basic verb phrase structure, and types of modification. Chapter 6 analyzes the semantics and morphology of verbs and shows how different classes of verbs participate in unique ways in the paradigm of verbal morphology. Chapter 7 completes the analysis of verbal morphology with a

discussion of the coding of clause modality, which distinguishes statements, questions, and commands. It includes a detailed discussion of the complex system of obligatory evidential coding of realis statements, analyzing the core semantics and extended uses of each of the five evidential categories. It shows that evidential notions also permeate categories of interrogatives and irrealis statements, these latter coded by an alternate paradigm which includes Subject agreement morphology. The conclusion reviews the major typological features of Wanano differs and outlines the directions of future research. An appendix gives 11 fully interlinearized texts.

This thesis is dedicated with love and gratitude

to my mother, Elda, and to my guys, Jorge and Julian.

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Although a single name appears on the title page, a dissertation is undoubtedly the product of an enormous group effort. As an aspiring scholar I could never have undertaken such a long and consuming project without being able to count on the infinite patience and understanding of my family and the unfaltering support of my professors.

I am very grateful to have had the opportunity to study under the outstanding faculty at the University of Colorado. I particularly wish to acknowledge Zygmunt Frajzyngier and David Rood as examples of dedication and excellence in the area of descriptive linguistics. I would also like to express my gratitude to Barbara Fox, whose vast knowledge and steadfast support guided and nurtured me throughout my studies. Most of all, I would like to thank Jule Gomez de Garcia—dedicated teacher, rigorous scholar, and admirable human whom I am proud to call my friend and mentor.

In Brazil, I have been most fortunate to have the guidance and support of Denny Moore of the Muséu Goeldi in Belém, Pará, as well as the comradeship of other researchers of indigenous languages at the Federal University of Pará and the Muséu Nacional in Rio de Janeiro. I would like to express my gratitude to the Instituto Socioambiental, and in particular to Marta Azevedo for her friendship and dedication to the Wanano education project. I am also thankful for scholarly discussions with a number of researchers who have worked in the Rio Negro region, in particular Janet Chernela, Alexandra Aikhenvald, and Elsa Gomez-Imbert. I would especially like to thank Nathan and Carolyn Waltz for their inspiring work on Wanano and for their kindness and encouragement of my research.

I do not even know how to begin to thank the Wanano people, who have shared their language, worked with me during this research, and welcomed me into their community. This thesis would certainly not have been possible without the dedication and knowledge of my

Wanano consultants Mateus Cabral, Agostinho Ferraz, Ricardo Cabral, Emília Cabral, and Domingos Cabral. Additionally, I would like to acknowledge the Wanano community leaders and teachers who are committed to efforts to preserve their language, and would like to thank the people of the community of Carurú Cachoeira for their hospitality and good humor.

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ABBREVIATIONS

1/2/3	first/second/third person
ADD	additive
ADMON	admonitive
ADV	adverbializer
ADVERS	adversative
AFFECT	affected
ALT	alternate
AN	animate
ANPH	anaphoric
ANT	anterior
ASP	aspect
ASSERT	assertion
ATTRIB	attributive
AUG	augmentative
BEN	benefactive
CLS	classifier
COLLEC	collective
COM	comitative
COMPL	completive
CONT	continuous
CONTR	contrastive
COP	copula
DEF	definite
DEIC	deictic
DEM	demonstrative
DEON	deontic
DESID	desiderative
DIFF	diffuse
DIM	diminutive
DIST	distal
DISTRIB	distributive
DUB	dubitative
DUR	durative
EMPH	emphatic
EXC	exclusive
EXRT	exhortative
FAV	favoritive
FEM	feminine
FRUST	frustrative
GEN	general/generic
HSAY	hearsay
IMPER	imperative
IMPERF	imperfective
INAN	inanimate
INC	inclusive
INCEP	inceptive
IND	individualizer
INFER	inferential
INST	instrument
INT	interrogative
INTENS	intensifier
INTENT	intention
IRR	irrealis
LOC	locative
MAN	manner
MASC	masculine
MOD	modality
MOV	movement
NEG	negative
NOM	nominalizer
NON-VIS	non-visual
OBJ	object
PART	partitive
PERF	perfective
PERM	permanent
PERMIS	permissive
PL	plural
POSS	possessive
PREDICT	predictive
PRE-SUPP	presupposition
PROG	progressive
PROX	proximate
PURP	purpose
QUANT:C	quantifier of countable N
QUANT:M	quantifier of mass N
QUOT	quotative
RECIP	reciprocal
REF	referential
REM	remote
RSLT	resultative
SG	singular
SIMULT	simultaneous
SOL	solitary
SPEC	speculative
SW-REF	switch reference
TERM	terminative
TMP	temporal
V.NOM	nominalizer of a verb
VBZ	verbalizer
VIS	visual

INTRODUCTION

1. History of the research

My research on Wanano began in 2000, when I decided to direct my efforts to the study of an indigenous language spoken in Brazil. In June, 2000, I traveled to Brazil to discuss research possibilities with Dr. Denny Moore, director of Linguistics Research at the Muséu Goeldi in Belém, Pará, as well as with the directors of COIAB, the Council of Indigenous Organizations of Brazilian Amazonia, headquartered in Manaus. COIAB, which coordinates the efforts of over 160 indigenous groups throughout Amazonia, was holding its semi-annual meeting the week I was in Manaus, and I became acquainted with some members of the Wanano community who were in town for the meeting. These community leaders told me about the Wananos' desire to have a linguist work on their language and become involved in language projects, particularly those that would promote Wanano literacy and aid in the development of materials for the bilingual education guaranteed to indigenous people by the 1988 Brazilian Constitution.

I returned to the U.S. encouraged at the possibility of working with the Wanano, and shortly thereafter, through anthropologist Janet Chernela, I was incredibly fortunate to make contact with a native speaker of Wanano, Mateus Cabral, who was living in Colorado at the time. We began working together on a regular basis in September 2000. My work with Mateus Cabral during this preliminary phase of my research gave me my first insights into Wanano phonology, morphology, basic grammatical categories, and simple syntactic relationships. I was also able to begin building a corpus of Wanano language data that included both lexical and text databases.

The second phase of my work began with my initial fieldwork trip (May/June 2001) to work with the Wanano in Brazil. This trip, financed in part by a grant from the Endangered Languages Fund, took me to the town of São Gabriel da Cachoeira, located in the northwestern part of the State of Amazonas. During my time in São Gabriel, I worked with several different native Wanano speakers: Agostinho Ferraz, from the community of Arara Cachoeira, and several members of the Cabral family, from Carurú Cachoeira: Ricardo Cabral, Emília Cabral, and Helena Cabral. I also established contacts with community leaders and teachers who were in town for the summer vacation, and who gave me my first glimpse into the present linguistic situation and needs of the Wanano community.

My second trip to São Gabriel took place in January 2002. Though not extensive, it was an extremely fruitful trip. Not only was I able to continue work with consultants, but I was also approached by a group of young Wanano teachers who were completing their teacher training and were anxious to discuss a Wanano education project that would include work on an orthography and the development of teaching materials for a bilingual school. Together we met with Marta Azevedo, coordinator of the Rio Negro Education Project at the Instituto Socioambiental (ISA), who promised support for the efforts and orientation as to how to proceed.

It was through the auspices of ISA that later fieldwork in Wanano communities became possible. All Wanano communities are located within the Área Indígena Alto Rio Negro, on the Vaupés River where it forms the border between Brazil and Colombia. Because of the current tense political situation involving both Brazilian and Colombian government forces and members of FARC (Fuerzas Armadas Revolucionarios de Colombia), access to the already-controlled region has become even more restricted.

Currently, the Brazilian military is denying all independent researchers' requests for extended access to the area. As of 2003, only long-established institutions such as ISA have been able to get permission for associated researchers to enter the AI for short periods of time to continue work related to ongoing projects.

Fieldwork during the dissertation phase (2002-2004) has been supported by grants from the Wenner-Gren Foundation and the National Science Foundation. It has included trips to São Gabriel and to the Vaupés in September 2002, January 2003, May 2003, and February 2004. The greater part of the September 2002 and May 2003 trips was spent in Carurú Cachoeira, the largest Wanano community in Brazil. During both trips, I was able to participate as the linguistic consultant in Wanano language and education workshops, realized in conjunction with the ISA Education Project. At both encounters, some 100 Wanano from eight different Wanano communities participated in the weeklong series of meetings, activities, and discussions. Language-oriented activities included discussions of issues such as orthography development and the question of a unified written form for the language, which has both significant dialect variation and is spoken in a broad geographical area which includes parts of Brazil and Colombia. During the workshops, the Wanano have also written and illustrated texts to be included in abook that will be used by Wanano teachers as a primer, **Kootiria ya me'ne buehina: wa'ikina khiti kootiria ya me'ne**, *Let's Study in Wanano: Animal Stories in the Wanano Language*. The book was published in June, 2004 under the auspices of ISA, FOIRN (Federation of Indigenous Organizations of the Rio Negro) and the Brazilian Ministry of Education, and will be distributed to all Wanano communities and schools in both Brazil and Colombia.

The Wanano have intense contact with many other languages spoken in the region: other languages from the Tukanoan and Arawakan families, as well as Nheengatú (Tupi),

Portuguese and Spanish, the national languages of Brazil and Colombia. All Wanano are multilingual, and have a keen interest in languages[1]. Thus, during the workshop, we used text-writing and other activities as tools for the Wanano to think about, recognize and understand important unique features of their own language, especially in relation to the other languages they know. We have also begun work toward the development of a grammar for use by the Wanano themselves. Finally, during the workshops, the Wanano founded ABIEWA, the Bi-National Association for the Wanano Indigenous School, the initial step in the process of establishing their own educational program and the fully bilingual education they are constitutionally entitled. Further linguistic-educational workshops (two per year) are planned for the period 2004-2006.

The January 2003 and February 2004 fieldwork trips were spent primarily in São Gabriel. The summer months are an ideal time to work there as many Wanano are in town for vacation and study. During these stays, I was able to work with different speakers in elicitation sessions and on text transcriptions. We were also able to promote several meetings to consolidate plans for upcoming workshops.

2. Methodology and corpus

Over the course of the main fieldwork phase, my database of Wanano lexemes has grown to approximately 1000 entries, over 700 of which are lexical noun or verb roots. My database of elicited sentences contains nearly 500 entries, and I have also analyzed 11 oral texts, a videotaped conversation, and 73 short texts written by the Wanano during our language workshops. Though I have used elicitation as a tool during various phases of my

[1] See further information about multilingualism and language contact in chapter 1, section 1.4.

investigation of Wanano, I have relied more on naturally occurring data—texts and conversation—as the foundation for my hypotheses and conclusions[2].

The methodological tenets which have guided the organization of my research have been 1) that language description should present the facts of the language as straightforwardly and theory-neutrally as possible; 2) that descriptions of languages should not seek to 'fit' the language into the categories established by one formal theory or another, but should include all facets of the language in question and seek to reveal their internal systematic organization; 3) that primary data for linguistic research should be naturally-occurring language—narratives and conversations—gathered within the community of speakers who use it and analyzed as much as possible within their cultural setting; and 4) that only such descriptions can provide the basic input for further comparative, typological, and historical investigations, as well as for the analysis of specific language and cultural phenomena as seen through the lens of one formal theory or another. In this way, 'descriptive work feeds back into theory, helping to refine and extend our characterisation of how languages vary and change, of what human language is like' (Dixon, 1997:128). The goal of this grammar, then, is to provide information about the language so that researchers working within a variety of theoretical frameworks may find it accessible and useful.

2.1. Summaries of oral texts

A few of the texts from my corpus are given in fully interlinearized form in the Appendix, but space considerations do not allow me to include all the texts to which I

[2] I also consider these texts to be fundamental input to my understanding of the current sociolinguistic situation of the Wanano people, their everyday life, their culture and history.

make reference in the analysis. The following short summaries of the most frequently cited texts should allow the reader to understand the context surrounding individual examples.

The Wanano Studybook is the first of three short personal narratives provided by Mateus Cabral. It is a short description of the daily routines of men and women in a Wanano community. We learn that Wanano women are responsible for planting and tending the gardens, where, among other things, they grow manioc and pineapples. It is also the women's job to process the manioc, which involves soaking, peeling, grating, extracting its poisonous liquid, toasting it into flour, or baking it into flatbread. Wanano men also help with the process of clearing ground and preparing the gardens for planting, but their main responsibility is fishing.

The Hunting Dog Story recounts an experience from Mateus's childhood. One day when he was a young boy, Mateus and his father were going off to work accompanied by their dog. The dog killed a small animal and then ran off into the forest in search of others. Suddenly, Mateus and his father heard the sound of the dog being attacked by a jaguar[3]. His father went running in the direction of the sound, but the jaguar had already carried off the dog to eat it. Mateus and his father returned home only with the animal the dog had killed. Saddened by the loss of this beloved hunting dog, the family remained 'dog-less' for quite some time.

In *The Weekend Story,* Mateus recalls what happened at typical gatherings for festivals in his community. First, friends from the neighboring communities of Arara and Ilha de Inambú arrive and gather in the chapel. After prayers, people take the food they've brought into the longhouse and all join in a communal meal. After the meal, people sit around and

[3] "Dog," Mateus once told me, "is Jaguar's favorite snack."

talk and later, there is music and dancing, accompanied by a traditional alcoholic drink made from fermented manioc liquid. Men play pan flutes and other instruments and the dancing, drinking and conversation go on throughout the night[4]. Mateus tells us that he will never forget those festivals, and laments that his going away to boarding school prevented him from learning how to play the flute and dance the traditional dances. "If I go back," he says, "I will also learn."

In the Olden Days There Were People-Stealers is one of two texts told by Agostinho Ferraz, a man in his fifties from Arara Cachoeira, who currently lives with his family in São Gabriel. He begins by saying that there used to be a kind of evil being that would steal people and take them away into the forest to eat them. One time, a man decided to visit some people in a nearby community and he told his sons that he'd probably be returning around the time of the first crow of the cock. Because it would still be dark, he instructs his sons to listen for his call and then meet him with torches on the trail. He then goes off to meet his friends, where he spends the night drinking and dancing, completely unconcerned about the family. In the meantime, at the appointed hour, the sons hear a call and go to meet their father with torches. Their mother, following them along the trail, is overtaken by an evil being with a sticky body, who embraces and glues onto her, carrying her off into the forest. The boys

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[4] I have witnessed two such festivals in Carurú, on the closing days of our workshops. The events proceed exactly as Mateus recalls and are quite interesting. The Wanano are extremely proud of their traditional dances and songs, which are accompanied by pan pipes and other types of flutes, as well as some rhythmic instruments. There are dances which can be performed while it is still daylight, others are performed only after dark. There is a main group of male dancers who wear traditional feathered headdresses and other types of adornments. Both men and women paint themselves using traditional red and black paints. Women join the dances at appointed times and all (even visiting linguists) are enthusiastically encouraged to participate.

follow them until the being enters the great hollow log where it lives. The boys run off to find their father and tell him what happened. When he hears the news, he rages back to the log, which buzzes with the sound of the many evil creatures living inside. He searches for his wife to no avail and they realize she's still inside. So, the man and his sons decide to make a fire to force the beings out. As each one comes out, they hit and kill it. Finally, the sticky being comes out with the woman still attached, but her flesh is melted and she is dying. That is how people used to lose their families, Agostinho concludes. Evil beings would always eavesdrop on peoples' plans and come in their place.

The second text told by Agostinho Ferraz is *The Curupira Who Went to the Man's House Wanting to Eat Him*. It tells of a woman who mentions to her husband one morning that she wishes she had a particular kind of fruit to eat. Her husband goes off for the day, leaving the woman and her children at home, and late in the afternoon, a strange family comes to the door carrying a large basket filled with the fruit the woman was craving. They come in, offering the woman their gift. However, there is an evil being crouching inside the basket, hidden under the top layer of fruit. When the woman reaches into the basket to examine the fruit, her hand grazes the top of its head; it is startled and jumps. The woman feels the movement and realizes what's going on, so she makes up a story that she needs to fetch water to wash the fruit, gathers her two small children and makes for the river. On her way, she grabs a large basin to use as raft for the children. A short distance from the house, she remembers her third child, a young boy who is up on the roof playing at shooting birds with his bow and arrow. She signals for him to join their escape, but he refuses. She warns him that the 'visitors' are evil beings who will eat him, but he ignores her. So, she has no choice but to leave him behind and hurry to the river, where she puts her little ones into the basin and swims out into the current to escape. Just as she's swimming away, the evil beings

run down to the shore, congratulating her on her cleverness. "We would have eaten you," they say. Then they head back to the house to eat the remaining boy. The next morning the woman returns to search for her son, but finds only his empty skin draped over the windowsill.

Evil beings and dogs also figure in two of the texts provided by Ricardo Cabral. He is also in his fifties and is from Carurú but currently lives in São Gabriel. He is the eldest of Mateus's brothers. Ricardo's first text is *A Hunter and His Dogs*, which tells of a man who goes hunting with his sons. They take several dogs along who go running off in search of animals. One small dog disappears and the man goes to look for it, but doesn't find it. While the man is searching in one place, the dog comes to a small lake across which a log has fallen. It begins to bark and run across the log. The man hears the barking and goes to find the dog, but when he arrives, he sees that the dog is being swallowed by a large snake that had been hiding in a hole by the log. He calls to his sons and they come running. Then he takes his old-fashioned shotgun and shoots the snake, which comes sliding out of the hole. It vomits up the dog and emits a human-like scream. As the scream dies away, from far away across the lake, it is answered by another, also human-like call. The man then realizes that he has shot not a regular snake but some kind of magical evil being. He shoots the snake again to make sure it's dead, chops it up and flings the pieces into the forest. He buries the dog and heads home, where he smokes and blesses himself as protection. That night, the man is visited in a dream by the dead snake's father, who comes with bow and arrow in hand, asking the man if he knows about his son's whereabouts. "My son was killed when he was hunting," he says "I come to avenge him." The man denies knowing anything about it and claims that he never goes hunting in that place. The snake father leaves, but the man wakes up afraid. In

the morning, he blesses himself and his children again. He warns them to stay away from that place, where evil beings dwell.

The longest text in my data is Ricardo Cabral's *Curupira Story*. It tells of a man who goes hunting in the forest, kills three monkeys, and becomes lost on his way home. As night falls, he comes to a clearing and decides to build himself a shelter. He cuts leaves, builds a small house, and lies down to sleep. In the middle of the night, he hears someone—or something—approaching. The man can hear the unknown visitor moving closer and he becomes frightened. Then, the visitor stops just outside the shelter and greets the man. When he doesn't answer, the visitor again greets him and the man finally responds and they talk a little. At the end of the conversation, the visitor asks the man to give him his heart. The man is taken aback and realizes that the visitor is a creature who wants to eat him. Thinking quickly, he grabs his knife and cuts out the heart of one of the dead monkeys. He sticks it on the tip of his knife and offers it out through the wall of the shelter to the creature, who gobbles it up. Two more times the creature asks for more of the man's heart to eat, until the man has given it all three monkey hearts. Then the man turns the table and asks the creature to give up his own heart. The creature agrees, but says he doesn't know how to take it out. The man offers him the knife and instructs him to push hard, all at once. The creature, tricked into stabbing itself, falls over. The man calls to him but there is no answer. Concluding that the strange visitor must be dead, the man goes back to sleep. In the early morning light, the man leaves the shelter and sees that indeed, the visitor was the great hairy creature known as a *Curupira*. He gathers his weapons and monkeys and heads home. Four years later, the man decides to return to the clearing to look for the creature. He wants to make a necklace out of the creature's beautiful, shiny teeth, but when he arrives there, he finds no trace of the being, which has apparently decomposed. When he takes his knife and slices the ground at the spot

where the creature died, he releases the spirit of the creature, which rises up and stands before him. Grateful to be awakened after a long sleep, the creature offers the man a magic stick to hunt with. All the man has to do, he says, is point the stick at an animal and the animal will fall over dead. But, the *Curupira* warns, the man can't tell anyone about it; it must remain a secret or the man will die. The man takes the stick and heads back home, rather skeptical until he comes across a *jacu* bird. He waves the stick at the bird and it promptly dies. The man then realizes that the stick is truly magical. He uses the stick to hunt from then on, but never tells anyone how he has become such a successful hunter. People ask him how he kills so many animals, but he never reveals his secret—until one day when he becomes drunk and spills the beans about the magic stick. The very next day, he is bitten by a poisonous snake and dies, his spirit going off to join that of the *Curupira*.

The Story of How Our Ancestors Got Women is the third text from Ricardo Cabral. It begins with a description of how in the past, the men from one village would form raiding parties to steal women from other groups to be wives for their sons. Once, one such group set off to a village where some promising young women lived. They arrive there in the middle of the night and begin to make their way toward the longhouse. From inside the longhouse, one woman hears their arrival and wakes up the other young women. They all escape into the forest before the men get to the house. Not knowing that the women are already gone, the men make a plan to surround the longhouse, instructing one man to run around one side of the house and another to run around the other side. Off they run until, in the dark, the two runners collide and knock each other unconscious. The rest of the men enter the longhouse to find only empty hammocks. Coming back outside, they find the two unconscious accomplices, who awaken to their friends' teasing. All head home empty-handed.

2.2. Samples of Wanano writing

A number of examples given in my analysis are taken from texts written by the Wanano themselves. Some of these short texts appear in the book *Terra das Línguas* (Land of Languages), which is a collection of texts in various languages written by the teachers who participated in the first indigenous teachers training course. The remaining texts are part of the Wanano primer, **Kootiria ya me'ne buehina** *(Let's Study in Wanano)*, which includes short stories about animals as well as texts about household items.

3. Existing scholarship

3.1. Research on Tukanoan[5] languages

Research on the languages of the Tukanoan family began to make its way into linguistics literature in the late 1960s. Among the first analyses to appear were Sorensen's article on the exogamic marriage system of the Northwest Amazonian peoples and its resulting multilingualism (Sorensen, 1967) and his dissertation on Tukano (Sorensen, 1969). During this same period, several collections of phonological sketches of indigenous languages being studied by SIL linguists in Colombia were also published; among these were sketches of some of the Tukanoan languages, including Guanano[6] (Waltz and Waltz, 1967) and Piratapuyo, the closest language to Wanano within the family (Klumpp and Klumpp, 1973). Shortly thereafter, pedagogical grammars of Guanano (Waltz, 1976) and Tukano (West, 1980) were published in Colombia.

During the 1970s and 1980s a number of excellent ethnographic studies on Tukanoan groups were also published. Both Reichel-Dolmatoff (1971) and Buchillet

[5] Both the terms 'Tukano' and 'Tukanoan' are used in the literature to refer to the language family. However, to keep reference clear in this work, I will use Tukano to refer to the language and Tukanoan to refer to the language family as a whole.

(1983) worked with the Desano. There are two superb studies of the Barasana (Hugh-Jones, 1979a) and (Hugh-Jones, 1979b) and an interesting analysis of the Bará (Jackson, 1983). Additionally, Ribeiro (1995) provides a fascinating overview of production and trade among all the groups. As an investigator of the Wanano language, I have of course particularly benefited from Janet Chernela's excellent research into Wanano culture (Chernela, 1983, 1989, 1993). I should add, though, that because all Tukanoan groups share the same basic culture and lifestyle, I have gained insight into many aspects of the culture of the Wanano by reading ethnographic studies of different Tukanoan groups.

The list of publications related to Tukanoan languages has grown and diversified steadily over the past two decades. Reference grammars of the ET languages Barasano (Jones and Jones, 1991), Desano (Miller, 1999), Cubeo (Morse and Maxwell, 1999), and Tukano (Ramirez, 1997a;1997b) are now available. Additionally, there are numerous focused studies of particular languages in the areas of phonology (Kaye, 1971; Barnes, 1996; Gomez-Imbert, 2000a; Gomez-Imbert and Kenstowicz, 2000); noun classification (Gomez-Imbert, 1982, 1988, 1996; Barnes, 1990; Derbyshire and Payne, 1990); and evidential systems (Barnes, 1984; Malone, 1988; Gomez-Imbert, 1997, 2000b). There are also two reconstructions of Proto-Tukanoan (Waltz and Wheeler; 1972; Malone, 1987). Data from Tukanoan languages has also begun to appear in cross-linguistic typological studies of such phenomena as switch-reference (Longacre, 1983), noun classification systems (Aikhenvald, 2000), language contact phenomena (Aikhenvald, 2002a), and in particular, evidentiality (Frajzyngier, 1985; Willett, 1988; de Haan, 1999, 2001a; Gomez-Imbert, 2000b, 2003; Aikhenvald and Dixon, 1998; Aikhenvald, 2003a, 2003b, 2004).

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[6] The alternate spelling Guanano was used by the Waltzes in their earlier publications. As of the 1990s, the spelling Wanano has become the norm.

Recently, there have been several attempts to bring together some of the accumulated findings in these researchers' work on the Tukanoan language family. The first is Dixon and Aikhenvald's overview of Amazonian Languages (1999), which includes a chapter on Tukanoan languages written by Janet Barnes. This chapter presents a very general overview which focuses on the common characteristics of languages in the family rather than on the features which create distinctions among them. More detailed information on individual languages in the family can be found in a second, rather more ambitious publication: the Instituto Caro y Cuervo's catalogue of linguistic data on the indigenous languages of Colombia (de Pérez and de Montes, 2000). This immense publication includes a large section with grammatical sketches and wordlists from thirteen ET languages: Tatuyo, Carapana, Bará, Barasana and Macuna (Gomez-Imbert, 2000c), Cubeo (Ferguson et al., 2000), Pisamira (de Pérez, 2000), Siriano (Criswell and Brandrup, 2000), Tukano (Welch and West, 2000), Tuyuca (Barnes and Malone, 2000), Yuruti (Kinch and Kinch, 2000), Piratapuyo (Ardila, 2000), and Wanano (Waltz and Waltz, 2000). Though these sketches were actually written in the late 1980s and vary in size and detail, their publication in one volume represents an important source of detailed cross-linguistic data on the family.

3.2. Research on Wanano

Although the first known grammatical outline of Wanano[7] was written by the Salesian missionary Antônio Giacone (Giacone, 1967), the greatest amount of work on Wanano has been done by Nathan and Carolyn Waltz. The Waltzes worked with the Wanano under the auspices of SIL in Colombia (known there as El Instituto Lingüístico de Verano) for over thirty years (1963-1996). They lived for short periods in Santa Cruz

and Vila Fátima, and then for 26 years in Jutica, where, besides conducting their language studies, they organized courses on farming, animal husbandry, mechanics, guitar, carpentry (in a sawmill they set up for the Wanano) and writing. Additionally, they proposed an orthography and developed and distributed a number of teaching materials for use in Wanano schools. Their publications include a translation of the New Testament (1981) a pedagogical grammar (Waltz, 1976), several papers on aspects of Wanano phonology (Waltz and Waltz, 1967; Waltz, 1982; Waltz, 2002), a volume containing a study of Wanano kinship terms, a grammatical sketch of the language and a long interlinearized text (Waltz and Waltz, 1997), and the grammatical overview of Wanano found in the Caro y Cuervo collection (Waltz and Waltz, 2000). Nathan Waltz also co-authored one of the two reconstructions of Proto Tukanoan (Waltz and Wheeler, 1972). His most recent work includes a comparative analysis of Wanano and Piratapuyo (Waltz, 2002) as well as a Wanano dictionary that will be published by SIL in 2005. It includes a descriptive grammar write-up, and approximately four thousand Wanano words with their phonetic realizations and Spanish translations[8].

4. Summary of the thesis

In the first chapter of this thesis I provide socio-linguistic background information about the Wanano, including information on the Tukanoan language family and the proposed subgroupings within the family. I briefly describe the system of linguistic exogamy in which the speakers of Eastern Tukanoan (ET) groups participate and discuss multilingualism and linguistic contact as important features of this system. I also give information on the demographics and geographic distribution of the Wanano people: maps indicate the language

[7] In Giacone's work, the language is referred by a third spelling: Uanano.
[8] Information from personal communication.

families spoken in the Upper Rio Negro region and the general location of the Wanano in relation to other groups. Finally, I address the issue of language endangerment and the Wananos' work toward language maintenance and the establishment of a bilingual education project.

Chapter 2 is an overview of Wanano phonology. It includes the phonemic inventory and discussions of some of the interesting issues involving specific segments and allophonic variation. It then analyzes properties of syllables, stress assignment and prosodic structure. This is followed by overviews of suprasegmental phenomena: nasalization and tone. Finally, it outlines some general phonological phenomena.

In Chapter 3, I discuss grammatical categories and the notion of 'word' in Wanano. I begin with a description of basic morphological processes and the three types of roots—noun, verb, and particle—from which nominal and verbal words are formed. I then turn to the characteristics of roots, suffixes, and clitics. Finally, I present definitional criteria for phonological and grammatical words and discuss the relationships between them.

Chapter 4 discusses the semantic classes of nouns, the properties of noun morphology, and the syntax of noun phrases. It shows that the Wanano system of noun classification distinguishes between two major classes—animates and inanimates. The class of animates is internally characterized by features such as gender, number, and 'status,' while the class of inanimates is internally characterized by features such as countability, and overtly coded by classifiers of various types. It presents noun derivation processes and shows that noun classification morphology in Wanano has both concordial and derivational functions. In the section on nominal morphology, we see that there are three major classes of morphemes: those coding lexical information, those coding grammatical information, and those coding discourse-level information. There is also a review of the phonological relationships between

roots and affixes and a summary of the phonological specifications of different types of nominal morphemes. The discussion of noun phrase structure includes a description of the order of constituents in noun phrases, as well as profiles of five types of modification: determination, quantification, possession, interrogative, and descriptive or 'adjectival.'

In Chapter 5 I discuss verbal syntax. First, I analyze intransitive, transitive and complex transitive verbs and the grammatical and semantic roles of their associated arguments. I show the means by which Wanano codes Subject, Object, and Oblique arguments, and discuss the morphological coding of adjuncts. I also discuss several types of verbs which take clausal complements. Finally, I discuss verb phrase structure and types of modification.

In Chapter 6 I describe the semantics and morphology of Wanano verbs. I show that stative verbs constitute a separate class distinguished by a reduced morphological paradigm for finite forms. The class of stative verbs includes the copula as well as verbs coding non-existence, possession, location, position, and 'adjectival' notions. I then present the full morphological paradigm of non-stative verbs and discuss other classes of verbs—activity, motion, placement, perception, and mental processes—showing that different semantic classes participate in distinct ways in morphological processes; in other words, they have separate functions as independent roots, as dependent roots, or as constituents in auxiliary verb constructions.

Chapter 7 describes the verb-final coding of clause modality, and thus completes the discussion of finite verb morphology. It begins with an overview of the major categories—coding statements (realis and irrealis), questions, and commands—and shows that they are categories belonging to a single paradigm. It then gives some theoretical background information on evidentials, one of the major categories of Wanano clause modality, followed

by a detailed description of the Wanano evidential system. There is a discussion of the morphological forms and core semantics of each of the five categories: HEARSAY, VISUAL, NON-VISUAL, INFERENCE, and ASSERTION, as well as their extended semantic functions, internal hierarchization, and epistemic values. After presenting the evidential system, realis/irrealis distinctions are analyzed and there is a description of the coding of irrealis statements. This is followed by an overview of interrogatives which shows that semantic overlap between realis, irrealis, and questions is morphologically coded in Wanano. The final category discussed is that of 'oriented' modality, which includes imperatives, exhortatives, permissives, requests, demands and warnings.

As each of the seven content chapters includes a summary and conclusion, in the general conclusion I focus on the features of Wanano which differentiate it from other ET languages and outline the major directions of and questions to be addressed in future research.

CHAPTER 1

SOCIO-LINGUISTIC BACKGROUND

1.1. The Tukanoan language family

The Amazonian basin is one of the world's richest areas in terms of linguistic diversity. Currently, just within the Brazilian portion of this vast rainforest, there are an estimated 170 languages from 31 different families, spoken by some 150,000 people (not counting the languages spoken by at least 30 tribes still resisting contact with outsiders)[1]. As is the case with indigenous languages worldwide, the situation of Amazonian languages is far from stable; since 1900, at least 90 of Brazil's 270 known native ethnic groups and their languages have disappeared, two-thirds of the remaining groups currently have fewer than 1,000 speakers, and 50 of these have fewer than 100 speakers (Nettle and Romaine, 2000:48). Thus, nearly all of the indigenous languages spoken in Amazonia are seriously endangered and it is predicted that more than half will not survive into the second half of this century.

Early in their overview of Amazonian languages, Dixon and Aikhenvald state that '[t]he Amazon Basin is arguably both the *least known* and the *most complex* linguistic region in the world today' (1999:1, emphasis mine). However, despite recognition as one of the last remaining areas of extensive linguistic diversity, Amazonia is unfortunately also one of the areas of the world in which the least amount of linguistic research has been accomplished. Linguists consider only 30% of the languages spoken there to have been even minimally described, and research on the remaining 70% progresses slowly due to a

[1] Information provided by Dr. Denny Moore of the Muséu Goeldi, personal communication.

relative scarcity of available linguists coupled with the inherent difficulties—financial, physical, and logistic—of carrying out fieldwork in the equatorial rainforest.

The languages of the Tukanoan family are spoken in northwestern Amazonia, including areas of Brazil, Colombia, Ecuador and Peru. The Western branch consists of the languages Koreguaje, Secoya, Siona, and Orejón, the first three spoken in Colombia and Ecuador, and the fourth in Peru. There are an estimated 3,000 speakers of Western Tukanoan languages (Barnes, 1999:209). Speakers of Western Tukanoan languages have little contact with speakers of Eastern Tukanoan (ET hereafter) languages, spoken in the Brazilian state of Amazonas and in the Colombian district of Vaupés. The Eastern branch is comprised of sixteen languages[2] Bará/Waimajã, Barasana, Desano, Karapana, Kubeo, Makuna, Piratapuyo, Pisamira, Siriano, Taiwano/Eduuria, Retuarã, Tatuyo, Tukano, Tuyuka, Wanano, and Yuruti[3]. These languages are currently spoken by an estimated 28,000 people. Approximate numbers of speakers of ET languages vary from the largest group, Tukano, with an estimated 10,000 speakers, to the smallest, Taiwano, with fewer than 200 (FOIRN/ISA, 2000:42-48).

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[2] The following abbreviations will be used in this work for convenient reference to ET languages: BAR (Bará), BAS (Barasana), DES (Desano), KAR (Karapana), KUB (Kubeo), MAK (Makuna), PIR (Piratapuyo), PIS (Pisamira), RET (Retuarã), SIR (Siriano), TAI (Taiwano), TAT (Tatuyo), TUK (Tukano), TUY (Tuyuca), WAN (Wanano), YUR (Yuruti).

[3] Classifications of ET languages vary. Sorensen's list of 13 languages (1967) did not include Makuna, Pisamira, or Tanimuka/Retuarã. Waltz and Wheeler's classification (1972) did not include Tanimuka/Retuarã, Pisamira, Taiwano/Eduuria or Yuruti, but did include Papiwa. Malone's (1987) list did not include Taiwano/Eduuria or Pisamira. The most recent classifications are found in Barnes (1999), which includes Tanimuca/Retuarã, Taiwano/Barasana, and Bará/Waimajã as a single language, Ramirez (1997a), which includes Waimaha as a separate language, but does not include Pisamira or Taiwano, and Gomez-Imbert and Kenstowicz (2000), the source for the sixteen languages listed in the text. SIL's Ethnologue lists 25 languages in total. For the Eastern branch, they include Waimahã as a dialect of Bará, Pokanga as a dialect of Barasana, and Arapaso as a dialect of Tukano. They also list two extinct ET languages: Yahuna, whose speakers have switched to Makuna, and Miriti, whose speakers have switched to Tukano. SIL includes Tanimuka in the Western branch and lists an additional three WT languages which are now extinct: Macaguaje, Tama and Tetete.

Since scholarship on Tukanoan languages began, there have been several sub-classifications of Tukanoan languages. Sorensen (1969) did not refer to the Western languages, but posited four sub-branches of the ET languages as:

Tukano Yurutí Eduuria Tatuyo	Tuyuka Paneroa (BAS) Karapana Barasana	Piratapuyo Wanano	Desano Siriano	Kubeo

while Barnes (1999), following Waltz and Wheeler (1972) lists sub-branches for the entire family as:

Western North	Western South	Central	Eastern North	Eastern Central	Eastern South
Orejón	Koreaguaje Secoya Siona	Kubeo Tanimuka/ Retuarã	Piratapuyo Tukano Wanano	Bará/Waimajã Tatuyo Carapana Tuyuca Desano Yuruti Siriano	Barasano/ Taiwano Macuna

The categorization above, however, has been questioned by Franchetto and Gomez-Imbert, particularly in regard to the 'Central' category. They claim that this category ignores important geographic information, placing the southernmost (Tanimuka/Retuarã) and northernmost (Kubeo) groups together, and presenting no solid linguistic criteria to sustain the classification (Franchetto and Gomez-Imbert, 2003:233).

Based on a study of cognates, Ramirez (1997a) establishes 7 subgroups. These he labels as ‘languages,’ while individual members he refers to as ‘dialects:’

Western	1. Sekoya	Koreguaje	Orejón	Siona
Central	2. Kubeo			
Eastern	3. Tanimuka			
	4. Makuna	Barasana		
	Karapanã	Tatuyo		
	Waimaha	Tuyuka	Bará	Yuruti
	5. Tukano			
	6. Desana	Siriano		
	7. Wanano	Piratapuyo		

It is clear that a definitive classification of the languages in the family has yet to be established. However, the available literature does indicate that certain languages are indeed closely related, among them Wanano and Piratapuyo. Waltz (2002), for example, offers an analysis of some of the phonological and morphological similarities and differences between these closely related languages and the ways each has evolved from a reconstructed Proto Wanano/Piratapuyo.

1.2. The Wanano people: demographics and geographic location

The Wanano call themselves **kootiria**, *water people*, a name given to them by the Kubeo. According to the Wanano origin myth, the first Wanano existed in spirit form and lived in a hollow tree. Once, this spirit took on the form of a handsome man and went to a Kubeo ceremony, where he enchanted the women and lured them back to his tree. The next day, the Kubeo men followed the trail to the tree and decided to burn it, but each time the fire was lit, water would descend from the tree and douse the flames. So, the Kubeo decided that the beings inside were **Kootiria**, *water people*. Eventually, though, the fire took, and the spirit of the Wanano left the tree and traveled to the great waterfall in Ipanoré, from which all the Tukanoan peoples originate. The great spirit **Ko'amakʉ** lived there, and he blew smoke on the spirit of the Wanano, who then became human. After all the different groups had been created, there was a great celebration and dances were given to each group, but the Wanano ancestor, **Muktiro**, took the most beautiful dances and traveled upriver to what is now Carurú. At the great falls there is a rock called **Kumuno Wʉ'ʉ**, *house of the shaman*; Muktiro claimed this rock and the surrounding area as home for his people[4].

[4] This myth was recounted by Jesuíno Trindade and was transcribed and translated by his son Joselito Trindade and Flávia Azevedo in November, 2003. The Wanano have called their indigenous school **Kumuno Wʉ'ʉ**, in reference to this origin myth.

As is the case with other ET groups such as the Kubeo, Desana, Piratapuyo, Tukano, Bará, and Tuyuca, the Wanano are citizens of two nations: Brazil and Colombia. An ISA census taken in October, 2003 establishes the Wanano population as 1,560, approximately one-third of whom currently live in Brazil[5]. The Wanano live in 21 traditional communities along the Vaupés River. The Brazilian communities, beginning with the most downstream location, are Ilha de Japú (**mu nʉko)**[6], Arara Cachoeira (**maha poa**, *macaw rapids*), Ilha de Inambú (**kha nʉko**), Puraque Ponta (**sa'mã wapa**, *electric-eel rapids*), Carurú Cachoeira (**mo phoye**, *salt plant falls*), Jacaré (**soma**, *alligator creek*), Jutica (**ñapima**, *sweet potato creek*), Taína (**nihiphoto**, *mouth of boy's creek*), and Taracuá (**mene koana ñoaka**, *black ant rapids*). All are located within the protected indigenous area (Ária Indígena) Alto Rio Negro. The Colombian communities are Ibacaba (**ñʉmʉ poa**), furthest downstream, Matapí (**bʉkakopa**, *snare falls*), Taína Columbia, Igarapé Paca (**sama nia phito**, *mouth of white spotted agouti creek*) Macuco (**phota phito**, *mouth of thorn creek*), Ananás (**sãne oaka**, *pineapple rapids*) Vila Fátima (**boho poa/wate poa**, *tapioca rapids*), Inambú Ponta (**kha phito**, *mouth of hawk creek*), Tamanduá (**mie phito**, *mouth of anteater creek*), Santa Cruz (**poa wapa**, *hairy stone rapids*), Tabatinga (**bota poa**, *white clay rapids*) and Taiaçú (**yese poa**, *pig rapids*). Wanano communities in Brazil range in size from those with a few houses and a total of 15-25 inhabitants to the largest

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[5] The indigenous people in the border regions travel frequently to communities in both countries, and it is not uncommon for children to have siblings who were born in another country. Often, entire families will spend extended periods visiting relatives in communities on the other side of the border and their movement is rarely restricted by the authorities.

[6] Wanano names and translations, where known, are given in parentheses. The names commonly used and which appear on maps are a mixture of Língua Geral (Nheengatú) and Portuguese.

village, Carurú Cachoeira, with approximately 100 inhabitants[7]. The largest of the Colombian communities is Vila Fátima, with several hundred residents.

In Brazil, outside of the traditional communities, concentrations of Wanano can be found in Iauaretê, an 19th-century mission community located some 30 miles downstream from the first of the Wanano communities, and São Gabriel da Cachoeira, a town of approximately 18,000 people, located on the Rio Negro about 100 miles downriver from the Wanano communities. Iauaretê is located within the Alto Rio Negro Indigenous Area (IA), and São Gabriel is just outside its southeastern border. All of the Alto Rio Negro IA belongs to the municipality of São Gabriel, the only urban center in an area of over 43 thousand square miles.

In Figure 1.1. below, we see that the geographic region which includes the Alto Rio Negro IA and the areas surrounding São Gabriel is home to speakers of Eastern Tukanoan, Arawakan, Maku, Yanomami, and Tupian (Língua Geral, also known as Nheengatú) languages, some 22 in total. Approximately 90% of the residents of São Gabriel are indigenous people, most of whom have migrated there from the surrounding regions in the last two decades.

[7] Census information was provided by Flávia Azevedo, personal communication.

FIGURE 1.1. LANGUAGE FAMILIES OF THE MIDDLE AND UPPER RIO NEGRO[8]

[8] Translation of the key: cross-hatching = Eastern Tukanoan; dots = Arawakan; shading = Maku; diagonal lines = Tupian (Língua Geral); circumflex accents = predominantly Língua Geral, with ET and Arawakan mixed in. Obs: In São Gabriel da Cachoeira, Santa Isabel (to the east on the Rio Negro), and Cucuí (north of São Gabriel, on the border with Venezuela) Portuguese is also spoken. Solid lines indicate the borders of Indigeneous Lands (Terras Indígenas). I am grateful to the Instituto Socioambiental for allowing me to reproduce this map.

FIGURE 1.2. LOCATIONS OF LANGUAGE GROUPS IN THE UAUPÉS BASIN[9]

Figure 1.2. shows the geographic area in which the Wanano live and the locations of surrounding groups. The small box on the northern margin of the Uaupés/Vaupés indicates Carurú Cachoeira, the site of some of my fieldwork.

[9] Copyright 1992 by Janet M. Chernela. Reproduced with permission.

1.3. A brief history of contact[10]

Although they live in an area which is extremely remote and even today difficult to reach, the peoples who live along the Upper Rio Negro and its affluents have had various types of contact with outsiders for nearly five hundred years. The first mention of the Vaupés (Uaupés) is found in the records of Philip von Hutten and Hernan Perez de Quesada's expedition (1538-1541), which followed the Orinoco river inland in search of El Dorado. The first reference to the river with 'water black as ink' (the Rio Negro) is found in the 1542 records of the expedition headed by Francisco Orellana, traveling inland on what is now known as the Amazon. Neither of these make mention of the inhabitants of the region.

During the 1600s, occupation of northern coastal areas by Europeans led to further exploration, and from the early part of the century, indigenous people from the Upper Rio Negro region were captured by Carib groups invading from the north, who enslaved them and traded them to the Dutch. Throughout the 1700s, numerous Portuguese expeditions penetrated from the east, enslaving thousands of Indians and spreading diseases such as small pox and measles, which all but decimated entire populations.

The Jesuits arrived in the late 1700s and from their base in São Gabriel da Cachoeira, established a mission at Ipanoré, midway between São Gabriel and Iauaretê, where a nearly impassible waterfall formed a natural impediment to further upriver exploration. Missionary activity expanded in the 1800s, first by Capuchins, and later by other Franciscan orders, alongside official programs for the resettlement of Indians from the Içana, Vaupés and Xié rivers to Ipanoré and other upriver missions. The practice of

[10] This brief summary is based on the more detailed accounts found in Chernela (1983) and (1993) as well as FOIRN (2000).

resettlement continued into the 20th century, despite the Indians' resistance to policies dictating that they should leave behind their traditional lifestyle and social organization, adopt new agricultural methods, provide labor and forest products for colonists, defend territories claimed by the crown, and generally be educated in the ways of the dominant white Europeans.

The Salesian presence in the Upper Rio Negro area dates to the second decade of the 1900s. Between 1915-1945, they founded missions in São Gabriel, Taracuá, Iauaretê and Pari Cachoeira, which became centers of religious, educational, and mercantile activities. They established schools in smaller communities and three large boarding schools at the missions. The most promising students were sent to live at these schools from about the age of 9, and some went on to secondary schools in São Gabriel[11]. These schools still exist, though they stopped boarding students at the end of the 1980s. Besides their focus on education, the Salesian presence had profound effects on everyday life in Indian communities[12]. Appointed 'animators' mediated relations between the missionaries and local populations, catechists performed weekly religious rituals in the communities and

[11] My first consultant, Mateus Cabral, was one such student. After the age of 9, he attended boarding schools in Iauaretê and later in São Gabriel, only returning to his community for school vacations. He then completed a technical course in agriculture, worked in tourism in Manaus, and eventually traveled to the U.S. where I met him. One of the legacies of the Salesian presence among the Indians was to instill formal education as a value. However, the quest for such education resulted in the removal of hundreds of children from their families and cultures. As a countermeasure to such removal, entire families have moved to more urbanized centers in order to accompany their children. However, there is little paid work for the adults, and the infrastructures in these larger centers cannot support traditional subsistence gardening and fishing. In an effort to inhibit such migration, the current official educational policy is to strengthen local primary schools, grades 1-4, and to expand others to include grades 5-8. The first school in a Wanano community to include these upper grades was established in 2003 in Carurú.

[12] An interesting example of Salesian research into and view of the indigenous cultures of the region is found in Silva (1962).

encouraged the Indians to abandon their traditional beliefs and practices, including the habit of dwelling in communal longhouses, **malokas** (Chernela, 1993:40-41). The first mention of the Wanano people appears in the records of naturalist Alfred Wallace's 1852 expedition along the Uaupés. Of the ten communities he mentions, only half are presently inhabited, among them Carurú, famous for its enormous falls which he describes as:

> ' . . . greater than any we had yet seen, —rushing amongst huge rocks down a descent of perhaps fifteen or twenty feet. The only way of passing this, was to pull the canoe over the dry rock, which rose considerably above the level of the water, and was rather rugged, being interrupted in places by breaks or steps two or three feet high' (Wallace, 1969:239-240, quoted in Chernela, 1996:33).

In 1904, the German ethnologist Theodor Kock-Grünberg spent several weeks in the Wanano region. His seminal work includes detailed descriptions of settlements such as Matapí and Carurú, whose population he then estimated at 200; information on the history and occupation of Wanano territory; accounts of the relations between the Wanano, Baniwa, and Kubeo; as well as observations of exchange ceremonies, dances and burial practices. He also made some of the first observations of the petroglyphs which exist throughout the region (Koch-Grünberg, 1995:55-67).

1.4. Linguistic exogamy: the Vaupés social system

The Wanano people participate in the well-known exogamic and multilingual Vaupés social system originally described by Sorensen (1967) and further documented by linguists and anthropologists such as Chernela (1983, 1989, 1993), Jackson (1983), Hugh-Jones (1979), and Gomez-Imbert (1991, 1999b). For the people who participate in this system, identity is established by patrilineal descent and has language as its primary marker. One's relatives are all who speak one's father's language, while groups with which one's group maintains affiliation through marriage are collectively considered 'in-laws.' Marriage is permitted only between individuals who are not related, in other words,

whose fathers speak different languages[13]. One's siblings include one's own blood brothers and sisters, as well as the children of one's father's brothers and all children of men of the same generation within the ethnic group. All are classificatory siblings with whom one may not marry. Moreover, each group within the system considers certain other groups, though speakers of different languages, to be 'brother groups,' too closely related in historical/mythological terms to be deemed eligible marriage partners. According to Chernela (1993:27-48), the Wanano traditionally consider four groups to be 'brother groups' and therefore unmarriageable: the Piratapuyo, Arapaço, Siriano, and Tuyuka. The system may be breaking down slightly for some groups, though, since I know of current cases of Wanano men with Tuyuka and Siriano wives (see the statistics on in-marrying wives in Carurú given in the next section). Traditionally, the most common groups with whom the Wanano intermarry are the Tariana, Desano, Tukano, and Baniwa, a tendency which still persists, as the statistics also indicate. What is most interesting to note about the Vaupés system is that although all of the participating groups are located in the same general geographic area, it is not spatial but historic-cultural criteria that determine distinctions of marriageability.

Traditionally, the ideal marriage was one arranged for cross-cousins; in other words, a wife for a young man would be preferably sought among his father's sister's daughters, as first choice, or among his mother's brother's daughters, as the second choice of preferred 'marriageables.' If no such direct cross-cousins were available, daughters of classificatory 'in-laws' could also be acceptable candidates. This type of marriage system, which is locally referred to as 'sister-exchange' and is known as Dravidian in the anthropological literature, forms the basis for the system of linguistic exogamy among Tukanoans and other linguistic

[13] There are, however, two ET groups, the Makuna and the Kubeo, who recognize language/group-internal exogamous units, the result being marriages between speakers of the same language. For more on these, see Chernela (1989) and Gomez-Imbert (1999b).

groups in the Vaupés region[14] (Hugh-Jones, 1979). Today, fewer marriages are arranged and most young people can choose their marriage partners, yet they do so while still preserving the basic tenets of the system. I know of no couples whose union would be deemed 'inappropriate' according to the system[15].

1.4.1. Multilingualism

Overall, the system of linguistic exogamy still persists and has two important ongoing linguistic consequences. The first is widespread multilingualism in both individuals and communities. Children grow up within a community in which the common language is that of their fathers, however, the prevailing division of labor establishes that young children spend most of their time with their mothers; consequently, they learn at least some of their mother's language first[16]. They may additionally learn, to a greater or lesser extent, the languages of other women married to men in the community, since in-marrying women continue to use their own languages[17]. From the age of about five or six, however, children are expected to make the switch to primary use of the father's language, the language used on a daily basis as the main means of communication in the community

[14] The linguistic groups which participate in this system are for the most part Tukanoan and Arawak. Though they live in the same geographic area, the Maku groups, considered to be speakers of 'not quite human languages' are excluded from the system (Gomez-Imbert, 1989:37).

[15] I have been told about isolated cases of incest which have resulted in the same type of social ostracism that would result from a union of siblings in my own society: such marriages are not recognized and the people involved are no longer welcome within any traditional community.

[16] Whether a speaker retains his or her mother's language depends, of course, on factors such as the degree of continued contact, the number of other women in the community who also speak the language, and the amount of time spent visiting with the mother's relatives.

[17] In-marrying women, though they live in their husband's community, do not take on the identity of their husband's group. A Desano woman who marries a Wanano man, for example, continues to be a Desano and as such, will continue to use her language whenever possible even after she has learned the language spoken in her new community. Her children, however, are Wanano, given that identity is by patrilineal descent.

and the main symbol of inherited patrilineal identity. At about the same time, children are introduced to one of the national languages, Spanish or Portuguese, as the languages used in schools. The result is that residents in traditional communities typically become fluent in several languages of the region, and can understand and communicate passably well in a few others as well as in the national language.

I discovered that such multilingualism is very much a reality as I looked at the results of a linguistic census among the participants in our first workshop in Carurú. Participants were asked to list the languages they knew and to self-evaluate whether they spoke each one **noano**, *well*, **phiro**, *so-so*, or **ñano**, *badly,* (which they defined as 'understanding a little but not really able to speak)[18]. 32 people completed the form and the results are given below. Even without including languages classified as spoken 'badly,' the numbers are quite impressive (enough to put a merely bilingual researcher to shame).

NUMBER OF LANGUAGES SPOKEN 'WELL' OR 'SO-SO'	NUMBER OF SPEAKERS
3	3
4	3
5	14
6	6
7	3
8	3

Two completed forms from the census are reproduced below to illustrate some of the characteristics of multilingualism mentioned above. The first form is from a 52-year-old man from the community of Ilha de Inambú. Besides Wanano (Kotiria), the languages he speaks well are Piratapuyo, Spanish, Portuguese, and, not unexpectedly, his mother's language, Baniwa. Additionally, he has a fairly good knowledge of Desano and can

[18] A translation of the form is given in chapter 5, section 5.7.2.1.

understand a little Tuyuka and Makú. The second form is from a 25-year-old man from Jutica. He speaks Wanano, Tukano, Piratapuyo, and Portuguese well. He considers his knowledge of Spanish and of his mother's language, Desano, passable, but he only understands a little Kubeo. I should also point out that the younger speaker's knowledge of Tukano is typical of most of his generation, among the last to be sent to the mission boarding schools, where Tukano was the lingua franca among students. The promotion of Tukano as the lingua franca of the region, especially in the latter part of the 20th century, was to a great extent an imposition of catholic missionaries, who elected it as the language to be used in their education and evangelization efforts (Gomez-Imbert, 1991:552).

The fact that all married women in any given community are speakers of other languages makes each community a micro-example of the system as a whole. Any community, no matter how small, will be composed of speakers of a number of different languages. Data from the 2003 Carurú census, for example, show that in a population of only 100 people, seven different languages are spoken by 23 in-marrying wives[19]:

ETHNIC GROUP	Tariana	Tukano	Desano	Baniwa	Kubeo, Tuyuca, Siriano
IN-MARRYING WIVES	7	6	4	3	1 from each group

[19] Note that the current distribution reflects the historically established preference groups mentioned in the previous section.

1.4.2. Linguistic convergence and divergence

The second consequence of the system of linguistic exogamy is, of course, intense, ongoing linguistic contact. One of the general results of this long-term contact has been the widespread diffusion of linguistic features such as tone, nasalization, use of serial verbs, switch-reference marking, and evidential systems, leading researchers such as Dixon and Aikhenvald to describe the Vaupés as a distinct 'linguistic area' (Aikhenvald and Dixon, 1998:241). In a pioneering, in-depth study of change resulting from linguistic contact, Aikhenvald (2002a) compares features of Tukanoan languages with those of Tariana (Arawak) to analyze areas of diffusion in phonological phenomena, pronominal and nominal categorization systems, verbal morphology, clause structure and discourse organization. She argues that the Vaupés linguistic area is unique in that dominance of any one group over others is not a characteristic of the social system: basically, the languages in contact within the system of exogamous marriage share equal status[20]. In contrast to many contact situations, there is very little borrowing, a restriction which helps preserve each language as separate. This is why evidence of convergence must be sought in grammatical structures rather than in the lexicons of specific languages (Aikhenvald, 2002a:266-267).

Gomez-Imbert also contributes some important insights into the nature and results of linguistic contact among the groups of the Vaupés system. In her view, the system is composed of the opposing yet complementary processes of convergence and divergence, fusion (in which features of diverse languages become more alike) and fission (in which distinctions between languages become more accentuated). The inevitable interference of

[20] The current widespread use of Tukano as a lingua franca is the result of outside interference by missionaries rather than a reflection of political dominance by the Tukano group.

a child's mother's language on the acquisition and use of the father's language is an impetus for convergence, inducing fusion in the long term. On the other hand, speakers make 'conscious and explicit efforts' to emphasize the differences between languages so that the uniqueness of each group's identity (language) can be preserved. Such marked differentiation stimulates divergence, maintaining long term fission (Gomez-Imbert, 1991:547).

In her studies of the languages of the Piraparaná region, Gomez-Imbert has found that studies of cognates and the classifications based on them have created false impressions as to the proximity between ET languages. While it may be true that words in closely related languages such as Barasana and Taiwano display similarities in terms of segments and syllabic structure, her studies show that they are often distinguished by important phonological features such as tone. The more autonomous nature of tone, as compared to features such as segments or syllables, has made tonal patterns an excellent means by which genetically-related languages can be differentiated (Gomez-Imbert, 1999b). Unfortunately, there are still few detailed analyses of the tonal systems of ET languages, but it is likely that future studies will reveal similar processes of differentiation at work between other pairs of related languages such as Piratapuyo and Wanano.

1.5. The spectre of language loss

We have seen that the multilingualism described in the previous section still survives among the Wanano who reside in traditional communities. However, there is an observable decline in use of multiple languages among the Wanano who move away from traditional communities and come to reside in communities such as Iauaretê and São

Gabriel[21]. Such migration is on the rise due to a number of different factors. Many Wanano move to the urban centers in order to accompany children completing their secondary education. Others migrate in search of educational, employment, or health care opportunities, though some are simply seeking shelter from the stormy political climate in Colombia. Whatever the motives behind migration may be, as they migrate from their traditional homes, Wanano speakers inevitably encounter new linguistic environments which require them to adopt languages other than Wanano for daily use and make maintenance of their native language extremely difficult. Language shift for some indigenous migrants occurs in stages, and may include an initial shift to one of the lingua francas, Tukano or Língua Geral (Nheengatú). Parallel or subsequent to this shift to an indigenous lingua franca, indigenous people also begin using the national languages (Spanish or Portuguese), necessary for school, access to public resources, and military service (Sorensen, 1985:146).

It is likely that Wanano children raised in urban centers such as São Gabriel will become monolingual in Portuguese within two generations. I have observed that children of adults who were raised in the traditional communities have a good passive comprehension of the Wanano spoken by the older members of their family, but they usually do not speak it themselves. Current socio-economic conditions which promote migration and its consequent language shift exacerbate the threat of endangerment and make linguistic research on Wanano and all ET languages all the more urgent. The Wanano themselves recognize the threat to their language and are eager to work on linguistic maintenance projects.

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[21] According to the 2001 *Levantamento Sócio-Econômico, Demográfico e Sanitário de Iauaretê/Centro*, conducted by ISA in collaboration with indigenous teacher in Iauaretê Centro, there were 140 Wanano living in Iauaretê, 6% of the total population numbering 2,659.

1.6. Language maintenance and educational projects

One of the things that has impressed me most about the Wanano people I have met and worked with during the course of this research is their awareness of the importance of language preservation and their eagerness to invest in projects to maintain and strengthen use of their language. Wanano is, for the most part, a healthy indigenous language; it is still the first language of nearly 1600 people, it is used in everyday life in Wanano communities and is being learned by children. Still, the Wanano people, in particular schoolteachers and community leaders who have the opportunity to participate in discussions and encounters promoted by local political organizations, are very aware that the situation could change quickly and drastically. They have seen the languages of neighboring groups such as the Tariana and Tuyuca decline to the point that they were practically moribund[22]. They have observed what happens to language use among children of relatives who have migrated to the urban centers, and they are anxious to invest in projects that will protect and fortify their culture and language.

Since the 1990s, the Wanano and other indigenous groups in the Upper Rio Negro region have been increasingly investing in political organization, founding local councils and sending representatives to meetings and workshops on everything from health care to fish farming, from the revitalization of traditional crafts to the development of literacy materials for local schools. They have organized their local associations into powerful federations such as FOIRN (Federation of Indigenous Organizations of the Rio Negro), and have established

[22] Fortunately though, both are undergoing revivals. The Tariana speakers are now basically speakers of Tukano. However, following work with linguist Alexandra Aikhenvald in the 1990s, several Tariana language and literacy workshops were organized and successfully attended. For more on the situation of the Tariana, see Aikhenvald (2002:261-264). The Tuyuca have elected to use the Tuyuca indigenous school as the main means of reviving the language. They have developed a number of books on different subjects which are used in the school, and children learn to read and write in Tuyuca. Portuguese is only introduced as a second language in the fourth grade.

alliances with organizations such as the Instituto Socioambiental (ISA). Among a variety of projects, including research on and documentation of cultural practices, demographic and geographic mapping, studies of environmental issues, and pilot projects on sustainable food production, ISA has been working with the Brazilian Ministry of Education and the state of Amazonas Secretary of Education to promote a number of programs related to indigenous education. ISA's Indigenous Education Project began in 1997, and since its inception, has invested in efforts such as the Magistério Indígena, a four-year training program for indigenous primary school teachers, guidance and funding for the publishing of didactic materials in indigenous languages, as well as support and supervision of two alternative, bilingual schools founded in 2000, one among the Baniwa and the other among the Tuyuca. Although the Brazilian Constitution of 1988 guarantees the right to bilingual education for indigenous peoples, in fact, there are scant resources available for the development of indigenous language teaching materials and teacher training. The result has been a guarantee which sounds good on paper but has little practical application. Pilot schools such as those being run by the Baniwa and Tuyuca are being closely monitored by both the educational authorities and by other indigenous peoples anxious to begin their own self-administered educational projects.

During a fieldwork trip to São Gabriel in January, 2001, I met some of the Wanano teachers who were finishing their training. They were inspired by the efforts of the Baniwa and Tuyuca and they wanted to discuss the possibility of a Wanano School project. They also wanted to discover whether or not my research could help them. I was very interested in finding practical applications for my research, and together we approached Marta Azevedo, coordinator of the education project at ISA, who immediately offered to orient and support the effort as part of the ISA project. Although the Wananos' long-term project will include

things such as research into and documentation of Wanano traditions, history, arts, knowledge of plants, animals, horticulture, astronomy, etc.[23], the teachers first of all expressed concern about the development of literacy and other teaching materials, and for that, they needed a unified writing system.

In fact, during their years in Colombia, the Waltzes proposed an orthography for Wanano, collected stories, put together a number of literacy resources, distributed materials to schools on both sides of the border and conducted writers' workshops. Because the Waltzes were based in Colombia, however, their orthography is based on that of Spanish. For the Wanano educated in the Colombian schools, the correspondences are completely clear; however, for the Wanano who have been educated in Portuguese in Brazilian schools, they can be slightly confusing[24]. Though such correspondences are in themselves not major difficulties to overcome, at present, the Waltzes' materials are generally unavailable, and the Wanano, as a whole, have no unified orthography.

In our discussions of orthography during workshops, the Wanano have expressed a desire for a writing system that will reflect the uniqueness and unity of their people and language rather than one which depends on rules from the writing systems of either national language. For example, Wanano has the consonant sound [k], but the symbol *k* is not used in either Portuguese or Spanish, and combinations such as [ka] and [ki] are written as *ca* and

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[23] Education and cultural valuing are seen as inseparable in the ISA Education Project, and thus, in 2003, funds were made available through the program for the construction of a new **maloka**, *longhouse*, in Carurú. Longhouses, though no longer used as communal dwellings, are seen as symbolic of the unity of the community. They are considered the proper place for communal meetings and festivals and are the apt environment for passing on cultural knowledge. There had not been a longhouse in the community for many years and the Wanano viewed the construction of this important community building as an important step in establishing the education project.

[24] For example, aspiration is represented in the Waltzes' orthography by the letter *j* as in **cja** [k^ha]. In Portuguese, the letter *j* is used for the sound [ʒ] and the only aspirated sound is [χ], represented by the letter *r*, as in *rio* [χio].

qui. Other than to mimic the rules of Spanish or Portuguese, there is no phonological justification for this consonant sound to be represented by two different symbols; thus, the Wanano are generally using the single symbol *k.*

Researchers at ISA are well aware that language is the primary marker of identity among ethnic groups in the Upper Rio Negro region and that the development of adequate writing systems is a primary concern. However, they have also witnessed situations in which conflicting proposals for writing systems and discussions about the 'correct' or 'incorrect' ways to write have resulted in such confusion among speakers that they quit writing altogether. Recognizing that are no absolute rules for orthography development and that as with any symbolic system, there are political and cultural factors which will influence the success of any proposal, no matter how 'linguistically' correct it may be, it has been ISA's policy to encourage writing even before proposals for unified orthographies have been made[25]. Thus, though the Wanano do not as yet have a unified writing system, they are

[25] This is an admittedly controversial policy. Many linguists working with indigenous languages argue that no orthography should be proposed for a language until it has been adequately analyzed by a linguist and that in the meantime, writing should be discouraged so as not to create confusion later on. Such argumentation is founded on two related notions: first, that linguists are best qualified to make the final decisions about how language should be represented symbolically, and second, that an orthography should, ideally, be transparent and completely representative of spoken language in order to facilitate learning. As a linguist myself, I can hardly deny that linguistic training provides a view of language which includes both phonology and the ways in which phonology relates to other structural systems, all of which must be considered in orthography development. However, as a student of history, I can also not help but recognize that a number of languages, my own included, have managed to develop writing systems without any help from the 'experts.' Over the years, decisions about 'linguistic' issues such as orthography were negotiated in political spheres or developed through historical chance, nevertheless, such haphazard and 'unscientific' writing systems have long served the purposes of their speakers. Though I risk the ire of many of my fellow linguists, I admit to viewing ISA's policy favorably. I believe that such a policy, though it is certain to produce a bit of chaos in the beginning and requires time and patience on the part of all involved, in the long run establishes a interesting balance. It both recognizes the importance of linguists' contributions to the process of orthography development, and, at the same time values the role of speakers, empowers them as decision-makers, and recognizes language as a social construct. As a participant in this type of orthography development process, then, my role is not to bring the Wanano a finished proposal for an orthography, but to guide them in examining their language and recognizing aspects which may be important to the issue of orthography. The idea is that such an approach will eventually result in a writing system which is both linguistically representative and culturally self-determined.

already writing materials in their own language for use in schools, and are deservedly proud of their efforts[26]. Throughout the process, we are trying to quell the anxiety that arises from seeing words represented different ways (sometimes by the same writer!) with doses of good humor and acceptance of the fact the present confusion is just part of the process. And together, we are engaged as partners in the examination of their language.

The Wanano rightly view the study of their language and the development of bilingual schools as important tools for long-term language preservation. Of course, we cannot predict the future; we do not know what the results of impending political and historical forces will be. There is only the hope that our present efforts will not be in vain.

> **Arithu hira waikina kiti yaurithu. Arithu hira waikina ya yaurithu. Sa ponã bueti hira. Ãyoana sã kootiria ne Bosi sã ya durkuare. Michãpokaka makaina, ba'ano makaĩna. Hiphitina. Wamanopure ñalãna yare buena ñano yʉdʉna thuotui sã. Mipʉre sã ya kootiria yare buena phiro wacheha yoaripha sã thʉoturi baro a'rire sʉha. Ã yoana a'ri thure hoaha sã kootiria. Setembro 2002 kʉma hichʉ yoari thu hira. Waikina kiti kootiria ya mene.**
>
> *This is a Wanano animal storybook. It is our animal storybook, for our children to study. This way, we Wananos won't forget how to write and speak our language. It is for those here now, and for those who come later, for everybody. When we were young, it was really hard for us to understand learning (school) in the white-people's language. Now, happily, we have our own Wanano learning. What we've been thinking about for a long time has arrived, and that's why we Wananos are writing this book. It's September, the year 2002, and we're making this book. Animal stories in our own Wanano language.*
>
> – From the introduction to **Wa'ikina Khiti**, *Animal Stories,* the first primer written by the Wanano.

[26] Examples of their writing, including the introduction to the storybook, are included in the appendix.

1.7. Photos

CHAPTER 2

PHONOLOGY

In this chapter I present an overview of Wanano phonology. Section 1 gives the Wanano phonemic inventory. Section 2 discusses the regular allophonic variants of these phonemes and the general phonological rules which account for them. Section 3 considers features of the syllable: basic shapes and restrictions, stress assignment, the role of morae in prosodic structure, and foot-level parameters. Section 4 discusses suprasegmental nasalization, and section 5 examines suprasegmental tone. Section 6 presents a few observations on general phonological phenomena such as those which occur in fast-speech.

2.1. Phonemic inventory

The phonemic inventory of Wanano is composed of 16 consonants and 6 vowels. Consonants and their defining features in terms of manner and place of articulation are given in Chart 2.1. and discussed in section 2.1.1. Vowels and the features which define them are given in Chart 2.2. and discussed in section 2.1.2.

	LABIAL	CORONAL	VELAR	GLOTTAL
PLOSIVE [-continuant] [+voiced]	**b**	**d**	**g**	
[-voiced][-aspirated]	**p**	**t**	**k**	**ʔ**
[-voiced][+aspirated]	**p^h**	**t^h**	**k^h**	
FRICATIVE/AFFRICATE [+continuant] [-voiced]		**s** **tʃ**		**h**
FLAP [-continuant] [+voiced]		**r**		
APPROXIMANT [+continuant] [+voiced]	**w**	**j**		

CHART 2.1. CONSONANTS

[1] As [r] vs. [ɾ] are not contrastive, the flap will be represented as [r] in the phonetic transcriptions.

2.1.1. Consonants

The Wanano consonant inventory is the largest in the Tukanoan language family. Of the 16 consonants, /b d p t k p^h t^h k^h s tʃ w j h/[2] occur word-initially and are fully contrastive, as we see in examples in 1a-1l. The segment /g/ can occur (albeit infrequently) in word-initial position[3], but it is more commonly found in suffix-initial position, where it contrasts with other suffix-initial segments such as /r h/, as we see in 1m-1o.

(1)	a.	**ba**	[báa][4]	*be rotten*	i.	**~sa**[5]	[sa̋a̋]	*be inside*
	b.	**da**	[dáá]	*be small*	j.	**cha**	[tʃáá]	*cooked food / feast*
	c.	**pa**	[pá]	*another* (particle root)	k.	**wa**	[wáá]	*give*
	d.	**ta**	[táa]	*come*	l.	**ya**	[jáa]	*bury*
	e.	**ka**	[káa]	*monkey*				
	f.	**pha**	[p^háá]	*stomach*	m.	**-ra**	[ra ~ ɾ̃ã]	VIS.IMPERF.NON.1 (evidential suffix)
	g.	**tha**	[t^háá]	*grass*	n.	**-ga**	[ga ~ ŋ̃ã]	IMPERATIVE
	h.	**kha**	[k^háá]	*hawk*	o.	**-ha**	[ha ~ hã]	VIS.IMPERF.1 (evidential suffix)

The segment, /ʔ/ occurs contrastively in both syllable-initial position, as in the minimal pair in 2a, as well as in coda position, as in the minimal pair in 2b[6]. (see also section 2.1.1.3. below)

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[2] Symbols for individual segments or sets of segments are given between slashes / /. Phonetic realizations are given between brackets [ ].

[3] See example 24 below.

[4] High tone in phonetic transcriptions is indicated by the acute accent marker; low tones are unmarked.

[5] Nasalization in Wanano is morphemic and is indicated by ~ preceding the morpheme.

[6] Periods indicate syllable boundaries.

(2) a.	**khʉ'a**	[k^{h}ʉ.ʔá]	*lice*	cf.	**khʉa**	[k^{h}ʉ.á]	*have*
b.	**~si'di**	[sĩʔ.nĩ́]	*drink*	cf.	**~sidi**	[sĩ.nĩ́]	*ask*

The following sections present some of the interesting issues related to consonant segments in Wanano: the two types of aspiration associated with voiceless plosives, the relation between /d/ and /r/, and the status of the glottal plosive.

2.1.1.1. Plosives: voiced, voiceless unaspirated, voiceless aspirated

The voiced and voiceless unaspirated plosives in Wanano have few distinguishing characteristics other than the limited distribution of /g/, which rarely occurs word-initially, and the tendency for coronals /d t/ to be realized interdentally. What is unique to Wanano is that it alone among ET languages has developed a three-way series of contrastive plosives. While all ET languages, including Wanano, have contrastive voiced and voiceless series at three points of articulation[7], Wanano has also developed a contrastive voiceless *aspirated* series, as we saw in 1c/f, d/g, and e/h above and in the following minimal pairs.

(3) a.	p — p^{h}	**piri**	[pîrí]	*three-sided basket*	cf.	**phi-ri**	[p^{h}ɨrí]	*big one*
b.	t — t^{h}	**tua**	[túá]	*be strong*	cf.	**thua**	[t^{h}úa]	*be near*
c.	k — k^{h}	**koa**	[kóá]	*perceive / taste*	cf.	**kho'a**	[k^{h}oʔá]	*return*

Before discussing Waltz's (2002) analysis of the development of the above contrasts, we should note that there are the *two* kinds of aspiration associated with voiceless segments in ET languages: *pre*-aspiration and *post*-aspiration. *Post*-aspiration occurs after a word-initial voiceless plosive, as in the words in the righthand column in 3 above. *Pre*-aspiration

[7] In general, the labial and coronal pairs are fully developed as contrastive segments while the velars are not. All ET languages have the frequently occurring voiceless /k/; however, besides Wanano only BAS, MAK, DES, SIR, PIR, and SIO retain the voiced counterpart /g/ as a contrastive segment. In YUR, PIS, KAR, TUY, TAT, BAR, and TUK, /g/ occurs only as an allophone or with highly restricted distribution (Gomez-Imbert, personal communication).

occurs morpheme-internally before voiceless plosives, the fricative [s] and the affricate [tʃ], as in the words in 4[8].

(4)	a.	**dapu**	[da^{h}pú]	*head*	d.	**dʉse**	[dʉ^{h}sɛ́]	*mouth*
	b.	**dita**	[di^{h}tá]	*be alone*	e.	**dicha**	[di^{h}tʃá]	*fruit*
	c.	**dʉka**	[dʉ^{h}ká]	*begin*				

There are two different analyses of the underlying segments involved in the predictable, morpheme-internal *pre*-aspiration in Wanano and the other ET languages spoken in the Vaupés region (PIR, TUK, SIR, DES, and TUY). Waltz represents such aspiration in Wanano as underlying geminate vowels, the second of which is devoiced before a voiceless consonant (2002:160). Thus a word such as **dapu** *head* is represented as [daḁpu]. Similar representations of *pre*-aspiration as a VV̥ sequence before voiceless consonants are found in studies of Tuyuca (Barnes and Malone, 2000), Siriano (Criswell and Brandrup, 2000) and Tukano (Ramirez, 1997).

Gomez-Imbert, on the other hand, analyzes the ET languages which do not have predictable *pre*-aspiration (KAR, TAT, BAS, TAN, BAR, MAK, and PIS) as having geminated morpheme-internal voiceless consonants: C: or CC. She suggests that the languages with *pre*-aspiration have same underlying voiceless CC structure, but that the initial consonants have systematically lost their associated point of articulation, leaving only a laryngeal [spread] glottal association which is realized as aspiration.

There are two reasons why I view this latter analysis more favorably. First, an analysis of underlying geminate consonants preserves the basic bimoraic structure posited for roots

[8] Because of the polysynthetic nature of Wanano, it is important to reinforce the fact that *pre*-aspiration occurs only within morphemes and not across morpheme boundaries within multi-morphemic words. Thus, in a word such as **dia-pʉ**, *river-LOC* [dĭápú], there is no *pre*-aspiration of the voiceless plosive /p/, whereas in the root morpheme **dapu,** *head* [da^{h}pú], there is.

(see section 2.3.3.1.). Second, it creates a unified underlying representation for all ET languages from which the different synchronic patterns (*pre*-aspirated vs. geminate voiceless consonants) can be derived.

According to Gomez-Imbert, while both *pre*-aspiration and *post*-aspiration are found extensively in Wanano, they are also found to some extent in all ET languages spoken in the Vaupés region (PIR, TUK, SIR, DES, and TUY also have 'morpheme-internal' *pre*-aspiration, while instances of *post*-aspiration occur in DES, TUY, TUK, and PIR)[9]. Instances of *post*-aspiration, however, are analyzed, at least for PIR and TUK, as the result of the fast speech tendency for vowel deletion morpheme-internally before /h/, as in the examples in 5.

(5) a. PIR **aarí pehè** [aʔli pʰe] *this time*
(Waltz, 2002:162)[10]

b. TUK **pahi-gó** [pa̰higó] *big woman*
(Welch and West, 2000:420)

Only in Wanano has *post*-aspiration developed into a predictable and contrastive feature. Waltz's diachronic analysis of the development of *post*-aspiration posits the series **p *t *k* for Proto-Tukanoan and the later development of aspiration on *all* word-initial voiceless plosives in Wanano, possibly due to intense contact (through marriage) between Wanano and Tariana (Arawak) speakers[11]. Then, over time, word-initial syllable erosion in Wanano[12] left previously morpheme-internal voiceless consonants (which would have been

[9] Information from personal communication and seminar discussions.

[10] In all sections which cite or refer to examples from other sources, the authors' original phonetic marking styles have been preserved.

[11] Tariana has three aspirated voiceless stops, /ph th kh/, as well as the aspirated voiced stop /dh/, aspirated nasals /mh nh and ñh/, and an aspirated bilabial glide /wh/. These are also found in Baniwa, another Arawak group with whom the Wanano have intense contact (Aikhenvald, 2002a:38).

[12] See also section 2.3.3.1. for considerations on moraic structure and compensatory lengthening as a result of syllable deletion.

pre-aspirated) in word-initial position. This created a newer, reduced set of unaspirated plosives (B) in contrast to the otherwise aspirated series (A) (Waltz, 2002:162). The two processes are schematized as follows:

The following examples from other ET languages[13] would appear to confirm at least the latter part of Waltz's analysis. The Wanano words on the right have word-initial *unaspirated* voiceless plosives and we can see, by comparing these words to the vowel-initial cognates in related languages, that a process of vowel deletion has certainly occurred.

(6)	**Yurutí**	**Tatuyo**	**Tukano**	**Piratapuyo**	**Wanano**		
a.	~ok^{h}ó	~~ʉ~~kó	akó	ak^{h}ó	**ko**	[kóo]	*water*
b.	~wat^{h}í	atá	aatá	aatá	**ta**	[táa]	*come*
c.	op^{h}í	opî	upî	upî	**pi**	[pîi]	*tooth*
d.	~ɨt^{h}á	~ɨtá	~ɨtá	~ɨtá	**~ta**	[tã́ã́]	*rock*

According to Waltz's analysis, then, lexical data should reveal the following tendencies for roots in Wanano: a) that word-initial voiceless plosives in bisyllabic roots are aspirated, and b) that unaspirated word-initial plosives occur primarily in roots with CV shape[14] (which, presumably, are the result of the diachronic erosion outlined above).

So far, my own data does not conclusively confirm these tendencies. In relation to the first tendency, a review of all CV(ʔ)CV and CV_1(ʔ)V_2 noun and verb roots which begin with voiceless plosives shows that while many such roots do have aspirated voiceless plosives

[13] Piratapuyo data are from Waltz (2002), Barasana and Tatuyo data are from Gomez-Imbert (2000b and personal communication). Tukano data are from Ramirez (1997b) and Yuruti data are from Kinch and Kinch (2000). The original phonetic representations of these authors are preserved.

[14] CV roots are realized phonetically as [CVV], given that the minimal prosodic structure of roots is bimoraic . See also section 2.3.3.1. below.

(column A), there are nearly as many which have *unaspirated* word-initial voiceless plosives (column B).

N and V Roots (CVCV or CV_1V_2) with word-initial voiceless plosives

A		B	
ph	38	**p**	12
th	11	**t**	25
kh	37	**k**	29
total	86	**total**	66

The data above would also lead us to question the second tendency, since there is obviously a fairly large number of roots which do not have CV shape but begin with unaspirated voiceless plosives.

As for CV roots, I found an essentially equal number of roots with aspirated and unaspirated initial voiceless plosives.

N and V Roots (CV) with word-initial voiceless plosives

A		B	
ph	5	**p**	4
th	3	**t**	3
kh	6	**k**	8
total	14	**total**	15

Waltz postulates that some of these aspirated CV roots may be the result of the lexicalization of the process exemplified in 5 for Piratapuyo and Tukano, whereby vowels are deleted before the glottal fricative /h/ (Waltz, 2002:164). Though there are only a few such examples, the Tukano and Piratapuyo bisyllabic cognates of these Wanano terms suggest that this may be a valid interpretation for certain cases.

(7)	**Tukano**	**Piratapuyo**	**Wanano**		
a.	akó	pehé	**pha**	[p^háá]	*time*
b.	di'pĩhi	pihĩ	**~phi**	[p^{h_r}ĩ]	noun classifier used for knives and other sharp, bladelike objects
c.	pã́hĩ́	pahî	**phi**	[p^{h}ĩ́i]	*be big*

Clearly, though, there is still more reconstructive and comparative phonological work to be done before we can give definitive conclusions about the development of the aspirated plosives in Wanano.

2.1.1.2. The relation of /d/ and /r/

We saw in example 1 that nearly all consonants regularly occur in word-initial position, the exceptions being /r and ʔ/. Example 8 below shows the consonants which regularly occur in word-internal, morpheme-initial position.

(8)	a.	**-bo-**	[bo]	DUBITATIVE (modal marker)	g.	**-chʉ**	[tʃʉ]	SWITCH REFERENCE
	b.	**-pʉ**	[pʉ]	LOCATIVE	h.	**-wʉ'rʉ**	[wʉʔrʉ]	AUGMENTATIVE
	c.	**-ta**	[ta]	INTENTION (modal suffix)	i.	**-ya**	[ja]	PLURAL
	d.	**-ka**	[ka]	ASSERT.IMPERF (evidential suffix)	j.	**-ra**	[ra]	VIS.IMPERF.NON.1 (evidential suffix)
	e.	**-si**	[si]	NEGATIVE IRREALIS (modal suffix)	k.	**-ga**	[ga]	IMPERATIVE
	f.	**-ha**	[ha]	VIS.IMPERF.1 (evidential suffix)				

We see that the aspirated voiceless plosives /p^h t^h k^h/ and the voiced plosive /d/ are the only word-initial consonants that do not also occur in word-internal position. The absence of the aspirated series in word-internal position can be explained by the development of contrastive *post*-aspiration in word-initial position only, as outlined in the previous section. As for the voiced plosive /d/, a review of the Wanano lexicon shows that this segment occurs in complementary distribution with the flap /r/, the former occurring word-initially and the latter word-internally.

According to Gomez-Imbert, the flap tends to be an allophone of the plosive in the ET languages of the Vaupés such as Tukano and Wanano, while in the ET languages of the Piraparaná region, such as Barasana, both /d/ and /r/ can occur in word-initial position, as we see in the examples in 9.

(9)	**Barasana**	**Tukano**	**Wanano**		
	diikáa	~diiká	**do'se**	[doʔsé]	*when*
	ŕii	ɗii	**di**	[díí]	*blood*
	rií	diʔi	**di'i**	[diʔí]	*meat*
	-ro	-ro	**-ro**	[ro]	SINGULAR

The two existing analyses of Proto-Tukanoan postulate different proto-segments and paths of development for these segments. Waltz and Wheeler (Waltz and Wheeler, 1972) posit proto-segments *r, *d, and *n, with subsequent merging of *d and *n to [d] and suprasegmentalization of the nasal feature. This left an underlying distinction between oral segments /r/ and /d/. There is no explanation, however, of why, if /r/ and /d/ were both underlying, they occur as allophones or in synchronic complementary distribution in languages such as Wanano.

Malone (Malone, 1987), on the other hand, lists only *d as a proto-segment, one which has remained in the ET phonemic inventory and occurs synchronically in all ET languages. Throughout all ET languages, /n/ is the nasal allophone of /d/, and in a subgroup of ET languages, /r/ has developed as a word-internal allophone.

In the case of Wanano, I posit the development of /r/ as a reduction of the voiced plosive to a flap word-internally. This is a position in which, given the basic CV syllable structure of ET languages (see section 2.3.1.), the plosive would fall between two vowels, a typical environment for weakening. Such an analysis parallels that of Ramirez for Tukano, in which he classifies /r/ as an allophone of /d/ in inter-vocalic position in oral morphemes (Ramirez, 1997a:31).

In the second paragraph of this section I stated that /d/ occurs only word-initially while /r/ occurs only word-internally actually; this statement, however, requires some qualification. There are, in fact, instances of word-internal /d/ in Wanano, as we see in 10b-c below. 10a gives nouns and a verb whose suffixes have the expected word-internal, suffix-initial /r/. 10b, on the other hand, gives a series of nouns marked by the classifier **-dʉ**, used on nouns referring to cylindrical, straight objects, and 10c gives examples of multi-morphemic verbal words in which one of the word-internal morphemes begins with /d/. While the examples in 10a conform to the original statement regarding the distribution of /d/ and /r/, the examples in 10b and 10c clearly do not.

(10) a. hi-**ra** [hĩra] ti-**ro** [tĩro] si-**ri** [sĩri]
COP-VIS.IMPERF.NON.1 ANPH-SG be.hot-NOM
you/he/she/it/they are *he/she* *hot one (day)*

b. hoa-**dʉ** [hóadʉ] ~yosa-**dʉ** [ɲõsã́dʉ] tua-**dʉ** [túádʉ]
write- CLS:cylindrical force.into- CLS:cylindrical stick-CLS:cylindrical
pen / pencil *spear / arrow* *branch*

c. chʉ-**dua**-ati-ga [tʃʉ́duatiga] ~bʉbʉ-**diha** [mʉ̃mʉ̃́diha]
eat-DESID-IMPERF-ASSERT.PERF go.quickly-go.down
(She) was wanting to eat (fruit). *(They) quickly got out of (their hammocks).*

In order to understand these examples, we must look at the patterns from a morphological perspective. What we find is that the word-internal instances of [d] in 10b occur in noun + noun classifier constructions and those in 10c occur in compounds of verb roots, while those in 10a are suffixes[15]. We can see, then, that it is the status of a morpheme in which the [d] segment occurs, rather than just its overall linear position within a phonological word which determines the applicability of the phonological distribution rule. The initial /d/ segment of a major-class morpheme such as an independent or dependent

[15] See chapter 3, section 3.2. for a discussion of the phonological properties of roots, clitics, and suffixes.

(i.e. noun classifier) lexical root remains even if it occurs as a constituent in a multi-morphemic word. In such words, the segments of major class constituents retain their original phonological features. Thus, the distribution rule actually only applies root-internally and to inflectional or derivational suffixes. This 'qualified' distribution shows how phonological and morphological processes interact, in this case to mark and retain the inherent status of morphemes.

2.1.1.3. The status of /ʔ/

The status of the glottal plosive is another of the interesting issues in Wanano phonology. The glottal is found in Wanano and in most of the other ET languages spoken in the Vaupés region (PIR, TUK, SIR, DES) but not in those spoken in the Piraparaná (BAR, BAS, KAR, MAK, TAT, TAN, TUY). Similarities in its synchronic nature as a contrastive segment are one of the criteria leading to the classification of WAN, PIR, and TUK as a subgroup within the family (Waltz and Wheeler, 1972). The following minimal pairs (as well as those given earlier in 2) demonstrate its contrastive nature in Wanano.

(11)	a.	**~si'di**	[sĩʔ.nĩ́]	*drink*	**~sidi**	[sĩ.nĩ́]	*ask*
	b.	**khʉ'a**	[kʰʉ.ʔá]	*lice*	**khʉa**	[kʰʉ.á]	*have*
	c.	**wʉ' ʉ**	[wʉ.ʔʉ́]	*house*	**wʉ**	[wʉ́.ʉ́]	*fly*
	d.	**so'a**	[so.ʔá]	*make wet*	**soa**	[só.á]	*grind*

As with the other segments discussed so far in this section, the phonological behavior of the glottal deserves further investigation. First, we recall from example 1 that the glottal never occurs word-initially. In fact, the glottal occurs only word-internally, and is unique in that it is the only segment which can appear as a syllable coda (see section 2.3. for more on syllable shapes and restrictions). These differences suggest an alternate status and perhaps very different analysis for this segment.

Once again, the two diachronic analyses present different hypotheses as to the origin of the glottal. Waltz and Wheeler's analysis postulates *ʔ and the regular retention of this segment in WAN, PIR, and TUK as well as its partial retention in DES as well as in SIO (Western Tukano) (Waltz and Wheeler, 1972:133). They view synchronic occurrences of the glottal in coda position as the result of vowel loss in a second, unaccented syllable of a three-syllable morpheme:

Ø
↑
CV.**ʔV**.CV → CVʔ.CV, followed (in most cases) by later loss of the glottal and

Ø
↑
the shift CV**ʔ**.CV → CV.CV, the predominant synchronic pattern overall. CV.ʔV morphemes would reflect the unchanged proto-morphemes, conserving the basic CV syllable structure.

Malone, on the other hand, postulates *ʔ not as a segment but as a proto-suprasegmental surfacing in sequences of like vowels in a CV.V morpheme. In order to reinforce the CV structure of the second syllable, a glottal, viewed as a default consonant, was inserted to fill the open C position (Malone, 1987, sections 4 and 6). In most ET languages, this suprasegmental was lost, but in a few (WAN, PIR, TUK and SIR), the glottal was retained and has developed into a contrastive segment in word-internal position.

Gomez-Imbert suggests a somewhat similar analysis[16]. She views Tukanoan languages as being of two basic types: some have rather strict CV syllable structure, while others also allow CVV syllables. The latter, which include KUB, YUR, PIS, KAR, TAT, BAS, MAK, BAR and TUY, do not have a glottal segment, whereas the former, Wanano among them, do. Those with stricter CV structure tend to have glottal stops (phonemic in WAN, PIR, and

[16] Personal communication.

TUK, phonetic in SIR and DES) between two vowels, the glottal apparently being the default consonant of choice to fill a vacant C spot in a CV syllable.

Though conservation of syllable structure is indeed a likely motive for consonant insertion, it does not explain why the glottal segment should be the consonant of choice, nor does it explain why we also find syllables with glottal codas (CV ʔ) in languages such as Wanano. Thus, we must look at other phonological patterns for possible explanations.

While Wanano clearly tends toward CV syllables, there is, in fact, a number of morphemes with CV.V structure in Wanano, a sample of which are given in the righthand column in 12 below. However, if we compare the tonal patterns of these words with the CV.ʔV words in the lefthand column, we see the glottal occurs between two vowels only when the first has low tone (see section 2.5. for more on tonal melodies). In high tone melodies such as those in the righthand column, no glottal occurs.

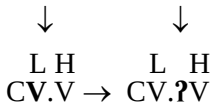
(12)	a.	**so'a**	[soʔá]	*make wet*	**soa**	[sóá]	*grind*
	b.	**bu'e**	[buʔé]	*study*	**bue**	[bú́é]	*arrow*
	c.	**khɯ'a**	[k^{h}ɯʔá]	*lice*	**khɯa**	[k^{h}ú́á]	*have*
	d.	**wɯ'a**	[wɯʔá]	*peel*	**wɯa**	[wú́á]	*wing*

Returning to earlier examples of the glottal as a contrastive segment (repeated as 13), we note the same pattern between sequences of like vowels.

(13)	a.	**wa'a**	[waʔá]	*go*	**wa**	[wáá]	*give*
	b.	**ka'a**	[kaʔá]	*be near*	**ka**	[káa]	*monkey*
	c.	**wɯ'ɯ**	[wɯʔú́]	*house*	**wɯ**	[wú́ú́]	*fly*

The occurrence of the glottal between low and high toned vowels suggests that 1) there may be an articulatory link between laryngealization and the tone of adjacent vowels, and 2) that the glottal may have a demarcative function, marking the boundary between low and

high tone. Thus, in a CV.V sequence with a LH tonal rise, the existence of a tonal boundary would motivate the insertion of *some* demarcative segment into the sequence, be they like or different vowels. Given the preference for CV syllable shape, the glottal stop, linked to laryngealization associated with tone would be a logical candidate as the demarcative segment:



Unfortunately, an analysis which focuses on demarcation as the primary function and origin of the glottal is also unsatisfactory given the fact that the great majority of lexical roots in Wanano have both CV.CV structure and LH tonal melody, but do not have a glottal at the boundary. 14 gives a small sample of such roots.

(14) a. **bʉhʉ** [bʉhʉ́] *laugh*
b. **~sayo** [saɲṍ] *scream*
c. **wihi** [wihí] *go outside*
d. **chowe** [tʃowé] *vomit*
e. **sipa** [si^{h}pá] *be shiny*

Moreover, we are left with no explanation for the origin of roots such as those in 15, which have LH tonal rises and the more unusual shape CVʔ.CV. The occurrence of the glottal in such roots does not seem to be motivated by the need for low tone demarcation, since, as the words in 14 indicate, most CV.CV roots do not have a glottal at the boundary. Furthermore, the glottal in such words constitutes the only syllable coda found in Wanano, a clear deviation from the predominant CV syllable shape.

(15) a. **dʉ'te** [dʉʔté] *tie up*
b. **~wa'ka** [wãʔkã́] *wake up*
c. **~da'bo** [nãʔmṍ] *rope*
d. **~kʉ'ba** [kʉ̃ʔmã́] *year*
e. **sa'wi** [saʔwí] *bump (on one's body)*

In fact, there is as yet no convincing explanation for the occurrence of the glottal plosive in coda position. Waltz and Wheeler (1972) suggest that such syllables are the result of reduction of what were once tri-syllabic roots of the shape $C\underset{\sim}{V_1}.\mathbf{?}V_2.CV_3$ (where V_1 and V_2 were like low-tone vowels). Over time, such tri-syllabic roots would have lost the second low tone vowel, V_2, leaving behind the glottal segment, now associated with $\underset{\sim}{V_1}$ and incorporated into its syllable structure in coda position. Thus, a new, atypical CVʔ syllable shape was created:

$$\begin{array}{c} \text{Ø} \\ \text{L}\ \ \mathbf{L}\ \ \text{H} \qquad \text{L}\ \ \text{H} \\ \text{CV.}\mathbf{?V}\text{.CV} \rightarrow \mathbf{CV?}\text{.CV} \end{array}$$

There is, however, no supporting data for such a reconstruction. Synchronically in Wanano, there are no relic roots with this shape, nor are there known cognates of this type given for any other ET language. According to Ramirez, for example, 97% of Tukano morphemes are mono or bisyllabic. There are a few cases of tri-syllabic lexemes, but these are either borrowed words or lexemes with unanalyzable suffixes; there are no cases of morphemes which would indicate an earlier pattern of tri-syllabic roots (Ramirez, 1997a:53).

Moreover, Waltz and Wheeler's reconstruction presupposes a class of roots which would have had both three morae and an initial sequence of two L tones, patterns which go against two of the basic phonological characteristics of roots in ET languages: bimoraic structure (see section 2.3.3.1.) and the association of a H tone with one of these two morae, usually the second (see section 2.5.2). These restrictions and the lack of cognates which would prove the existence of such deviant roots suggest that perhaps a better explanation lies elsewhere.

An alternate hypothesis is that alongside the suprasegmental features of nasalization and tone (discussed in sections 2.4. and 2.5. respectively) there is a third feature, [± laryngeal], associated with roots. A CVV root with a [+laryngeal] specification would

result in a CVʔV surface form (16a-d) while one with a [-laryngeal] specification would surface as CVV (16e-f).

(16)	CVV [+laryngeal]				CVV [-laryngeal]		
a.	**wʉ'a**	[wʉʔá]	*peel*	e.	**wʉa**	[wʉ́á]	*wing*
b.	**wa'a**	[waʔá]	*go*	f.	**wa**	[wáá]	*give*
c.	**khʉ'a**	[k^hʉʔá]	*lice*	g.	**khʉa**	[k^hʉ́á]	*have*
d.	**ka'a**	[kaʔá]	*be near*	h.	**ka**	[káa]	*monkey*

A CVCV root specified as [+laryngeal] would result in the CVʔCV form, in which the glottal surfaces as a coda on the first syllable (17a-d), while one with a [-laryngeal] specification would be realized simply as CVCV (17e-h)[17].

(17)	CVCV [+laryngeal]				CVCV [-laryngeal]		
a.	**~si'di**	[sĩʔ.nĩ́]	*drink*	e.	**~sidi**	[sĩnĩ́]	*ask*
b.	**phu'ti**	[p^huʔ.tí]	*leftover manioc*	f.	**phuti**	[p^hutí]	*blow (a flute)*
c.	~**da'bo**	[nãʔ.mṍ]	*rope*	g.	**~dabo**	[nãmṍ]	*wife*
d.	**~wa'ka**	[wãʔ.kã́]	*wake up*	h.	**~waka**	[wãkã́]	*move away*

2.1.1.4. The /tʃ / affricate

According to Barnes, all but two Tukanoan languages (BAS, TAT) have the voiceless fricative /s/ in their phonemic inventories and only Wanano has developed a contrastive voiceless alveopalatal affricate[18] [tʃ] (Barnes, 1999:211). More detailed and recent analysis by Gomez-Imbert[19] indicates that this statement is a simplification of a rather more complex picture. She analyzes ET languages as having contrasting sets of voiced and voiceless

[17] I am grateful to David Rood for suggesting this analysis, which may well prove to be appropriate for Wanano and other ET languages. The relationships between such a feature and suprasegmental tone will be explored in more detailed future studies.

[18] Though compositional in nature, given that Wanano allows no complex onsets, the affricate will be analyzed in this as a single segment, occupying a single position on the skeletal tier.

[19] Personal communication.

coronals distinguished by the feature [! anterior]. All ET languages have the [+anterior] set /t d/. Variation occurs in the [-anterior] category. While all ET languages have a voiced [-anterior] segment /j/ or /ɟ/, there is a tendency for those with the /j/ variant to also have the [+anterior] fricative /s/ (TUY, TAN/RET, DES, SIR, TUK, PIR, and WAN) while those with the /ɟ/ variant tend to have the [-anterior] plosive [c] (KUB, YUR, PIS, KAR, MAK, and BAR/TAI). In other words, most ET languages have either the paired segments /s/ and /j/ or the paired segments /c/ and /ɟ/. BAR and TAT, which have the voiced /ɟ/ variant, have the voiceless counterpart /c/ only in borrowings and onomatopoeic words. Wanano is unique among ET languages[20] in that it has developed a four-way contrast of [+anterior] coronals: the plosive /t/, the aspirated plosive /t^{h}/, the voiced plosive /d/ and the fricative /s/, as well as a contrasting [-anterior] set the affricate /tʃ/ and the voiced approximant /j/[21], all of which are contrastive, as we see in the examples below, repeated from 1.

(18)

	[+anterior]				[-anterior]		
a.	**da**	[dáá]	*be small*	e.	**ya**	[jáa]	*bury*
b.	**~sa**	[sa̋a̋]	*be inside*	f.	**cha**	[tʃáá]	*cooked food / feast*
c.	**ta**	[táa]	*come*				
d.	**tha**	[t^{h}áá]	*grass*				

Using supporting data basically from Piratapuyo cognates, Waltz (2002) analyzes the /tʃ/ segment as having four different proto-sources: *s (word-initially), *k, *g, and *y (word-internally), and suggests that adjacency to front and/or high vowels at earlier stages of the language motivated the changes. While the examples in 19 below would seem to confirm a

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[20] It is interesting that Western-Tukanoan Siona also has /t s tʃ/ as well as a voiced affricate /dʒ/.

word-internal correspondence between ET [k] and Wanano [tʃ], we really require more detailed cross-linguistic data from other ET languages in order to affirm the hypothesized relationships he suggests.

(19)	**Barasano**	**Tukano**	**Piratapuyo**	**Wanano**		
	we**kɨ́**	we**kɨ́**	we**kɨ́**	**wach~~ɯ~~**	[wa^{h}**tʃ**ɯ́]	*tapir*
	~yi**kɨ́**	~ye**k**ági	~ye**kɨ́**	**~y~~ɯ~~ch~~ɯ~~**	[jɯ̃^{h}**tʃ**ɯ̃́]	*leg*
	ri**k**á	di**k**á		**dicha**	[di^{h}**tʃ**á]	*fruit*
			de**k**ó	**dacho**	[da^{h}**tʃ**ó]	*day*

2.1.2. Vowels

	'front'		**'back'**			
	i	**e**	**~~ɯ~~**	**u**	**o**	**a**
[back]	-	-	+	+	+	+
[high]	+	-	+	+	-	-
[rounded]	-	-	-	+	+	-

CHART 2.2. VOWELS

2.1.2.1. Basic characteristics

Wanano shares with all Tukanoan languages a basic system of six contrastive vowels, as we see in 20. In oral morphemes, non-high vowels /e o/ are often realized as [ɛ] and [ɔ], a non-contrastive variation not indicated in the phonetic transcriptions. In nasal morphemes, the allophones of these same vowels are [ẽ] and [õ] respectively.

(20)								
	a.	**ka**	[káa]	*monkey*	i.	**~k~~ɯ~~**	[kɯ̃́]	*one*
	b.	**ku**	[kúú]	*turtle*	j.	**ki**	[kɨ́ɨ́]	*mandi (type of fish)*
	c.	**ko**	[kóo]	*water / medicine*	k.	**~ke**	[kẽ́ẽ́]	*beak*

[21] Wanano also has the voiced affricate [dʒ] as an allophone of /j/, discussed further in section 2.2. below.

Following Gomez-Imbert's analysis for Barasana, vowels are characterized in Chart 2.2. by the features high, back, and rounded (Gomez-Imbert and Kenstowicz, 2000:421). The choice of these features, rather than the high/low, front/central/back features found in Barnes (Barnes, 1999:210) and in most of the literature on ET languages, focuses attention on an important distinction between subsets of front /i e/ and back /ɯ u o a/ vowels. We will see the significance of this front/back distinction in various phonological phenomena in sections 2.2.1. and 2.2.2. below.

2.1.2.2. Vowel Harmony

One topic which is certainly deserving of future attention is the possibility, suggested by Waltz, of a system of vowel harmony in Wanano. Waltz's extensive outline of vowel shifts from the proto-vowels as well as numerous examples of variations in synchronic cognates from other ET languages are evidence that variation indeed exists. (Waltz and Wheeler, 1972; Waltz, 2000). However, whether these variations constitute a system of regular assimilation—vowel harmony—or whether they are better analyzed as the result of reduction linked to other features such as stress has yet to be determined. In this section I offer a summary of Waltz's analysis and point out some of the relevant as-yet unanswered questions.

Waltz states that: 'In Wanano, it is common for a vowel to assimilate to the position of the preceding vowel', and he gives two examples of the initial vowel of the nominalizing suffix *-iro* surfacing as [i] after a front vowel in the stem and as [ɨ] after a central vowel (Waltz and Waltz, 2000:456, translation mine).

(21)	[i] after front V [e]	[ɨ] after central V [a]
	dasé-iro	~bak-ɨdo

These examples suggest a system of harmony which:

a) operates between roots (origin morpheme) and suffixes (target morpheme)
b) has left to right (perseverative) directionality
c) affects only the first vowel of the suffix
d) has the harmonizing feature of place (front to front, central to central) but not of height

With the exception of c), the system seems to have the basic components of the definition of vowel harmony as 'Agreement among vowels in successive syllables in respect of one or more features (Matthews, 1997:400). The problem with c) is that according to Kenstowicz, ' [T]ypically all of the vowels of the language participate in the harmonic constraint. In addition, the harmony applies in an essentially unbounded fashion, affecting all the relevant vowels within the domain (typically the word) (Kenstowicz, 1994:347).' Thus, it is characteristic of vowel harmony systems that *all* the vowels in the target morpheme are affected, a feature which we do not see in these Wanano examples. Moreover, in Waltz and Wheeler's initial and more extensive presentation of vowel variations (1972), as well as in Waltz's later analyses of comparative data (Waltz, 2002), we find examples of assimilation to the feature of height rather than or in addition to backness, as well as examples of right to left (anticipatory) directionality, sometimes between morphemes and sometimes within them. Thus, while it is evident that some assimilatory processes may be at work, the exact characteristics and defining features of a vowel harmony *system*, if there is indeed such a system at work in Wanano, have yet to be fully demonstrated.

One possibility that has yet to be explored is a relationship between vowel variation and other properties of prosodic structure. Considering the prosodic structure of Wanano described in 2.3., we may eventually find that seemingly random variations in vowels are actually systematic patterns of reduction of vowels in weak positions.

2.2. Allophonic variation

2.2.1. Allophones of approximants

Both the labial approximant /w/ and the coronal approximant /j/ have fricative/affricate allophones in oral environments. /w/ is frequently realized as [v] in word-initial position (22), while /j/ has the allophone [dʒ] in both word-initial and word-internal position (23a-c).

(22)	a.	**wese**	[**w**~**v**e^{h}sé]	*garden*
	b.	**wi'i**	[**w**~**v**iʔi]	*return*
	c.	**wʉpʉ**	[**w**~**v**ʉ^{h}pʉ́]	*spider*
	d.	**wa'a**	[**w**~**v**aʔá]	*go*
(23)	a.	**yoa**	[**j~dʒ**oá]	*do/make*
	b.	**yʉkʉ**	[**j~dʒ**ʉ^{h}kʉ́]	*tree*
	c.	**phayʉ**	[p^{h}a**j~dʒ**ʉ́]	*many / a lot*
	d.	**yese**	[**j**e^{h}sé]	*pig*
	e.	**waye**	[wa**j**é]	*cut open*

Note that the variation between /j/ and /dʒ/ occurs in 23a-c, where /j/ occurs before back vowels, but not in 23d-e, where it occurs before front vowels. We see, then, that [j~dʒ] variation is conditioned by adjacency to a back vowel, our first example of allophonic variants conditioned by the front/back subclasses of vowels (as outlined in 2.1.2.1.).

2.2.2. The [r~l] variation

Another extremely common variation conditioned by subclasses of vowel is that associated with the alveolar flap /r/, which has the allophone /l/ in word-internal position when it precedes a front vowel /i/ or /e/. This variation can be seen in the following sample of Wanano writing, in which the author clearly replicates speech patterns[22]. The first line in each

[22] The Wanano are working toward a unified orthography, and in our workshops, we have analyzed a number of the texts such as this one. Because the Wanano learn to read and write languages with contrastive r/l segments such as Portuguese, they tend to write these sounds as they are spoken in their own language, preserving what they believe to be separate identities. It has been interesting to see their reaction to the discovery that these sounds in Wanano are actually variants of a single segment with different realizations depending on the sounds around them.

segment gives the author's original written version. Subsequent lines give a standardized version with interlinear glossing. Instances of [**r~l**] variation before front vowels are indicated by solid line boxes (in lines 24a and 24e), while instances without variation—[r] preceding a back vowel /a o u/, are indicated by dotted line boxes. Line 24d has a very interesting element that deserves special attention in light of two phonological rules. Note the author's rendition of the Portuguese name *Luis*: **dui**. Her Wanano version with word-initial /d/ conforms to two different underlying phonological rules in Wanano: first, that it is /r/ and not /l/ which precedes a back vowel, and second, that it is /d/ and not /r/ which occurs word-initially.

(24) **Goliro**
The good fisherman by Carmem Melo (Muniz, 2001:149)

a.

aliro	hira	wai	goholiro	tiro
a'ri-ro	**hi-ra**	**wa'i**	**go-ri-ro**	**ti-ro**
DEM:PROX-SG	COP-VIS.IMPERF.NON.1	fish	good.fisherman-NOM-SG	ANPH-SG

This guy is a good fisherman.

b.

wahaãno	waro	moñoerara	tiro
~waha-ro	**wa'a-ro**	**~boyo-era-ra**	**ti-ro**
kill-V.NOM	go-V.NOM	fail-NEG-VIS.IMPERF.NON.1	ANPH-SG

When he goes fishing, he never fails.

c.

to	wa'atsʉ	ñuna	tsʉnaka	ni	masihã.
to	**wa'a-chʉ**	**~yʉ-ra**	**chʉ-~daka**	**~di-~basi-ha**	
3SG.POSS	go-SW.REF	see-VIS.IMPERF.NON.1	eat-together	say-know-VIS.IMPERF.1	

When we see him going (fishing), we can say, "Let's eat!"

d.

to	wa'ma	õse	hira,	dui	hira.
to	**~waba**	**~ose**	**hi-ra**	**dui**	**hi-ra**
3SG.POSS	name	DEIC:REF	COP-VIS.IMPERF.NON.1	Luis	COP-VIS.IMPERF.NON.1

His name is like this: It's Luis.

e.

tiro	namotiliro	hira
ti-ro	**~dabo-ti-ri-ro**	**hi-ra**
ANPH-SG	wife-ATTRIB-NOM-SG	COP-VIS.IMPERF.NON.1

He is married

f.

pʉaro	phonatira	tiro.
phʉa-ro	**~pho'da-ti-ra**	**ti-ro**
two-PART	children-ATTRIB-VIS.IMPERF.NON.1	ANPH-SG

and has two children.

g. tina wamatira idu
ti-~da **~waba-ti-ra** **idu**
ANPH-PL name-VBZ-VIS.IMPERF.NON.1 Eduardo
They call one Eduardo

h. pairo wamatira madú.
pa-iro **~waba-ti-ra** **madu**
other-NOM:SG name-VBZ-VIS.IMPERF.NON.1 Manuel
and the other Manuel.

2.2.3. Nasal allophones

Nasalization has been identified as a suprasegmental feature found in all ET languages (Barnes, 1999:211)[23], and the Waltzes describe nasalization as one of the four major features of Guanano[24] phonemics, a suprasegmental phoneme which 'penetrates the utterances of Guanano to form certain consonant variants [as well as a set of] contrastive vowels' [1967:33].

Indeed all voiced segments—consonants or vowels—as well as the glottal fricative [h] have nasal allophones in Wanano. Chart 2.3., a modified version of Charts 2.1. and 2.2. shows these oral segments and their nasal allophones (in shaded boxes). Minimal pair examples for oral/nasal consonants which occur word-initially are given in 25 below. A complete description of nasalization as a suprasegmental process in Wanano is given in section 2.4.

[23] The first description of the nasalization process of an ET language was Jonathan Kaye's 1971 paper, *Nasal Harmony in Desano*, in which he used a generative phonology approach to explain nasal assimilation through the cyclical application of a single rule. While Kaye's initial approach was certainly able to explain surface variations, more recent analyses of nasalization in ET languages have adopted the suprasegmental approach as a more efficient means of dealing with this process.

[24] The Waltzes used the spelling Guanano in their earlier works and this spelling is retained whenever it appears in citations from these publications.

	CONSONANTS								VOWELS			
	LABIAL		CORONAL		VELAR		GLOTTAL		FRONT		BACK	
PLOSIVE	b	m	d	n	g	ŋ			i	ĩ	u	ũ
FRICATIVE							h	ɦ	e	ẽ	ʉ	ʉ̃
FLAP			r	ɾ̃							o	õ
APPROXIMANT	w	w̃	j	ɲ							a	ã

CHART 2.3. NASAL ALLOPHONES

(25)	a.	[b] / [~b]	**bʉ'ʉ**	[bʉʔʉ́]	*piranha*	cf.	**~bʉ'ʉ**	[mʉ̃ʔʉ̃́]	*you (SG)*
	b.	[d] / [~d]	**di**	[dĩí]	*blood*	cf.	**~di**	[nĩ́ĩ́]	*say*
	c.	[w] / [~w]	**waha**	[wahá]	*row / paddle*	cf.	**~waha**	[w̃ãɦã́]	*kill*
	d.	[j] / [~j]	**yo**	[jóó]	*corn*	cf.	**~yo**	[ɲṍṍ]	*show*
	e.	[h] / [~h]	**hu**	[húú]	*smoke*	cf.	**~hu**	[ɦʉ̃́ʉ̃́]	*worm*

2.3. The syllable

2.3.1. Shapes and constraints

The following syllable shapes, given in order of frequency and exemplified in 26, are found in Wanano: CV, V, CVʔ, and Vʔ.

(26)	a.	**bʉ'ʉ**	[bʉ.ʔʉ́] **CV**.CV	*piranha*		c.	**~si'di**	[sĩʔ.nĩ́] **CVʔ**.CV	*drink*
	b.	**~ugu**	[ũ.ŋṹ] **V**.CV	*blood*		d.	**a'ri**	[aʔ.rĩ́] **Vʔ**.CV	*this* (DEM:PROX)

Onsets of word-initial syllables may be any single oral consonant[25] with the exception of the glottal plosive /ʔ/ and the flap /r/. We recall, furthermore, that while the voiced velar plosive /g/ can occur word-initially, as in **goliro** (from 24 above), it is rare in this position.

[25] I refer here only to the underlying inventory of oral phonemes. Nasal allophones of any allowed oral segment also surface as onsets, but will not be specified here as they are the result of a suprasegmental feature.

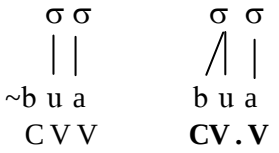
Onsets of word-internal syllables include /ʔ/ (26a), /r/ (26d) and /g/ (26b). Codas do not occur on word-final syllables, and the only allowed coda is the glottal /ʔ/ (26c-d). All syllables must have a vocalic nucleus and VV sequences are analyzed as separate syllables.

2.3.2. Association rules

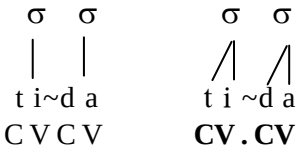
Based on the principles of syllabification as outlined by Ewen and van der Hulst (2001), we can establish the following association rules for Wanano.

1) identify each V as the vocalic nucleus
2) then, according to the onset principle, associate any C with the nucleus to its right
3) finally, for rhyme formation, associate any remaining C (in Wanano this can only be a glottal stop) with the nucleus to its left (27e-f)

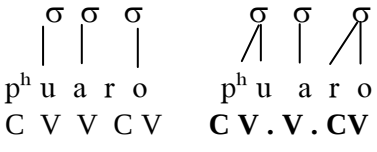
(27) a. **~bʉ-a** [mʉ̃ã́][26] *men*



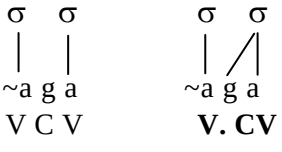
b. **ti-~da** [tína̋] *they*



c. **phʉa-ro** [pʰʉáro] *two*



d. **~aga** [ãŋã́] *snake*



e. **a'ri** [aʔ.rí] *this*

f. **du' te** [duʔté] *chop*

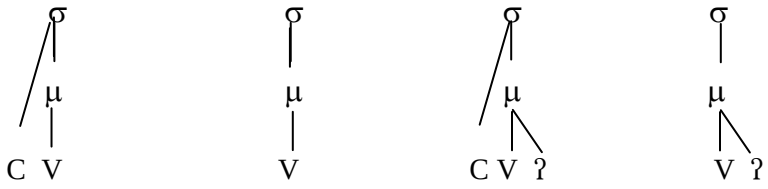
[26] Dashes indicate morpheme boundaries in multi-morphemic words.

2.3.3. Stress assignment

2.3.3.1. Mora in prosodic structure

Having discussed types of syllables and rules of association, we can now look at the assignment of stress. To do so, we must examine additional features of the prosodic structure of words in Wanano, beginning with how weight is assigned to syllables. One of the Wanano syllable parameters establishes that there are no codas, the only exception being the atypical shape CVʔ. Due to this 'no-coda' restriction, it is not possible to formulate rules by which weight is assigned to syllables according to the shape of the rhyme. Rhymes have only one basic shape in Wanano: V, and even though there are some syllables with the exceptional shape (C)Vʔ, these are never stressed, proof that the shape of the rhyme has no effect on stress determination. Therefore, weight is not product of syllable shape in Wanano and must be based on other features of the prosodic structure: mora and foot-level parameters.

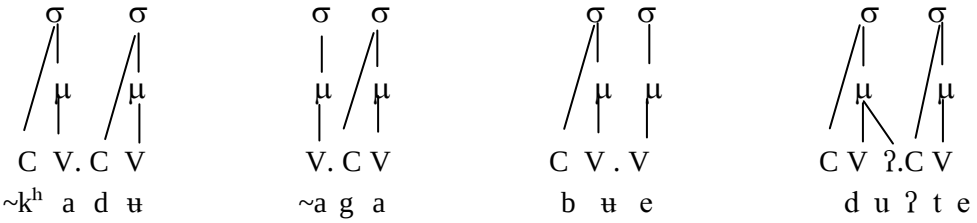
Let us begin with the claim that each vocalic nucleus is associated with a single mora and that there is no underlying contrastive vowel length. Because onsets can be analyzed as extra-moraic, directly linked to the syllable[27], and the only allowed coda has no effect on weight, each of the allowed syllable shapes in Wanano—CV, V, CVʔ, and Vʔ—is associated with one mora.



[27] Following the analysis in (Hayes and Bruce, 1999).

Though we have yet to examine grammatical categories and the concept of 'word' for Wanano (the focus of chapter 3), I will state at this point that most Wanano words are built from nominal or verbal roots. Thus, this section will focus on the typical behavior of root morphemes. An examination of the data indicates that the great majority of roots are bimoraic[28], as shown in the small sample in 28.

(28) a. **~khadɯ** [k^{h}ãnɯ̃́] *sugarcane* b. **~aga** [ãŋã́] *snake* c. **hoa** [hóá] *write* d. **du'te** [duʔté] *chop*



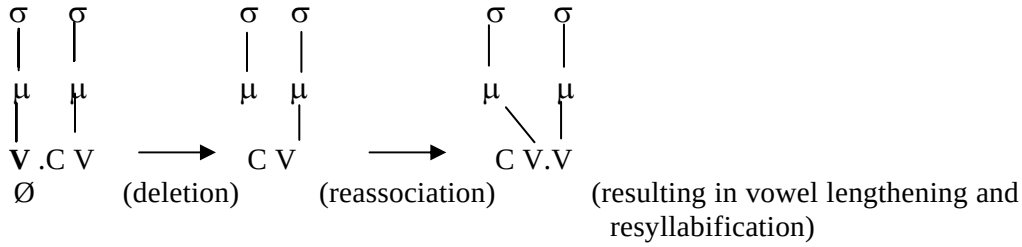
While the overwhelming majority of roots correspond to one of the patterns above, Wanano has a reasonable number of noun and verb roots which do not fit this pattern. 29 gives a sample of roots which in other ET languages are bisyllabic but which have lost the initial vowel, and hence, the initial syllable in the Wanano cognates[29].

(29)		**Tatuyo**	**Tukano**	**Wanano**		
	a.	ɯkó	akó	**ko**	[kóo]	*water*
	b.	opí	upí	**pi**	[píí́]	*tooth*
	c.	~ɨtá	~ɨtá	**~ta**	[tã́ã́]	*rock*
	d.	atá	aatá	**ta**	[táa]	*come*
	e.		~a**sɨ̂**	**si**	[síí́]	*be hot*

[28] While Barnes (1999) makes no mention of moraic structure in her overview of Tukanoan languages, bimoraic structure is analyzed as basic in Tukano (Ramirez, 1997a:53-56) and in Barasana (Gomez-Imbert and Kenstowicz, 2000:421).

[29] Waltz claims that some 60 such roots have been identified. He attributes loss of initial syllables in Wanano to combinations of syllable stress (all dropped vowels are in unstressed syllables) and features of adjacent consonants (Waltz, 2002:176-7).

If vowels (on the segmental tier) are associated with morae (on the prosodic tier), what happens to a mora when a phonological change deletes the segment associated to it? An answer may be found Hayes's analysis of compensatory lengthening and the notion that while segments are associated to positions on the prosodic tier, these tiers are independent. A segment may be lost on the segmental tier, but its position on the prosodic tier remains and will be reassociated to another segment. In the case of morae, an unassociated mora on the prosodic tier will be reassociated to the next mora-bearing unit, and the result will be a lengthening of that segment and resyllabification (Hayes, 1999:361). We see exactly this process at work in Wanano[30], where one-syllable roots, the result of initial-syllable loss, show compensatory lengthening of the remaining vowel[31]. The process can be represented as follows (leaving off association lines for onset consonants, which do not figure in mora assignment):



Once reassociation of the mora has taken place, the syllabification rules of the language will apply to redistribute segments into allowed shapes. In the case of Wanano, the long vowel resulting from compensatory lengthening is resyllabified as CV.V.

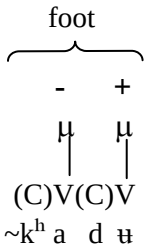
[30] Gomez-Imbert, in personal communication, confirms the same 'prosodic minimality' condition at work in BAS and TAT. CV roots are realized as monomoraic when suffixed, but become bimoraic when they constitute an independent word: the minimal length for words is two morae.

[31] The high tone of the remaining vowel may also be a contributing factor to the lengthening process.

2.3.3.2. Foot parameters

The placement of stress in Wanano falls, in the great majority of cases, on the final syllable of the root. So far, we have examined syllable shapes as well as moraic structure. However, to understand the source of this stress assignment, we must now add the higher domain of the foot to the prosodic structure of syllables.

Based on the tendencies examined so far, and following the process of parameter definition proposed by Ewen and van der Hulst (2001:219), we can analyze Wanano syllables as organized into either bimoraic feet (the predominate pattern corresponding to root morphemes) or monomoraic feet (weak or deficient feet corresponding primarily to bound inflectional and derivational morphemes). Internally, feet are right-headed (prominence is marked +). Thus, we understand the predominant pattern of final (rightmost) syllable stress attested in Wanano roots.

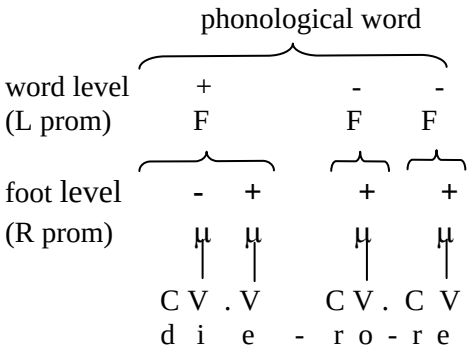


At the level of the foot, then, we find that the relevant parameter establishes feet as right-headed. However, parameters are set for different domains, and at the level of the phonological word[32], the parameter for prominence is set to the left. The result is that in a fully composed phonological word, it is the leftmost foot which is prominent. Since the leftmost foot in the word is always the root, we find a confluence of morphological and phonological prominence.

[32] See chapter 3, section 3.2.2. for a discussion of the properties of phonological words.

Let us examine a word composed of three morphemes, a noun root ***die***, *dog*, the animate singular classifier suffix **-ro**, and the object suffix **-re**, to see how the parameters work together to produce the attested surface form.

(30) **die-ro-re** [diérore] *to/for/at the dog*



Summarizing what we have seen in this section, we can say that surface-level stress in Wanano is ultimately assigned at the level of the phonological word, but is the cumulative product of parameters set at the levels of syllables and feet.

Though we have examined the way in which stress is assigned to the phonological word, we have not arrived at a full description of the surface forms of words. There are two suprasegmental features which, along with the stress assignment outlined above, determine the full realization of a word. These features are nasalization and tone.

2.4. Suprasegmental nasalization

2.4.1. Scope of the [±nasal] feature and its effect on segments and morphemes

As mentioned in section 2.2.3., nasalization is a suprasegmental feature in ET languages which operates at the level of the morpheme. All morphemes are lexically marked as either inherently nasal [+nasal], inherently oral [-nasal] or they are unmarked [Ønasal]

'chameleons[33]' to which nasalization can spread. An inherently nasal morpheme is indicated by the symbol ~ preceding the morpheme. Nasalization acts in umbrella-like fashion over the entire morpheme, affecting all voiced phonemes as well as the glottal fricative /h/; voiceless segments are transparent to nasal spreading. Suprasegmental nasalization results in the oral/nasal correspondences given on Chart 2.3. Thus, the underlying phonemic inventory can be analyzed as consisting of oral constituents only, all nasal counterparts being the surface realizations of underlying oral voiced phonemes to which suprasegmental nasalization has applied.

Underlying phonemes	/ p^h t^h k^h s tʃ ʔ p t k	h b d r g w j i ʉ u e a o /
	-voice; unaffected by nasalization	[**ɲ̃ m n r̃ ŋ w̃ ɲ ĩ ʉ̃ ũ ẽ ã õ**] **surface realizations after nasalization**

Examples of suprasegmental nasalization applied to the roots for **~dubi,** *woman* and **thua,** *stay* can be understood as follows, with all affected segments underlined:

	N	N
underlying form	**/ ~dubi /**	**/ t^hua /**
surface form	[**nũmĩ**]	[**t^hũã**]
	woman	*stay*

2.4.2. The mechanics of spreading

While the scope of the [±nasal] feature is the morpheme, the scope of spreading is the phonological word, composed of a marked [±nasal] root plus one or more affixed morphemes (which can be dependent roots or suffixes). All root morphemes are lexically classified as inherently oral [-nasal] or inherently nasal [+nasal], while suffixes are generally unmarked

[33] This term was first used by Jones and Jones in their description of Barasano (1991:14), and has since been adopted by other researchers. In this paper I adopt the [±nasal] notation used by Gomez-Imbert and Kenstowicz (2000) and use [Ønasal] to refer to morphemes which are lexically unmarked for the [±nasal] feature.

[Ønasal][34]. Unmarked morphemes are open to the spread of the [±nasal] feature, so that a [Ønasal] morpheme such as the Object marker **-re** will have one of two surface forms—either all oral [-re] or all nasal [r̃ẽ]—depending on the [±nasal] specification of the preceding morpheme. The [±nasal] feature spreads progressively from left to right from a marked [±nasal] morpheme to any unmarked [Ønasal] morphemes. Spreading of the [±nasal] feature is blocked by another inherently marked morpheme, however, and ceases at the boundary of the phonological word.

The examples in 31-33 give various combinations of these three morpheme types to demonstrate how marked [±nasal] features spread to unmarked [Ønasal] morphemes and how marked morphemes block spreading. Different combinations of morphemes result in phonological words of three types: all nasal, all oral, and mixed. Each morpheme of each example is coded as nasal (**+N**), oral (**-N**), or unmarked (**Ø**). 31a and b are examples of words composed of like marked morphemes: 31a is composed of three inherently oral morphemes: the verb root, **bu'e**, the nominalizer, **-ri**, and the classifier morpheme, **thu**, while 31b is composed of two inherently nasal morphemes: the noun root **~phoda**, and the diminutive suffix, **~ka**. Since each morpheme is inherently marked, no spreading occurs in these words; surface forms simply reflect the inherent [±nasal] specification of each morpheme. We can

[34] Some suffixes, however, *are* inherently marked for nasality, among them, the [+nasal] animate plural **-~da**, the [+nasal] diminutive **-~ka**, the [-nasal] locative **-pʉ**, and the [-nasal] nominalizer **-ri**.

see from the phonetic transcriptions on the right that 31a is an entirely oral word while 31b is entirely nasal.

(31)	a.	**-N**	**-N** **-N**	[buʔérít^{h}ú]
	all morphemes [-nasal]	**bu'e**	**-ri** **-thu**	
		study/learn-NOM-CLS:stacked		
		a textbook		
	b.	**+N**	**+N**	[p^{h}õʔnã́kã]
	all morphemes [+nasal]	**~phoda**	**-~ka**	
		children-DIM		
		little children		

32 gives examples of words with mixed marked morphemes. 32a is composed of three morphemes: the first two—the verb root, **sio**, and the nominalizer, **-ri**—are inherently oral; they are followed by an inherently nasal classifier morpheme, **~phi**. 32b also has three morphemes: it begins with a compound of roots, the first inherently nasal, **~basa**, and the second inherently oral, **yaka**, followed by the inherently nasal plural nominalizer **-~ida**. 32c, composed of five morphemes, begins with two oral morphemes, the verb root, **yʉ'so**, and the nominalizer, **-ri**, followed by two nasal morphemes, the classifier, **-~phi**, and the diminutive **-~ka**. The final morpheme is the inherently oral locative, **-pʉ**. As with the examples in 31, because each morpheme in each of the words in 32 is inherently marked, no spreading occurs and surface forms reflect the inherent [±nasal] specification of each individual morpheme. Unlike the words in 31, however, the combinations in 32 result in words which are partly oral and partly nasal, as the phonetic transcriptions indicate.

(32) mixed	a.	**-N**	**-N** **+N**	[sîórípʰĩ́]
		sio	**-ri** **-~phi**	
		be.sharp-NOM-CLS:long, flat/bladelike		
		a knife		
	b.	**+N**	**-N** **+N**	[mãsã́jaʰ́kaĩ́nã]
		~basa	**-yaka** **-~ida**	
		people-steal	-NOM:PL	
		thieves		

c. **-N -N +N +N -N** [jʉʔsóripʰĩkãpʉ]
yʉ'so -ri -~phi -~ka -pʉ
cut -NOM-CLS:bladelike-DIM-LOC
on the tip of the knife

33 gives examples of words which are composed of marked and unmarked morphemes. 33a begins with an inherently oral root, **die**, followed by two unmarked suffixes: the morpheme coding singular animate and the morpheme coding grammatical Object. The inherent [-nasal] specification of the root spreads to each successive unmarked suffix (indicated by arrows), and each one will surface as the oral variant [ro] and [re]; the result is an all-oral word. In 33b, the compounded nasal roots: **~dʉkʉ**, and **~wati** are followed by the singular animate **-ro**. Between the first two morphemes no spreading occurs, as each root has inherent [+nasal] specification. It is the [+nasal] specification of the second root that spreads to the unmarked suffix, which will surface as the nasal variant [ɾõ]; the result is an all-nasal word. In 33c, with four morphemes, spreading occurs twice. First, the [+nasal] specification of the verb root **~yʉ** spreads to the nominalizer **-ro**[35], which surfaces with its nasal variant [ɾõ]. The third morpheme, **wa'a**, blocks any further spreading of the [+nasal] feature because it is itself inherently oral, and it is the [-nasal] specification of this root morpheme which spreads to the evidential suffix **-re**. The resulting word, **~yʉrowa'are**, *went looking*, is a combination of oral and nasal components, the surface form created by both spreading and blocking phenomena, as the phonetic transcription shows.

(33) a. **-N →Ø →Ø** [diérore]
oral + suffixes **die -ro -re**
dog -SG -OBJ
for the dog.

[35] For more on the nominalizing function of this morpheme, see chapter 5, section 5.2.2.

b. nasal + suffixes	**+N +N ⟶ Ø** **~dʉkʉ-~wati -ro** forest -evil.being-SG *a forest devil*		[nʉ̃ʰkʉ̃́w̃ã́tĩ́r̃ṍ]
c. nasal +suffix, oral + suffix	**+N ⟶Ø -N ⟶Ø** **~yʉ -ro -wa'a -re** see -V.NOM -go -VIS.PERF.NON.1 *went looking . . .*		[ɲʉ̃́r̃õwaʔare]

The phenomena of spreading and its internal constraints can be summarized as the following:

- the suprasegmental feature [±nasal] spreads L → R, from the last marked morpheme to each successive unmarked morpheme;
- marked morphemes block spreading;
- the cessation of spreading marks the boundary of the phonological word.

2.5. Suprasegmental tone

2.5.1. Tone or Pitch-Accent?

The second of the two suprasegmental processes which affect the surface realization of words in Wanano is pitch variation, a feature of all ET languages, though the typological classification of ET languages as 'tone' or 'pitch-accent' languages is still a matter of debate. In her overview of the Tukanoan language family, Barnes states that '[all] the Tucano languages have accent, or pitch-accent systems in which there is high pitch vs. low pitch ... High pitch is usually associated with accent' (Barnes, 1999:212). In her own study of Tuyuca, she analyses the language has having two autosegmental processes, 'nasalization' and 'accent', which result in three-way lexical contrasts (Barnes, 1996).

Barnes's blanket characterization of all ET languages as 'pitch-accent' has been challenged, though, by at least two other authors working on different ET languages[36]. Ramirez describes the phonology of Tukano as having three tones: high, low, and rising

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[36] See also the relevant portion of the review of Dixon and Aikhenvald (1999) in Franchetto and Gomez-Imbert (2003).

(Ramirez, 1997a:92), while Gomez-Imbert analyzes Barasana as a 'restricted tone language' with two tonal melodies: H and HL, and an additional extrametrical L at the left edge of many roots (which in effect creates Ramirez's rising pattern), but comes to no definitive conclusion as to a tone vs. pitch-accent typological classification (Gomez-Imbert, 2000a) (Gomez-Imbert and Kenstowicz, 2000).

Waltz describes Wanano as having a tonal system with two distinctive tones: H and L, with accent associated to the first syllable which has a H tone. A H tone associated with any secondary accents within a phonological word is automatically lowered, as there is only one allowable H tone per phonological word. Perceived medial tones or contours can be understood as these 'adjusted' H to L tones and are not contrastive. Primary accent, associated with H tone is predictably located (for the majority of words) on the final syllable of verbal, nominal and adjectival roots (Waltz and Waltz, 2000: 455). Indeed, in section 2.3.3. above, I described the mechanics of this root-final stress assignment in Wanano.

Waltz's description of the system as one in which there is the association of H tone with one singular accent peak per phonological word corresponds to the characterization of prototypical pitch-accent systems as outlined by Hyman (1978). There, he identifies the following characteristics of accent vs. tonal systems. Both accent and tone are underlying, but **accent** is *syntagmatic* in nature and has a *culminative* function: it creates patterns of saliency and reductions in surrounding elements within a given domain which are analyzed horizontally, while **tone** is *paradigmatic* in nature and is functionally *distinctive*: tones create oppositions and assimilations which, like segments, are analyzed vertically. A **pitch-accent** system combines features of both, in that distinctive tone is associated with culminative accent.

Gomez-Imbert finds that Barasana demonstrates more of the prototypical features of a tone language than of a stress language, though the distinction between just two melodies—H vs. HL—prompts her to classify Barasana as 'restricted tone' language. On the other hand, the fact that there is just one peak per phonological word is a feature typical of pitch-accent languages, though prototypical pitch-accent systems contrast only H and L rather than the more complex H vs. HL of Barasana. She suggests that several analytical approaches are possible, including one which combines tone plus metrical grid (Gomez-Imbert and Kenstowicz, 2000:460-461).

2.5.2. Tonal melodies and basic association

It is still unclear whether or not the pitch-accent model adequately describes the patterns found in Wanano and other ET languages; so, for now, I will refer to the Wanano system as tonal, following the two detailed studies of suprasegmental tone to date realized for ET languages: Ramirez's description of Tukano (Ramirez, 1997a; Ramirez, 1997b), and Gomez-Imbert's analyses of Barasana and Tatuyo (Gomez-Imbert, 2000a; Gomez-Imbert and Kenstowicz, 2000). This section gives an overview of the basic features of suprasegmental tone in Wanano and is not intended as an exhaustive description. If the studies of other ET languages such as Barasana are any indication, tone promises to be extremely complex phonological issue in Wanano, and so a more complete description is left for future studies. The following outline of the system relies heavily on the above-mentioned studies as models.

In her analysis of Barasana, Gomez-Imbert identifies four surface tonal patterns: H, HL, LH and LHL, which reduce to two underlying contrastive tonal melodies: H and HL, with the classification of any initial L as a default, extrametrical tone which may have a demarcative function. Evidence supporting the analysis of this demarcative function comes from the fact that the great majority of both noun and verb roots display this extrametrical L,

which is located at the left edge of a root morpheme. Recalling the polysynthetic nature of ET languages and that roots are always the initial constituents in the word-building process, a default L tone in this position could well have the function of phonologically marking the beginning of a new word. Thus, the possible tonal melodies can be understood as (<L>)H, and (<L>)HL[37]. The tonal melody is a suprasegmental feature assigned to the morpheme with alignment at the left edge. Each tonal element is associated one-to-one from left to right to a mora, identified as the tone-bearing unit. While the tonal melody can be understood as a suprasegmental feature associated with the morpheme, as with the suprasegmental feature [±nasal], not all morphemes are marked for this feature. Noun and verb roots are always lexically marked with a tonal melody, whereas suffixes are nearly always unmarked for tone, and are thus targets for tonal spread.

These unmarked morphemes to which tonal elements can spread are often the only clue as to whether or not the underlying melody of a root is in fact H or HL, given that most roots are bimoraic and have the initial extrametrical L. Thus, both <L>H and <L>HL roots, without any additional morphology, would display the pattern:

(34) a. **~badʉ** [mà nʉ́][38] *husband* b. **die** [dì é] *dog*

[37] < > indicates extrametricality and ( ) the idiosyncratic nature of the extrametrical L.

[38] In this section only, all tones will be visually marked: low tone with the grave accent mark and high tone with the acute accent mark. In all other sections, only high tones are visually marked.

Note that the final L of the root with the HL melody, **die**, remains unassociated. Only the suffixation of an unmarked morpheme such as the animate singular **-ro** will allow either for the spread of the H tone of a root with underlying <L>H melody or the association of the unassociated final L of a <L>HL melody, thus revealing the full tonal melody of the root.

(35) a. **~badʉ-ro** [mã̀ nʉ́ rṍ] *husband* b. **die-ro** [dʲìérò] *dog*

2.5.3. The mechanics of spreading

The suprasegmental feature of tone bears a number of similarities to that of the suprasegmental feature [±nasal]. First, as with nasalization, the tonal melody is a suprasegmental feature associated with the morpheme and the scope of tone spreading is the phonological word, composed of a root plus one or more affixed morphemes. Second, spreading for both processes proceeds from left to right[39]. Third, as with the [±nasal] feature, all root morphemes have a tonal melody as part of their lexical specification, while suffixes are generally unmarked[40]. Thus, as with the [±nasal] feature, there is spreading of tone to unmarked morphemes, which will surface with either a high or a low tone variant.

[39] See, however, note 40 below.

[40] There are, however, some suffixes which seem to have inherent low tone. Among these are the verbal suffix coding the perfective form of the evidential category ASSERTION. This suffix has the basic form [-à], but is often preceded by a phonetically inserted glottal [-ʔà] if it follows an already low-tone morpheme. Other morphemes which consistently have low tone are the comitative/instrumental **-~be're**, and the possessive pronouns **-yʉ**, (1st sg) **~bʉ**, (2nd sg) **to** (3rd sg) and **ti** (3rd pl). For further discussion of the status of these morphemes see chapter 3, section 3.2.

Wanano suprasegmental phenomena differ, though, in several significant ways. First, unlike the [±nasal] feature, for which values are singular (a morpheme being marked as either *all* oral or *all* nasal, with all eligible segments affected), each tone of a root's tonal melody is *individually* associated with a mora. Therefore, as demonstrated above, roots may in fact have an underlying unassociated tone which only surfaces when additional morphology provides a mora to which the tone can be associated. Second, with the [±nasal] feature, we saw that within a phonological word, only unmarked [Ønasal] morphemes are eligible for spread of [±nasal] values and that any morpheme inherently marked with a [±nasal] value blocks spread. As a result, a single phonological word may be composed of both oral and nasal morphemes. With tone, on the other hand, the leftmost root morpheme becomes the head of the entire phonological word. It is the tonal melody of this head root which spreads throughout the entire phonological word, supplanting the inherent tonal melodies of any other morphemes[41]. In other words, tonal spread affects not only unmarked morphemes, but also any roots in compounds, the result being a phonological word with a single tonal melody established by the leftmost head root. In essence, a new phonological root with a single tonal melody is formed according to the rule $[R_1 + R_2] \rightarrow R_1$ (Gomez-Imbert, 2000a:12). Only after this rule applies does spreading to suffixes take place[42].

[41] See chapter 4, section 4.5.4. for further examples of tone spreading in nominal morphological processes.

[42] Gomez-Imbert also finds evidence of a small class of suffixes with tonal melodies which have tone-adjusting effects over a root. Such leftward influences are not found in nasalization processes.

While I cannot make definitive statements as to the number of morphemes in Wanano which may have leftward influences, there is evidence that at least one such morpheme exists. The bound negative morpheme, **-era**, has an inherent HL melody which affects the tonal melody of the root. For instance, the negative form of the <L>H root **wa'a**, *go*, has the surface pronunciation [waéra] (for more examples, see chapter 6, section 6.5.1.2.). Further investigation of this and tonal phenomena associated with other verbal morphemes is necessary before other related conclusions can be presented.

Thus, both suprasegmental features are assigned at the lexical level and are contrastive, as we saw in 25 above for the [±nasal] feature and in 36 for tonal melodies[43].

(36)	a.	LH / LHL	**su'a**	[sùʔá]	*weave*	**su'a**	[sùʔá]	*go into the brush*
	c.	LH / H	**tua**	[tùá]	*be strong*	**tua**	[túá]	*enjoy*
	b.	H / HL	**toa**	[tóá]	*be fast*	**toa**	[tóà]	*plant*
	d.	H / LH	**yoa**	[jóá]	*do/make*	**yoa**	[jòá]	*be long / be far*

However, given the nature of the spreading processes outlined above, it would appear that the suprasegmental [±nasal] feature is a more permanent marker of lexical identity than is suprasegmental tone. Roots assigned a [±nasal] specification never lose it, no matter how they participate in morphological processes. Spreading of the [±nasal] feature to unmarked morphemes would appear to occur only once, very close to the surface level after all word-building morphological processes have occurred. Tonal melodies, on the other hand, while lexically assigned and contrastive when individual root forms are compared, can be overridden depending on how a morpheme participates in morphological processes. Thus, tone appears to be a less essential element of lexical identity, since a root's tonal melody will be supplanted if it plays any morphological role other than that of head root in a phonological word.

37-40 give small samples of the four types of roots (<L>)H and (<L>)HL, in combinations which demonstrate tonal spread and resulting overall patterns of phonological words. The roots in 37 and 38 have <L>HL and <L>H tonal melodies, the most common patterns, while 39 and 40 have H and HL roots, which occur less frequently. We will see that different combinations of morphemes result in phonological words with overall varied melodies. Each morpheme of each example is coded as high tone (**H**), low tone (**L**), or unmarked (**Ø**), and spread is indicated by arrows and levels.

The roots in 37 have <L>HL tonal melodies, the most common pattern. Because most

[43] See Waltz (2002:198) for a few additional minimal pairs.

roots have canonical bimoraic structure, the final L of the melody is only revealed by additional morphology, the process illustrated in 34-35 above. We see another example in 37a below, in which the combination of the verb root **~yosa**, *force into*, and the nominal classifier for straight, cylindrical objects, results in the word for *spear* or *arrow*. The [Øtone] classifier surfaces with the final, unassociated L tone of the root. In 37b we see a compound of two verbal roots, each with its own underlying tonal melody: <L>HL **phi'a,** *go out into*, and HL **s̶u̶**, *arrive*. In compounds, the tonal melody of the leftmost, head root prevails and spreads to the adjacent dependent root. In this case, the HL melody of the dependent root is supplanted by the final unassociated L of the head root. This L then spreads to the [Øtone] evidential suffix, which, because it follows an already low tone morpheme, surfaces preceded by a glottal. The resulting phonological words in both examples have overall **<L>HL** melodies.

(37) a. **<L>H**
~yosa [ɲo̰sa̋]
force.into / stab

<L>HL→Ø
~yosa -d̶u̶
force.into-CLS:cylindrical/straight
a spear / arrow

<L>H L
[ɲo̰sa̋dù̗]

b. **<L>HL** [pʰiʔá]
phi'a
go out into

<L>HL → HL
L →Ø
phi'a -s̶u̶ -a
go.out.into-arrive-ASSERT.PERF
(he) went out into (a clearing)[44]

<L> H L L
[phìʔás̶ù̗ʔà]

38 gives examples of roots with <L>H tone. Again, because of the canonical bimoraic structure of roots, we can only see the underlying contrast between these and roots with <L>HL melodies when additional morphology provides a mora to which the final H tone can spread. In 38a below, the final H of the <L>H noun root **wa'i**, *animal* spreads throughout the irregular [Øtone] plural **~kida**, resulting in the <L>H word for *animals*. In 38b we see a compound of two <L>H verbal roots: **~waku,** *be aware*, and ~**basi,** *know*. As with the

[44] Words in parentheses indicate original words or context not included in the example.

compound in 37, the tonal melody of the head (leftmost) root prevails and its final tone spreads to the adjacent dependent root. In this example, the final H of the head root spreads throughout the dependent root, entirely supplanting its original <L>H melody. The resulting phonological words in both examples have overall <L>H melodies.

(38) a.	**<L>H** **wa'i** *animal*	[wàʔi]	**<L>H → Ø → Ø** **wa'i -~kida** animal-SG *animals*	**<L>H H H** [wàʔíkĩ́nã́]
b.	**<L>H** **~waku** *be aware*	[w̃ãʰkṹ]	**<L>H → <L>H** **~waku -~basi** be.aware -know *(you) should be careful*	**<L> H H H** [w̃ãʰkṹmã́sĩ́]

39 gives examples of roots with HL tonal melodies. With roots of this type, the canonical bimoraic structure reveals the entire melody since there is never a second rise within a phonological word. Though H tone can spread, creating a phonological word containing a sequence of H tones, as we saw in the examples in 38, once a L tone occurs, it blocks a second rise to H tone. 39a gives a compound of two HL roots, **thua**, *return*, and **~su**, *arrive*. The final L of the head roots spreads to the dependent root, supplanting its original HL melody and resulting in a phonological word with an overall HL melody. Note that the HL roots in 39b-c are CVV roots in which the vowels are the same. Such roots are most likely the result of initial vowel deletion and compensatory lengthening (mentioned in 2.1.1.1. above). In citation forms, the drop to L tone on the second mora in such CVV HL roots is rarely audible, and the second mora is deleted when such roots take affixes[45]. Evidence that the tonal melody is indeed HL occurs only with spread and full realization of the L tone on additional morphemes. In both examples, the final L of the root spreads to the

[45] One interesting exception to this tendency is **kotiria**, the word the Wanano use for themselves. The CVV root, **koo**, *water* is clearly pronounced with full moraic weight given to the vowels: [kóotiria].

[Øtone] suffixes, resulting in phonological words with overall HL melodies.

(39) a.	**HL** **thua** *return*	[tʰúà]	**H L → HL** **thua-~su** return-arrive *very quickly*	**HL L** [tʰúàsūˀ]
b.	**HL** **ta** *animal*	[táà]	**HL → Ø** **ta -ro** come-V.NOM *coming*	**H L** [tárò]
c.	**HL** **khe** *be fast*	[kʰéè]	**HL → Ø → Ø** **khe -ro -~ka** be.fast -ADV -EMPH *very quickly*	**H L L** [kʰéròkāˀ]

Finally, in 40 we see roots with H tone melodies. Each of the roots in 40 has CVV shape, but like the roots in 39b-c, those in 40b-c have like vowels and are most likely the result of initial vowel deletion and compensatory lengthening. The synchronic tonal patterns of these roots as compared to those in 39b-c suggest that before the deletion/lengthening processes took place, the melody of these roots was probably <L>H, while the melody of the roots in 39b-c was probably <L>HL. In citation forms, the continuing H tone on the second mora of the roots in 40 makes lengthening quite audible, though, like the roots in 39b-c, the second mora is usually deleted with additional morphology. In 40 a-b, the H tone of the root spreads to all subsequent [Øtone] morphemes. In 40c, a nominalized verbal construction, the H tone of the head root, **~da**, *bring/take*, spreads to the first [Øtone] nominalizing morpheme **-i**. The overall H tone of this new stem then spreads to the compounded dependent HL root, **ta**, and subsequently to the final [Øtone] nominalizing suffix. All constructions with H tone roots such as those in 40 result in phonological words with overall H melodies.

(40) a.	**HH** **sio** *be sharp*	[sîó]	**HH → Ø → Ø** **sio -ri -~phi** be.sharp-NOM-CLS:long,flat/bladelike *knife*	**HH H H** [síórípʰīˀ]

b.	**H** **phi** *be big*	[pʰîi]	**H → Ø** **phi -ri** be.big-NOM *a big one*	**H H** [pʰírí]
c.	**H** **~da** *bring/take*	[nãã̋]	**H → Ø → HL** **H → Ø** **~da -i -ta -i** bring/take-V.NOM-come-V.NOM *(I'm) bringing back (something)*	**HH HH** [nã́ĩ́tá í́]

Though there is still much to discover about the tonal patterns which may result from combinations of roots and morphemes with inherent tone, the basic mechanics of tonal spread are clear and can be summarized as the following:

- the tone of the final mora of the head root spreads L → R to each successive morpheme;
- in compounds, dependent roots, though inherently marked with a tonal melody, do not block spreading—rather, their tonal melody is supplanted by tonal melody of the head;
- the cessation of spreading marks the boundary of the phonological word.

Final tonal assignment, as Gomez-Imbert suggests, is analyzed as the result of a number of different stages and adjustments of the tonal melody, each designed to guarantee a final surface form which complies with the following restrictions:

- the first H tone will occur in the root morpheme, co-occurring with stress;
- no phonological word will contain more than one LH rise, though it may contain a sequence of H toned morae as the result of spreading.

2.6. General phonological phenomena

In this section I will discuss a few of the general phonological phenomena I have observed so far in the data. I will first discuss phenomena associated with fast speech, and then phenomena associated with articulatory processes.

2.6.1. ‘Fast speech’ phenomena

2.6.1.1. Fusion of like vowels

One of the interesting issues in the study of natural languages is the discovery of the phonological phenomena which tend to occur in rapid speech. Among such phenomena in Wanano is the fusion of like vowels across morphological boundaries. I have found numerous cases of such fusion, for example, in verbal words containing the morpheme coding imperfective aspect, **-ati**. When the preceding root ends in a vowel other than /a/, all three segments in **-ati** are fully pronounced, as in the verb in 41a, **hi-ati-a**, which is pronounced [híatiʔa]. If however, the preceding morpheme ends in /a/, the encounter of like vowels across morpheme boundaries, as in 41b, results in fusion of those vowels, so that the pronunciation of the verbal word **chʉ-dua-ati-ga** is [chʉ́dúátígá].

(41) a. **~phado-pʉ-re** **hi-ati-a** **~basʉ-yaka-~ida**
long.ago-LOC-TMP COP-IMPERF-ASSERT.PERF being-steal-NOM:PL
In olden times there used to be people-stealers.

b. **ti-ko-ro** **to** **~dabo-ro** **chʉ-dua-ati-ga** **wa’so-re**
ANPH-FEM-SG 3SG.POSS wife-SG eat-DESID-IMPERF-ASSERT.PERF siringa.fruit-OBJ
The woman, his wife wanted to eat siringa fruit.

2.6.1.2. Vowel devoicing before /h/

A second phenomenon which can be attributed to rapid speech is the devoicing of vowels before /h/ with resulting morphological fusion and formation of an aspirated segment. This process occurs in frequently occurring expressions such as the one meaning *That’s it* or *That’s all (there is)*. The full expression is given in 42, with careful pronunciation and the fast speech rendition shown in 42a and 42b respectively. Note that in fast speech there is fusion of the two words, and that the glottal fricative is realized as aspiration on the voiceless plosive.

Similar processes in other ET languages were discussed in section 2.1.1.1., and Waltz has suggested that some cases of lexical *post*-aspiration in Wanano are the result of this fast-speech tendency (Waltz, 2002:163).

(42) **to-pʉ-ro-ta hi-ra**
DEF-LOC-PART-REF COP-VIS.IMPERF.NON.1
That's it.

a. [tópʉ́rótá hîra] cf. b. [tópʉ́róthîrá]

2.6.1.3. Glottal weakening

The third fast-speech tendency I have identified is for word-internal glottal plosives in roots with CVʔ.CV shape to weaken to the glottal fricative, creating variations of the type given in 43.

(43) a. **ku'tu** [kuʔtú] or [ku^{h}tú]
clearing

b. **wache** [waʔtʃé] or [wa^{h}tʃé]
be happy

c. **do'ka** [doʔká] or [do^{h}ká]
crash

d. **phu'ti** [phuʔtí] or [phu^{h}tí]
leftover manioc meal

2.6.2. Vowel devoicing between voiceless segments

A second general phonological phenomenon is the complete devoicing of vowels between /s/ or /r/ morpheme-initially and a voiceless consonant, resulting in what appear to be two initial consonant clusters: [s^{h}t] and [r^{h}k], as we see in 44.

(44) a. **sito** [s̥itó] or [s^{h}tó]
move in a circular fashion / do here and there

b. **situ** [s̥itú] or [s^{h}tó]
clay pot

c.	**sipaka** *outside / door*	[sɻpáka] or [s^{h}páka]
d.	**roka** *throw / do at or from a distance*	[rǫ̱ká] or [r^{h}ká]
	rɯka *begin / INCEPTIVE*	[rɻ̱ká]
e.	**ruku** *stand / CONTINUATIVE*	[rɻkú] or [r^{h}kú]

2.7. Summary

In this chapter I have given a general overview of Wanano phonology. I began by presenting the phonemic inventory and discussing some of the unique segments and issues related to them. We saw that compared to other ET languages, Wanano has an exceptionally large phonemic inventory which includes a set of voiceless aspirated plosives, a glottal plosive and the /tʃ/ affricate. I then discussed the allophonic variants of individual oral segments as well as the set of nasal allophones which result from suprasegmental nasalization.

In discussing stress assignment, I explored features of syllables: shapes (including restrictions on nuclei and codas), association rules and stress assignment. We saw that Wanano is a mora-based language and that stress is assigned by combinations of parameters in prosodic structure.

The two suprasegmental phenomena affecting the Wanano phonological words—nasalization and tone—were also outlined. We saw that both suprasegmental features are associated with morphemes at the lexical level and that for both, the scope of spreading is the phonological word. However, we also saw the ways in which the mechanics of spreading differ for each suprasegmental and the resulting patterns in surface pronunciations.

Finally, I briefly discussed some of the general phonological phenomena observed so far in the data, including fast-speech phenomena.

CHAPTER 3

GRAMMATICAL CATEGORIES

In this chapter I will describe Wanano grammatical categories and the notion of 'word.' Section 1 provides an overview of basic morphological processes in Wanano and demonstrates that it is a polysynthetic, agglutinating, and canonically suffixing language. I will show that Wanano has three classes of roots—nominal, verbal, and particle—from which the two basic categories of lexical words: nominal and verbal, are derived. In section 2 I examine the specific phonological and morphological characteristics of three classes of morphemes: roots (independent and dependent), suffixes, and clitics, and, in light of these characteristics, discuss the concept of 'word' in Wanano, establishing definitional criteria for phonological and grammatical words.

3.1. Basic morphological processes

The minimal requirements of an independent word in Wanano are bimoraic structure and inherent specification of the suprasegmental features nasalization and tone (as described in chapter 2). The examples in 1 show that among the classes of morphemes which meet these requirements and can stand alone as independent words are nominal and verbal lexical roots[1] (1a-b), pronouns (1c), and various types of modifiers (1d-f).

(1) a. **a'ri-ro** **hi-ra** **ba'a**
DEM:PROX-SG COP-VIS.IMPERF.NON.1 bass
This is a bass.

b. **wɯ'a** **soa** **wipe** **yoa-ra**
peel grate pass.through.sieve do/make-VIS.IMPERF.NON.1
(Women) peel, grate, and squeeze (the manioc).

[1] This is not the case in all ET languages. In Barasana, for example, only noun roots can stand alone as words since verb roots always require some kind of inflectional morphology. (Gomez-Imbert and Kenstowicz, 2000:421).

c. **~sa** **yoaro-pʉ** **yʉ'ʉ** **phʉ-kʉ-~be're** **thʉ'o-i**
1PL:EXC be.long-LOC 1SG parent-MASC-COM/INST hear-VIS.PERF.1
We, from far away, I with my father, heard (that sound).

d. **a'ri** **khiti**
DEM:PROX story
this story

e. **phayʉ** **~wati-a**
many evil.being-PL
many devils

f. **phʉa** **~khʉ'ba**
two year
two years

Most independent words in Wanano, however, are multi-morphemic, composed of a root and one or more affixed morphemes, which may be other roots, suffixes, or clitics. The longest words which occur in the data have 6 morphemes, but these represent only a small percentage of multi-morphemic words. Words composed of 2-4 morphemes are the most common, comprising some 70% of the words in a sample count from the narratives *A Hunter and His Dogs* and *In the Olden Days There Were People-Stealers*. These texts are of equal lengths but were told by two different speakers of approximately the same age. The charts below show the distribution of morphemes per word in each of the texts.

A Hunter and His Dogs		
MORPHEMES P/WORD	OCCURRENCES	%
1	82	23
2	147	41
3	84	23
4	31	9
5 +	13	4
totals	357	100

In the Olden Days There Were People-Stealers		
MORPHEMES P/WORD	OCCURRENCES	%
1	112	32
2	137	39
3	74	21
4	25	7
5 +	3	1
totals	351	100

The mono-morphemic words in each text were noun or verb roots in approximately one third of the cases. The rest were pronouns (personal or possessive), negative nouns, interrogative nouns, quantifiers, determiners, and discourse marking expressions.

In multi-morphemic words, the head root occurs as the leftmost constituent and all other affixed morphemes attach to its right, the canonical template being:

ROOT + ((root(s)) (endoclitic(s)) (suffix(es)))

Categories of affixes on noun roots include those coding gender, class, number, quality, grammatical role, and discourse-level information. A full description of the morphology of nominal words is given in chapter 4. Categories of affixes on verb roots code different types of adverbial, aspectual, and modal information as well as negation and emphasis. A full description of the morphology of verbal words is given in chapters 6 and 7. There is morphology available both for the derivation of verbs from nominal roots and of nouns from verbal roots, though the latter is by far the more frequently occurring process.

In chapter 2 we saw that morpho-phonological processes, in particular the suprasegmental features of nasalization and tone, regularly affect the surface realizations of morphemes within multi-morphemic words. Such processes, however, do not generally affect the *shape* of affixed morphemes. So, as is the case in all ET languages, once such processes are understood, individual morphemes in Wanano words are quite easy to identify. Thus, based on the morphological characteristics outlined so far in this chapter, we see that Wanano can be described typologically as a polysynthetic, agglutinating, and canonically suffixing language.

3.1.1. Roots: noun, verb, and particle

The great majority of words in Wanano are formed from nominal or verbal roots. If we conceive of the Wanano lexicon as a hierarchy of morpheme types, noun and verb roots occupy the highest level and are the most independent. As we saw in example 1, such roots

can occur as independent words: syntactically a noun root can represent a complete NP and a verb root can represent a complete, albeit non-finite, VP. We see in 2 below that morphologically, such roots can also be the head morphemes of multi-morphemic nominal (2a-b) or verbal (2c-d) words. Phonologically, noun and verb roots display like prosodic structures and basic characteristics (see section 3.2.1. below).

(2) a. **yʉkʉ-kʉ-~ka-re**
tree-CLS:tree-DIM-OBJ
little stick

b. **~khubu-wʉ'rʉ-pʉ-re**
log-AUG.-LOC-OBJ
inside the big log

c. **chʉ-dua-ati-ga**
eat-DESID-IMPERF-ASSERT.PERF
was wanting to eat

d. **~si'di-~kha'a-yʉ'dʉ-a-wa'a-a**
drink-dream-INTENS-AFFEC-become-ASSERT.PERF
became very drunk

Particle roots occupy the second level in the morpheme hierarchy and can be viewed as a subclass of noun roots. They are similar to noun roots in two ways: first, they can occur as phonologically independent words of the types we saw in example 1; and second, they can be the head morphemes in multi-morphemic words which are always nominal. Particle roots take only nominal morphology and it can be of all types. For instance, in the words in 3, we see a number of different morphemes which appear exclusively on nouns: **-ko** (feminine), **-ro** (singular), **~ka** (diminutive), **~phi** (classifier for long, bladelike objects), **-pʉ** (locative), **-re** (object case marker), and **~be're** (comitative/instrumental marker).

(3) a. **a'ri-~phi-~be're**
DEM:PROX-CLS:bladelike-COM/INST
with this knife

b. **pa-ko-ro-~ka-re**
ALT-FEM-SG-DIM.-OBJ

c. **ti-ko-ro-re**
ANPH-FEM-SG-OBJ
her

d. **~o-pʉ-re**
DEIC:PROX-LOC-OBJ

the other little girl *here*

However, particle roots differ from lexical noun roots in one very important way: they are syntactically independent as head morphemes only in nominal words such as those above. When they occur as phonologically independent words, they are always the modifier constituents in NPs which contain an overt associated noun. Thus, particle roots alone cannot represent NPs and are therefore syntactically bound[2]. The examples in 4 demonstrate this distinction. In 4a, we see the full text sentence in which the word 3a occurred. The derived word **a'ri-~phi** is a syntactically independent but phonologically fused NP, *this knife*, coded as the instrument used to accomplish the action of the verb by the final morpheme **-~be're**. In 4b, we see the same particle root **a'ri** as the phonologically independent modifier of **khiti**, *story* in the full NP **a'ri khiti**, *this story*; the particle word is not syntactically independent because of its bound modifier status.

(4) a. **a'ri-~phi-~be're** **~da-ro-~kha'ba-re**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM-DEON-VIS.PERF.NON.1
You have to take it (your heart) out <u>with this knife</u>.

cf. b. **a'ri khiti** **~o-i-ta** **phiti-ra**
DEM:PROX story DEIC:PROX-LOC-REF end-VIS.IMPERF.NON-1
This story ends right here.

3.1.2. Types of words

Because there are only three types of root morphemes—verb, noun, and particle (analyzed as a subtype of nominal root)—there are only two basic types of words in Wanano: verbal and nominal. In general, verbal and nominal words are recognizable because each type has a fairly unique set of morphemes which regularly occur as affixes. Still, there is not always an absolute relationship between form and meaning when it

comes to affixes. For example, there are some pairs of homophonous suffixes such as the nominal **-re** (Object marker) and the verbal **-re** (evidential marker: VIS.PERF.NON.1) as well as the nominal **-a** (3PL) and the verbal **-a** (evidential marker: ASSERT.PERF). Additionally, morphological crossover occurs for specific functions; for instance, noun classification suffixes on verbal words function as nominalizers[3].

In most cases, however, nominal and verbal words are distinguishable by their morphology, and given that there are really only two types of words, the interesting issue is really not how many kinds of words there are, but how these two basic types of words function to express semantic notions such as 'adjective' and 'adverb,' which in many languages are coded by separate lexical categories.

3.1.2.1. Verbal

There are three types of verbal words: finite, simple nonfinite, and nominalized nonfinite. Only finite verbal words are fully inflected, having as their final morphological element clause modality morphology which codes the sentence as a statement, question, or command (these categories and the means of coding them are discussed in depth in chapter 7). Finite verbal words quite often occur in sentence-final position, though ultimately, it is morphology rather than word order that indicates which verbal word is finite.

All other verbal words in a sentence are nonfinite, and occur either as simple uninflected roots, such as those we saw in example 1b, or as nominalizations. Simple nonfinite verbal words occur in chaining constructions, in which a single Subject performs a series of separate, sequential actions. Nominalized verbal words occur either as

[2] For a description of types of particle roots, see chapter 4, section 4.3.5.
[3] See also , section 5.2.2. in chapter 5 and section 7.3.2. in chapter 7.

complements within particular types of verbal constructions, or to indicate the dependent status of an entire clause.

Examples of these three types of verbal words, all built from the verb root **wa'a**, *go*, are given in 5. In 5a-b, the verbal words with **wa'a** are finite, as we see from the verb-final morphology. In 5a, **wa'a** has an evidential suffix **-a**, indicating that the sentence is a realis statement. In 5b, it has the dubitative and predictive suffixes, which code the sentence as an irrealis statement. There are *two* verbal words with **wa'a** in 5c: the first is a simple nonfinite verbal word (the uninflected verb root), and the second is a finite verbal word in which **wa'a** functions to code change of state.

5d-f show **wa'a** in nominalized verbal words. 5d and 5e are statements based on inferential and non-visual evidence. These evidential categories are coded by verbal constructions in which the finite verbs **hi**, *be*, and **koa**, *to perceive (by non-visual means)***,** require nominalized complements. In the construction in 5d coding INFERENCE (the speaker's conclusion about an event based on after-the-fact evidence), the complement, **wa'a,** is nominalized by the suffix **-ri**, while in the construction in 5e coding NON-VISUAL (perception of the event through non-visual sensory—in this case auditory—evidence), the complement, again **wa'a**, is nominalized by the noun class suffix **-ro** (showing agreement to the 3rd-person Subject). The same Subject-agreeing noun suffix is used to nominalize the entire dependent clause **~waha-ro wa'a-ro**, *when Luiz goes fishing*, in 5f.

(5) a. **pase-pʉ** **wa'a-'a**
far.away-LOC go-ASSERT.PERF
(He) went far away.

b. **da'ra-~da** **wa'a-bo-ka**
work-1PL go-DUB-PREDICT
We might go to work.

c. **wa'a** **sʉka** **~khari-a-wa'a-a**
go lie.down sleep-AFFEC-go-ASSERT.PERF

. . . he went, lay down and went to sleep.

d. **yʉ'ʉ ~khari-yʉ'dʉ-a wa'a-ri hi-ka**
1s sleep-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT:IMPERF
I (must have) slept a long time.

e. **bora-~sʉ-ka** | **wa'a-ro koa-ta-a**
fall.down-COMPL-AFFEC | go-V.NOM NON.VIS-come-ASSERT.PERF
He fell right down. (lit: his falling down was perceived)

f. **~waha-ro wa'a-ro** **~boyo-era-ra ti-ro**
kill-V.NOM go-V.NOM fail-NEG-VIS.IMPERF.NON.1 ANPH-SG
When (Luis) goes fishing, he never fails.

3.1.2.2. Nominal

As mentioned earlier, one of the most intriguing issues relating to grammatical categories in Wanano is how semantic notions such as 'adjective' and 'adverb' are expressed. I will show in the following sections that in Wanano, these and other categories are expressed by nominal words.

3.1.2.2.1. Simple

The first type of nominal word is the simple nominal, built from a noun root that may occur in uninflected or inflected form, depending on noun class and grammatical role. Simple nominals can function as arguments of verbs, as in 6a-c, or as complements of the copula, as in 6d (repeated from 1a).

(6) a. **ti-ro-re to-pʉ** | **khiti** | **ya'u-a**
ANPH-SG-OBJ REM-LOC | story | tell-ASSERT.PERF
They told him the story there.

b. **~wiso-a** | **chʉ-ka bʉti-a dita-re**
squirrel-PL | eat-ASSERT:IMPERF be.hard-PL only-OBJ
Squirrels eat hard things only.

c. **yʉ'ʉ** | **wa'so-re** | **chʉ-dua-~ba-ko**
1SG | siringa.fruit-OBJ | eat-DESID-FRUS-FEM
I wish I had some siringa fruit.

d. **a'ri-ro hi-ra** | **ba'a**
DEM:PROX-SG COP-VIS.IMPERF.NON.1 | bass

This is a bass.

3.1.2.2.2. Derived

While many nominal words are built on noun roots, nominal words which are derived from other types of roots (particle and verbal) occur equally frequently in the data. Nominal words derived from particle roots can also function as arguments, having pronominal-type status[4]. Four examples of this kind of derived nominal word were given in 3 above. Nominal words derived from verb roots can also function as Subjects (7a-b) Objects (7c, where the stative verb **b~~u~~ti**, *be hard* is nominalized by the morpheme **-a**) or complements in copular constructions (7d).

(7) a. **phi-ri-ro** **~kh~~u~~’a-a**
be.big-NOM-SG be.lying-ASSERT.PERF
The big guy was lying there.

b. **~ya-~ida** **hi-ra**
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
These (beings) are evil.

[4] For further discussion, see chapter 4, section 4.3.5.

c. **~wiso-a** **chʉ-ka** | **bʉti-a** **dita-re**
squirrel-PL eat-ASSERT:IMPERF | be.hard-V.NOM only-OBJ
Squirrels eat hard things only.(repeated from 6b)

d. **~phado-pʉ-re** **hi-ati-a** | **~basʉ-yaka-~ida**
long.ago-LOC-TMP COP-IMPERF-ASSERT.PERF | being-steal-NOM:PL
In olden times there used to be people-stealers.

3.1.2.2.3. 'Adjectival'

There is no identifiable grammatical category 'adjective' in Wanano. Physical attributes or qualities are indicated, for the most part, by stative verbs such as *be big/small/sour/good/bad/red*, etc. I analyze these roots as verbal based on two types of evidence. First, like other types of verb roots, stative 'adjectival' roots require nominalizing morphology to derive nominal words. If we compare, for example, the nominals **~ya-~ida**, *evil ones* (7b), derived from an 'adjectival' stative verb, and **~basʉ-yaka-~ida**, *people-stealers* (7d), derived from a noun-verb compound, we see that they are both nominalized by the same final morpheme -~**ida**, the animate plural nominalizer.

Secondly, though 'adjectival' stative verb roots are very frequently nominalized, they can also occur as inflected verbs, as we see in the examples below.

(8) a. **ti-~da-re** **~waha** **ti-ro** | **wache-a-wa'a-a**
ANPH-PL-OBJ kill ANPH-SG | be.happy-AFFEC-become-ASSERT.PERF
He killed them (some monkeys), and he was happy.

b. **~bi-pʉ-re** **~sa** **ya-kooti-ri-a** **ya-re**
now-LOC-TMP 1PL.POSS belong.to-Wanano-NOM-PL belong.to-CLS:generic

bu'e-~da **phi-ro** | **wache-ha.**
study/learn-V.NOM be.big-ADV | be.happy-VIS.IMPERF.1
Now we're very happy to have our own Wanano learning.

c. **ti-ro** | **kʉa-yʉ'dʉ-a-wa'a-a**
ANPH-SG | be.frightened-INTENS-AFFEC-become-ASSERT.PERF
He became very frightened.

d. **ti-re** **thʉ'o** **ti-ro** **sua-ta-a**
ANPH-CLS:generic hear ANPH-SG be.angry-come-ASSERT.PERF

te **ti** **kha'a-pʉ**
all.the.way ANPH be.next.to-LOC
When he heard that, he raged off until he was there beside it (the log).

While nearly all adjectival notions are expressed by nominal words derived from stative verb roots, there are also a very few cases of roots, such as **bʉkʉ**, which can directly take both verbal or nominal morphology. As a verb root, **bʉkʉ** means *grow* or *mature*, as we see in 9a. As a noun root, it has the related meaning of *old* or *mature person/entity*. It would appear, then, that an inherently qualitative noun root can develop from a verbal concept.

(9) a. **bʉkʉ-a-ka** **to** **ba'ro** **dicha-ti-ka**
grow-3.PL-PREDICT REM afterwards fruit-VBZ-PREDICT
(After the seeds are planted, bananas) grow and afterwards produce fruit.

b. **ti-ro** **bʉkʉ-ro**
ANPH-SG old.person-SG
The old man . . .

3.1.2.2.4. 'Adverbial'

Adverbial-type notions are coded by a number of different means in Wanano, including verb root compounding (discussed in chapter 6, section 6.4.3.) and independent nominal words (described in detail in chapter 5, section 5.7.2.). Some adverbial nominals are built on noun roots, such as the temporal adverbs in 10a-b. Others (10c-d) are derived from verb roots by the nominalizing morpheme **-ro**, followed by other types of nominal morphology, including the suffix **-re**, which codes the derived nouns as temporal Adjuncts[5].

[5] See also chapter 5, section 5.6.2.

(10) a. **~bicha-re**
today-TMP
Today . . .

b. **~bicha-~ka-~ka-re**
today-DIM.-EMPH.-TMP
Right now . . .

c. **~wa'ba-ro-pʉ-re**
be.young/new-ADV-LOC-TMP
In the beginning . . .

d. **ti bo're-ka'a-ro-re**
ANPH be.light-do.moving-ADV-TMP
In the morning . . .

Adverbial nominal words expressing quality (11a-b) and manner (11c-d) are also derived from verb roots by the same nominalizer **-ro**, as we see in the examples below.

(11) a. **~bari** **~doa-ro** **~iriboa-re** **wi'bo-~basi-ka**
1PL.INC be.good-ADV lime-OBJ store-DEON-ASSERT:IMPERF
We should store limes well.

b. **~ya-ro** **~wiki-ri-ka** **ti-~da** **~wibi-a**
be.bad-ADV itch-ADMON-ASSERT:IMPERF ANPH-PL suck-3PL
It itches badly when they (flies) bite.

c. **khe-ro-~ka** **chʉ-'a**
be.fast-ADV-EMPH. eat-ASSERT.PERF
eat quickly

d. **phi-ro-~ka** **yoa-ka**
be.slow-ADV-EMPH. do/make-ASSERT:IMPERF
do slowly

3.1.2.2.5. Other nominals: pronouns, interrogatives, negative

It is also important to mention a number of closed sets of nominal words with special functions. Among these are pronouns, interrogatives and the negative nominal **de**[6].

[6] See chapter 4, sections 4.4., 4.6.2.4. and 4.3.7. respectively for detailed descriptions of these three types of nominals.

First and second person pronouns **yʉ'ʉ** 1SG (6c), **~sa** 1PL.EXCL (1c), **~badi** 1PL.INCL (11a), **~bʉ'ʉ** 2SG (5b), and **~bʉ'sa** 2PL behave as independent noun roots. Nominal words derived from the anaphoric particle root **ti** function as third person pronouns **ti-ro** (3SG.MASC-5g), **ti-ko-ro** (3SG.FEM-3c), and **ti~da** (3PL-11b) when they occur independently in a clause. When they co-occur with a full noun, their function is to code the noun as definite (9b).

Another special set of nominal words is built from interrogative particle roots. The only such roots which can occur as independent words are ~**doa**, *who*, and ~**yaba**, *what*, as we see in examples 12a-b. More commonly, interrogative particle roots are bound morphemes forming the heads of nominal words, as we see from the nominal agreement morphology in 12c-e.

(12) a. **~doa** **hi-hari** **ti-ko-ro**
who COP-INT.IMPERF ANPH-FEM-SG
Who is she?

b. **yaba** **hi-hari** **a'ri**
INT COP-INT.IMPERF DEM:PROX
What's this?

c. **~di-ro-ba'ro**
which-SG-kind
Which man (of these men) . . .

d. **yaba-ri-ro** **hi-kari-~da**
INT-NOM-SG COP-INT.SPEC -PL
Who/what could that be?

e. **~do'o-i** **hi-hari** **~bʉ'ʉ**
INT-LOC COP-INT.IMPERF 2SG
Where are you from?

Finally, there is an inherently negative nominal **~de** which always occurs as an independent word, and is analyzed as a nominal word given the fact that it can occur as the

single Subject argument in a clause, as in 13a, or as the marked or unmarked Object (13b-c).

(13) a. **~de bahu-era**
NEG be.visible-NEG
Nothing was there.

b. **~de ~doa-re ya'u-kʉ ~di-ro-bʉ**
NEG who-OBJ tell-1/2SG.MASC say-V.NOM-NEG.IMP.
You can't tell anybody.

c. **~de ahi-ka ~di -era to-pʉ**
NEG be.concerned-ASSERT:IMPERF be.PROG-NEG REM-LOC
(He) was there, not concerned about anything/anybody.

3.2. Roots, suffixes, and clitics

So far in this chapter, I have discussed the types of roots from which Wanano words are built and the semantic functions of the types of nominal and verbal words that result from morphological processes. Wanano words, I have claimed, canonically contain a root and one or more affixes, which may be other roots, suffixes or clitics. I now turn to the issue of the specific characteristics of these three classes of morphemes in order to discuss the very notion of 'word' in Wanano.

3.2.1. Characteristics of morphemes

Chart 3.1. summarizes the phonological and syntactic features by which I distinguish morpheme types. On the lefthand side I list five defining features. Four of these are phonological, indicating whether a morpheme is marked for suprasegmental nasalization and tone, has bimoraic structure, and can occur as a phonologically independent word. The fifth is syntactic, indicating whether a morpheme can occur as a syntactically free element. I make this final distinction to differentiate independent roots, which can occur as both phonologically independent and syntactically free words—as with **ba'a**, *bass*, in example 1a—from particle roots, which only occur as phonologically independent words when they are syntactically bound—as modifiers of the type we saw in example 1d. Columns A-C

represent three types of roots: independent (noun or verb), particle, and dependent (also noun or verb), columns D and E give the features of clitics and suffixes.

FEATURES		A R_{indep}	B $R_{particle}$	C R_{dep}	D clitic	E suffix
phonological	[±nasal]	+	+	+	+	(-)
	tone	+	+	-	(-)	(-)
	bimoraic	+	(-)	+	(+)	-
	independent	+	+	-	(-)	-
syntactic	free	+	-	-	-	-

CHART 3.1. CHARACTERISTICS OF MORPHEMES

Symbols in parentheses indicate tendencies rather than absolutes. The indication of (-) for the bimoraic structure of particle roots means that while particle roots tend *not* to have bimoraic structure, there are a few exceptions, such as the demonstrative **a'ri**. The indication of (-) for the marking of suprasegmental features of nasalization and tone on suffixes means that though most suffixes are *unmarked* for these feature, a handful of suffixes, such as the nasalized plural **~da** and the L tone evidential **-a**, are marked. Clitics show the greatest variation of features: they generally have *marked* [±nasal] specification but are usually *unmarked* for tone; some still have bimoraic structure while others do not; none are syntactically free. I have indicated that in general, clitics are not phonologically independent, but will qualify this by saying that different types of clitics are phonologically affected in different ways which will be further discussed in section 3.2.2. below.

The left-to-right order of the morpheme types on the chart can be understood as reflecting the internal hierarchy mentioned earlier in section 3.1.1., with independent roots at the highest level and suffixes at the lowest. The differences between these extremes are notable. Independent roots are always marked for suprasegmental features, have bimoraic structure, and can occur as both phonologically and syntactically free words. Suffixes, on the

other hand, are rarely marked for suprasegmental features, are mono-moraic, and are always bound, both phonologically and syntactically.

In between these two extremes are morphemes which display varying degrees of boundedness and grammaticalization, the latter being evident from the loss of independent phonological features[7]. Loosely following the definition and criteria listed in Aikhenvald (Aikhenvald, 2002b), I consider morphemes which do not meet the phonological criteria for full-fledged roots yet display more of these criteria than do suffixes to be clitics. In later chapters, I argue that there are a number of morphemes in the nominal and verbal paradigms which are most likely former roots, but which are undergoing grammaticalization as bound morphemes. They display varying degrees of semantic recoverability and loss of the phonological features which define independent roots. Those which are further along in the grammaticalization process have either lost their bimoraic structure or show evidence of segmental erosion; nearly all have lost independent tone specification[8], but most retain inherent specification for the [± nasal] feature (again suggesting a very tight link between this feature and original lexical identity). Such morphemes, because they occur in medial position and are followed by suffixes, can be labeled as endoclitics. It should be noted, however, that the intermediate columns on Chart 3.1. represent stages of a continuum rather than discrete, frozen categories in the hierarchy.

Though endoclitics are the most common type of cliticized morpheme, Wanano also has one set of developing proclitics and at least one enclitic. The proclitics are possessive pronominals derived from full pronouns: **yʉ** (1SG.POSS) *my*, **~sa** (1PL.EXCL.POSS) and

[7] See also the detailed discussions of the status of nominal morphemes in chapter 4, sections 4.3.3. and 4.5.4.2., and of verbal morphemes in chapter 6, section 6.6.

[8] One notable exception being the negative **-era**, as mentioned in note 42 in chapter 2.

~badi (1PL.INCL.POSS), *our*, **~bʉ** (2SG.POSS) and **~bʉ'sa** (2PL.POSS), *your*, **to** (3SG.POSS), *her/his*, and **ti** (3PL.POSS), *their*. All such possessive markers, even those with bimoraic structure, show phonological reduction to a consistent L tone, and four of the seven show reduction to mono-moraic structure as well. Thus, unlike the full person pronouns from which they are derived, possessive pronominal markers no longer meet the criteria for independent root morpheme status[9].

The only true enclitic which I have identified so far is the morpheme **-~be're**, which, when it occurs as the final affix in nominal words, codes them as having a comitative or instrumental role[10]. It has some of the properties of a root morpheme—it is bimoraic and has [+nasal] specification—yet in its function as a grammatical marker it consistently occurs with L tone[11]. I consider the consistent L tone of the proclitics and this enclitic to be interesting evidence for an analysis which posits stages of grammaticalization from root to suffix by way of cliticization. While endoclitics can easily participate in regular tonal spreading processes due to their medial position, proclitics and the enclitic, because of their position at the outer margins of words, seem to resist full incorporation into the larger phonological unit. Yet, in themselves, they no longer constitute independent phonological words, so the solution, synchronically, appears to be that they become L tone dependents.

Chart 3.1. represents the basic morphological fact that only independent and particle roots (A and B) can occur in leftmost, head position in nominal or verbal words. It also suggests a somewhat fuzzy boundary between dependent roots and clitics (C and D), whose features vary only in terms of the tendencies mentioned above. Throughout subsequent

[9] See also sections 4.6.2.3.1. and 4.6.2.3.4. in chapter 4.

[10] For more on this morpheme, see chapter 4, section 4.5.2.3. and chapter 5, sections 5.6.3.and 5.6.4.

chapters, I will analyze such differences as a reflection of differing degrees of grammaticalization. We will see in chapters 4 and 6 that while many roots can appear in either head (independent) or dependent position, others occur only as dependent roots. Those with 'dependent' status only would represent the first step in the grammaticalization process. Such roots display all the phonological criteria of independent roots except for inherent tonal melody, lost as they became bound, both phonologically and syntactically. Over time, such dependent roots may show further signs of reduction such as loss of initial segments or of syllables (and hence mora), and perhaps suprasegmental specification, becoming increasingly more like suffixes.

In the next two sections, I will use the information on Chart 3.1. to outline specific criteria for the phonological and grammatical word in Wanano.

3.2.2. The phonological word

Following the definition of phonological word (PW) given in (Dixon and Aikhenvald, 2002:13), I understand a PW to be a phonological unit with defining properties related to segmental and prosodic features as well as to the application of basic phonological rules. Based on this definition, I identify three minimal segmental and prosodic criteria for the phonological word in Wanano. A PW, a) is bimoraic; b) has at least one H tone (most often occurring on the second mora); and c) in terms of phonological rule application, is the domain of spreading of the suprasegmental features of tone and nasalization (as discussed in chapter 2).

Moreover, the phonological word is the unit after which pauses in speech occur, and is the unit most often identified by speakers as a 'word'. The two notable exceptions to this

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[11] And indeed occurs in one word as a root morpheme for *friend:* **~be're-~baka-iro**, literally *one who goes with me, with whom I belong*.

statement occur, not surprisingly, with the possessive proclitics and comitative/instrumental enclitic mentioned above. Speakers rather consistently classify the proclitic possessives as separate words, despite the fact that no other mono-moraic or L-tone units are ever identified as words. I attribute this phenomenon to the fact that these proclitics are developing in a language which is canonically suffixing. Because there is really no template for 'prefix-type' morphemes in a Wanano speaker's internal grammar, speakers conceive of such atypical forms as separate entities, despite their deficient phonological form[12].

As for the enclitic **-~be're**, some speakers indicate this morpheme to be a separate word while others indicate that it is attached to the preceding noun. This ambiguous view of the **-~be're** morpheme is reflected in spontaneous writing, where we find examples of both 'views.' This morpheme is most certainly a root which is being co-opted and cliticized as a grammatical marker, and it is probably a reflection of the recentness of this process that some speakers attune more to the phonological properties of the morpheme while others focus on its semantics. In any case, the suffix-like position in which it occurs is certainly more fitting within the internal template of a suffixing language.

3.2.3. The grammatical word

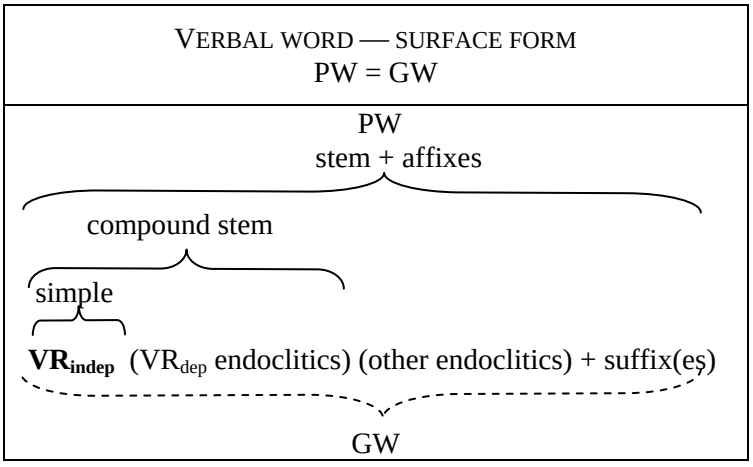
A grammatical word (GW) is understood as a unit which contains at least one, but usually more than one grammatical element co-occurring in a fixed order and having conventionalized coherence and meaning (adapted from Dixon and Aikhenvald, 2002:19).

[12] Such internal resistance may also help explain why the full forms of the pronouns are often substituted for the cliticized forms (see discussion in chapter 4, section 4.6.2.3.1.).

Thus, all the types of words outlined earlier in this chapter, from independently occurring noun or verb roots to multi-morphemic composites, meet the criteria for GW in Wanano. A Wanano GW is centered on an independent root (though it may be compounded with another root to form a complex stem), which (in most, but not all cases) takes one or more affixed morphemes. While both noun and verb roots can occur in isolation, more often they take affixes, and for each type of root there is a conventionalized set of morphemes which occur in relatively fixed order, as the chapters on noun and verb morphology demonstrate.

3.2.4. Relations between phonological and grammatical words

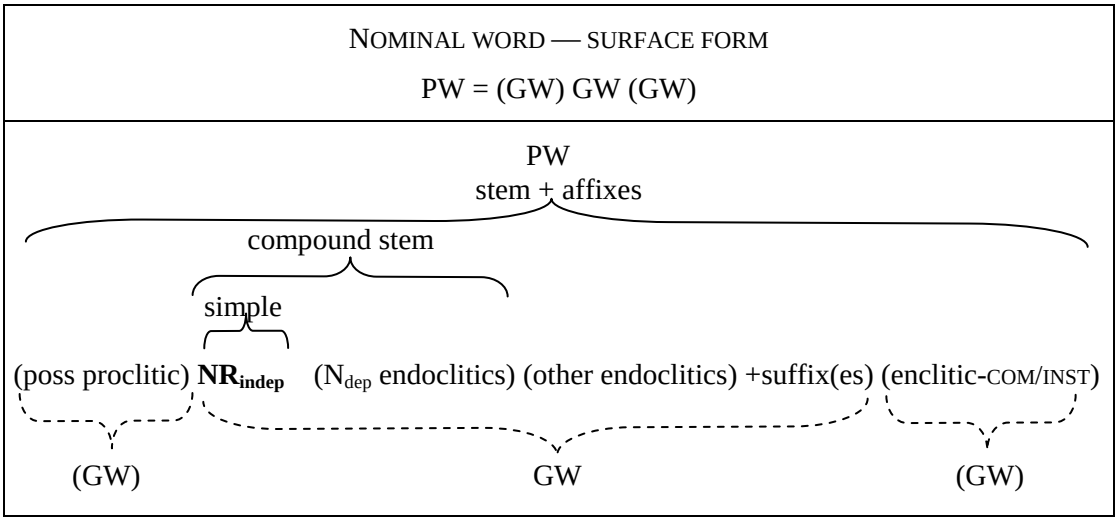
We turn then to the relationships between phonological and grammatical words. Recalling the basic patterns of morphological word-building, we see that for verbal words, the PW and GW coincide. Dependent roots are viewed as stem-building morphemes and endoclitics are analyzed as affixes within the morphological paradigm; neither is viewed as an internal GW.



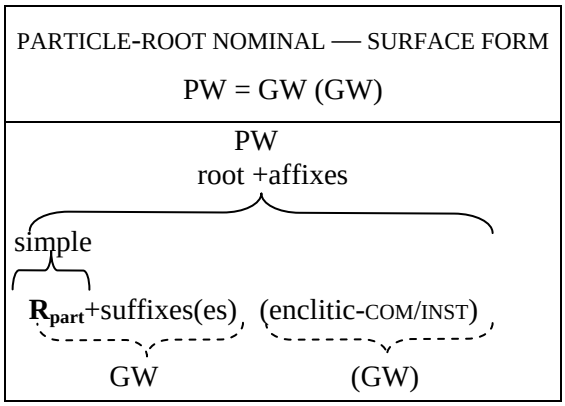
As for nominal words, the two types—those centered on a noun root and those built from particle roots—show patterns similar to that given for verbal words above. However, we should recall that nominal words can also be marked by possessive proclitics or by the

comitative/instrumental enclitic. This creates a kind of mismatch between the PW and GW, since, as mentioned earlier, these two types of clitics do not participate in the PW in the same way that internal (endoclitics) do. They are not affected by the tonal spreading processes which have the PW as their domain, but attach to the fringes of the PW as dependent L tone elements. Moreover, because they are so closely related and recently derived from roots, these two types of clitics can perhaps be viewed as still retaining at least partial GW status, though they are clearly developing into markers of relationships an losing their status as representatives of lexical entities. Clearly, such clitics are marginal in several respects.

We see, then, that like verbal words, the nominal PW and GW coincide *unless* there is one of these special types of clitics involved. As with verbal words, dependent roots and other types of bound endoclitics are not considered to be internal GWs in nominal words.



Finally, like nominals built from noun roots, the PW and GW will coincide in a nominal built from a particle roots *unless* it is coding by the enclitic as having a comitative/instrument role. Otherwise, the particle root and its accompanying suffixes form a single GW.



3.2.5. Some considerations on the orthographic word

I have introduced this discussion on the concept of 'word' partly in order to better reflect on the issue of the orthographic word. There have been several writing systems suggested for Wanano, though there is as yet no unified orthography. In our workshops, the Wanano have been encouraged to write using whichever system they are accustomed to, and in my role as 'consultant' on language-related issues, I have been trying to help them understand how the various systems evolved and to recognize and evaluate the types of criteria used.

In general, because phonological and grammatical words coincide, there is usually little controversy as to where words begin and end. Pauses tend to occur between PWs, even those which include the marginal clitics mentioned above, suggesting that speakers attune to phonological criteria above all. Yet, when they write, speakers differ in their representation of the status of these morphemes, suggesting that the mismatch between PWs and GWs in these cases will be a tricky issue. Obviously, some speakers attune more to phonological criteria while others are more aware of the grammatical status of these 'words.' It will be interesting to see what kinds of negotiation and argumentation will prevail as the Wanano continue their efforts to develop a unified writing system.

3.3. Summary

In this chapter I have discussed several issues related to the notion of ‘word’ in Wanano. I began by summarizing basic morphological processes and the three types of roots—noun, verb, and particle—from which words can be built. I then showed that Wanano has two basic types of words: verbal and nominal, and described the subtypes of words in each category. We also saw that many nominal words, some derived from noun roots and others from verb roots, function to express the semantic notions of ‘adjective’ and ‘adverb.’

In section 2, I discussed the phonological and syntactic characteristics of three classes of morphemes: roots, clitics and suffixes and showed that they form a hierarchy of morpheme types. Based on these characteristics I proposed definitional criteria for phonological and grammatical words in Wanano. We saw that in most cases, phonological and grammatical words coincide, but that some mismatching occurs in the case of words with clitics.

CHAPTER 4

NOUNS AND NOUN PHRASES

This chapter will describe the structure of nouns and noun phrases in Wanano. Section 1 presents the basic structure of lexical noun roots. Section 2 gives the theoretical backgrounding and cross-linguistic information necessary for the discussion of the Wanano noun system. Section 3 presents the two major classes of nouns: animate and inanimate, the subcategories within each class, and the means by which nouns are derived. It also discusses the derivational and inflectional functions of noun morphology, as well as the phonological and grammatical status of different types of morphemes. Section 4 analyzes different types of pronominal constructions. Section 5 gives an overview of nominal affixes, including the order and types of morphemes and the information they code within different semantic spheres. Section 6 describes the syntax of noun phrases, the order of constituents and types of modification.

4.1. Structure of noun roots

The following characteristics are shared by all noun roots in Wanano:

- they are bimoraic;
- they are lexically specified as all nasal or all oral;
- they are lexically specified for a tonal melody, either <L>HL or <L>H, each root requiring at least one high tone.

Simple noun roots may have the following shapes:

(1)	a.	V	**o**	[óó]	*acari fish*
	b.	CV	**ho**	[hóó]	*banana*
	c.	CVV	**~bie**	[mĩẽ́]	*falls*
	d.	CVCV	**kopa**	[ko^{h}pá]	*hole*
			bi'i	[biʔí]	*rat*
	e.	CVʔCV	**~da'bo**	[nãʔmṍ]	*flute*

Very few roots have V or CV shapes, and cross-linguistic information demonstrates that these roots in Wanano are the result of a process of initial vowel loss and subsequent vowel lengthening[1]. The great majority of roots are of types *c*, *d*, and *e*, the most common shape being the CVCV shape exemplified in *d*.

4.2. Types of nouns: theoretical background, definitions, and cross-linguistic information

Like other ET languages, Wanano has an elaborate system of noun formation and classification. Noun classification in a very general sense is defined here following Allan, as a system of morphemes whose semantics denote 'some salient perceived or imputed characteristic of the entity to which an associated noun refers' (Allan, 1977:285).

One of the first attempts to define different types of classification systems was Dixon's typological dichotomy between languages with noun classes, closed systems composed of grammaticalized inflectional markers that are usually few in number and obligatory on every noun, and those with noun classifiers, much more open systems composed of a larger set of separate lexemes whose use is not obligatory (Dixon, 1986). Dixon further claimed an association between language type and morphological manifestation: noun class systems are found in languages which are agglutinative or inflectional, while classifier systems tend to be associated with isolating languages (Dixon, 1986:109).

Derbyshire and Payne broaden the typological perspective in their summary of the three types of classifier systems normally identified in linguistic literature:

- In *numerical* systems, classifiers tend to be separate lexical forms which are often obligatory constituents in expressions of quantity. They are frequently comprised of a fairly open class of morphemes, and are associated with isolating languages.

[1] As discussed in chapter 2, section 2.3.3.1.

- In *concordial* systems, classifiers tend to be a closed set of affixes or clitics occurring on constituents of noun and/or verb phrases in distinct paradigms; such systems are associated with agglutinative or inflectional languages.
- In *verb-incorporated* systems, classifiers are lexical elements, which are co-referential to an associated noun phrase on the verb. These systems have been identified in languages of different types.

However, both Derbyshire and Payne's study and Aikhenvald's (2000) work on classifiers point out that Amazonian languages do not fit neatly into any of the proposed types, but in fact often show mixtures or modified versions of one or more systems simultaneously. Dixon's rather rigid criteria for classification is clearly disputed by evidence from languages in the Tukanoan family. Though highly agglutinating, these languages nevertheless have extensive systems of bound noun classifier morphemes and also display modified versions of numerical classifiers (Aikhenvald, 2000:10). Derbyshire and Payne note that Amazonian languages indeed demonstrate elements of all three concordial systems. Tukanoan languages, for example, code gender as an integrated, rather than distinct, element of their systems. They also show class agreement in numerical constructions through affixation instead of independent lexical items and use the same set of classifier morphemes (with the exception of gender-coding morphemes) in more than one system and for both inflectional and derivational functions (Derbyshire and Payne, 1990:245-246 and Aikhenvald, 2000:220-221).

In much of the literature on individual languages in the Tukanoan family, noun classification has been analyzed as following a basic formula of **Nroot + classificatory suffix**, the combination of which forms a single phonological word. For example, Barnes presents Tuyuca as a 'primarily numerical classifier language,' with 'some characteristics

of a concordial system' (Barnes, 1990:273-274). The classifier suffixes she identifies are grouped into broad and specific semantic categories. Broad class distinctions are those coding animate/inanimate, masculine/feminine, and singular/plural. Inanimates display coding of specific semantic categories identified as shape, collection, arrangement, anatomical, botanical, geographical, container, manufactured item, consistency, and time. In all, Barnes lists three animate suffixes (masculine singular, feminine singular, and plural) and 92 inanimate classifiers.

Parallel analyses are found in Miller's description of Desano and in Jones and Jones's description of Barasano. For Desano, Miller lists the same three animate categories common to all ET languages, plus 112 inanimate classifiers, the latter grouped into the same basic categories listed for Tuyuca and, additionally, designs, disassociated parts, abstract classifiers of time and place, and a general, or neutral, category for nonspecific or foreign items (Miller, 1999:35-42). Jones and Jones list 137 classifiers for Barasano in the same categories found in Desano (Jones and Jones, 1991:35-43).

Morse and Maxwell list some 150 inanimate classifiers for Cubeo[2], including a set of independent nouns which may themselves serve as classifiers to other nouns. Their analysis presents the different categories of classifiers as a continuum with varying degrees of semantic specificity. These range from semantically general 'one-syllable bound morphemes' to 'multisyllable nonbound morphemes, which have independent stress' and more specific reference (Morse and Maxwell, 1999:73). They also call attention to the fact that certain animates in Cubeo are suffixed by shape classifiers or take the feminine suffix in their generic form (Morse and Maxwell, 1999:79).

[2] 'Kubeo' in most of the literature on ET languages and otherwise in the present work.

These cases of inanimate classifiers on animate nouns and the use of feminine in generic forms are a departure from the norm for ET languages and are the focus of an interesting study by Gomez-Imbert (Gomez-Imbert, 1996). Using cross-linguistic data from the languages of the Arawak family with whom the Kubeo have historically interacted and with whom they frequently intermarry, she defends the idea that such categorization can be attributed to extensive contact and integration of Arawakan categories into the pre-existing Kubeo nominal classification system. While she claims that these 'foreign' categories are evident only in Kubeo, we will see (in section 4.3.2.2.2.) that there is less extensive, though parallel shape coding on some animates in Wanano.

Analyses of the classification system in Tukano are found in Sorensen (1969), West (1980), and Ramirez (1997a). All three identify an animate/inanimate distinction as primary, though they differ in their analyses of the features which establish further levels of subcategorization. Sorensen uses the feature gender to establish four types of nominals: masculine, feminine, neuter (most inanimates, which are unmarked for gender) and common (animate plurals, in which gender is neutralized) (Sorensen, 1969:193-194). He also lists some 50 classifiers, ranging from one-syllable suffixes to 'reduplicative' classifiers, essentially noun roots which can also function as classifiers when suffixed to another noun root, though with loss of certain phonological features (stress) and sometimes of initial segments (these he calls 'partially reduplicated' suffixes) (Sorensen, 1969:198). West's subcategorization is based on differences in singular and plural forms, with the additional feature of gender for some animates. She identifies five 'shape or function' classifier suffixes, and does not talk about noun stems functioning as classifiers (West, 1980:111-119). Ramirez's grammar of Tukano, the most recent, begins with the same animate/inanimate dichotomy, and then subcategorizes inanimates according to the

feature [± countable], which determines singular and plural forms. He identifies six shape classifier suffixes whose main function is to derive countable or pluralizable forms from uncountable nouns (Ramirez, 1997a:211). His analysis differs from most of the literature on ET languages in that he does not consider the longer, more root-like classifiers which fill the extensive lists found in other studies to be true suffixes. Rather, he analyzes them as dependent nouns in a modifier-head relationship. He supports this analysis with descriptions of the different phonological relationships that obtain between roots + suffixes and roots + dependent roots, as well as the different patterns of phonetic realization of certain phonemes in root or suffix-initial position (Ramirez, 1997a:235).

Gomez-Imbert's dissertation on Tatuyo presents one of the most thorough analyses of nominal classification in any ET language. In this analysis she distinguishes noun classes, which are obligatorily coded, express inherent properties of nouns, and show agreement on predicates, from noun classifiers, which are not obligatory and do not show inherent properties of nouns, but rather qualify a noun in some way, such as function or physical manifestation. She identifies four noun classes which parallel those in Sorensen's analysis of Tukano—masculine singular, feminine singular, animate plural, and a generic class into which most inanimates fall—based on a hierarchy of the features [± animate], [± singular], and [± feminine] (Gomez-Imbert, 1982:76-81). She also lists nearly a hundred classifiers, subcategorized into general and specific categories according to both their semantics and their phonological forms. She argues that the complete noun classification system can be analyzed as a continuum of forms with varying degrees of grammaticalization. Bound, one-syllable class suffixes, which have no underlying phonological specification for nasality or tone and very generalized semantics, are the most highly grammaticalized forms. Classifiers, on the other hand, display varying

degrees of grammaticalization. Some are bound forms, while others are free morphemes; some have more generalized semantics and a one-syllable configuration, while others look more like two-syllable free morphemes and have more specific semantics. In general, unlike suffixes, classifiers retain certain underlying phonological specifications such as nasality (Gomez-Imbert, 1982:110-116).

Waltz and Waltz's analyses of nominals in Wanano depart from the analyses of other ET languages in terms of the features chosen as basic to the system. In their 1997 overview, the singular/plural feature is presented as basic, with animate/inanimate as a secondary feature. They also identify 9 classifiers designating, for the most part, shape distinctions (Waltz and Waltz, 1997:33-34). In their grammatical sketch of Wanano in the Caro y Cuervo review of the indigenous languages of Colombia (2000)[3], however, they talk about two nominal classes: the first being independent roots (animate or inanimate) and the second being classifier roots denoting shape, arrangement, or function. Classifier roots may function as free morphemes or bound suffixes: they are distinguished by their plural forms (Waltz and Waltz, 2000:458-460).

4.3. The Wanano system

I will adopt certain of the concepts employed in the analyses surveyed above in my description of the Wanano system that follows. I will argue, for example, that the Wanano noun classification system has both noun class morphology and noun classifiers, and will present these not as overlapping classification systems, but as a single integrated system, forming a continuum with highly grammaticalized noun class suffixes coding

[3] Though published in 2000, the outlines in this collection were actually written nearly a decade earlier. For this reason, I have considered the Waltz's 1997 description as the most current version of their analysis of Wanano.

animate / inanimate, masculine / feminine, count / mass, and singular / plural distinctions on one extreme, and specific noun + dependent noun compounding constructions employed in noun classification on the other. I will also outline the specific morphological and phonological characteristics of the morphemes at these extremes and of those morphemes which fall somewhere in the middle, such as the more productive shape classifiers.

We will also see that noun classification morphology is employed in various functional domains. Within noun phrases, it has an inflectional function and establishes a concordial system, coding agreement between head and modifier constituents, including quantifying constructions. Noun classification morphology also has multiple derivational functions; it is used to derive nouns from verbs, other nouns, and a variety of particles[4]. Throughout the description, we will see the differences between the Wanano nominal system and the systems described in other ET languages, including the differences in the pronominal forms, the multiple functions of the suffix **-ro**, and the semantic shift involving the possessive root **ya**.

Sections 4.3.1. and 4.3.2. will describe the lexical and morphological means employed in coding each of the two major classes of nouns in Wanano: animates and inanimates, and their subcategorization according to features of gender and number for animates, countability and number for inanimates. Chart 4.1 gives a binary feature tree representation of Wanano noun classes. Note that within the system there are two **-ro** morphemes, one with a singulative function, marked as **ro$_s$**, and the other with a partitive function, marked as **ro$_p$**.

[4] For the functions of nominal morphology in verbal constructions and clause nominalizations see chapter 5, sections 5.2.1. and 5.2.2.

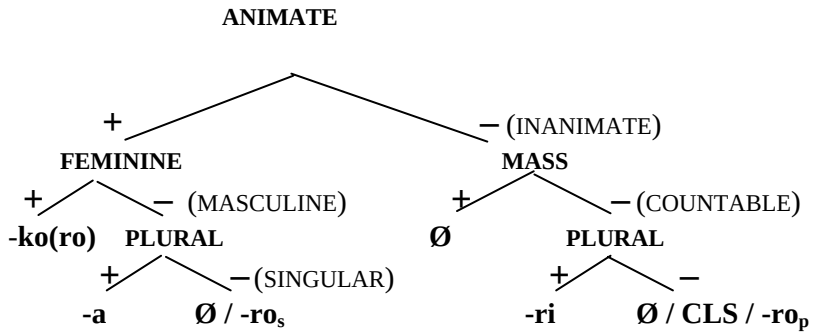


CHART 4.1. MAJOR FEATURES OF NOUN CLASSES

4.3.1. Animates

As in all ET languages, Wanano codes a distinction between animate and inanimate nouns. The first column of Chart 4.2 shows the classes and subclasses of animate nouns. Animate nouns are subcategorized as *human*, and *non-human*. The non-human category is further sub-divided into higher and lower-level animates, labeled as *individual* because each entity is conceived of as constituting a separate being, such as a jaguar, monkey, snake, or parrot. The individual category contrasts with that of *collective* animates, which are conceived of and linguistically coded as *gregarious*—entities which live and move in groups—such as bees, termites, and minnows. The chart also gives the two sets of features by which these categories are differentiated: gender and number. Defining features of the roots are given in the left-hand column; the middle column shows the means, if any, of gender coding; and the right-hand column shows coding of number.

	ROOT	GENDER		NUMBER	
		MASC	FEM	SG	PL
HUMAN	w/inherent gender	root ends in /**ʉ**/	root ends in /**o**/	**-ro** (oblig)	**-a/~da**
		-kʉ	**-ko** (oblig)		
NON-HUMAN	**Individual** higher	Ø	**-koro** (opt)	**-ro** (oblig)	**-a/-~da (-ya)**
	lower		Ø	Ø	
	Collective root is inherently plural, ending in **-a/~da**	Ø	Ø	**-kiro**	

CHART 4.2. ANIMATE NOUNS

4.3.1.1. Nouns with human referents

We have seen that all ET languages code a distinction between animate and inanimate nouns, though subcategorization may vary. There are a number of subclasses of animate nouns in Wanano, the first major division being that between animate nouns with human referents and animate nouns with non-human referents. The morphological means employed to establish human nouns as a distinct class is gender marking. Although coding of sex often leads to a labeling of the entire system as a 'gender' system, in Wanano, gender is coded as a secondary feature of only certain subsets of nouns, with feminine as the marked element. General suffixes coding animacy are, by default, masculine.

4.3.1.1.1. Gender coding

Only nouns with human referents are obligatorily marked for gender. The unmarked value for most noun roots with human referents is masculine; feminine is marked by overt morpho-phonological means.

The roots of the words given in 2 are examples of a small subset of nouns which I analyze as having, over time, been grammaticalized as inherently feminine or masculine.

Nearly all of these roots synchronically display bimoraic shape, yet end with vowels which appropriately correspond to the semantic gender of the word. I take this to be evidence that the gender coding suffixes **-ko** (FEM) or **-kʉ** (MASC) which occur on other human nouns (such as those in 3 below) have been phonologically fused and reduced to the final /**o**/ or /**ʉ**/ vowel on these roots[5]. Nearly all such roots so far identified, and listed in 2, are Wanano kinship terms[6] which function both as nouns and as vocatives[7]. The only inherently female root identified thus far which does not end in /**o**/ is the root meaning 'female' (2f).

(2) a. **~ducho-ro** [nũʰtʃõ̌rõ] *grandmother* **~duchʉ-ro** [nũʰtʃʉ̃̌rõ] *grandfather*

b. **~tayo-ro** [tãɲõ̌rṍ] *marriageable female cross-cousin* [8] **~tayʉ-ro** [tãɲʉ̃̌rṍ] *marriageable male cross-cousin*

c. **~dabo-ro** [nãmõ̌rõ] *wife* **~badʉ-ro** [mãnʉ̃̌rṍ] *husband*

d. **~wabio-ro** [wãmĩ́õ̌rõ] *older sister* **~wabi-ro** [wãmĩ́ĩ̌rõ] *older brother*

e. **ba'o-ro** [baʔóro] *younger sister* **ba'ʉ-ro** [baʔʉ́ro] *younger brother*

f. **~dubi-ro** [nũmĩ́ĩ̌rṍ] *female* or *woman* **~bʉ-ro** [mʉ̃́ĩ̌rõ] *male* or *man*

---

[5] This analysis of morpheme reduction and fusion as evidence of a high degree of grammaticalization follows that of Gomez-Imbert (1982:113) for other major class suffix reductions.

[6] Analyses and lists of Wanano kinship terms can be found in Chernela (1993:60-71) and Waltz and Waltz (1997:15-24).

[7] The complexity of the kinship term system reflects the cultural significance of kinship relationships (both real and conceptual) in defining and reinforcing relations of rank and responsibility within Wanano society. The frequent use of these terms as vocatives in everyday speech may explain their higher degree of grammaticalization.

[8] Here we have linguistic confirmation of the distinction made in Tukanoan cultures between types of cousins, those whom one may marry, and those who are one's classificatory siblings. See more on the system of linguistic exogamy in Chapter 1, section 1.4.

In 3, we see another subset of terms for humans which have full gender markers: **-kʉ** (MASC); and **-ko** (FEM). Note in the phonetic transcriptions, however, that there is *pre*-aspiration of the voiceless plosive /k/. Because aspiration of this sort does not generally occur across morpheme boundaries (see section 2.1.1.1.) we can conclude that these root + gender markers have become or are in the process of becoming lexicalized[9].

(3)	a.	**phʉ-ko-ro** parent-FEM-SG	[pʰʉʰkóro]	*mother*	**phʉ-kʉ-ro** parent-MASC-SG	[pʰʉʰkʉ́ro]	*father*
	b.	**~ba-ko-ro** child-FEM-SG	[mãʰkõ̃rṍ]	*daughter*	**~ba-kʉ-ro** child-MASC-SG	[mãʰkʉ̃́rõ]	*son*
	c.	**bʉ-ko-ro** elder-FEM-SG	[bʉʰkóro]	*old woman*	**bʉ-kʉ-ro** elder-MASC-SG	[bʉʰkʉ́ro]	*old man*

Nouns derived from verbs, particles, or other noun roots also have the suffix **-ko** in their singular forms if the referent is female, as in 4.

(4)	a.	**yo'ga** to fish	**yo'ga-ri-ro** fish-NOM-SG	[joʔgáriro]	*fisherman*
			yo'ga-ri-ko-ro fish-NOM-FEM-SG	[joʔgárikoro]	*fisherwoman*
	b.	**a'ri** DEM:PROX	**a'ri-ro** DEM:PROX-SG	[aʔríró]	*this man*
			a'ri-ko-ro DEM:PROX-FEM-SG	[aʔríkóró]	*this woman*

4.3.1.1.2. Number

The second defining feature of nouns with human referents is that they are obligatorily marked for number. The default marker of singular human nouns is the suffix **-ro**, as seen in the examples in 2, 3, and 4. In 5, we see that plurals for human nouns are coded in several different ways. The animate plural suffix **-a** is used for the basic coding of plural humans:

[9] Where these terms occur in examples, however, I have maintained the underlying morphological breakdown in the glosses.

men and women (5a). For the coding of female kin, a cliticized construction ~**sa ~dubia** is used, and for males, there is a special plural suffix **-~s̶u̶ba** (5b-e). Exceptionally, the animate plural suffix **-~da** is used (5f).

The origin of the **-a/~da** alternation is as yet unclear. Gomez-Imbert analyzes them as one and the same morpheme, **-~da** representing the older form which has been gradually reduced and grammaticalized as **-a** with an accompanying loss of nasalization as an inherent property (Gomez-Imbert, 1982:113). Such an analysis is strengthened by certain lexicalized plurals with **-~da**, such as ~**pho'da**, *children*, as well as by the plural nominalizing construction -**ri**-**~da**[10]. If these forms have resisted reduction, they can be interpreted synchronically as relics of the complete original form[11]. From the cross-linguistic evidence available, we can hypothesize that **-~da** was indeed the original form. It continues to be the basic animate plural marker in TAT, KUB, and TUY, whereas DES and SIR show **-a** as the basic form. A large number of languages including Wanano, TUK, BAS, BAR, PIS and YUR show an **-a/~da** alternation with some tendency toward semantic specialization in which **~da** is only used for animates with human referents, while **-a** is the plural marker for other animates.

The examples in 5 also show that gender is neutralized in the **-a/~da** plural suffixes; plurals of human nouns are by default masculine, and groups of females are identified by the compounding of both the first person exclusive possessive marker **~sa** (because kin relationships require a possessor) and the lexical root for females/women **~dubia** onto the

[10] Interestingly, there is also some evidence for reduction in the nominalization construction as well, as in **wu̶ria**, 'airplanes' (lit: flying things), and the very name the Wanano use for themselves, **kootiria**, 'water people.'

[11] See section 4. 3.4. below for additional analysis of nominalizing morphology.

head noun, as in 5b-e. The differences in tonal patterns on the compounds in 5d and e are evidence of compounding: in *d*, the final H tone of the <L>H root spreads to the end of the nominal construct, whereas in *e*, the final L tone of <L>HL root spreads to the end. An exception to this general rule for pluralization is the kinship terms for *younger sibling*, **ba'a** (5f), where the root is independently pluralized by **-~da**.

(5) a. **~dubi-a** [nũmĩ́ã]
female-PL
females or *women*

~bʉ-a [mʉ̃́ã]
male-PL
males or *men*

b. **~yucho ~sa ~dubi-a** [ɲũʰtʃṍ sã nũmĩã]
grandmother 1EXC.POSS woman-PL
grandmothers

~yuchʉ-~sʉba [ɲũʰtʃʉ̃́sʉ̃mã]
grandfather-PL
grandfathers or *ancestors*

c. **~dabo ~sa ~dubi-a** [nãmṍ sã nũmĩã]
wife 1EXC.POSS woman-PL
wives

~badʉ-~sʉba [ɾmãnʉ̃́sʉ̃mã]
husband-PL
husbands

d. **phʉ-ko ~sa ~dubi-a** [pʰʉʰkó sã nũmĩã]
parent-FEM 1EXC.POSS woman-PL
mothers

phʉ-kʉ-~sʉba [pʰʉʰkʉ́sʉ̃́mã́]
parent-MASC-PL
fathers

e. **~wabio ~sa ~dubi-a** [w̃ãmĩ́ṍ sã nũmĩã]
older.sister 1EXC.POSS woman-PL
older sisters

~wabi-~sʉba [w̃ãmĩ́sʉ̃́mã́]
older.brother-PL
older brothers

f. **ba'a-~da ~dubi-a** [baʔáná́ nʉ̃́mĩ́ã́]
younger.sibling-PL woman-PL
younger sisters

ba'a-~da [baʔáná́]
younger.sibling-PL
younger brothers

4.3.1.2. Non-human 'individual' animates

The second category of animate nouns includes those whose referents are non-human, but are cognitively recognized and linguistically coded as 'individual' entities rather than as members of collectives. Gomez-Imbert introduces the notion of cognitive saliency as the basic for this linguistic differentiation. 'Some animals,' she states, 'are *closer* to human beings than others, and this is reflected at the linguistic level . . . salient properties should be related with physical appearance, behavior, or the sort of relation humans entertain with

animals in everyday experience. . . This fits the general pattern of Tukanoan languages, where nouns referring to non-gregarious (salient) vs. gregarious (non-salient) animals are morphologically different' (Gomez-Imbert, 1996:456).

4.3.1.2.1. Higher-level 'individual' animates

Within the general class of non-human 'individual' animates, there is a small subset of entities which can be analyzed as being 'higher-level' or even closer to humans than the rest of the higher-level animates. These nouns, like nouns with human referents, are obligatorily suffixed by **-ro** in their singular forms (6a). Nouns in this small subset can be optionally coded for gender in their singular forms; as in the case of humans, female is the marked feature, and is coded by the suffix **-koro** (6b) in addition to the singular marker **-ro**[12]. The plural forms of these nouns (6c) generally follow the pattern for humans; the unmarked **-a** plural suffix codes masculine, while the plural for females involves compounding with **~dubia**¸ *women,* so that *female dogs* would have the form **dieya-~dubia** *dogs-females*.

[12] This would appear to be an instance of double marking of the singular feature, but my hypothesis is that this exceptional and highly marked construction is a relic form from an older system. It is likely that Wanano, like other ET languages, once had **-kʉ/-ko** markers for singular. In both Wanano and Piratapuyo there was a vowel shift from /**ʉ**/ to /**i**/ and a reanalysis of **-ro** as a marker of singular marker, resulting in adjustments to the system and an intermediate stage with the forms **-kiro/-koro/-~kida,** which are the synchronic forms in Piratapuyo (see section 4.4.2.below). Further reanalysis and phonological reduction in Wanano derived the synchronic unmarked masculine form **-ro**, and the marked feminine **-ko-ro**. I believe that both the highly-marked feminine forms in *b*, the singulative **-kiro** for collectives (see 4.3.1.3. below), and the irregular singular and plural forms of certain lexical items such as *animal*—**wa'i-kiro/wa'i-~kida** are relics of the intermediate stage.

(6)	a.		b.		c.	
	~phido-ro *snake*	[pʰĩnõ̃ɾṍ]			**~phido-a** *snake*-PL	[pʰĩnṍã́]
	bora-ro *curupira* [13]	[boráró]	**bora-ro-koro** curupira-SG-FEM *female curupira*	[borárókóró]	**boraro-a** *curupira*-PL	[borároa]
	~wati-ro *evil being* or *devil*	[wãtĩɾṍ]	**~wati-ro-koro** evil.being-SG-FEM *evil female being* or *she-devil*	[wãtĩɾṍkṍɾṍ]	**~wati-a** *evil beings* or *devils*	[wãtĩá́]
	yai-ro *jaguar*	[jáîró]	**yai-ro-koro** jaguar- SG-FEM *female jaguar*	[yáîrókóró]	**yai-ya** *jaguars*	[jáîjá]
	die-ro *dog*	[diéro]	**die-ro-koro** dog-SG-FEM *female dog*	[diérokoro]	**die-ya** *dogs*	[diéjá]

Following Gomez-Imbert's analysis, the explanation for the parallel linguistic coding of humans and these particular creatures can be found in a combination of salient traits. In the case of this small subset, we must look beyond qualities such as physical size or domestication. Jaguars, armadillo, deer, and anteaters are all large, forest-dwelling beasts, but only jaguars fall into this special category of non-human animates. Dogs, cows, and chickens are all domesticated animals, but only dogs are linguistically differentiated. Saliency, in these cases, is cultural in origin. Dogs, for instance, play an extremely important role in Wanano daily life both as pets and as hunting companions, making them the most important animal in

[13] It is difficult to determine appropriate glosses for terms referring to the magical and powerful beings that inhabit Wanano myths and folktales. Consultants often use the term *curupira*, borrowed from Brazilian folklore, to denote any one of a number of different entities, many of which have humanlike form. These humanlike entities in Wanano tales are usually malevolent, forest-dwelling beings which take human or near-human shape, but which have special powers. In Tukanoan culture, such beings are to be feared and avoided, as their intentions are nearly always malicious. Encounters with these beings often result in tragedy for humans. Examples of such encounters and lessons 'learned the hard way' are found in the *People-stealers* and *The Curupira who went to the man's house* texts. However powerful *curupiras* may be, though, humans can often outsmart or trick them into hurting themselves, as is the case in the *Curupira* text. For more on these beings, see also Jackson (1983:207-208).

Wanano communities and the one with which humans develop the closest relationships (as shown in the *Hunting Dog* text).

The prominence of jaguars, on the other hand, can be attributed to the mythical and linguistic association between jaguars and shamans which is common to all Tukanoan groups (Jackson, 1983:197). As in most ET languages, the same word, **yairo**, is used for both, and all things associated with jaguars (such as their teeth and pelts) are highly esteemed[14].

Snakes, and in particular, the anaconda, are also extremely important in Wanano mythology. According to the Wanano origin myth, the ancestors of the current Wanano groups emerged from the body of a sacred anaconda-canoe. The anaconda swam upriver and then turned around at the headwaters. At each place where its body rose to the surface, one of the patrilineal Wanano kin groups was established, with groups emerging closer to the head being higher ranked than those emerging closer to the tail. (Chernela, 1993:5).

Finally, parallel linguistic coding of humans and Curupiras, ~**watia**, is due to the fact that such magical beings often take on human form and have many human-like characteristics.

4.3.1.2.2. Lower-level 'individual' animates

Other individual animates—and most animates fall into this class—are only marked for gender in exceptional cases when gender is both known and relevant to discourse. These animates differ from the subgroup in the previous section in that they are not overtly marked as singular entities; the bare root form functions as both the unmarked singular and for generic reference (as in the *Land of Languages* texts). Plural is the marked category, coded by

[14] I was given a jaguar tooth necklace as a gift after my first trip to a Wanano village. An anthropologist who works in the region later told me that it was an especially rare and meaningful token.

the suffix **-a**. 7 provides a sample of the forms of nouns in this class. 7i and the final two examples in 6c form a small subset of animate nouns which have the irregular plural **-ya**[15].

The final root vowel alternations (**a** > **e**) in the plural forms in 7e-h are analyzed by Waltz as relic forms of Proto Wanano/Piratapuyo noun roots with front vowels. Though a major vowel shift affected all vowels in the singular forms, the plurals forms still show alternation of the final vowel. By analogy, certain roots which ended in **a**, such ~**baha** (7i), in Proto W/P now also display this alternation (Waltz, 2002:190.

(7)	a.	**~bie** *anteater*	[mĩẽ́]	**~bie-a** *anteaters*	[mĩẽ́ã]
	b.	**~phabo** *armadillo*	[phãmṍ]	**~phabo-a** *armadillos*	[phãmṍã]
	c.	**khu** *turtle*	[khú]	**khu-a** *turtles*	[khúá]
	d.	**~boko** *catfish*	[mṍkõ]	**~boko-a** *catfish* (pl)	[mṍkõã]
	e.	**yese** *pig*	[jɛsɛ́]	**yese-a** *pigs*	[jɛséa]
	f.	**~yaba** *deer*	[ɲãmã́]	**~yaba-a** *deer* (pl)	[ɲãmãáã]
	g.	**dasa** *toucan*	[da^{h}sá]	**dase-a** *toucans*	[da^{h}séa]
	h.	**ba'a** bass	[baʔá]	**ba'e-a** *bass* (pl)	[baʔéa]
	i.	**~baha** *macaw*	[mãɦã́]	**~bahe-a** *macaws*	[mãhẽ́ã]
	j.	**ka** *monkey*	[káa]	**ka-ya** *monkeys*	[kája]

[15] The nouns identified so far in this subset taking the irregular plural **-ya** are **ka** 'monkey,' **yai** 'jaguar,' **die** 'dog,' and **ko** 'relative,' derived from the root for 'water.'

4.3.1.3. Inherently ‘collective’ animates

The final category of animate nouns refers to creatures, such as most types of insects, worms, and some types of fish, which are gregarious, in other words, which live and move in collectives. In contrast to roots for ‘individual’ animates, nearly all roots for nouns in this class can be analyzed as inherently plural. Though the final plural markers **-a/~da** do not generally display the same kind of across-the-board phonological fusion with roots that we saw in the fused gender coding in the bimoraic terms in 2, roots referring to collective animates simply do not occur except in plural form (though the first item in 8a appears to be an exception to this tendency). Thus, synchronic forms with three mora, such as the terms for *flies* and *maggots*, may represent an intermediate stage in a grammaticalization process which will eventually fuse the plural markers onto the root (a process which will probably also involve phonological reduction and re-adjustment to bimoraic structure).

Because roots denoting collectives always occur as plurals, I analyze plural to be the unmarked category of this class of nouns and singular to be the marked category. Reference to an individual member of a collective is morphologically coded by an individualizing suffix **-kiro** on the pluralized stem. The function of **-kiro** in this case is similar to the partitive function **-ro** performs for mass nouns: it is a tool for specifying or *singling out* an individual referent from a collective (see section 4.3.2.2.1.). Synchronically, there is evidence that the initial consonant in the **kiro** suffix is eroding, especially among younger speakers, as indicated in the final two examples in *b*.

(8)

a.		b.	
~bachʉ *leafcutter ants*	[mãʰtʃʉ̃́]	**~bachʉ-kiro** leafcutter ants-IND *a leafcutter ant*	[mãʰtʃʉ̃́kiro]
~khobada *flies*	[kʰõmã́nã]	**~khobada-kiro** flies-IND a *fly*	[kʰõmã́nãkiro]

~bia *sardines*	[mĩ́ã]	**~bia-kiro** sardines-IND *a sardine*	[mĩ́ãkiro]
dachoa *maggots*	[da^{h}tʃóá]	**dacho-(k)iro** maggots-IND *a maggot*	[da^{h}tʃóiro]
~hua *worms*	[ɦṹã]	**~hua-(k)iro** worms-IND *a worm*	[ɦṹãiro]

4.3.1.4. Linguistic coding and the hierarchy of animates

The ways in which animates are linguistically coded for gender and number in Wanano reveal a hierarchy of animates in which entities higher up in the hierarchy are coded for the greatest number of features, as shown on Chart 4.3. Human nouns, for example, are obligatorily coded for both gender and number, whereas gender is only optionally marked for lower animates and is non-existent for collectives.

	HUMANS >	**HIGHER-LEVEL INDIV >**	**LOWER-LEVEL INDIV >**	**COLLECTIVES**
GEN	obligatory	optional	exceptional	not possible
SG	**-ro** obligatory		bare root classifier (exceptional)	**-kiro**
PL	**-a/~da**			inherently plural roots end in **-a/~da**

CHART 4.3. HIERARCHY OF ANIMATES

4.3.2. Inanimates

The second major class of nouns are inanimates, which, following Ramirez's analysis of Tukano (Ramirez, 1997a:201), and Criswell and Brandrup's analysis of Siriano (Criswell and Brandrup, 2000:405), can be subcategorized according to a mass/count distinction[16]. Further subcategorization is revealed in the coding of number for count nouns.

[16] See also section 4.6.2.4.1. for coding of the mass/count distinction in interrogative modifying constructions.

ROOT	NUMBER	
	SG	PL
mass mass/abstract	Ø	Ø
partitive	-ro$_p$	
count w/o classifier	Ø	
with classifier	classifier	-ri
body parts	-ro$_p$ (oblig)	
derived (-ri)	classifier -ro$_p$	

CHART 4.4. INANIMATE NOUNS

4.3.2.1. Mass nouns

The morphologically distinguishing feature of mass nouns is that they have no plural forms and the bare root functions to identify not a singular, but an 'uncountable' referent, as in 9.

(9) a. **phu'ti** [p^{h}uʔtí] *manioc meal*
b. **~bi** [mĩ́ĩ́] *honey*
c. **~chipe** [tʃípe] *sap*
d. **ya'pa** [jaʔpá] *ground*

The addition of the suffix **-ro** to a mass noun (10a-c) or verb (10d-g) root can derive a semantically related singular entity or instance, a count noun. Mass nouns can themselves be derived from verbs by the addition of the suffix **-a** (10h-i).

(10) a. **ko** [kóó] *water* **ko-ro** [kóró] *rainstorm*
b. **~bʉ'ro** [mʉ̃ʔrṍ] *tobacco* **~bʉ'ro-ro** [mʉ̃ʔrṍrṍ] *cigar*
c. **tha** [t^{h}áá] *grass* **tha-ro** [t^{h}áró] *field*
d. **~yo** [ɲṍṍ] *show* **~yo-ro** [ɲṍrõ] *mirror*
e. **~bʉa** [mʉ̃ã́] *be.high* **~bʉa-ro** [mʉ̃ã́rõ] *sky* or *roof*

f.	**kha'ti** *live*	[k^{h}atí]	**kha'ti-ro** *life*	[k^{h}atíro]
g.	**khua** *be.afraid*	[k^{h}uá]	**khua-ro** *danger*	[k^{h}uáro]
h.	**~si'di** *drink*	[sĩʔnĩ́]	**~si'di-a** *drinkable liquid*	[sĩʔnĩ́a]
i.	**chʉ** *eat*	[tʃʉ́ʉ́]	**chʉ-a** *food*	[tʃʉ́a]

These examples reveal that the morpheme **-ro**, has semantically-related yet distinct functions when suffixed to different classes of noun roots. It functions as a 'singularizer' with animates and as a derivational 'partitive' with inanimate mass nouns[17].

4.3.2.2. Countable nouns

4.3.2.2.1. Generic, Ø-marked, and count nouns singularized by -ro

In general, countable inanimates are pluralized by the suffix **-ri**[18], but they can be categorized into distinct subsets depending on the means employed to denote a singular entity. Some inanimate roots, like the 'individual' animates discussed in section 4.3.1.2., are free morphemes; the unsuffixed root functions as both the unmarked singular and for generic reference. Many of the nouns in this subset are manufactured items or objects with no fixed shape, such as an island or garden.

(11) a.	**~dako** *island*	[nãʰkṍ]	**~dako-pori** *islands*	[nãʰkṍpõ̃ri̋]
b.	**~khoba** *ax*	[kʰõmã́]	**~khoba-ri** *axes*	[kʰõmã́ri̋]

[17] The analysis of the partitive function of **-ro** follows Ramirez's analysis for Tukano.

[18] Note, however, the irregular plural suffixes **-pori**, for *islands* and **-se(ri)** for *houses*. Waltz (1979:73) gives the plural suffix for *house* as **-seri**, (the same irregular plural as Tukano), and speakers claim that both forms are used. It is possible that there were once several plural markers, perhaps coding shape or function as well as number, of which **-pori** and **-seri** (which also appears in **pʉ'ʉ-seri** *baskets*), are relics. Over time, phonological erosion and leveling have resulted in the current **-ri** plural.

c.	**wese** *garden*	[wesé]	**wese-ri** *gardens*	[weséri]
d.	**wʉ'ʉ** *house*	[wʉʔʉ́]	**wʉ'ʉ-se(ri)** *houses*	[wʉʔʉ́sé]

A second subset of inanimate noun roots, those denoting body parts, are obligatorily coded by **-ro** in their singular forms, as we see in 12 below. One could speculate that the use of this suffix for the singular forms creates an underlying semantic link between 'whole' that is animate and one of its parts. However, given that all of the roots in 12 pluralize according to the pattern for inanimates with the suffix **-ri**, it seems more appropriate to follow Ramirez's analysis for Tukano. He considers the function of **-ro** with body parts as a particular type of partitive, deriving a part from a whole, a parallel to its partitive function on mass nouns, where it derives a pluralizable count noun from an unpluralizable mass noun. A similar analysis for Wanano seems applicable.

(12)					
	a.	**da'po-ro** *leg*	[daʔpóró]	**da'po-ri** *legs*	[daʔpóri]
	b.	**~kha'bo-ro** *ear*	[kʰãʔmõ̃rõ̃]	**~kha'bo-ri** *ears*	[kʰãʔmõ̃rĩ́]
	c.	**~pe-ro** *breast*	[pẽ̃rõ̃]	**~pe-ri** *breasts*	[pẽ̃rĩ́]
	d.	**~phicho-ro** *tail*	[pʰɪ̃tʃõ̃rõ̃]	**~phicho-ri** *tails*	[pʰɪ̃tʃõ̃rĩ]
	e.	**~ke-ro** *nose* or *beak*	[kẽ̃rõ̃]	**~ke-ri** *noses* or *beaks*	[kẽ̃rĩ́]
	f.	**dise-ro** *mouth*	[diʰséró]	**dise-ri** *mouths*	[diʰsérí]

4.3.2.2.2. Inanimates with classifiers: types, functions, and phonological features

The third subset of countable inanimate nouns are those in which the unmarked form indicates generic reference (as in 13a), while singular reference is coded by a classifier[19] (as

[19] Craig argues that the feature which unifies all types of classifier systems is that *all* classifiers (not just numeral classifiers) have individuation as their primary function (Craig, 1992: 295).

in 13b). Some classifiers denote shape or configuration features such as *rounded*, *flat*, or *stacked*; others refer to more specific forms or qualities such as *leaf of X*, *palm/tree bearing X*, or *product made from X* (as in 13c-f). Some noun roots, such as those for plants, can be singularized by a number of different classifiers denoting different properties, as the examples in 13 clearly show.

(13)

a.	**se** [séé] *cucura fruit* (generic)	**ho** [hóó] *banana* (generic)
b.	**se-ka** [séká] cucura-CLS:round *a cucura*	**ho-paro** [hópáró] banana-CLS:cylindrical, curved *a banana*
c.	**se-kʉ** [sékʉ́] cucura-CLS:tree *a cucura tree*	**ho-~yo** [hójó̰] banana-palm.of *banana tree*
d.	**se-ko** [sékó] cucura-water *cucura juice*	**ho-ko** [hókó] banana-water *banana juice* or *mashed bananas*
e.	**se-~phu** [sép^{h}ṹ] cucura-leaf *leaf of a cucura plant*	**ho-~phu** [hóp^{h}ṹ] banana- leaf *leaf of a banana tree*
f.		**ho-~ki** [hóḱĩ] banana-CLS:bunch *a bunch of bananas*

There are three types of classifiers in Wanano. Classifiers of the first type have very generalized semantics and appear on many different types of noun roots. These classifiers tend to have one-syllable shapes, and the source roots from which they have evolved are no longer recognizable or recoverable. Classifiers of the second type are recognizable reductions of full noun roots. Finally, classifiers of the third type are full noun roots which can almost always also stand alone as free morphemes. These become dependent roots in compounds.

The following lists of classifiers are by no means exhaustive, but serve to illustrate all three types of classifiers. 14 gives examples of general shape/type classifiers whose source

roots are no longer recoverable, and whose grammatical status is somewhat undefined. They are neither fully grammaticalized suffixes nor are they fully or partially-recognizable roots functioning as modifiers to other roots[20]. 15 gives examples of reduced-root classifiers, and 16 gives examples of full-root classifiers, analyzed as dependent nouns.

A close examination of the examples in 14 shows that classifiers have several different functions. First, classifiers serve to qualify nouns, calling attention to some salient feature, such as shape (as in 14f **~ta-ka**, *rock-CLS:rounded*) or configuration (as in 14i, **ho-~ki**, *banana-CLS:bunch*). Secondly, classifiers are also used to derive animate (14a) or inanimate nouns from verbs or determiners (14b/d/e/n/o/q/r/s)[21]. In 14a, for example, the animate **phirida**, *a long ropelike being (referring to a snake)* is derived from a nominalized verbal root **phi**, *be.big*, and the classifier for ropelike objects **-da**. In 14b, the same classifier for ropelike objects is used to derive *fishing line* from the nominalized verbal root **yo'ga**, *to fish*. In 14r, **a'ri-thu**, the classifier for stacked objects is used with the demonstrative to derive *this book*. We also see that more than one classifier can qualify a root, each addition serving to further specify the noun, as in 14p, **y~~u~~k~~u~~-k~~u~~-~phi**, in which the root, *tree*, takes both the singularizing classifier for tree, as well as the classifier for *long*, *flat* or *bladelike* objects, resulting in the noun *wooden knife*.

[20] Perhaps the most appropriate label for the groups of classifiers in the intermediate positions on the chart would be that of clitics, following Aikhenvald's general definition of clitics as 'occupy[ing] an intermediate position between a full-fledged phonological word and an affix (2002:43). Indeed, these groups of classifying morphemes display phonological and morphological behavior that disqualify them as either being completely affix-like or completely lexical-like. They retain some, but not all of their inherent phonological features, form a single phonological word with the head root, and show different degrees of potential grammatical independence.

[21] See also sections 4.3.4.1. and 4.3.4.2. below.

A SAMPLE OF WANANO NOUN CLASSIFIERS

(14)

a.	**-da** *rope/threadlike*	**phi-ri-da**	[pʰírídá] be.big-NOM-CLS:ropelike *a long ropelike one* (used to describe a dead snake)
b.		**yo'ga-ri-da**	[yoʔgárídá] fish-NOM-CLS:ropelike *fishing line*
c.	**-dʉ** *cylindrical/straight*	**tua-dʉ**	[túádʉ] stick-CLS:cylindrical/straight *a branch*
d.		**hoa-dʉ**	[hóádʉ] write-CLS:cylindrical/straight *a pen / pencil*
e.		**~yosa-dʉ**	[ɲõsã́dʉ] force.into-CLS:cylindrical/straight *a spear / arrow*
f.	**-ka** *rounded*	**~ta-ka**	[tã́kã́] rock-CLS:rounded *a stone*
g.		**~su'i-ka**	[sũʔíkã́] snail-CLS:round *a snail*
h.		**~pʉ-ka**	[pʉ̃́kã́] crab-CLS:round *a crab*
i.	-~**ki** *bunch*	**ho-~ki**	[hó́kĩ́] banana-CLS:bunch *a bunch of bananas*
j.	**-paro** *cylindrical/curved*	**ho-paro**	[hópáró] banana-CLS:cylindrical/curved *a banana*
k.		**wʉpo-paro**	[wʉʰpópáró] type.of.caterpillar-CLS:cylindrical/curved *a caterpillar*
l.		**~bede-paro**	[mẽnẽpáró] inga.fruit-CLS:cylindrical/curved *an inga fruit*

m.	**-phata** *flat*	**~khubu-phata** [kʰũmṹpʰata] sitting object-CLS:flat *a bench* (made of boards)
n.	**-~phi** *long, flat/bladelike*	**yoa-ri-~phi** [jóáríipʰĩ́] be.long-NOM-CLS:long, flat/bladelike *a machete*
o.		**sio-ri-~phi** [síóríipʰĩ́] be.sharp-NOM-CLS:long, flat/bladelike *a knife*
p.		**yʉkʉ-kʉ-~phi** [jʉkʉ́kʉ́phĩ́] tree-CLS:tree-CLS: long, flat/bladelike *a wooden knife*
q.		~**si'a-ri-~phi** [sĩʔã́r̃ĩphĩ] set.fire-NOM-CLS:long, flat/bladelike *a torch*
r.	**-thu** *stacked*	**a'ri-thu** [aʔrítʰú] DEM:PROX-CLS:stacked *this book*
s.		**bu'e-ri-thu** [bu'érítʰú] study/learn-NOM-CLS:stacked *a textbook*
t.	**-to/-ro**$_{cl}$[22] *concave*	**bia-to** [bíátó] pepper-CLS:concave *a pot* also *fish-pepper stew* (a daily staple)
u.		**phʉ'ʉ-ro** [pʉʔʉ́ró] basket-CLS:concave *a basket*
v.		**~khubu-ro** [kʰũmũ̃r̃õ] sitting object -CLS:concave *a bench* (traditional type, with slightly concave top)

It is important to note the shape classifiers which appear on animates in 14a/g/h/k As mentioned in section 2, shape classifiers do not usually occur on animates in ET languages, with the exception of Kubeo, in which a number of higher and lower-level animates are coded by shape or as inherently 'feminine.' In Wanano, we find shape classifiers used only

[22] I am grateful to Elsa Gomez-Imbert for pointing out to me the allomorphy of the **-to/-ro** 'concave' classifier.

with certain lower-level animates as a means of singularizing them, and there is no coding of animates as inherently feminine[23]. To understand the use of shape classifiers on animates, we should recall that the lower levels in the hierarchy of animates presented in Chart 4.3 have fewer options for specification. Within the paradigm of animate coding, lower-level entities are not specified by any kind of salient features at all. Thus, it seems appropriate to follow Gomez-Imbert's analysis that the use of shape classifiers on certain kinds of fauna (animates) results from the fact that they are not individuated by any other kind of salient feature. She argues that 'this additional faunal categorization [the use of shape classifiers on animates] is a generalization from a linguistically marked category with inanimate referents (natural objects and artifacts) to a category of animate non-human referents . . . as if they [the animates] were submitted to a perceptive rank demotion (Gomez-Imbert, 1996:457). In other words, some morphological borrowing from the much wider field of inanimate coding takes place in order to facilitate identification and reference to these animates.

The classifiers in 15 show different kinds of full root⟶ classifier reduction. In 15a, the CV root undergoes phonological reduction from two to one mora when it functions as a classifier. The roots in 15b/c are also morphologically as classifiers, though the pattern of reduction varies. In 15b, the second syllable of the full root **yʉkʉ**, *tree*, becomes the classifier for trees: **-kʉ**, while and in 15d, the first syllable of the full root **phʉ'ʉ**, *basket*, becomes the

[23] I can only speculate as to the origin of this exceptional type of cross-class coding. It is certainly a much less pervasive phenomenon in Wanano than it is in Kubeo, though the origin may be the same in both cases: integration of semantic categories from Arawak languages due to linguistic contact through marriage. As we saw in Figure 1.2 in chapter 1, the Wanano and the Kubeo are the two northernmost groups of Tukanoan language speakers on the Vaupés, nestled between the Baniwa, within one-day's walking distance on the Aiarí River to the north, and the Tariana, just downriver (both Arawakan).

classifier for baskets: **-phʉ**. In fast speech, this classifier is usually phonologically reduced, losing the initial post-aspiration of the voiceless plosive.

All classifiers retain their underlying specification for nasality, but lose the specification for tonal melody they had as full roots. Classifiers are always open to tonal melody spread from the head noun root. In 15a for example, we see that the full root, **~ba** has underlying H tone and +nasality. As a classifier on a **pita**, which has underlying <L>HL tone and -nasality, **~ba** retains its specification for nasality (even though **pita** is oral), but loses its H tone, because as a classifier, it becomes open to spreading of the final low tone of the <L>HL head.

(15)	FULL ROOT	REDUCED FORM	EXAMPLE
a.	**~ba** [mãã́] *river* or *path*	**-~ba**	**pita-~ba** [pitámã] port-CLS:river *river port*
b.	**yʉkʉ** [jʉʰkʉ́] *tree*	**-kʉ**	**pichʉ-kʉ** [pichʉ́kʉ́] shoot-CLS:tree *shotgun*
c.			**~bʉ'ro-kʉ** [mʉʔrṍkʉ́] tobacco- CLS:tree *a fat cigar*
d.	**phʉ'ʉ-ro** [pʰʉʔʉ́ro] basket-CLS:concave *basket*	**-~phʉ**	**~kʉ-phʉ** [kʉ̃́pʰʉ̃] one-CLS:basket *one basket*
e.	**pari-taro** [parîtáró] lake-CLS:lake	**-taro**	**hi-ri-taro** [hîritaro] COP -NOM-CLS:lake *a lake-like place*
f.			**phi-ri-taro** [hîritaro] be.big-NOM-CLS:lake *a big lake*

4.3.2.2.3. Compounds: noun + dependent noun

The examples in 16 are a small sample of full noun roots occurring in noun-dependent noun relationships, forming compounds in which the dependent noun is the semantic head,

but the independent noun is the phonological head. In other words, in compounds such as **~kadʉkapa**, *sugarcane shoot*, or **bu'eriwʉ'ʉ**, *school house*, the dependent nouns *shoot* and *house* are the semantic heads of the compounds and the roots to their left function to establish the type of shoot or house in question. In compounds, dependent noun roots do not suffer morphological reduction; however, like the classifiers in 15, they do undergo phonological changes which establish their dependent status: they retain their own underlying specification for nasality while, like all other classifiers, losing their specification for tone, the tonal melody of the independent root predominating. The examples in 16 are only a taste of what appears to be a completely productive process of noun creation and specification.

(16)
a. **phi-ri-wʉ'ʉ** [pʰíriwʉʔʉ]
be.big-NOM-house
a longhouse (traditional communal dwelling)

b. **bu'e-ri-wʉ'ʉ** [buʔériwʉʔʉ]
study-NOM-house
a school

c. **~dʉkʉ-~wati-ro** [nʉ̃ʰkʉ̃́wã́tĩ́ɾṍ]
forest-evil.being-SG
a forest devil

d. **~kadʉ-kapa** [kãnʉ́káʰpá]
sugarcane-shoot/seedling
a sugarcane shoot

e. **~sare-kapa** [sãɾẽ́káʰpá]
pineapple-shoot/seedling
a pineapple shoot

f. **pa-~dʉba** [pánʉ̃mã]
other-day
the next day or *the day after*

g. **~yʉbʉ-~phu-ri** [ɲʉ̃mʉ̃́pʰʉ̃́ɾí]
bacaba(fruit)-leaf-PL
leaves of the bacaba fruit tree

h. **phicha-yapa** [phitʃájápá]
shoot-seed
a bullet

i. **~da'a-~yo** [nãʔã́-ɲṍ]
~da'a.fruit- palm
a na'a palm

It is due to the fact that the types of classifications means in 14-16 retain some of their underlying features while losing others that they are analyzed here as not having the grammatical status of suffixes. Suffixes, for the most part, are one-syllable, monomoraic affixes having no underlying specifications for nasality or tone, and displaying segmental restrictions (such as those governing the distribution of the /**d**/ and /**r**/ segments in word-initial or word-internal position, described in chapter 2). Classifiers, on the other hand, retain their underlying specification for nasality, which in itself qualifies them from full suffix status.

4.3.3. The noun classification continuum

Chart 4.5 gives an overview of the entire noun classification system as a continuum of these varied types. On the right side, we see fully grammaticalized fused and full suffixes with generalized semantics denoting noun class and the features of animacy, gender, and number. Moving toward the middle are the different subsets of classifiers, whose semantics grow more specific and which may have one or two-syllable shapes. These may have more or less recognizable or recoverable root sources, depending on the degree of grammaticalization, and indeed, those on the left side can function both as independent lexical roots and dependent roots. The phonological predominance of the independent root tonal melody over that of the dependent root is evidence that a shift in status from independent to dependent status actually takes place[24].

[24] This analysis of noun classification means as a continuum of forms with varying degrees of grammaticalization draws from and is strengthened by the analyses of Sorensen (1969), Gomez-Imbert (1982), and Ramirez (1997a).

STATUS	+lexical, optional ⟷ +grammaticalized, obligatory retain specification for nasality, lose specification for tone ⟷ no phonological specification for tone or nasality				
SEMANTICS	+specific (code or qualify nouns by salient features or type) ⟷ +general (code inherent properties of noun classes) animacy/gender/number				
FORM	**DEPENDENT ROOT**	**CLITICS**		**SUFFIXES**	
	full-root	unrecoverable/ unrecognizable root	reduced-root	full	reduced
EXAMPLES	-kapa -wʉ'ʉ -~wati -~pho	-di'o, -ka -~phi, -dʉ -thu, -paro -yapa	-pʉ -kʉ -~ba	-ko, -kʉ -ro$_s$, -ro$_p$ -~da -ri	-o -ʉ -a

CHART 4.5. NOUN CLASSIFICATION CONTINUUM

4.3.4. Derived nouns

A number of the examples given in the sections describing animate and inanimate nouns have included instances of derived nouns. This section will summarize the means by which nouns are derived.

4.3.4.1. Animates

Animate nouns are derived from verbal roots according to the following process: the verb root is nominalized, forming a derived nominal stem which can then take appropriate noun classification morphology.

Vroot +	nominalizing suffix **-ri +**	noun classification morphology: -(**ko**)**ro**$_s$ (feminine/masculine singular) -~**da** (plural)

The forms in 17a show this extremely productive process of noun derivation. 17a gives the singular (masculine and feminine) and plural forms of animate nouns derived from the verb *to fish*. In all three forms, the root **yo'ga**, *to fish*, is first nominalized by **-ri**, and then

appropriate noun class morphology follows: **-ro** indicates singular (and by default, masculine), **-ko-ro** indicates feminine singular, and **~da** indicates plural. 17b gives three singular noun forms for *hunter*, each derived from a different verbal root or combination of roots, and in 17c-e we see additional examples of animate nouns derived from other active verb roots.

(17)	a.	**yo'ga-ri-ro** fish-NOM-SG	[joʔgáríró]	*fisherman*
		yo'ga-ri-ko-ro fish-NOM-FEM-SG	[joʔgárikoro]	*fisherwoman*
		yo'ga-ri-~da fish-NOM-SG	[joʔgárínã]	*fishermen* (general reference)
	b.	**~tidi-ri-ro** wander.around-NOM-SG	[t̃ĩnîriro]	*hunter / person walking around*
		wa'i-~kida ~waha-ri-ro animal-PL kill-NOM-SG	[waʔíkíná̋ w̃ãhá̋r̃ĩr̃õ]	*hunter*
		wa'i-~kida ko'ta-ri-ro animal-PL wait-NOM-SG	[waʔíkíná̋ koʔtáriro]	*hunter*
	c.	**bu'e-ri-ro** study/learn-NOM-SG	[buʔériro]	*teacher / student*
	d.	**hoa-ri-ro** write-NOM-SG	[hóáriro]	*writer*
	e.	**hoa-ri-ko-ro** write-NOM-FEM-SG	[hóárikoro]	*female writer*
	f.	**~hu-ri-ro** smoke-NOM-SG	[hũ̋r̃ĩr̃o]	*smoker*
	g.	**do'a-ti-ri-ro** illness-VBZ-NOM-SG	[doʔátíríro]	*sick person*
	h.	**do'a-ri-ro** cook-NOM-SG	[doʔáriro]	*cook*

4.3.4.1.1. Descriptive function of derived nouns

Nominalizations of stative (adjectival) verb roots are commonly used in descriptions, as we see in 18. For example, the speaker in 18a was talking about a cranky child. 18b (repeated from 14), is part of a description of a dead snake; 18c and d are taken from a description of an

evil forest being whose body was covered with a gluey substance; and 18e is from a description of a macaw.

(18)	a.	**~phobe-ri-ro** be.tired-NOM-SG	[pʰõmɛ́riro]	*a tired one*
	b.	**phi-ri-da** be.big-NOM-CLS:ropelike	[pʰĩrida]	*a long ropelike one*
	c.	**~ya-ri-ro** be.bad-NOM-SG	[ɲã́riro]	*evil / ugly one*
	d.	**sɯ'a-ri-ro** be.sticky-NOM-SG	[sɯʔáriro]	*sticky one*
	e.	**~so'a-ri-ro** be.red-NOM-SG	[soʔãriro]	*red one*

We should note that the homophony of the inanimate plural suffix **-ri** and the nominalizer **-ri** in no way creates confusion for Wanano speakers, because the two morphemes code elements in different functional domains[25]. Additionally, there is a significant morphological difference between the two forms: only the plural suffix can appear in word-final position, since the nominalizer would always follow a verb root, and must itself be followed by a suffix coding number.

4.3.4.1.2. Synchronic alternations

Synchronically, there is an alternation between the fully realized forms of **ri** + **ro** (singular) and **ri + ~da** (plural) exemplified above, and the phonologically reduced or fused forms **-iro/-~ida** in 19. While some sorts of reduction occur in fast speech[26] this alternation occurs regularly in both fast and careful speech, so we must look for an explanation of this alternation elsewhere. Bybee (1985) argues that synchronic alternations are usually not

[25] This in contrast to the polysemy of the suffix **-ro**, which performs various distinct, though related, functions within the single domain of noun classification.

[26] As mentioned in section 2.6.1. in chapter 2.

arbitrary but are evidence of grammaticalization processes. She also demonstrates that affixes which are of high semantic relevant to their stems tend to show greater degrees of morpho-phonological fusion. If these premises hold true for Wanano, then the alternation observed above suggests that the direction of grammaticalization is toward fused forms coding singular and plural animate nominalization.

(19)	a.	**ko-iro** relative-NOM:SG	[kóiro]	*relative*[27]
	b.	**~boa-poa** **~baka~ida** salt.plant-falls belong.to-NOM:PL	[mṍãpoã́ mãʰkãĩnã]	*Moapoa villagers*
	c.	**~basa-yaka-~ida** people-steal-NOM:PL	[mãsã́ jáʰkã́ĩnã]	*thieves*

4.3.4.2. Inanimates

Like animates, many inanimate nouns are derived from verbal roots, though the process by which this is accomplished shows some variation. While all derived animates require that the verb root be nominalized by the suffix **-ri**, this morpheme is not obligatory in the derivation of inanimates[28]. Quite often, verb stems are nominalized directly through suffixation of nominal classification morphemes.

Vroot +	(nominalizing suffix **-ri +**)	noun classification morphology: **-ro$_p$ / classifier** (singular) or **-~ri** (plural)

The forms in 20 (repeated from 14) show the two variations (with and without the nominalizing suffix **-ri**) of derivation with classifiers. The derived forms in 20a and b show

[27] The Wanano are known as **Kootiria**, 'water people', thus **ko** is the noun root for both *water* and *relative*.

[28] Interestingly, in Tukano, **-ri** is used in the derivation of inanimates only (Ramirez, 1997a:248).

the verbal root nominalized by the **-ri** suffix followed by a classifier, while in 20c and d, the verbal roots are nominalized directly by the classifier[29].

(20) a. **sio-ri-~phi** [sîórîpʰḭ́] *a knife*
be.sharp-NOM-CLS:long, flat/bladelike

b. **bu'e-ri-thu** [bu'érîtʰú] *a textbook*
study/learn-NOM-CLS:stacked

c. **phicha-yapa** [phitʃájapa] *a bullet*
shoot-seed

d. **hoa-dʉ̵** [hóádʉ̵] *a pen*
write-CLS:cylidrical/straight

The derivation of abstract inanimates from verb roots occurs directly through suffixation of the partitive **-ro**, as is clear from the examples in 21.

(21) a. **yʉ̵'ti-ro** [jʉʔtîro] *an answer*
(to)answer-PART

b. **pisu-ro** [pʰisúro] *a scream*
(to)call-PART

c. **~kha'a-ro** [kʰãʔãr̃ṍ] *a dream*
(to)dream-PART

d. **bo're-ro** [boʔréro] *morning / dawn*
be.light-PART

22 provides a final glimpse of the productive nature of noun classification morphology in the derivation of nouns from verb roots. Here we see that animate, inanimate generic, and inanimate specific forms can be derived from the same verb root, depending on the classifiers employed. Consider, for example, the forms in the middle column derived from the root **phi,** *be big*. An animate nominal, *a big one*, is derived by adding the nominalizer **-ri** and the

[29] The reason for this variation has yet to be determined. However, given that the general pattern for inanimates is direct derivation, without **-ri**, I would speculate that the direction of grammaticalization will be to reinforce **-ri** as an element of the derivation process of animates only and that the paradigms will eventually level, though some frozen lexical forms may survive.

singular suffix for animates **-ro**. Generic reference, to a *big thing, situation* or *event*, is accomplished by direct suffixation of the verb by the partitive **-ro**. Derivation of a nominal with specific reference, *a big X*, requires the nominalizer **-ri** and a specific classifier, as we see in the final form, **phi-ri-~ba**, *a wide river*.

(22) a.	animate	**phi-ri-ro** [pʰíriro] be.big-NOM-SG *a big one (being)*	**khua-ri-ro** [kʰúáriro] be.dangerous-NOM-SG *a dangerous one* (*being*)
b.	inanimate generic	**phi-ro** [pʰíro] be.big-PART *a big thing/situation/event*	**khua-ro** [kʰúáro] be.dangerous-PART *danger*, or *a dangerous thing/situation/event*
c.	inanimate specific	**phi-ri-~ba** [pʰírimã] be.big-NOM-CLS:river *a wide river*	**khua-ri-~ba** [kʰúárimã] be.dangerous-NOM-CLS:river *a dangerous river*

4.3.5. Nominals derived from particles

In 23, we see that both animate and inanimate nominals can be derived from different kinds of particles, including those coding deixis, anaphora (discussed further in Section 4.3) and alternation. These nominals are concordial elements, and most often accompany a referent head noun in a modifying function (discussed in Section 6). However, if the referent is clear, they can also serve a pronominal function, 'standing in' for a noun (discussed further in sections 4.2. and 4.3.).

(23) a.	**a'ri** DEM:PROX	**a'ri-ro** [aʔríró] DEM:PROX-SG		*this man* or *this one* (animate)
		a'ri-ko-ro [aʔríkóró] DEM:PROX-FEM-SG		*this woman*
		a'ri-~da [aʔrínã] DEM:PROX-PL		*these ones* (animate)
		a'ri-thu [aʔrítʰú] DEM:PROX-CLS:stacked		*this book*
		a'ri-~phi [aʔripʰ̃í] DEM:PROX-CLS:long, flat/bladelike		*this knife*

		a'ri-re	[aʔríré]	*this thing* (generic or mass noun)
		DEM:PROX-CLS:generic		
b.	**si**	**si-ro**	[síró]	*that man* or *that one* (animate)
	DEM:DIST	DEM:PROX-SG		
		si-ko-ro	[síkóró]	*that woman*
		DEM:DIST-FEM-SG		
		si-~da	[sínã]	*those ones* (animate)
		DEM:DIST-PL		
		si-re	[síré]	*that thing* (generic or mass noun)
		DEM:DIST-CLS:generic		
		si-~phare	[síphãrẽ]	*that side* (of a table or other object)
		DEM:DIST-side		
c.	**~o**	**~o-i**	[õĩ]	*here*
	DEIC:PROX	DEIC:PROX-LOC		
		~o-pa-dʉ	[õpádʉ́]	*a stick like this/this big*
		DEIC:PROX-other CLS:cylidrical/straight		
		~o-pa-ri-thu	[õpárîthú]	*a pile like this/this big*
		DEIC:PROX-other-NOM-CLS:stacked		
d.	**~so'o**	**~so'o-pʉ**	[sõʔṍpʉ]	*there (distal)*
	DEIC:DIST	DEIC:DIST-LOC		
e.	**to**	**to-pʉ**	[tópʉ]	*there (remote-deictic or anaphoric)*
	REM	REM-LOC		
f.	**pa** *alternate / other*	**pa-iro**	[páiro]	*(an)other one* (animate)
		other-NOM:SG		
		pa~ida	[pãĩnã]	*others* (animate)
		other-NOM:PL		
		pa-~dʉbʉ	[pánʉ̃mʉ̃]	*the next day*
		other-day		

4.3.6. A descriptive text

The following text contains examples of many different kinds of nouns and nominal constructions and can serve to illustrate much of what we have seen in section 3 so far.

(24) **a'ri-ro** **hi-ra** **ba'a**
DEM:PROX-SG COP -VIS.IMPERF.NON.1 bass
This is a bass.

b. **ti-ro** **dia-pʉ** **hi-ka**
ANPH-SG river-LOC COP -ASSERT:IMPERF
It (bass) live in the water.

c. **~bi-a** **wa'i** **da-~ida-~ka-re** **chʉ-ka** **ti-ro**
sardine-PL fish be.small-NOM:PL-DIM-OBJ eat-ASSERT:IMPERF ANPH-SG
It (bass) eat sardines and small fish.

d. **bʉhʉ-~ida** **da-~ida-~ka** **ba'a-a** **hi-ka**
be.large-NOM:PL be.small-NOM:PL-DIM bass-PL COP -ASSERT:IMPERF
There are large and small bass.

e. **~dʉtʉ-ri** **khʉa-~ida** **hi-ra** **ti-~da**
scale-PL hold/have-NOM:PL COP -VIS.IMPERF.NON.1 ANPH-PL
They have scales (ones with scales).

f. **wi'o** **die-~ku-~ida** **ti-ro** **ba'ro**
CONTR egg-lay-NOM:PL ANPH-SG kind.of.being/species
These (fish) are egg-layers.

g. **~pho'da-ti-ro** **phayʉ** **~pho'da-ti-ra**
offspring-VBZ-V.NOM many offspring-VBZ-VIS.IMPERF.NON.1
When they reproduce, they have lots of offspring.

The text begins with a demonstrative element, derived from **a'ri**, *this*, and nominal morphology which agrees with the head noun *bass*. In lines *a* and *b* we see examples of two noun roots which take no additional morphology indicating number or shape. In line *a*, the unmarked animate noun **ba'a**, *bass*, functions as generic predicative noun, identifying a species of fish, and in *b*, the inanimate noun, **dia**, *river* belongs to the subgroup of roots which take no shape classifiers. Single/generic reference for *bass* continues until line *d*, where the plural form of the noun, **ba'a-a**, is used because the sentence begins with a description of multiple sizes of bass, coded through derived nominals, **bʉhʉ-~ida,** *large*

ones, and **da-~ida-~ka**, *small ones*. In line *c*, there is another example of a plural animate, ~**bi-a** *sardine*, coded, like *bass*, in line *d*, by the animate plural **-a**. We know that *bass* continues as a plural referent in lines *e* and *f* because, among other things, the derived nouns describing *bass*, **~dutu-ri khua-~ida**, *ones-with-scales*, and **die-~ku-~ida**, *egg-layers*, have the derivational morphology indicating plural **-~ida**. Note, as well in *e*, that the head of the noun-derived noun combination *ones with scales*, **~dutu**, has the inanimate plural suffix **-ri**. Finally, in line *f*, it is interesting to note that the nominalization, **die-~ku-~ida**, is an example of a verb with an incorporated noun, *to egg-lay*.

4.3.7. Negative nominals

Wanano has an uninflected, inherently negative nominal **~de** [nɛ̃ɛ̃́], which, when it occurs pre-verbally, can be glossed as *nothing, nobody,* or *never*. When **~de** is followed by a noun, as in 25a and b, it can be glossed as *none of X,* or *no X*. Note that verbs in clauses which have **~de** are always coded as negative[30].

(25) a. **~de boka-era**
NEG find-NEG

~de ~badia ti-~da pa-~ida die-ya-~ka
NEG not.exist ANPH-PL ALT-NOM:PL dog-PL-DIM.
He (the old man) didn't find anything. None of the other little dogs was there.

b. **~de ~badia to ~dabo-ro**
NEG not.exist 3SG.POSS wife-SG
His wife wasn't there. (lit: there was no wife)

c. **~de bahu-era**
NEG be.visible-NEG
Nothing was there.

d. **~de ~doa-re ya'u-ku ~di-ro-bu**
NEG who-OBJ tell-1/2SG.MASC say-V.NOM-NEG.IMP.
You can't tell anybody.

[30] See chapter 6, section 6.5.1. for more on negation.

e. **~de ahi-ka ~di -era to-pʉ**
NEG be.concerned-ASSERT:IMPERF be.PROG-NEG REM-LOC
He was there, not concerned about anything/anybody.

f. **ko-ti-~ba-a koti-ro-se'e ~de**
medicine-VBZ-FRUS-ASSERT.PERF medicine-VBZ-V.NOM-CONTR. NEG

ti-ro-re thʉo-era
ANPH-SG-OBJ cure-NEG
He took medicine, but it (the medicine-taking) never cured him.

g. **~de ~basi-to ~basi-era-ati-ga**
NEG know-ANT know-NEG-IMPERF-ASSERT.PERF
We could never know (what had happened).

4.3.8. Summary of noun roots and noun classification

In the first three sections of this chapter, I have presented an overview of the structure of noun roots and the organization of the Wanano noun classification system. We have seen that Wanano, like all other ET languages, has two major classes of nouns—animates and inanimates—and that each class displays subcategorization according to features such as gender and number for animates, countability and number, as well as shape, function, type and other identifying features for inanimates. We saw that degrees of linguistic coding reveal a hierarchy of animates with humans and human-like entities at the highest levels and collective animates and animates coded by inanimate 'shape' classifiers at the lowest. This latter group are, in a sense, 'demoted' to the status of inanimates, and constitute a overlapping class of animates coded as inanimates, a linguistic hybrid of the two major classes. We also saw that within the class of inanimates, classifiers are often used to derive different kinds of nouns from a single root, and that there are a variety of classifier types in different stages of grammaticalization. Over all, this analysis of noun classification in Wanano does not consider there to be concurrent or overlapping systems, but a single, albeit complex, system which forms a continuum. Noun class, gender, and plural suffixes are the most grammaticalized classification morphemes, while the least grammaticalized forms are independent noun roots

which can be the classifier constituents in compounds. Finally, we saw the functions of and means by which nouns are derived from verbal roots and particles. In the next section, we move on to the description of another major type of nominal: pronouns.

4.4. Pronouns - personal

Wanano personal pronouns are analyzed, following Gomez-Imbert's analysis of Tatuyo, as a single paradigm composed of two types of morphemes: those rooted in personal deixis (requiring no nominal antecedent), and those derived from anaphoric particles (Gomez-Imbert, 1982:224). Subject forms are summarized in Chart 4.6. Examples of pronouns coded as grammatical Objects are given in section 4.5.2.2. as part of the discussion of the morphological coding grammatical information. Possessive pronominal forms are given in 4.6.3.1., within the discussion of possessive modifiers in noun phrases.

4.4.1. Deictic forms: first and second person

The deictic pronominals are **yʉ**'**ʉ** and **~bʉ**'**ʉ**, first and second person singular respectively. These forms have nearly exact cognates in all ET languages. Cross-linguistic comparison indicates that the plurals of these deictic pronominals were historically composed of the initial syllable of the first or second person forms + an associative or plural morpheme—synchronically realized as ~**ha**/~**sa**/~**a**—and yielding meanings along the lines of *I and those with me/You and those with you*. Gomez-Imbert has pointed out that the second person plural in Tatuyo is clearly analyzable as a composite (Gomez-Imbert, 1982:225), and the same can certainly be said for Wanano. However, further cross-linguistic comparison suggests that the first person plural exclusives were most likely composites as well. While the initial morpheme has apparently been lost in the first person plural exclusive in Wanano, it has been partially or fully retained in the cognate forms in a number of other ET languages:

Kubeo **j̃ixa**[31], Tukano and Yurutí **ĩsã**, Tuyuca **ĩs'ã**, Barasana **yɨá**, Macuna **giá**, and Desano and Siriano **gɨa**.

		SINGULAR	PLURAL	
DEICTIC	1ST PERSON	**yʉ'ʉ** [jʉʔʉ́]	**~badi** [mã̃rĩ́] *incl.*	**~sa** [sã̃ã́] *excl.*
	2ND PERSON	**~bʉ'ʉ** [mʉ̃ʔʉ̃́]	**~bʉ'sa** [mʉ̃ʔsã́]	
ANAPHORIC	3RD PERSON (F)	**ti-ko-ro** [tíkóró]	**ti ~dubia** [tí nʉ̃mĩ̃ã]	
	3RD PERSON (M)	**ti-ro** [tíró]	**ti-~da** [tínã]	

CHART 4.6. PERSONAL PRONOUNS

4.4.2. Anaphoric forms: third person

The most interesting differences between Wanano and most of the other languages in the family are found in the third person forms. Predominantly, throughout the family, bimoraic forms paralleling nominal class markers **(~)ɨi/kɨi/gɨi** (masculine singular) **(~)oo/koo/goo/soo** (feminine singular) and **~(i/kɨ)da/a** (animate plural) function as personal pronouns. Though not overtly marked as such, in this function, they are anaphoric elements. In Wanano, on the other hand, the forms which function as third person pronouns are overtly derived from the anaphoric particle root **ti** + the appropriate concordial noun class marker for the antecedent: **-ro**, (masculine/general animate singular, as in example 24, lines b, c, and f), **-ko-ro**, (feminine singular) or **-~da** (animate plural, as in example 24e). As we saw in section 4.3.1.1.2, there is no suffix coding feminine plural on animate noun roots, and the same

[31] Though I use the symbol **ʉ** to indicate the high mid vowel, the **ɨ** symbol is used by many other researchers of ET languages. In all sections which refer to examples from other sources, the authors' original symbols are preserved.

applies to the anaphoric pronominal constructions, where we find that reference to women is accomplished through compounding of the word **~dubia**, *women*. The difference between Wanano third person pronouns and those in other ET languages is clearly exemplified in the following sentences in Tukano and Wanano (pronominal elements are boxed).

(26) Tukano (West, 980:178)[32]

cʉ́	**yoarópʉ**	**wa'á-mi**
3sm	far	go-3sm

He went far away.

cf. Wanano

ti-ro	**yoa-ro-pʉ**	**wa'a-ra**
ANPH-SG	be.long-PART-LOC	go-VIS.PERF.NON.1

He went far away.

The only other language in the family which has pronoun forms parallel to those found in Wanano is Piratapuyo, where we find **ti-kiro** (MASC. SG), **ti-koro** (FEM. SG.) and **ti-~kida** (PL.) (Waltz 2002:189). While anaphoric reference for animates in languages such as Tukano is also established in constructions with **ti** (Ramirez, 1997a:322), it is important to note that these forms have an anaphoric function only. They do not serve as personal pronouns, whereas in Wanano (and Piratapuyo), the same forms constructed from the particle **ti** serve both functions. Anaphoric forms in Wanano in fact often co-occur with their antecedents, functioning to reinforce or re-establish reference, as we see in 27, from the *Hunter and His Dogs* text. At this point in the text, an man's little dog has run off into the forest chasing an animal and has disappeared. In the line preceding the one in 27, the man and his sons are searching for the dog. In 27 however, the referent is the man only; it is he who doesn't find anything, who realizes there aren't any dogs in the place they're searching. Thus, in line 27a we see the anaphoric construction **ti-ro,** *he,* (literally, *that one-animate*) followed by the full

[32] The author's original Tukano spelling has been preserved; translations of the interlinear elements and gloss are mine.

noun referent **bʉ-kʉ-ro**, *the old one*, reinforcing that the action is being performed by the man. In line 27b, the anaphoric construction **ti-~da**, *they*, (literally, *those ones-animate plural*) followed by the noun phrase **pa-~ida**, *other ones* **die-ya-~ka** *little dogs* reinforces the plural referent as *dogs* and not any other animate plural possibility, such as the sons, mentioned in the line just before.

(27) a.

ti-ro	**bʉ-kʉ-ro**	**~de**	**~badi**	**~de**	**boka-era**
ANPH-SG	elder-MASC-SG	NEG	not.exist	NEG	find-NEG

The old man didn't find anything.

b.

~de	**~badia**	**ti-~da**	**pa-~ida**	**die-ya-~ka**
NEG	not.exist	ANPH-PL	other-NOM:PL	dog-PL-DIM

None of the other little dogs was there.

When reference is clearly established, however, anaphoric constructions function as pronouns, fulfilling the same grammatical roles as their full noun antecedents, as we see in 28, from a little later in the same story. The man and his sons have now found the little dog; it is being eaten by an evil snake-like creature, and the man decides to take action. In line 28a, the anaphoric element **ti-ro**, whose antecedent is the man (because, according to my consultants, it is obvious that only humans have shotguns), functions as a pronoun in the grammatical role of Subject. In line 28b, we again see an anaphoric element functioning as a pronoun, **ti-ro-re**, this time coded by the suffix **-re** as having the grammatical role of Object[33]. The antecedent for this pronoun is the snake.

(28) a.

~ayo	**ti-ro**	**pichʉ-kʉ**	**khʉa**
then/so	ANPH-SG	shoot-CLS:tree	hold/have

So, the old man had a shotgun . . .

b.

~~sʉ	**ti-ro-re**	**phicha**	**ba'a-~yo-a**
arrive	ANPH-SG-OBJ	shoot	do.after-do.immediately-ASSERT.PERF

He went right over to it (the snake).

[33] For a full discussion of argument coding and case marking, see chapter 5.

c. **to** **dapu** **waro-i** **phicha-wa'a-roka-'a**
3SG.POSS head EMPH-LOC shoot-go-DIST-ASSERT.PERF
The snake's head exploded (when it was shot).

While anaphoric constructions predominate in the pronominal function, though it happens only rarely, other types of nominal constructions can also function as pronouns, as we see in the following interesting example from the *Curupira* text. A man lost in the forest has encountered a human-like creature, and, after a strange conversation in which the creature asks the man to give him his heart, the man realizes that the creature means him harm. In 29, the deictic construction **a'ri-ro** (*this one*, referring to the creature) functions as a pronominal in the role of grammatical Subject. In his quoted speech, the speaker uses a deictic, rather than an anaphoric element for the pronominal function because the referent is physically present at the scene.

(29) **yʉ'ʉ-re** **a'ri-ro** **chʉ-dua-ro-~di-ka**
1SG-OBJ DEM:PROX-SG eat-DESID-V.NOM-be.PROG-ASSERT:IMPERF
"This one (Curupira) wants to eat me,"

~di **thʉ'o-thu-'a**
say hear-think-ASSERT.PERF
he said to himself.

4.4.3. Anaphoric forms for inanimates

Anaphoric forms for inanimates follow the pattern for other nominal elements derived from particles examined in 4.3.5. and the personal pronoun/anaphors examined in 4.4.2. In 30 we see that anaphoric reference can be made to inanimates in forms constructed from the particle **ti** and any of the three types of classifier elements described in 4.3.2.2.2. Though anaphoric constructions with full noun roots are the most common type (30d-g), we also see constructions with classifiers (30a-c).

(30) a. **ti-re** [tíre] *that object, situation, event (generic reference)*
ANPH-GEN

b. **ti-phʉ** [típ^{h}ʉ] *that basket*
ANPH-CLS:basket

c. **ti-~phi** [típ^{h}í] *that knife*
ANPH-CLS:long, flat/bladelike

d. **ti-~phu-ri** [típ^{h}ũ̃ri] *those leaves*
ANPH-leaf-PL

e. **ti-~dʉba** [tínʉ̃mʉ̃] *that day*
ANPH-day

f. **ti-kopa** [tíkópá] *that hole*
ANPH-hole

g. **ti-ku'tu** [tíkuʔtu] *that meadow*
ANPH-meadow

Anaphoric constructions such as those in 30 can function as pronouns if reference has been clearly established, bearing in mind that inanimates will usually be coded as Objects or Instrumentals given semantic restrictions as to their occurrence in Subject/Agent roles.

In the following example from a little later in the *Curupira* story, the man is now offering his knife to the evil creature, which he has tricked into cutting out its own heart. The demonstrative **a'ri-~phi**, *that knife*, and its full noun referent **yʉ'so-ri-~phi**, *knife*, occur in lines 31a and b. The anaphoric construction functioning as a pronoun and coded as Object occurs in 31c.

(31) a. **a'ri-~phi-~be're** **~da-ro** **~kha'ba-re** **~di**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM want-VIS.PERF.NON.1 say
"(You) can take it out with this knife," he (the man) said

b. **yʉ'so-ri-~phi-re** **~yui** **~wio-'a** **ti-ro-re**
cut-NOM-CLS: bladelike-OBJ offer MOV.outward-ASSERT.PERF ANPH-SG-OBJ
and stuck it out to him (the creature).

c. **ti-~phi-re** **ti-ro** **~hi'da** **~ya'a**
ANPH-CLS: bladelike-OBJ ANPH-SG EMPH get.with.hand.
He (the creature) immediately grabbed the knife . . .

Thus in this section we have seen that several kinds of nominal constructions can function as pronouns: for animates, first and second person forms have a deictic origin, while third person forms are derived from the anaphoric particle in most situations, though deictic forms are also possible in special contexts. Pronouns with inanimate referents are also derived from the anaphoric particle and the appropriate nominal morphology.

4.5. Nominal morphology

This section will present an overview of the different types and order of morphemes which appear on noun stems. We saw in section 4.3 that these can be simple (a single root), complex (a compound of two roots), or derived (from a verb root or particle). We will see that there are three broad categories of nominal morphemes: those coding lexical information, those coding grammatical relationships, and those coding discourse-level information. The only pre-root morphemes are possessive proclitics, which will be discussed in section 4.6.3.1. Chart 4.7 summarizes the order and categories of morphemes found on nouns in Wanano. Paragraph references are given for each category discussed in this section.

	LEX					GRAM		DISC
STEM	+ 1	+ 2	+ 3	+ 4	+5	+ 6	+7	+ 8
VerbR Particle R_{indep} +(R_{dep})	NOM **-ri**	GEND **-ko** **-kɯ**	IND **-ki**	NUMB **-ro**$_s$ **-a/~da** **-ro**$_p$ **-CLS** **-ri/-se**	DIM **-~ka** AUG **-wɯ'rɯ**	LOC **-i** **-pɯ**	OBJ **-re** COM/INST **-~be're**	CONTR **-se'e** RE F **-ta** EMPH **~hi'da** ADD **-khu** TEMP **-re** SOL **-di'ta**
		(4.5.1.1.)			(4.5.1.2) (4.5.1.3.)	(4.5.2.1)	(4.5.2.2.) (4.5.2.3.)	(4.5.3.)

CHART 4.7. NOMINAL MORPHOLOGY

4.5.1. Morphemes coding lexical information

4.5.1.1. Class / Gender / Number

The previous sections of this chapter have discussed and exemplified root types, nominalizations with and without the nominalizer **-ri**, and the coding of major animate/inanimate class distinctions with subcategorization by gender and number. These coding means are represented in the first five columns on the chart (Stem + Lexical positions 1-4). Together, these form the core lexical identity of a noun. Further lexical specification is possible, however, by use of a fifth category of lexical morphemes: the diminutive **-~ka** and the augmentative **-wʉ'rʉ**.

4.5.1.2. Diminutive

The form of the diminutive morpheme in Wanano, **-~ka**, follows the pattern found throughout the family, the variation being **-(~)(a)ka/ga**. As in other ET languages, the diminutive occurs far more frequently in Wanano than the augmentative, and it is used in a variety of ways. First, it is used in the most transparent sense to indicate the relative size of both inanimates (32a-f) and animates (32g-m).

(32) a. **khiti-~ka** [kʰitíkã] *a little story*
story-DIM

b. **wʉ'ʉ-~ka** [wʉʔʉ́kã] *a little house*
house-DIM

c. **tʉ-~ka** [tʉ́kã] *a little stick*
stick-DIM

d. **phʉ'ʉ-se-~ka** [pʰʉʔʉ́sékã] *little baskets*
basket-PL-DIM

e. **hi-ri-~kobu-~ka** [hírík̃omũkã] *a little log-like thing*
COP -NOM-tree.trunk-DIM

f. **~doa-~po-~ka** [nõ̃ãpõkã] *beautiful little basket*
be.beautiful-CLS:strips-DIM

g. **~dubi-ro-~ka** [nũmĩ̃rṍkã́] *a small woman*
woman-SG-DIM

h. **~ba-kʉ̃-ro-~ka** [mãkʉ̃̃rõkã] *a little son*
child-MASC-SG-DIM

i. **~dubi-a ~phoda-~ka** [nũmĩ́ã pʰonãkã] *women's little girls*
woman-PL children-DIM

j. **ti-~da-~ka** [tĩ́nãkã] *the little ones*
ANPH-PL-DIM *(in reference to some children)*

k. **die-ro-~ka** [diérókã́] *a little dog*
dog-SG-DIM

l. **die-ya-~ka** [diéjá́kã́] *little dogs*
dog-PL-DIM

m. **~kʉ̃-iro-~ka ~ba'a-ri-ro-~ka** *one little one*
one-NOM:SG-DIM be.small-NOM-SG-DIM *(in reference to a dog)*

We should note that in a noun phrase with a modifier and head, such as 32m, the diminutive morpheme appears on both elements.

The diminutive morpheme also appears frequently as a constituent in adverbial constructions, where it functions as an intensifier (33a and b), and as an indefinite quantifier (33c-d) (further discussed in 4.6.2.2.2. below).

(33) a. **phi-ro-~ka** [pʰírókã́] *rather slowly*
be.slow-ADV-DIM

b. **khe-ro-~ka** [kʰérókã] *rather quickly*
be.fast-ADV-DIM

c. **~ka ~so'a-~ka phoa-ri** *a few red feathers*
a.few be.red-DIM feather-PL

d. **~o-baro-~ka-i** *a little farther away*
DEIC:PROX-be.far-DIM-LOC

4.5.1.3. Augmentative

Unlike the diminutive, the augmentative in Wanano diverges from the pattern found in the literature on other ET languages, where all the variants contain the morpheme **-ro -roho** (TUK), **-Vro** (TAT), and **-ro** (DES, BAS). As in other ET languages, the augmentative in Wanano occurs far less frequently than the diminutive. It functions to indicate size, as we see in 34a-e or can function as a quantifier, as in 34f.

(34) a. **~phido-ro-wʉ'rʉ**
snake-SG-AUG
a big snake

b. **phi-ri-da-wʉ'rʉ**
be.big-NOM-CLS:ropelike
a long ropelike one (in reference to the same snake)

c. **bora-ro-wʉ'rʉ**
curupira-SG-AUG
a huge Curupira

d. **~o-pa-dʉ-wʉ'rʉ**
DEIC:PROX-other-CLS:cylindrical-AUG
a cigar this big

e. **ko-ro-wʉ'rʉ**
water-PART-AUG
a big rainstorm

f. **phoa-ri -~yai** **tiri-ro-wʉ'rʉ**
hair-PL-be.bad/ugly have-V.NOM-AUG
having a lot of ugly hair/ being really hairy

4.5.2. Morphemes coding grammatical information

The analysis of noun morphology so far has shown that the morphemes which code basic lexical information about a noun, establishing the noun as a specific entity or thing, are those which occur closer to the root, in lexical positions 1-5. The sixth and seventh positions on Chart 4.7 are reserved for the morphemes which code not the referent for a noun, but its grammatical role in a clause (see chapter 5 for a discussion of the grammatical roles coded in Wanano).

4.5.2.1. Locatives: -i/-pʉ

Nouns which refer to a location are coded by the visual Locatives **-i** (deictic proximate) or non-visual **-pʉ** (deictic distal / remote or anaphoric). Nominals coded as Locatives can be derived from particle (35a-f) or verbal roots (35j-k), as well as from noun roots (35g-i).

(35)	a.	**~o-i** DEIC:PROX-LOC	[ṍĩ́]	*here*
	b.	**~o pa-ri-taro-i** DEIC:PROX other-NOM-lake-LOC	[õpártı̂tárói̇̂]	*here at the lake*
	c.	**~so'o-pʉ** DEIC:DIST-LOC	[sõʔṍpʉ]	*there (distal)*
	d.	**~so'o-baro pʉ** DEIC:DIST-be.far-LOC	[sõʔṍbaropʉ]	*a little way away*
	e.	**to-pʉ** REM-LOC	[tópʉ]	*there (remote-deictic or anaphoric)*
	f.	**ti-pʉ** ANPH-LOC	[tı̂pʉ]	*that place*
	g.	**dapu-waro-i** head-EMPH-LOC	[dahpúwaroi]	*right in the head*
	h.	**ti kopa-pʉ** ANPH hole-LOC	[tı̂ kóhpápʉ́]	*into that hole*
	i.	**dia-bui-pʉ** river-be.upriver-LOC	[diábuipʉ]	*from upriver*
	j.	**kha'a-i** be.next.to-LOC	[khaʔáı̂]	*next to (somebody or something)*
	k.	**~kha'a-ro-pʉ** dream-PART-LOC	[khãʔã́rṍpʉ̃́]	*in a dream*

4.5.2.2. Object: -re

There is no overt marking of the grammatical Subject in Wanano, but nouns which function as Objects of transitive (36a and b) or di-transitive (36c) verbs are coded by the suffix **-re**, shown on Chart 4.7 in the seventh morphological position[34].

(36) a. **to ko-ya-re** **~wa'ko** **ti phʉ-ko-ro-re** **~wa'ko-a**
3SG.POSS relative-PL-OBJ wake 3SG.POSS parent-FEM-SG-OBJ wake-ASSERT.PERF
He woke his brothers and their mother.

b. **ti phʉ-kʉ-ro-re** **ya'u-a** **wa'a-a**
3SG.POSS parent-MASC-SG-OBJ tell-V.NOM go-ASSERT.PERF
They went to tell their father.

c. **ko-iro** **~bʉ'ʉ yahiri~pho'da-re** **yʉ'ʉ-re** **wa-ga**
relative-NOM:SG 2SG(POSS) heart-OBJ 1SG-OBJ give-IMPER
Relative, give me your heart.

In 37*a* and *b* below, we see that locative nominals are coded as Objects of motion verbs in Wanano by the locative marker **-pʉ** and the object marker **-re**. In 37*c* and *d*, the difference in Ø-coding of Locatives as adjuncts or with **-re** as Objects is clear. In line *c*, **~o-pʉ**, *here*, is coded as the Object of the motion verb **ta**, *come*, while in line *d*, the same element functions as an adjunct and is coded only as a Locative[35].

(37) a. **to-pʉ-re** **ti-ro** **wiha-wa'a**
REM-LOC-OBJ ANPH-SG MOV.outward-go
He left that place (a shelter in the forest).

b. **~bʉ-a-se'e** **ti-~da** **bo're-ka'a-ro-re** **biato** **chʉ-tu'sʉ**
man-PL-CONTR. ANPH-PL be.light-do.moving-PART-TMP fish.stew eat-just.finish
The men, as soon as they've eaten breakfast,

ti-~da~khu **wese-pʉ-re** **wa'a-ra**
ANPH-PL-also garden-LOC-OBJ go-VIS.IMPERF.NON.1
they also go (there) to the garden.

[34] For further discussion on the coding of arguments, see chapter 5.

[35] See also section 5.6.1. in chapter 5.

c. **~a** **yoa-i** **yʉ'ʉ** **~o-pʉ-re** **ta**
so/then do/make-V.NOM 1SG DEIC:PROX-LOC-OBJ come
Then I came here,

d. **~bi-pʉ-re** **~o-pʉ** **yʉ'ʉ** **hi-ha**
now-LOC-TMP DEIC:PROX-LOC 1SG COP -VIS.IMPERF.1
and now I'm here.

4.5.2.3. Comitative/Instrumental: ~be're

A third grammatical marker codes relations between two nouns: either a comitative relationship between two nouns or the instrumental use of one noun (usually, though not necessarily an inanimate) by another. These two functions are both coded by the morpheme **~be're** [mẽʔrẽ]. This morpheme is shown, along with the suffix **-re**, in the seventh morphological position on Chart 4.7; however, unlike the object marker, it cannot co-occur with the Locative. 38 gives examples of both the comitative (38a and b) and instrumental (38c and d) functions of this morpheme.

(38) a. **ti** **phʉ-kʉ-ro** **to-pʉ** **wa'a** **to** **ko-ya-~be're**
3PL.POSS parent-MASC-SG REM-LOC go 3SG.POSS relative-PL-COM/INST
Their father went there with his relatives . . .

b. **~sa** **yoaro-pʉ** **yʉ'ʉ** **phʉ-kʉ-~be're** **thʉ'o-i**
1PL:EXC be.long-LOC 1SG parent-MASC-COM/INST hear-VIS.PERF.1
We, from far away, I with my father, heard (that sound).

c. **a'-ri-~phi-~be're** **~da-ro-~kha'ba-re**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM-DEON-VIS.PERF.NON.1
(You) can take it (your heart) out with this knife.

d. **tʉ-~be're** **~bʉ'ʉ** **wa'i-~kida-~waha** **sito-ta-ka**
stick-COM/INST 2SG animal-PL-kill MOV.circular-come-PREDICT
With this stick, you'll go around hunting animals.

4.5.3. Morphemes coding discourse-level information

The final position on Chart 4.7 shows the morphemes which code nouns for discourse-level information. These morphemes appear as the final constituents in nominal constructions, following all morphemes which code basic lexical and grammatical

information. Four discourse markers have so far been identified: the referential **-ta**, the contrastive **-se'e**, the additive **-khu**, and the temporal **-re**.

4.5.3.1. Referential: -ta

The morpheme **-ta** is an extremely frequent discourse marker that can appear on both nominal and verbal constructions. Though its exact meaning in any given sentence is heavily context-dependent, its basic function when suffixed to a noun is to emphasize cross-reference to a previously-mentioned or focal noun, yielding a meaning akin to *that very X* or *that same X*, as we see in the lines from the *Curupira* text in 39 below.

In the lines preceding those in 39, the man had tricked the evil creature into stabbing itself with a knife and now, in the morning light, in 39a, the man sees the creature flat out on the ground, to all appearances dead. The nominal referring to the creature is **phi-ri-ro-ta**, *big one*, coded additionally by the **-ta** morpheme to emphasize that this was indeed the same creature with whom the man had had his disturbing encounter in the darkness. Because this noun functions as the grammatical Subject, it requires only core lexical morphology. In 39b, the man sees the knife he offered to the creature stuck *right in* its heart, coded first by the locative **-pʉ**, and then by **-ta**, emphasizing the location. Finally, in 39c, a little later in the story, some years have passed and the man has decided to go back to the place where he had the encounter with the creature. The creature is identified by the pronoun **ti-ro**, *him*, which is coded by configuration as the grammatical Object (see also chapter 5 on verbal syntax). The referential **-ta** emphasizes that this is the same creature from before. Thus we see that **-ta** can mark a noun in any grammatical function.

(39) a. **phi-ri-ro-ta** **kʉa-ro** **~ku-a**
be.big-NOM-SG-REF be.lying.down-V.NOM lay-V.NOM
That same big guy (the creature) was laying there,

yaria **wa'a-ri** **hi-a**
die become-V.NOM.INFER COP -ASSERT.PERF
(apparently) dead.

b. **yʉ'so-ri-~phi** **to** **yahiri~pho'da-pʉ-ta** **duku-a**
cut-NOM-CLS:bladelike 3SG.POSS heart-LOC-REF stick.in-ASSERT.PERF
The knife was stuck right in his heart.

c. **ti-ro-ta** **yʉ'ʉ** **bola-ro** **yʉ'ʉ** **~waha-~kʉ-ri-ro-re**
ANPH-SG-REF 1SG Curupira-SG 1SG kill-1/2.MASC-NOM-V.NOM-OBJ

~yʉ **si-bʉ**
see/look DEM:DIST-INTENT.
I'm going there to see him, that Curupira that I killed.

4.5.3.2. Emphasis: ~hi'da

One of the most frequently occurring discourse markers is ~**hi'da**, which, like -**ta** can appear on both nominal and verbal constructions[36]. Unlike -**ta**, ~**hi'da** is not a bound morpheme. It is phonologically independent and never inflected, and is likely a root which has taken on the function of emphasis in various contexts. As a constituent of a noun phrase, position, it's reading is similar to that of -**ta**: *the same X*, or *that very X*, as we see in the examples below.

(40) a. **ba'a-ro** **~basʉ-ro** **~hi'da** **to-pʉ-ro-ta**
do/be.after-ADV man-SG EMPH REM-LOC-ADV-REF
The same guy right then . . .

b. **ti-ro** **~hi'da** **bʉkʉ-ro** **~bʉbʉ-bʉ-~sʉ** **~yʉ**
ANPH-SG EMPH be.mature-SG go.quickly-INTENT-COMPL see/look
The same old man ran (to the shore) and looked.

[36] For the functions of ~**hi'da** on verbs, see chapter 5, section 5.7.2.3.

4.5.3.3. Contrastive Subject: -se'e

The morpheme **-se'e** occurs much less frequently than **-ta**, and appears only on some Subject nominals. It functions to indicate a contrast between Subject nouns in adjacent sentences, much the same as a switch-reference marker indicates a contrast in Subjects between dependent and independent clauses within a sentence. Frequently, though not exclusively, **-se'e** is used when the Subjects in question are both pronouns and the speaker wishes to avoid ambiguity. The use of **-se'e** on a noun can mean *but/however X, the other X,* or *X, though/on the other hand,* as we see in the following examples from the *Curupira* text.

When, in the darkness of night, the man is first approached by the creature, he greets it in line 41a[37]. The man is identified in this clause by the pronoun **ti-ro**. In 41b, the contrastive Subject, also **ti-ro**, though now referring, to the creature, is marked with **-se'e**. 41c-e occur much later in the story, after the man has received a magic stick from the creature which makes him a spectacularly successful hunter. The contrastive marks the noun phrase *his relatives,* in 41d, who find his success strange, and question it. Finally, in 40f-g, the man has been bitten by a poisonous snake and is dying. He takes medicine, but unfortunately, the medicine does not cure him. The contrastive marks the nominalized verb, *the medicine-taking,* in 41g.

(41) a. **~dee** **ko-iro** **~di-'a** **ti-ro**
hello relative-NOM:SG say-ASSERT.PERF ANPH-SG
"Hello, relative," <u>he</u> said.

b. **yʉ'ti-era-'a** **ti-ro-se'e** **ko-iro**
answer-NEG-ASSERT.PERF ANPH-SG-CONTR. relative-NOM:SG
But he, the other relative/creature didn't respond.

[37] Indians throughout the Amazon define and address each other as 'relative.' White people and spirits fall into other categories of beings.

c. **wa'i-~kida-~waha-ro** **wa'a-ro** **tʉ-re** **~da-wa'a-ka'a**
animal-PL-kill-V.NOM go-V.NOM stick-OBJ bring/take-go-do.moving

wa'i-~kida **phayʉ** **~waha-ati-a**
animal-PL many kill-IMPERF-ASSERT.PERF
When he went hunting, he took the stick and would always kill lots of animals.

d. **~ata** **yoa** **to** **ko-ya-se'e** **ti-ro-re** **~siditu-ati-~ba-'a**
also do 3SG.POSS relative-PL-CONTR. ANPH-SG-OBJ ask-IMPERF-FRUST-ASSERT.PERF
His relatives, though, were always asking him,

e. **~bʉ'ʉ** **do'se** **yoa** **~waha-hari**
2SG INT do/make kill-INT.IMPERF
"How do you kill so many animals?"

f. **ko-ti-~ba-'a**
medicine-VBZ-FRUST-ASSERT.PERF
He took medicine.

g. **ko-ti-ro-se'e** **~de** **ti-ro-re** **thʉo-era**
medicine-VBZ-V.NOM-CONTR NEG ANPH-SG-OBJ cure-NEG
However, it (the medicine-taking) never cured him.

4.5.3.4. Additive: -khʉ

Another discourse-marking morpheme is the additive -**khu**. The additive marker on a noun yields a meaning such as *X also/too*, as we see in the examples in 42.

(42) a. **ti-ro** **wa'i-kiro-re** **bo-~ha-'a** **ti-ro-~khʉ** **~hi'da**
ANPH-SG animal-SG-OBJ lose-RSLT-ASSERT.PERF ANPH-SG-ADD EMPH
He (a dog) lost the animal he was hunting , he too got lost.

b. **~bʉ'ʉ-~khʉ** **yʉ'ʉ-re** **~bʉ'ʉ** **yahiri~pho'da-re** **wa-ga** **ko-iro**
2SG-ADD 1SG-OBJ 2SG(POSS) heart-OBJ give-IMPER relative-NOM:SG
You also, give me your heart, relative.

c. **ti-ro** **bola-ro-~khʉ** **wa'a-wa'a-a**
ANPH-SG Curupira-SG-ADD go-go-ASSERT.PERF
The Curupira also went away.

4.5.3.5. Temporal: -re

The fifth discourse-marking morpheme is the temporal **-re**. Analysis of this morpheme, which is homophonous to the Object marker, is rather problematic, and is treated in greater detail in chapter 5, sections 5.4.3. and 5.6.2. This analysis treats the two cases as distinct, the **-re** morpheme on temporal nominals belonging to a separate functional domain coding discourse-level rather than grammatical information, establishing the temporal grounding of events in discourse, as we see in 43.

(43) a. **ti-pha-re** **ti-~da** **~de** **~kʉ-ko-ro** **bo'ka-era**
ANPH-TIME-TMP ANPH-NOM:PL NEG one-FEM-SG find-NEG

~ata **~boyo~do'ka-'a**
so fail-COMPL-ASSERT.PERF
That time they didn't get any women; so, they failed completely.

b. **yʉ'ʉ** **~bicha-re** **wa'i-~kida** **~waha-i** **wa'a-i-ta**
1SG today-TMP animal-PL kill-V.NOM go-V.NOM-INTENT
Today, I'm going hunting.

c. **~bi-pʉ-re** **~o-pʉ** **yʉ'ʉ** **hi-ha**
now-LOC-TMP DEIC:PROX-LOC 1SG COP -VIS.IMPERF.1
Now I'm here.

4.5.3.6. Solitary: -di'ta

Occasionally, Wanano employs dependent noun roots to indicate special kinds of discourse-level information. The dependent noun **-di'ta**, for instance, functions to mark a Subject or Object noun as solitary, yielding a reading of *X alone*, or *only X*, as we see in 44.

(44) a. **die-ro-re** **chʉ-bʉro-ro-pʉ** **~di-a**
dog-SG-OBJ eat go.down-V.NOM-LOC be.PROG-ASSERT.PERF

~o **to dapu-dita** **bahu-a**
DEIC:PROX 3SG.POSS head-SOL be.visible -ASSERT.PERF
It was already swallowing the dog. Only the (dog's) head was still showing.

b. **~kʉ-iro-~ka** **~ba'a-ri-ro-~ka-dita** **hi-a** **~dʉd ʉ-sito-ta'a**
one/a-NOM:SG-DIM. be.small-NOM-SG-DIM.-SOL COP-ASSERT.PERF chase-MOV.circ-come
A little one (dog) alone/by himself went chasing around.

c. **to wa'i-kiro ~waha-ri-ro-dita-re ~sa ~da-thua-i**
DEF animal-SG kill-NOM-SG-SOL-OBJ 1PL:EXC bring/take-return-VIS.PERF.1

wʉ'ʉ -pʉ -re
house-LOC-OBJ
We took home only the dead animal.

4.5.3.7. Restrictions and interesting combinations

Figure 1 represents a summary of the various semantic spheres coded by noun morphology. On the left, we find the head root, followed by the morphology which establish its basic lexical identity, the core unit. This unit can then be coded as to its role in ever-wider contexts—the clause and discourse[38].

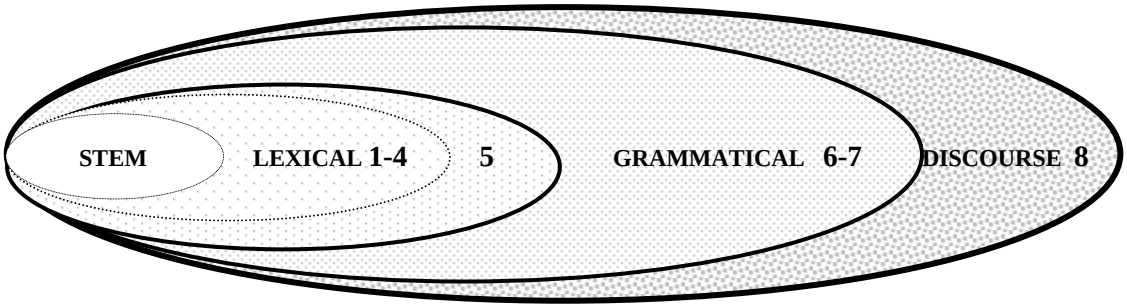


FIGURE 4.1. - THE SPHERES OF NOUN MORPHOLOGY

We should recall that while the relative ordering of morphemes follows the scheme in Figure 4.1., not all combinations of morphemes given in Chart 4.7. are possible. Some restrictions apply. Within the sphere of lexical coding, for example, gender is coded only on animates, and the singularizer **-ki** can be used only with collective animates. In the sphere of grammatical coding, a noun can be coded as both Locative and Object, but we find no cases in which a noun is both Locative and Comitative/Instrumental. As for discourse, we have

[38] This analysis of Wanano noun morphology reinforces Bybee's claim that 'there is a strong correspondence between the content of a linguistic unit and the mode of expression it takes' (Bybee, 1985:7). In other words, it is not surprising that morphology closer to the stem tends to be lexical (more closely linked to the unit's core meaning) and morphology further away from the stem tends to be discourse-oriented.

seen that restrictions according to the grammatical role of the noun apply: while the referential can code nouns in any grammatical role, the contrastive and additive are found on Subjects only, and the temporal specifically codes nominals which give relevant temporal information.

While not every possible combination of morphemes is exemplified in the data, 45 gives a few interesting examples of multimorphemic nouns gleaned from the texts. Relevant contextual information is given in parentheses. 45a-c have noun roots, 45d-e are derived from verb roots, and 45f-g are derived from particle roots. Let us consider in detail a few of the examples. 45b, *little stick*, begins with the root for tree, **yʉkʉ**, followed by the classifier for tree **-kʉ**, the diminutive **-~ka**, and finally, the Object marker **-re**. 45c is a compound of three roots, two of them noun roots and one a verb. The initial root, **karaka**, *chicken/rooster*, is compounded with the verb root **-du**, *speak/talk*; this stem is nominalized by **-ri** and then further compounded with the noun root **-pa̱**, *time*, yielding the noun, *cock-crowing hour*. 45e is a nominal used in an adverbial function[39]. The initial verb root **~ba'o**, *do after* is nominalized as an adverbial by **-ro**. This stem is then coded by the emphatic **-~ka** (a secondary function of the diminutive morpheme, as discussed in section 4.5.1.2.). The final morpheme is the the referential **-ta**, resulting in a nominal meaning *a little later*.

(45) a. **~dubi-a** **~pho'-~da-~ka-re-ta** [nũmĩ́ã pʰõnã́kãrẽta]
woman-PL child-PL-DIM-OBJ-REF
N +4 N +4 +5 +7 +8
(good) <u>for women's little girls</u> (to play with)

b. **yʉkʉ-kʉ-~ka-re** [jʉʰkʉ́kʉ́kã́rẽ́]
tree-CLS:tree-DIM-OBJ
N +4 +5 +7
(he made) <u>the little stick</u> (appear)

[39] For more on nominals with adverbial-type functions, see section 5.7.2. in chapter 5.

c. **karaka-du-ri-pa** [kárákádúripa]
rooster-speak-NOM-time
N + VR_{dep} +1 +N
the cock-crowing hour

d. **yʉ'so-ri-~phi-~ka-pʉ** [jʉʔsórip^{h}ĩkãpʉ]
cut-NOM-CLS:bladelike-DIM-LOC
V +1 +4 +5 +6
(he put the monkey heart) *<u>on the tip of the knife</u>*

e. **~ba'o-ro-~ka-ta** [mãʔõr̃õkã́ta]
do.after-V.NOM-DIM-REF
V +4 +5 +8
<u>a little later</u> . . .

f. **~o-baro-~ka-i** [ṍbarokãĩ]
DEIC:PROX-be.far-DIM-LOC
P +VR_{dep} +5 +6
(he went) *<u>a little way</u>*

g. **pa-ko-ro-~ka-re** [pákorokãr̃ẽ]
other-FEM-SG-DIM-OBJ
P +3 +4 +5 +7
(she took) *<u>the other little girl</u>*

4.5.4. Review of phonological processes

4.5.4.1. Nasalization, tone specification, and spreading

The multimorphemic examples in 45 can also serve to review and demonstrate the main phonological processes that govern Wanano word formation, these being that:

- all roots are lexically specified as all nasal or all oral;
- all roots have a lexically specified tonal melody: <L>HL or <L>H;
- the specifications of the root spread left to right to all unmarked morphemes;
- dependent roots retain specification for nasality/orality, but relinquish specification for tone, the melody of the phonological head (the left-most root) predominating

Consider, for example, the processes which result in 43b and c. Inherent specifications are in Bold and arrows indicate spreading.

(45b)	yʉ^{h}kʉ́	-kʉ́	-kã́	-r̃ẽ́
N/O	**O**	**O**	**N**→	N
Tone	**<L>H** →	H	→H	→H

Here we see an oral root, **yʉkʉ** with a <L>H melody followed by an oral classifier morpheme **-kʉ**. The final H tone of the root first spreads to the classifier affix. The diminutive **-~ka** is inherently nasal, but has no tonal specification, so it also takes the spread of the final H tone of the root. The object marker **-re** is unmarked for nasality or tone; it becomes nasalized due to spread of this feature from the diminutive, and takes H tone from the root.

(45c)	yʉʔsó	-ri	-~p^{h}i	-kã	-pʉ	
N/O	**O**	→ O	**N**	**N**	**O**	
Tone	**<L>HL**	→ L	→ L	→ L	→ L	

The oral root in 45c, **yʉ'so**, has a <L>HL melody. It is followed by the unspecified nominalizer **-ri**, to which the oral specification spreads. The final unassigned L tone of the root melody attaches to this, the first available morpheme and spreads to all successive constituents. Each of the final three morphemes retains its underlying specification for nasality: the classifier **-~phi** and the diminutive **-~ka**, are both inherently nasal, while the locative **-pʉ** is inherently oral. Thus, no spreading of this feature occurs after the initial stem formation.

4.5.4.2. Status of morphemes

We can also see from these examples and Chart 4.8, which gives specifications of the morphemes discussed in section 4.5, that, as with the classifier morphemes (lexical positions 1-4, discussed in section 4.3.), other types of nominal morphemes display varying degrees of grammaticalization. Degrees of grammaticalization are indicated primarily by the interplay of phonological features, such that:

- all monomoraic affixes which are unmarked for nasality or tone and are thus open to spreading from the left can be considered fully grammaticalized suffixes;
- a few monomoraic affixes and all bimoraic affixes retain inherent specification for nasality and sometimes tone, revealing reduced degrees of grammaticalization.

LEX					GRAM		DISC
+ 1	+ 2	+ 3	+ 4	+5	+ 6	+7	+ 8
NOM **-ri** (O)	GEND **-ko** **-kʉ**	SING **-ki**	NUMB **-ro**$_s$ **-a/~da** (N) **-ro**$_p$ **-CLS** **-ri/-se**	DIM **-~ka** (N) AUG **-wʉ'rʉ** (O, L tone)	LOC **-i** **-pʉ** (O)	OBJ **-re** COM/INST **-~be're** (N, L tone)	CONTR **-se'e** (O, L tone) RE F **-ta** (O, L tone) EMPH **~hi'da** ADD **-khu** (N, L tone) TEMP **-re** SOL **-di'ta** (O)

CHART 4.8. PHONOLOGICAL SPECIFICATION OF NOMINAL MORPHEMES

It is evident from the information on Chart 4.8 that the more frequently-occurring morphemes coding information in the grammatical and discourse spheres (Locative, Object, Referential, and Temporal) are more suffix-like in shape and behavior, and are further along in the grammaticalization process than morphemes such as the comitative **~be're**, the contrastive **se'e** or the emphatic **~hi'da**, all of which are used less frequently.

4.6. Noun phrase structure

This section will describe the internal syntax of noun phrases in Wanano, including the canonical order of constituents in modifying constructions, types of modifiers, and the role of noun class morphology in agreement.

4.6.1. Order of constituents in noun phrases

Like other ET languages, Wanano has basic OV clausal word order and displays the typologically correlated internal NP structure in which modifiers precede head nouns (Givón, 2001a:242). The basic structure, illustrated below, is quite consistent throughout the data, as shown in the examples in 46.

NP	
MODIFIER + (REF. MORPH.)	**HEAD NOUN** + (REF. MORPH.)

(46) a. deictic **a'ri khiti**
DEM:PROX story
this story

b. anaphoric **ti-~phi yʉ'so-ri-~phi**
ANPH-CLS:bladelike cut-NOM-CLS: bladelike
this knife

c. alternate **pa-iro ka yahiri~pho'da**
other-NOM:SG monkey heart
another monkey heart

d. number **~kʉ-iro ~bʉ-ro**
one-NOM:SG man-SG
one man

e. quantity **phayʉ ~wati-a**
many evil.being-PL
many devils

f. possessive **to die-ya**
3SG.POSS dog-PL
his dogs

g. interrogative **~di phʉ'ʉ-ro**
INT basket-CLS:concave
which basket?

h. adjectival nominalization **bʉhʉ-~ida da-~ida-~ka ba'a-a**
be.large-NOM:PL be.small-NOM:PL-DIM bass-PL
large and small bass

4.6.2. Types of Modification

There are five basic types of modification which will be outlined in this section. Modifier constituents can be of the following types: determiners, quantifiers, possessives, interrogatives, and descriptives. The first four types display the canonical order in which modifiers precede their heads, while descriptives often follow their heads.

4.6.2.1 Determiners

In sections 4.3.5., 4.4.1. and 4.4.2., it was shown that independent nominals (each a single phonological unit) can be constructed from deictic (**a'ri, si, ~o, ~so'o, to**), anaphoric (**ti**), or alternate (**pa**) particles. As modifiers in NPs, however, only the demonstrative **a'ri**, *this*, the anaphoric **ti**, *that*, and the alternate **pa**, *other*, are found in the data. These modifiers precede their head nouns and form separate phonological units. Their primary function is to introduce new participants (or, in the case of the anaphorics, to re-establish reference to a previously mentioned participant).

That deictic, anaphoric or alternate constructions can function either as modifiers or as pronominals (in other words, as NPs in their own right) is only possible because the inherent classificatory features of the head noun (whether overtly coded or merely implicit) are morphologically marked on the modifiers when the nouns are first introduced, establishing a referential link[40]. This is evident in the initial lines of examples 47a and 47b. The inherent feminine, singular, and animate features of the referent for the proper noun *Kristine* in 47a are coded on the deictic modifier **a'ri**, *this*, by the suffixes-**ko**, *feminine*, and-**ro** (*singular animate one*). In the first line of 47b, the noun **dasa**, *toucan*, has the inherent features of animacy and singularity, coded on the deictic modifier by the singular animate suffix-**ro**.

(47) a. **a'ri-ko-ro** **kristina**
DEM:PROX-FEM-SG Kristine
This woman Kristine (is asking how we live . . .)

~a yoa-i **ti-ko-ro-re** **ya'u-i-ka** **yʉ'ʉ-se'e**
so do/make-V.NOM ANPH-FEM-SG-OBJ tell-V.NOM-INTENT. 1SG-CONTR
So, I'm going to tell her.

[40] While this general claim is true for all text data, there are examples from conversation data of 'deictically-established' referents for pronouns. Once, for example, a head gesture was enough to establish a referent for the pronoun *he*.

b. **a'ri-ro** **dasa** **hi-ra**
DEM:PROX-SG toucan COP -VIS.IMPERF.NON.1
This is a <u>toucan</u>.

wʉ-ri-ro **hi-ra** **ti-ro**
fly-NOM-SG COP -VIS.IMPERF.NON.1 ANPH-SG
<u>It</u>'s a bird. (Lit: a flier)

Once reference has been established, pronominal forms with parallel morphology can be employed, as we see in the second lines of 47a and b.

Noun phrases with modifiers formed from the alternate **pa** or anaphoric **ti** are also found in the data. Like the deictic, the alternate modifier also introduces a new entity, albeit another of the same type of entity as one that has already been mentioned (48). Noun phrases with anaphoric determiners function to re-establish reference to a previously mentioned entity. The use of the anaphoric NP construction in 49 takes place after a number of lines in which only pronouns were used.

(48) **yʉ'ʉ-re** **wa-~dabo-a'-toa** **pa-iro** **ya~hiripho'da-re**
1SG-OBJ give-more-IMPER-do.again other-NOM:SG heart-OBJ
Give me <u>another heart</u>.

(49) **to ~a** **~di-chʉ** **thʉ'o-ro** **ti-ro** **bola-ro** **~ya-~ka** **yʉ'ti-a**
DEF so say-SW.REF hear-V.NOM ANPH-SG Curupira-SG be.bad-EMPH answer-ASSERT.PERF
(Hearing the man) say that, <u>the evil Curupira</u> responded: . . .

4.6.2.2. Quantifiers

4.6.2.2.1. Number

Number modifiers also precede their head nouns, form separate phonological units, and display cross-referencing morphology. As is the case in other ET languages, Wanano has three simple number roots only: **~kʉ**, *one*, **phʉa**, *two*, and **tia**, *three*. These are the only quantity modifiers that are morphologically cross-coded for the features which qualify their

head nouns *in their singular forms*[41], be they animate or inanimate. In the case of inanimates, the only classifier which has been found to occur on number modifiers is **-ria**, which we see in example *c*. Waltz analyzes **-ria** as a general classifier indicating 'paucal/few.' However, in my data, I found this particular morpheme used only with inanimate nouns which have a rounded shape, such as *canoe*, *orange*, *coconut*, and *stone*. I have no hypothesis to explain the difference between the form of the classifier on the number **-ria** and its form on the noun itself **-ka**. Perhaps there were once many different classifiers indicating 'paucal' for different types of inanimates and this is the only one to survive. At this point, we can only speculate on an explanation for this irregular pattern of 'paucal' classifier use only with certain inanimates. Were **-ria** indeed an all-purpose marker of 'paucal,' we should expect to find it on all inanimates, but we see that inanimates without shape classifiers (50a-b) do not have this marker, though in terms of number, they too are 'paucal.'

(50) a. **~kʉ**
one
~kʉ khiti-~ka
one story-DIM
one/a little story

b. **~kʉ ku'tu-~ka**
one clearing-DIM
one/a little clearing

c. **~kʉ-ria bʉso-ka**
one- CLS:rounded canoe-CLS:rounded
one/a canoe

d. **~kʉ-iro ~bʉ-ro**
one-NOM:SG man-SG
one/a man

e. **kʉ-iro die-ro-~ka**
one-NOM:SG dog-SG-DIM
one/a little dog

f. **phʉa**
two
phʉa-ria bʉso-ka
two-CLS:rounded canoe-CLS:rounded
two canoes

[41] According to Aikhenvald, there is a cross-linguistic tendency for agreement markers to occur only on smaller numbers (2000:41).

g. **phʉa ~khʉ'ba**
two year
two years

h. **phʉ-ro die-ya**
two-PART dog-PL
two dogs

i. **tia** *three* **tia ~khʉ'ba**
three year
three years

j. **tia ~yo-ro**
three show-PART
three mirrors

k. **tia-ria bʉso**
three-CLS:rounded canoe
three canoes

l. **tia wʉ'ʉ-se**
three house-PL
three houses

m. **tia-ro ka-ya**
three-PART monkey-PL
three monkeys

n. **tia-ro ~dubi-a**
three-PART woman-PL
three women

o. **tia-ro die-ya**
three-PART dog-PL
three dogs

According to Waltz (2002:190), in Wanano and six other ET languages, head nouns modified by number roots pluralize only at four, indicating that semantically and syntactically, quantities from one to three group together as 'paucals'[42]. My data, however, reveal that the Wanano system is either much more complex or in the process of change, because there are systematic differences according to the type of noun being quantified.

[42] Ramirez, for example, confirms this as the case in Tukano (1997a:333), while Barnes states this as the paradigm throughout the family (1999:221).

Beginning with animates, we find that animate head nouns pluralize not at four, but at two, as we see in the pluralized head nouns in 50h, *two dogs*, and 50l-n, *three monkeys*, *three women*, and *three dogs*. It is interesting to note, on the other hand, that the number modifier in all of these examples has a morpheme **-ro**, which, among its other functions, codes animate singular. In the case of number modifiers of animates, however, it is probably more appropriate to analyze **-ro** as having a partitive function, indicating *a certain exact number of X*.

As for inanimates, we saw above that the subset of 'rounded' inanimates appears to be marked differently from other inanimates without classifiers. Compare examples 50c, *one*, 50f, *two*, and 50k, *three canoes*. In the case of this 'rounded' inanimate, for the quantity *two*, both the modifier and the head noun are coded by classifiers, while in the case of *three*, the modifier still has the classifier, while the head noun itself takes its Ø-marked plural form[43].

Other inanimates show a mixed pattern. In 50a *two years*, 50i, *three years*, and50j, *three mirrors*, we see that neither the modifier nor the head noun have any additional morphology. The modifiers are uninflected and the head nouns are in their singular forms. On the other hand, in 50l, *three houses*, the head noun is pluralized. Thus, at the number *three*, some animates pluralize while others do not.

The quantities *four* and *five* are indicated by more complex constructions. The quantity *four* is coded by a compound construction, **phititia**, whose exact morphological breakdown is not clear yet [44]. What is interesting is that the quantity *four* modifier continues to have the **-ro** partitive before animates and the **-ria** morpheme before rounded objects. Thus, the

[43] According to some speakers, a slight lengthening of the final vowel indicates plural, though I have not found this to be consistent throughout my data.

[44] Gomez-Imbert claims that the construction for *four* in Tatuyo breaks down into, **bàpà-Vri**, *pair-PL*, in other words, *two pairs* (Gomez-Imbert 1982:232). Because the forms in Tatuyo and Wanano are not obvious cognates, it is hard to say whether the Wanano construction has the same underlying semantics.

morphology of the number modifiers follows the same pattern from *two* to *four* even though the nouns themselves can pluralize earlier (at *two* for animates, and at either *three* or *four* for inanimates). At *four*, all nouns, however, whether animate or inanimate, have plural forms, as we see in 51.

(51) a. **phiti-tia** **phititia ~kʉ'ba-ri**
four four year-PL
four years

b. **phititia-ria** **bʉso**
four-CLS:rounded canoe
four canoes

c. **phititia wʉ'ʉ-se**
four house-PL
four houses

d. **phititia-ro die-ya**
four-PART dog-PL
four dogs

The quantity *five* is a phrasal construction, **~kʉ ~waboka**, *one hand*, + **phiti-a**, the initial morpheme being the same lexeme used in *four*, which suggests that this may actually be a root indicating something such as *amount* or *quantity*, followed by what appears to be a plural morpheme. Though the exact morphological breakdown is still unknown, the entire expression indicates the quantity *five—a hand's worth* or *amount*. Interestingly too, is that unlike all the number modifiers we have seen so far, the construction for *five* has no additional morphology for rounded inanimate objects (compare 51b to 52b), and takes the plural morpheme **~da** before plural animates (compare 51d to 52c).

(52) a. **~kʉ ~waboka phiti-a** **~kʉ ~waboka phiti-a** **~kʉ'ba-ri**
one hand quantity-PL one hand quantity-PL year-PL
five *five years*

b. **~kʉ ~waboka phiti-a** **bʉso**
one hand quantity-PL canoe
five canoes

c. **~kʉ ~waboka phiti-~da die-ya**
one hand quantity-PL dog-PL
five dogs

NUMBER MODIFIER	MORPHOLOGY ON NUMBER MODIFIER			MORPHOLOGY ON HEAD NOUN		
	INAN	INAN-ROUND	ANIMATE	INAN	INAN-ROUND	ANIMATE
~kʉ *one*	**Ø**	**-ria** (CLS)	**-iro** (NOM:SG)	**Ø** or CLS	**-ka** (CLS)	**-ro** (SG)
phʉa *two*			**-ro** (PART)	**Ø**		**-a/~da/ya** (PL)
tia *three*					**Ø** (PL)	
phititia *four*				**Ø** or **-ri** (PL)		
~kʉ ~waboka phitia *five*		**Ø**	**-a/~da/ya** (PL)			

CHART 4.9. MORPHOLOGY IN NUMBER MODIFYING CONSTRUCTIONS

The features of the 1-5 number modifier system are summarized in Chart 4.9. We see that far from being a simple system in which nouns pluralize at four, the Wanano system displays systematic morphological differentiation on both the number modifiers and on the head nouns, according to classes of animate and inanimate nouns. We can only conclude that the Wanano numbering system, while similar in some respects to those described for other ET languages, also shows a higher degree of complexity and significant departures from those systems.

While it is possible to elicit the expression of numbers higher than five, accomplished through combinations of hands (indicating groups of five) and the individual smaller numbers, these rarely occur in natural speech. Synchronically, when the Wanano need to express exact numbers above five, they borrow the Portuguese or Spanish terms. Cross-linguistic information indicates that this is the predominant pattern in throughout the family.

One final observation should be made about number modifiers. By far, the most frequently occurring number root modifier is *one*, which suggests that this particular construction may have a semantic function other than that of indicating a quantity. Indeed, this seems to be the case, for like NPs with deictic modifiers, NP constructions of the type *one X* nearly always introduce new participants in discourse, as we see in 53. Thus, one of the functions of such constructions appears to be the coding of indefinite reference[45]. Once a participant has been introduced, anaphoric constructions (which are inherently definite) can be employed.

(53) a. **~kʉ-iro ~bʉ-ro to ~dabo-ro-re ~o-se ~di-a**
one-NOM:SG man-SG 3SG.POSS wife-SG-OBJ DEIC:PROX-be.like say-ASSERT.PERF
(Once) a man said this to his wife . . .

b. **~ata yoa ~yabicha-pʉ ~hi'da ~kʉ ku'tu-~ka-pʉ**
also do/make night-LOC INTENS one clearing-DIM-LOC

~o-pa-ri ku'tu-~ka-pʉ-re phi'a-sʉ-'a
DEIC:PROX-size-NOM clearing-DIM-LOC-OBJ MOV.out.into-COMPL-ASSERT.PERF
There, in the dark, he came out into a little clearing, a little clearing this big.

c. **~kʉ-iro khata~ba'a boka~sʉ-a to-i**
one-NOM:SG jacu.bird find-arrive-ASSERT.PERF DEM:REM-LOC
(He was returning when) he came across a jacú bird.

4.6.2.2.2. Quantity

One can, of course, talk about unspecified small or large quantities of objects or beings in Wanano, and in natural speech, this is accomplished by the use of the indefinite quantifiers **~ka** [kɐ̃ɐ̃́], *some/a little/a few*, and **phayʉ**, *many/a lot of*, or **pe'ri**, *many/all of*. As a rule, **~ka** and **phayʉ** precede the head noun (54a-d), though **phayʉ** also occurs (less frequently) in

[45] This same function of the numeral 'one' is found in other languages as well, and Givón (1981) gives an interesting analysis of the path of development of 'one' from a quantifier (which implies existence), to a marker of referentiality (which imples having genericity).

post-head position (54e-f). **pe'ri**, on the other hand, is a rare case of a modifier which consistently occurs in post-head position (54g-i). With all these modifiers, head nouns have plural forms.

(54) a. **~ka** **~ka ~so'a-~ka phoa-ri**
a few a.few be.red-DIM feathers-PL
a few/some red feathers

b. **phay~~u~~** **phay~~u~~ ~wati-a**
many many evil.being-PL
many devils

c. **phay~~u~~ yaka-~ida**
many steal-NOM:PL
many thieves/kidnappers

d. **phay~~u~~ ~basa-kuru-a**
many person-group-PL
many groups (tribe)

e. **wa'i-~kida phay~~u~~**
animal-PL many
many animals

f. **~wa'bayapia phay~~u~~**
young.adult.relative-PL many
many young relatives

g. **pe'ri** **to-pe~ida** **pe'ri**
all / many DEF-PL-NOM:PL many
that many

h. **ti-~da pe'ri**
ANPH-PL many
all of them

i. **~dubi-a-~ya'a-ri~basa pe'ri**
woman-PL-catch-NOM-people many
all the woman-stealers/kidnappers

phay~~u~~ also functions as an independent quantifying expression, *a lot/lots* and as we see in 55 (b is repeated from 24g above).

(55) a. **ti-~yoka-re** **phay~~u~~** **yoa-ha-ta**
ANPH-manioc.liquid-OBJ many do/make-VIS.IMPERF.1.-REF
We do/make <u>a lot</u> (of things) with that the manioc liquid

b. **~pho'da-ti-ro** **phayʉ** **~pho'da-ti-ra**
offspring-VBZ-V.NOM many offspring-VBZ-VIS.IMPERF.NON.1
When they reproduce, they have lots of offspring.

4.6.2.3. Possession

The third type of modification is that which expresses a possessive or belonging relationship between two nouns. We will see in this section that there are several means of coding such relationships in Wanano.

In general, the coding of possession in ET languages involves three elements which combine in the canonical order for modifiers in NPs: a) a possessor, which may be an independent noun, a full NP, or the full or reduced form of a personal pronoun; b) a genitive-type marker **ya**; and c) the possessed noun. However, an overview of the available literature reveals interesting variation in the use of these elements from language to language. Some languages, such as Piratapuya (Waltz 2002:189), Tukano (Ramirez, 1997a:324) and Desano (Miller, 1999:48) use full subject pronouns as possessive pronouns while others, such as Tatuyo (Gomez-Imbert, 1982:249), Kubeo (Morse and Maxwell, 1999:125), and Wanano, have some reduced forms. Use and analysis of the 'genitive' marker, too, varies greatly. It is analyzed as a suffix by some researchers (Barnes, 1999:218), and a prefix by others (Ramirez, 1997a:324); it is said to be obligatory in some languages, absent in others, and optional in still others. This section will present the types of possession coded and the interaction between these elements in Wanano.

4.6.2.3.1. Pronominal possession

	SINGULAR	PLURAL	
1ST PERSON	**yʉ** [jʉ]	**~bari** [mãr̃i] *incl.*	**~sa** [sã] *excl.*
2ND PERSON	**~bʉ** [mʉ̃]	**~bʉ'sa** [mʉ̃ʔsã]	
3RD PERSON	**to** [to]	**ti** [ti]	

CHART 4.10. POSSESSIVE PROCLITICS

Chart 4.10 gives the pronominal possessive markers in Wanano, which are quite obviously derived from the full personal pronouns (given in Chart 4.6.). With the exception of the first and second person plural forms, the possessive markers suffer morphological and phonological reductions, becoming monomoraic and losing the second syllable high tone of the independent personal forms. This phonological reduction entails a loss of independent phonological word status (as discussed in chapter 3), since in terms of tone, these markers become part of the phonological word which also contains the possessed noun. However, they retain a degree of grammatical word status in that nasalization of a possessive pronominal marker does not penetrate the possessed root (56b). For this reason, these morphemes are analyzed as having the synchronic status of proclitics[46]. They are represented in the data examples as separate 'words' in keeping with the Wananos' own view of their status.

(56) a. **yʉ phʉ-kʉ** [yʉpʰʉʰkú]
1SG parent-MASC
my father

b. **~bʉ ya-ro** [mʉ̃yáró]
2SG.POSS belong.to-PART
your things

[46] As suggested in Waltz (2002:188).

c. **to** **~pho'da** [top^{h}õnã́]
3SG.POSS children
his/her children

d. **ti** **wa'i** **~waha-~ida** [tiwaʔí wãhã́ĩnã]
3PL.POSS fish kill-NOM:PL
their catch (of fish)

It is important to note, though, that while speakers always use the reduced forms when possessive NPs are elicited, they are not consistent in their use of the reduced possessives in natural speech, especially the first and second person singular forms. In fact, in nearly all the instances in the texts which contain first or second person possessive constructions, the full pronominal forms **yu'u** and **~bu'u** were clearly used[47]. However, when the same speakers were later asked to verify whether these should be the full or reduced forms, they insisted that the reduced forms were correct. This suggests that the change from full to reduced forms is still not fully grammaticalized. As for the three forms which are not morphological reductions, Waltz claims that they too undergo systematic phonological loss of stress (Waltz, 2002:189). While I have found some examples in my text data which would confirm this claim, there are others in which there is no change in the stress pattern. I believe that such variation is further evidence that there is synchronic overlap of the old and new paradigms and that the process of grammaticalization is incomplete.

4.6.2.3.2. Possession by a noun or NP

It is also possible for the modifier in a possessive relationship to be a noun (57a), or a full NP (57b-c). Like the other modifiers we have seen so far, noun or NP possessors precede their possessed head nouns, though unlike pronominal possessive markers, noun or NP

[47] In examples where this was the case (i.e. 36c, 42b), I show that the full form was used but indicate that the function was actually that of a possessive with the gloss 1SG/2SG(POSS).

possessors are phonologically independent units. It is the phonological independence of each unit in noun-noun possession that codes the syntactic difference between these and noun-dependent noun compounds (Section 4.3.2.2.3), which form a single phonological unit.

(57) a. **ka yahiri~pho'da** [káa yahírípʰõnã]
monkey heart
a monkey's heart

b. **yʉ ~ba-ko ~badu-ro** [yʉmãʰkő mãnűřõ]
1SG child-FEM husband-SG
my daughter's husband

c. **~bʉ ~ba-ko to hi-ro** [mʉ̃mãʰkő tohíro]
2SG.POSS child-FEM 3SG.POSS COP-V.NOM
your daughter's village (Lit: your daughter, her place/village)

4.6.3.3. Locative possession: -~baka

Wanano codes relationships between beings and their places of origin or identification with a special noun-noun possessive construction. The head noun is a nominalization of the root meaning *be from* or *belonging to*, and the modifier is the specific place to which the entity belongs, as we see in 58. Like the possessive constructions in 4.6.3.2., elements in a locative possession construction are phonologically independent.

(58) a. **yʉ'ʉ ~bo ~baka-ri-ro-pʉ hi-ha**
1SG Mõ belong.to-NOM-SG-LOC COP-VIS.IMPERF.1
I am from Mo (Caruru Cachoeira).

b. **~bahapoa ~baka-~ida ~khadako ~baka-~ida**
Mahapoa belong.to-NOM:PL Kanaco belong.to-NOM:PL
(My friends) are from Mahapoa (Arara Cachoeira) and Kanako (Ilha de Inambú).

c. **yʉkʉ-kʉ ~baka-~ida yese-a**
tree-CLS:tree belong.to-NOM:PL pig-PL
wild pigs (Lit: pigs from the forest)

d. **~da'a wato-ro ~baka hi-ra**
buriti.fruit forest-PART belong.to COP-VIS.IMPERF.NON.1
Buriti fruit are from the flooded forest.

4.6.2.3.4. Possessive root: ya

Unlike some ET languages which require the possessive marker **ya** in all possessive NPs, we have seen that in Wanano, nouns can be directly possessed by pronominal proclitics, other nouns, or NPs. Direct possessive modification occurs with all types of head nouns, with no overt distinction as to alienability, as we see in 59.

(59) a. **to ~dabo-ro**
3SG.POSS wife-SG
his wife

b. **to phiri**
3SG.POSS teeth
his teeth

c. **to yahiri~pho'da**
3SG.POSS heart
his heart

d. **to puka**
3SG.POSS blowgun
his blowgun

e. **to yʉ'so-ri -~phi-~ka**
3SG.POSS cut-NOM-CLS:long,flat/bladelike-DIM
his little knife

f. **to ~ba'a**
3SG.POSS path/river
his way (home)

Nevertheless, there is a **ya** morpheme which occurs in certain possessive-like constructions in Wanano. I analyze this morpheme not as prefix or suffix, but as a root meaning *possess* or *belong to*. There is both phonological and morphological evidence for this analysis. First, **ya** has an underlying oral specification and HL tone, phonological properties associated with roots but not with suffixes. Secondly, when compounded, **ya**, like any independent root, forms a single phonological unit with the dependent root, to which its L tone spreads, as in [to yáwʉʔʉpʉ]. Third, **ya** can be the root in derivations such we see in 60.

In other words, while it may be a suffix or prefix in other ET languages, in Wanano, **ya** behaves not like a suffix but like a root morpheme.

(60) a. **to ya-ro**
3SG.POSS belong.to-V.NOM
his/ her possession/thing/object

b. **to ya-hi-ro**
3SG.POSS belong.to-COP-V.NOM
place for his/her personal things

c. **koti-ri-a ya-~baka-ri**
Wanano-NOM-PL belong.to-village-PL
Wanano villages

d. **kooti-ri-a ya-~be're bu'e ~hi'da**
Wanano-NOM-PL belong.to-COM/INST study/learn EXRT
Let's study in Wanano (title of the Wanano children's story book)

Used in a compound with a noun, it emphasizes or reinforces reference within the possessive relationship and can yield a reading along the lines of *possessor's own X* [48]. Such readings obtain in situations in which more than one possible referent for the possessed noun could be understood from discourse, as in 61, from the *Curipira* text.

There are two houses mentioned in the *Curupira* text. The first is a little house the man builds for himself out of leaves when he realizes he has become lost in the forest and needs a shelter in which to spend the night (61a). The second is his own house, where he lives with his wife. He builds the little house one day and returns to his own house the next day, after his strange encounter with the evil forest creature. The compound with **ya** indicates that the second house is the man's own permanent one, not the temporary one he built in the forest (61b).

(61) a. **to-i du'te-sito-ta-'a ~da-ta-'a**
DEM:REM-LOC chop-MOV.circular-come-ASSERT.PERF bring/take-come-ASSERT.PERF
He went around cutting (leaves). He brought them back.

[48] The emphatic use of the marker is clear in the following example from Waltz and Waltz: **mɯ ya buhiri**, which they gloss as 'your fault' though the alternate gloss *your own fault* might better render the emphatic meaning (Waltz and Waltz, 1997:34).

~o-pa-ri **wʉ'ʉ-~ka** **yoa-'a**
DEIC:PROX-size-NOM house-DIM do/make-ASSERT.PERF
He made a little house, this big.

b. **thu-a** **te** **to** **ya-wʉ'ʉ-pʉ**
return-ASSERT.PERF all.the.way 3SG.POSS belong.to-house-LOC
He got the monkeys, pulled out his knife, and went back to his (own) house.

4.6.2.4. Interrogative

In this section, we will see that Wanano has both interrogative modifiers such as *which X, how many/how much X,* and *whose X,* as well as independent interrogative nominals such as *who, (from)where, and what*. Questions about time, *when*, reason, *why*, and processes, *how*, are verbal constructions described in chapter 5, section 5.7.2.5.

4.6.2.4.1. Interrogative modifiers

There are three interrogative modifiers in Wanano. The first, **~di** [nɨ́ɨ́], *which*, can be the root for derived nominals such as those in 62a and b, or it can function as an independent modifier preceding the head noun. As an independent modifier, like anaphoric and deictic modifiers, ~**di** displays morphological cross-coding to the head noun. The root **-ba'ro**, *kind* or *type*, often co-occurs in constructions with ~**di**, and implies that the speaker has a specific group of referents in mind, in essence asking, *which of these X?*

(62) a. **~di-ro-ba'ro**
which-SG-kind
Which man (of these men) . . .

b. **~di-ko-ro-ba'ro**
which-FEM-SG-kind
Which woman (of these women) . . .

c. **~di-ba'ro khiti hoari ~bʉ'ʉ**
which-kind story write-INT 2SG
Which of these stories did you write?

d, **~di-ro** **wia-ri-ro-re** **~bʉ'ʉ** **ko** **wa-ri**
which-SG be.young-NOM-SG-OBJ 2SG water give-INT
Which child did you give water to?

To question a quantity in Wanano, one uses the modifying constructions **~do'o-pe** [nõʔṍpe], *how many*, for countable inanimate nouns, **~do'o-pe-~da** [nõʔṍpenã] for countable animate nouns, and **~do'o-puru** [nõʔṍpuru] *how much*, for mass nouns. Each construction is exemplified in 63.

(63) a. **~do'o-pe bʉso ~bʉ'ʉ khua-hari**
INT-QUANT:C canoe 2SG hold/have-INT.IMPERF
How many canoes do you have?

b. **~do'o-pe-~da ~bʉ ~pho'da hi-hari**
INT-QUANT:C-PL 2SG.POSS children COP-INT.IMPERF
How many children do you have? (lit: how many are your children?)

c. **~do'o-puro phayuro ~bʉ'ʉ yoari**
INT-QUANT:M caixiri.beer 2SG make/do-INT
How much caixiri beer did you make?

The examples in 64 show that to ask about the possessor of an object, one uses a compound construction consisting of the independent interrogative nominal **~doa**̨ *who* (see section 4.6.2.4.2. below for more on this nominal), and the possessive root **ya**, which can have a classifier or be compounded with a full noun root. The resulting question can be understood as something like: *To whom does X belong?* or *Who possesses X?* Note that the same classifier used for rounded objects on numbers is used in the interrogative construction in 64a.

(64) a. **~doa ya-ria a'ria bʉso-ka hi-hari**
who belong.to-CLS:rounded DEM:PROX canoe-CLS:rounded COP-INT.IMPERF
Whose canoe is this?(lit: To whom does this canoe belong?)

b. **~doa ya-khiti hi-hari**
who belong.to-story COP-INT.IMPERF
Whose story is this?

c. **~doa ya-iro die-ro hi-hari**
who belong.to-NOM:SG dog-SG COP-INT.IMPERF
Whose dog is this?

4.6.2.4.2. Interrogative nominals

There are three independent interrogative nominals in Wanano, **~doa** [nõã́] *who*, **~do'o-i**, *where*, and **yaba**, *what*. The first of these was a constituent in the possessive construction *whose X* examined above, but it can also stand alone in questions regarding a person.

(65) a. **~doa hi-hari ti-ko-ro**
who INT.IMPERF ANPH-FEM-SG
Who is she?

b. **~doa ~bʉ'ʉ-re ya'u-ri**
who 2SG-OBJ tell-INT
Who told you (something)?

To ask about a location, one uses a construction with the **~do'o** interrogative suffixed by the locative **-i** [nõʔṍi], *from/to where*, as we see in 66.

(66) a. **~do'o-i hi-hari ~bʉ'ʉ**
INT-LOC INT.IMPERF 2SG
Where are you from?

b. **~do'o-i sʉ-ri ~bʉ'ʉ**
INT-LOC arrive-INT 2SG
Where did you go? (lit: Where did you arrive?)

c. **~do'o-i hi-ri ~di-a**
INT-LOC COP-INT say-ASSERT.PERF
"Where is she?" he asked.

Finally, the interrogative **yaba** [yabá], *what*, can be used with appropriate nominal morphology to pose questions about an inanimate object (67a) or an animate being (67b). In 67b, in fact, the speaker is speculating about what kind of animal(s) or human(s) could be making the noise that he hears in the night. In day-to-day speech, **yaba** also functions as a 'filler' word speakers use when they have momentarily forgotten a word or need to pause for a moment during speech but plan to continue, much like the English *um* . . .

(67) a. **yaba hi-hari a'ri**
INT INT.IMPERF DEM:PROX
What's this?

b. **yaba-ri-ro hi-kari-~da**
INT-NOM-SG COP-INT.SPEC -PL
Who/what could that be?

4.6.2.5. Descriptive / Adjectival nominalizations

The fifth type of modification is that in which nominals derived from stative/adjectival verb roots (described in section 4.3.4.) function as descriptive modifiers of other nouns. Unlike the other types of modification we have seen so far, the order of constituents in this special type of noun-noun modification varies. Adjectival modifiers sometimes precede their heads, as in 68; however, they much more frequently follow, as we see in 69.

(68) **~doa phʉ-ka-ka phʉ'-se-~ka**
be.beautiful basket-CLS:rounded-DIM basket-PL-DIM
(These are) beautiful little baskets.

(69) a. **ti-ro ~wati-ro sʉ'a-ri-ro hi-a**
anph-SG evil.being-SG be.sticky-NOM-SG COP-ASSERT.PERF
The evil being was sticky.

b. **irimo-a phia-ri-a hi-ra**
lime-PL be.sour-NOM-PL COP-VIS.IMPERF-NON.1
Limes are sour.

c. **~bia wa'i da-~ida-~ka-re chʉ-ka ti-ro**
sardine fish be.small-NOM:PL-DIM-OBJ eat-ASSERT:IMPERF ANPH-SG
Bass eat sardines and small fish.

d. **~ke-ro yoa-ri-ro hi-ka dasa**
beak-PART be.long-NOM-SG COP-ASSERT:IMPERF toucan
Toucans have long beaks.

e. **ti-ro chʉ-ka ~pho-ri ~wia-~pho-ri-re**
ANPH-SG eat-ASSERT:IMPERF leaf-PL be.young-leaf-PL-OBJ
Howler monkeys eat young (green) leaves.

4.6.3. Multiple modifiers

To finalize the description of modification in Wanano NPs, we can look at the order of constituents in phrases with multiple modifiers. In fact, cases of multiple modifiers are rather rare. This is not surprising, considering that certain kinds of descriptive elements, such as the diminutive or augmentative, are coded on the noun itself, and that many times the head of an NP will be a derivation from one of the otherwise modifying elements. Furthermore, some combinations would be semantically impossible, such as the co-occurrence of both an exact number and a general quantity marker. And finally, the post-nominal position of the adjectival-type modifiers resolves in part what might be a more complicated issue if all types of modifiers preceded the head noun. However, the few naturally occurring text examples (given in 70) indicate the following order.

number	**determiners** (anaph / deic)	**quantity** (phayu) **interrogative** **possession** (pronom / N / NP)	**N**	**adjectival** **possession** (locative) **quantity** (pe'ri)

(70) a. DET POSS N
ti-ro **to** **paku-pu**
ANPH-SG 3SG.POSS body-LOC
(that) his body

b. NUMB POSS N
tia-ro **to** **~pho'da**
three-PART 3SG.POSS children
her three children

c. NUMB POSS N
~ku-iro **to** **~ba-ku-ro**
one-NOM:SG 3SG.POSS child-MASC-SG
one of his sons

4.7. Summary

This chapter describes the very rich system of noun formation and noun classification in Wanano. It presents the structure and types of lexical noun roots as well as the means by which nouns are derived from verbs and from different types of particles. It shows that

system is comprised of two basic noun classes: animates and inanimates. These are subcategorized in a number of different ways, both by means of noun class morphology and by classifiers of various types, some of which are more highly grammaticalized than others, which together form a continuum of noun classification means.

This chapter also discusses deictic and anaphoric pronominal forms and basic noun morphology. Eight different types of morphemes are analyzed. These are presented as belonging to specific semantic spheres: lexical, grammatical, and discourse-level, with lexical morphemes occurring closer to the root, followed by those coding grammatical relations, and finally, by those coding discourse-level information. It also reviews the phonological interaction between these constituents.

The final section is an outline of noun phrase structure, presenting the order and types of constituents within noun phrases. It demonstrates that noun classification morphology has a concordial function, establishing a referential link between heads and modifiers. Five types of modifiers are discussed: demonstratives, quantifiers, possessives, interrogatives, and descriptives, the latter displaying a reversal of the canonical modifier-head order found for the other four types.

This chapter also points out some of the interesting differences between the Wanano system and other ET languages. Though like all ET languages Wanano shows a major class distinction between animates and inanimates and extensive means of classification, there is a significant difference in the coding of animates. Wanano does not have the fused gender-number morphemes -(**k**)**ʉ** /(**k**)**o** for singular human animates that are found in most other ET languages. Wanano has developed separate marked coding of female **-ko**, and an overall marker for singular animates, **-ro**.

This development creates an interesting case of polysemy for morpheme **-ro** within the domain of noun classification. For animates, it has a singulative function, coding a singular animate entity. For inanimates it can have two other functions. The first is as a partitive, deriving a singular countable entity from a mass noun or verbal root or designating a part-whole relationship, as with body parts. The second function is as a shape classifier for concave objects, where it displays the alternation **-ro/to**.

Wanano is also developing a system of personal possession coding by means of reduced forms of personal pronouns. The system is still not fully grammaticalized and such reduced forms are analyzed synchronically as proclitics. Another significant difference between this analysis of Wanano and those of other ET languages involves the 'genitive' **ya**, which is analyzed here as a root coding possession rather than as a prefix or suffix. Finally, we saw that there are significant differences between the Wanano numbering system and those of other ET languages. Both number modifiers and head nouns show different kinds of morphology and pluralization according to noun class type.

CHAPTER 5

VERBAL SYNTAX

This chapter will describe the syntax of Wanano verbs. Section 1 provides an introductory overview of the syntactic structures of different categories of verbs and indicates the prototypical grammatical and semantic roles associated with their arguments. In Section 2, I discuss categories of intransitive verbs, the semantic roles associated with intransitive Subject arguments, and the means by which all Subjects (intransitive or transitive) are coded: agreement morphology in verbal paradigms and in nominalizations. I also introduce the notion of a distinction between stative and non-stative verbs based on their morphological paradigms. Section 3 examines categories of transitive verbs and the semantic roles associated with their Subject and Object arguments. It also describes the various means of coding Objects and discusses the semantic spheres which overlap in Object coding. In Section 4, I discuss complex transitive verbs, the semantic roles of their arguments and the means used to code them. I also give a cross-linguistic overview of the morpheme **-re** and present a hypothesis as to its development as a multi-function case marker. Section 5 presents a few types of verbal constructions with non-prototypical structures: intransitive stative and motion verbs which can have optional Obliques, verbs which require verbal complements, and valency-changing verbs. Section 6 discusses Locative, Temporal, Comitative, and Instrumental Adjuncts and the means used to code them. Finally, in Section 7, I discuss verb phrase structure: the order of constituents and types of modification.

5.1. Overview

Chart 5.1. gives an overview of the argument structures of the major categories of verbs which occur in simple clauses in Wanano. It shows the obligatory grammatical roles (GR) and semantic roles (SR) of the participants prototypically associated with each category as well as the main coding means (CM) employed in Wanano. We see that Wanano codes eight semantic roles: Agent, Patient, Experiencer, Benefactive, Comitative, Instrument, Locative (Goal and Source), and Temporal. These semantic roles are associated or mapped onto a smaller number of grammatical roles: the core arguments of Subject (S) and Object(s) (O_1 or O_2); Obliques (OBL); and Adjuncts: Locative, Temporal, Comitative, and Instrumental. The main coding means are agreement morphology on verbs, for Subjects, and case morphology on nouns for all other arguments and adjuncts.

(GR = GRAMMATICAL ROLE; SR = SEMANTIC ROLE; CM = CODING MEANS)

	GR: SUBJECT **CM: agreement**	**GR: OBJECT$_1$** **CM: (-re)**	**GR: OBJECT$_2$** **CM: -re**	**GR: OBLIQUE** **CM: -pʉ-re**
Intransitive (5.2.)				
Stative	SR: Patient			
Non-stative				
Active / Motion	SR: Agent			
Perception / MP	SR: Experiencer			
Transitive (5.3.)				
Active	SR: Agent	SR: Patient		
Perception / MP	SR: Experiencer	SR: Patient		
Complex (5.4)	SR: Agent	SR: Patient	SR: Recip/Ben	SR: Loc-Goal
Non-prototypical (5.5.)				
Transitive Stative	SR: Patient			SR: Loc-Source
Transitive Motion	SR: Agent			SR: Loc-Goal

ADJUNCTS		
SR: Locative	SR: Temporal	SR: Comitative / Instrument
CM: **-pʉ**	CM: **(-pʉ)-re**	CM: **-~be're**

CHART 5.1. ARGUMENT STRUCTURE

5.2. Intransitives

Intransitive verbs are understood to be verbs which require a single nominal argument. The single nominal argument of an intransitive clause has the grammatical role of Subject, and there are several different semantic roles which may be associated with it depending on the semantic class of the verb[1]. Subjects of stative verbs prototypically have the semantic role of Patient; in other words, a stative Subject such as **yʉ'ʉ**, *I*, in 1a, is a representative of, or participant in, the state expressed by the verb. Subjects of intransitive active or motion verbs prototypically have the semantic role of Agent; in other words, Subjects such as **~dubia**, *women* (1b), and **to ~baduro**, *her husband* (1c), are the instigators or performers of the actions expressed by the verbs. Subjects of verbs of mental processes or verbs of perception such as **~sa**, *we* (1d), are Experiencers: they are conscious participants in, but not initiators of, the actions expressed by the verbs[2].

(1) a. **yʉ'ʉ** **hi-ha** **ko-iro**
1SG COP-VIS.IMPERF.1 relative-NOM:SG
I am your/a relative.

b. **~dubi-a** **da'ra** **wa'a-ra** **wese-pʉ**
woman-PL work go-VIS.IMPERF.NON.1 garden-LOC
Women go to work in the garden.

c. **to ~badu-ro** **pase-pʉ** **wa'a-a**
3SG.POSS husband-SG far.away-LOC go-ASSERT.PERF
Her husband left.

d. **~sa** **yoaro-pʉ** **yʉ'ʉ** **phʉ-kʉ-~be're** **thʉ'o-i**
1PL:EXC be.long-LOC 1SG parent-MASC-COM/INST hear-VIS.PERF.1
We, from far away, I with my father, heard (that sound).

[1] See chapter 6 for a detailed description of the most prominent semantic classes of verbs in Wanano. For the specific discussion of the distinction between stative and non-stative verbs, see section 5.2.3.

[2] Definitions generally following Givón (2001a:107-150).

There are two important observations we should make about the morphology of the boxed Subject nominals in the examples above. First, we see that while there may be morphology coding lexical information such as number and class **~dubi-a**, woman-PL (animate), and **~badu-ro**, husband-SG (animate), there is no overt morphology on these nominals indicating that they have the different semantic roles mentioned above. This is our first indication that Wanano verb syntax orients primarily to the grammatical rather than to the semantic roles of the arguments, though we will see in chapter 6, section 6.7. that the semantic role of the Subject may play a role in auxiliary verb constructions. Second, we should observe that there is no morphology indicating the grammatical role of these nominals. How then do we know they are Subjects? The answer can be found in an examination of the marking strategies in the language. While Wanano generally employs dependent-marking strategies, at the clause level, there is a pattern of mixed marking: there is both head-marking of Subjects, in that Subject nominals are themselves unmarked but are cross-referenced on verbs, as well as dependent-marking, in that Subject agreement morphology codes constituents such as dependent clauses and verbal complements (addressed in sections 5.2.1. and 5.2.2.), while nominal arguments (Objects and Obliques) are coded by case-marking morphology—(addressed in sections 5.3., 5.4. and 5.6.). In other words, Subjects can be identified first, *because* they are unmarked nominal arguments in clauses (in contrast to other, case-marked arguments), and second, because of agreement morphology in the verbal words or on dependent constituents.

5.2.1. Subject agreement morphology on finite verbs

Though there is no case morphology marking nouns as Subjects in Wanano, agreement morphology cross-referencing the Subject nominal on other constituents of the

clause occurs in two different paradigms. The first of these paradigms occurs exclusively in the VISUAL category of the clause-final modal suffixes (evidentials) used in realis statements[3]. Unlike other ET languages, which code a 3rd/non-3rd distinction in the paradigm for this evidential category, Wanano codes a 1st/non-1st distinction. Examples of the four suffixes which code Subject agreement (as well as aspect) are given below. The imperfective suffixes for 1st, **-ha** (VIS.IMPERF.1), and non-1st, **-ra** (VIS.IMPERF.NON.1), occur in 2a and 2b respectively (repeated from 1a and b above). The perfective suffixes for 1st, **-i** (VIS.PERF.1), and non-1st, **-re** (VIS.PERF.NON.1), occur in 2c and 2d.

(2) a. **S**
yʉ'ʉ **hi-ha** **ko-iro**
1SG COP-VIS.IMPERF.1 relative-NOM:SG
I am your/a relative.

b. **S**
~dubi-a **da'ra** **wa'a-ra** **wese-pʉ**
woman-PL work go-VIS.IMPERF.NON.1 garden-LOC
Women go to work in the garden.

c. **S**
to **wa'i-kiro** **~waha-ri-ro-dita-re** **~sa** **~da-thua-i** **wʉ'ʉ-pʉ-re**
DEF animal-SG kill-NOM-SG-SOL-OBJ 1PL:EXC bring/take-return-VIS.PERF.1 house-LOC-OBJ
We took home only the dead animal.

d. **S**
~bʉ'ʉ **~sa-re** **~ba'yo-re**
2SG 1PL:EXC-OBJ lie-VIS.PERF.NON.1
You lied to us.

5.2.2. Subject agreement morphology in other constructions

The second paradigm of agreement morphology cross-referenced to the Subject occurs in two types of constructions: a) the verbal word in IRREALIS statements[4] and b) nominalizations. Chart 5.2. gives the paradigm for these two types of constructions.

[3] The complete paradigm of evidentials is described in detail in chapter 7, section 7.2.

[4] Also described and exemplified in chapter 7, section 7.4.

Note that unlike the paradigm for the VISUAL evidential category, the paradigm of Subject agreement morphemes codes a 3rd/non-3rd distinction, (a pattern which, for the most part, parallels that of other ET languages), with gender coding in the non-3rd singular forms.

	SG	PL
NON-3RD	**-ko** (FEM) **-kʉ / -i** (MASC)	**-~da**
3RD	**-ro**	**-a**

CHART 5.2. SUBJECT AGREEMENT MORPHEMES

Nominalizations are used for a variety of functions which will not be discussed in detail here. What is important to the present discussion is that Subject agreement morphology is the main means used to nominalize clauses and phrases[5]. The Subject agreement markers shown in Chart 5.2. are used in the nominalizations in the examples in 3 and 4 below. Note that there are two forms which indicate non-3rd masculine singular: **-kʉ** and **-i**.

3 gives examples of nominalizing constructions which show agreement to non-3rd singular Subjects. 3a, from a conversation that took place among several women, shows a nominalization with the feminine marker **-ko**. This example is interesting because there is no overt 2nd person Subject in the sentence. We know, however, that the Subject referent is both 2nd person and feminine from other morphological markers. We know the referent is not 1st person because of the non-1st verb-final suffix **-ra**, and that it is not 3rd person

[5] Several additional morphemes can also function as nominalizers. A dependent clause whose Subject is different from the Subject of the main, finite clause, is nominalized by the switch-reference marker **-chʉ**; phrases functioning as locatives can be nominalized by the locative suffix -**pʉ**; and dependent clauses denoting ongoing processes can be nominalized by the generic classifier **–re.**

For examples of Subject agreement morphology in interrogative adverbial constructions, see section 5.7.2.5.

because the nominalizer on **wese-wa'a**, *when you go to the garden*, is the feminine morpheme **-ko**, which indicates a non-3rd person Subject.

(3) a. **S**
Ø **wese-wa'a-ko** **pisa-ria** **hi-ra**
garden-go-V.NOM be.on.top-CLS:round COP-VIS.IMPERF.NON.1
It's a hat for when you go to the garden. (lit: for garden-going)

b. **S**
Ø **~so'o waro-i hi-kʉ** **pisʉ-kʉ-ka**
DEIC:DIST EMPH-LOC COP-V.NOM call-NON.3.MASC-PREDICT.
~da'i-~doka-i
be.dark-COMPL-LOC
When I'm right there in the dark, I'll call.

c. **S**
yʉ'ʉ **ti-ro-re** **~waha-~kha'ba-i** **ta-i** **~di-ha**
1SG ANPH-SG-OBJ kill-DEON-V.NOM come-V.NOM be.PROG-VIS.IMPERF.1
I'm coming here to avenge him.

3b and 3c contain examples of nominalizations with the two non-3rd masculine agreement morphemes **-kʉ** and **-i**. In general, **-kʉ** is used to nominalize dependent clauses and in the verbal words of IRREALIS statements. This is the case in 3b, which, like 3a, also has a Ø Subject. We know that the Subject is masculine, however, by the two instances of the morpheme **-kʉ**, which nominalizes the dependent clause **~so'o waro-i hi-kʉ**, *when I'm right there*, and is the agreement marker in the verbal word in the predictive construction **pisʉ-kʉ-ka**, *I'll call.*

The second non-3rd masculine agreement morpheme, **-i**, is used to nominalize the non-finite verbs in constructions such as the progressive (which require nominalized constituents)[6]. In 3c we find an overtly present 1st person Subject, **yʉ'ʉ**, *I*, and cross-referencing agreement morphology in three places. Not only does the finite verb **~di** have the

[6] For more on the syntactic structures of such constructions, see section 5.5.2.1. below. For a discussion of their semantic functions, section 6.7 in chapter 6.

1st person form of VISUAL evidential, **-ha**, but the non-3rd nominalizer **-i** is found on both the compound verb **~waha-~kha'ba-i**, *avenge* (*kill-need*), and the phrase **~waha-~kha'ba-i ta-i**, *come to avenge*, the two nominalized constituents in the progressive construction, which has the (finite) auxiliary verb **~di**.

4a-c have no overt Subjects[7], but we know that the Ø Subject in 4a must be 3rd singular because of the nominalizer **-ro**. This suffix, which indicates a 3rd singular Subject, is used in two nominalizations, first in the noun incorporated verb **wa'i-~kida-~waha-ro**, *hunting* (*animal-killing*), and then in the dependent clause **wa'i-~kida-~waha-ro wa'a-ro**, *when he went hunting*. We do not know, however, whether the referent is feminine or masculine, as gender is neutralized in the 3rd person forms. Such information must be provided by context in the absence of full nouns or pronouns with feminine-coding morphemes. In 4b and 4c we see the markers which agree with plural Subjects (also Ø in these examples). Agreement to the non-3rd person plural *we* is coded by **~da** in the nominalization of **~dubi-a ~ya'a**, *women-catching/kidnapping* in 4b, while in 4c, **-a** shows agreement to a 3rd person plural Subject in the nominalization of **ya'u** in the construction **ya'u-a wa'a**, *they went to tell*.

(4) a. **S**

Ø **wa'i-~kida-~waha-ro** **wa'a-ro** **thʉ-re** **~da-wa'a-ka'a**
animal-PL-kill-V.NOM go-V.NOM stick-OBJ bring/take-go-do.moving

wa'i-~kida **phayʉ** **~waha-ati-a**
animal-PL many/a.lot kill-IMPERF-ASSERT.PERF
When he went hunting, he took the stick and would always kill lots of animals.

b. **S**

Ø **~dubi-a** **~ya'a-~da** **wa'a-~hi'da** **ti-~baka-pʉ**
woman-PL catch-V.NOM go-EXRT ANPH-belong.to-LOC
Let's go get women from that village (lit: let's go kidnapping).

---

[7] As we can see, Subjects as well as Objects can be omitted in texts when context makes reference clear.

c. **S**

Ø	**ti**	**phu-ku-ro-re**	**ya'u-a**	**wa'a-ga**
	3PL.POSS	parent-MASC-SG-OBJ	tell-V.NOM	go-ASSERT.PERF

They went to tell their father.

Thus, while there is no nominal case marking of Subject in Wanano, Subject agreement morphology in the verbal paradigm of the VISUAL evidential category (by far the most commonly used inflectional category in everyday speech) and elsewhere in IRREALIS constructions and nominalizations (which are also extremely common) has two important syntactic functions: first, it references and affirms the identity of the Subject nominal, and second, it is the means by which dependent constituents (non-finite verbs and dependent clauses) are marked.

5.2.3. The stative / non-stative distinction

In the first column of Chart 5.1., I indicate a distinction between stative and non-stative verbs in Wanano[8]. Although the complete descriptions of the semantic subcategories of stative and non-stative verbs are given in chapter 6, I will briefly anticipate that this distinction is evidenced in the way each class of verbs participates in the morphological paradigm for finite verbal words.

The finite verbal word in a Wanano clause is often extremely simple, consisting of just two morphemes: a lexical root and a final suffix coding clausal modality (the most frequent of which are the portmanteau suffixes coding person, aspect, and evidentiality discussed in chapter 7, section 7.2.). These are the minimal constituents of any finite verb, whether stative, as in 5a and 5b, or non-stative, as in 5c and 5d.

[8] The same basic distinction is found in descriptions of other ET languages. Morse and Maxwell refer to a distinction between 'stative' vs. 'dynamic' verbs in Kubeo (Morse and Maxwell, 1999:15-16) while Sorensen analyzes 'active' vs. 'stative' verbs in Tukano. My reasoning for the distinction follows, to a great extent, that of Sorensen.

(5) a. **yʉ'ʉ** **hi-ha** **ko-iro**
1SG COP-VIS.IMPERF.1 relative-NOM:SG
I am your/a relative. (repeated from 1a)

b. **phi-ri-ro** **~khʉ'a-a**
be.big-NOM-SG be.lying-ASSERT.PERF
The big guy was lying there.

c. **a'ri** **thu-re** **hoa-ha** **~sa** **kooti-ri-a**
DEM:PROX CLS:stacked-OBJ write-VIS.IMPERF.1 1PL:EXC Wanano-NOM-PL
We Wananos are writing this book.

d. **ti-ro** **tia-ro** **ka-ya-re** **~waha-a**
ANPH-SG three-PART black.monkey-PL-OBJ kill-ASSERT.PERF
He killed three monkeys.

However, both stative and non-stative verbal words can have additional morphology between the two required constituents mentioned above. The distinction between stative and non-stative verbs is evidenced exactly in the tendencies identified for these internal morphological paradigms, as we see in the charts below, which are summaries of Charts 6.1 and 6.2 from chapter 6. The full paradigm summarized in Chart 5.3. shows the morphology which occurs in non-stative verbal words whose stems may be composed of multiple roots giving adverbial, aspectual or modal information, followed by additional morphemes coding things such as negation, intensification, speaker attitude, and aspect, before closing with the obligatory coding of clausal modality. A few examples of complex verbal words formed from non-stative roots are given in 6.

STEM								
SIMPLE	COMPLEX							
Non-stative Verb Root	(dependent roots)							
	+1	+2	+3	+4	+5	+6	+7	CLAUSE
	MAN	ASP	MOD	NEG	INTENS	MOD	ASP	MOD.

CHART 5.3. MORPHOLOGY OF FINITE NON-STATIVE VERBS - SUMMARY

(6) a. **to** **~ba-kʉ-ro-~ka-re** **~da-wʉa-rʉka-ga**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy.

b. **yʉ'ʉ** **yahiri~pho'da-re** **wa-~basi-era-ka**
1SG(POSS) heart-OBJ give-DEON-NEG-ASSERT:IMPERF
I can't give you my heart.

c. **~a-ta** **yoa** **~kʉ-ta** **~hida** **ti-ro**
so-REF do/make one-REF time ANPH-SG

phayu-ro **~si'di-~kha'a-yʉ'dʉ-a-wa'a-a**
caxiri.beer-PART drink-dream-INTENS-AFFEC-become-ASSERT.PERF
Then, one day he got really drunk on caxiri beer.

d. **ti-ko-ro** **to** **~dabo-ro** **chʉ-dua-ati-ga** **wa'so-re**
ANPH-FEM-SG 3SG.POSS wife-SG eat-DESID-IMPERF-ASSERT.PERF siringa.fruit-OBJ
The woman, his wife wanted to eat siringa fruit.

The reduced paradigm shown in Chart 5.4. represents the morphology which occurs in stative verbal words. We see that the morphological options in this paradigm are a subset of those in the full paradigm above, the main difference residing in stem formation: non-stative verbs regularly participate in compounding processes whereas stative verbs do not. In fact, in my data so far, I have found only a few examples of a stative verb root in a compounded stem, one of which is given in 7e below. Examples of the other morphemes which regularly occur on both non-stative and stative verb roots are given in 7a-d.

STEM				
SIMPLE Stative Verb Root	(+4 NEG	+5 INTENS	+6 MOD	+7 ASP)	+ CLAUSE MOD.

CHART 5.4. MORPHOLOGY OF FINITE STATIVE VERBS - SUMMARY

(7) a. **ti-~da-re** **~waha** **ti-ro** **wache-a-wa'a-a**
ANPH-PL-OBJ kill ANPH-SG be.happy-AFFEC-become-ASSERT.PERF
He killed them (some monkeys), and he was happy.

b. **ti-ro** **kʉa-yʉ'dʉ-a-wa'a-a**
ANPH-SG be.frightened-INTENS-AFFEC-become-ASSERT.PERF
He became very frightened.

c. **ti ~khubu-pɯ ti-~da** | **po'sa-ati-a**
ANPH log-LOC ANPH-PL | live.inside-IMPERF-ASSERT.PERF
They were all living inside the log.

d. **to ka'sa-ro-re ~o-baro-i** | **pisa-ruku-ga**
3SG.POSS skin-PART-OBJ DEIC:PROX-far-LOC | be.on.top.of-CONT-ASSERT.PERF
His skin was there draped over (a windowsill).

e. **cho ~o-i-ta** | **hi-~doka-bo-kapa**
Oh! DEIC:PROX-LOC-REF | COP-COMPL-DUB-PREDICT
Oh, maybe he's here.

5.3. Transitives

Transitive verbs are defined as verbs which require two core nominal arguments. The first argument of a transitive verb has the grammatical role of Subject and the second argument has the grammatical role of Object (O). In the prototypical transitive, the verb expresses an action, and the Subject of such an active transitive verb has the semantic role of Agent: the Subject is the instigator or performer of the action expressed by the verb, as in the examples in 8, with active transitive verbs **hoa**, *write*, and **~waha**, *kill*.

(8) a.

O	**V**	**S**
a'ri thu-re	**hoa-ha**	**~sa kooti-ri-a**
DEM:PROX CLS:stacked-OBJ	write-VIS.IMPERF.1	1PL:EXC Wanano-NOM-PL

We Wananos are writing this book.

b.

S	**O**	**V**
ti-ro	**tia-ro ka-ya-re**	**~waha-a**
ANPH-SG	three-PART black.monkey-PL-OBJ	kill-ASSERT.PERF

He killed three monkeys.

Note that, as with the intransitive Subject nominals in example 1, transitive Subject nominals have no case-marking morphology. Moreover, we can also see from a comparison of the 3rd-person pronominal Subjects in 9a (repeated from 8b) and 9b that Wanano does not code a difference between Subjects of transitive and intransitive clauses, evidence which shows that Wanano is typologically nominative-accusative.

(9) a. **S** **DO** **V**
ti-ro **tia-ro** **ka-ya-re** **~waha-a**
ANPH-SG three-PART black.monkey-PL-OBJ kill-ASSERT.PERF
He killed three monkeys.

b. **S** **V**
ti-ro **~yabi-re** **~tidi-ra**
ANPH-SG night-TMP walk-VIS.IMPERF.NON.1
A firefly comes out at night.

The semantic role associated with the second, O nominal in a transitive clause is Patient. With prototypical active transitive verbs such as **~waha**, *kill*, and **hoa**, *write*, in 8 above, the O is the participant affected or changed by the action expressed by the verb. The Patient Os of verbs of perception and verbs of mental processes (whose Subjects are Experiencers) are prototypically participants in the event but are unaffected by or undergo no change as a result of the action expressed by the verb. The sentences in 10 show transitive verbs which have Os of this type: 10a has a perception verb, ~**yʉ**, *see*, and the Patient O **ti-ro-re**, *him*; 10b and 10c have verbs of mental processes, ~**kha'i**, *love*, and, **chʉ-dua-~ba** *wish to eat*, whose unaffected/ unchanged Patient Os are, respectively, **ti phʉ-ko-ro-re**, *their mother*, and **wa'so-re**, *siringa fruit*.

(10) **S** **V** **O**
a. **Ø** **~yʉ-a** **ti-ro-re.** **phi-ri-ro** **~khʉ'a-a**
see/look-ASSERT.PERF ANPH-SG-OBJ be.big-NOM-SG be.lying-ASSERT.PERF
He saw him. The big guy was lying there.

S = Ø **O** **V**
b. **ti** **phʉ-ko-ro-re** **~kha'i** **~dudu-ti'a-ga** **te** **to-pʉ**
3PL.POSS parent-FEM-SG-OBJ love follow-go.behind-ASSERT.PERF all.the.way REM-LOC
They loved their mother and followed her all the way there.

S **O** **V**
c. **yʉ'ʉ** **wa'so-re** **chʉ-dua-~ba-ko**
1SG siringa.fruit-OBJ eat-DESID-FRUS-FEM
I wish I had some siringa fruit to eat.

If we look at each of the O constituents in 8 and 10, we see that O nominals can be animate—*monkeys* (8b), *him, the big guy* (10a), and *their mother* (10b)—or inanimate—*this book* (8a) and *siringa fruit* (10c). They can be single lexical nouns (10c), pronouns (10a) or NPs (8a-b, and 10b). We should note the tendency for Os to occur pre-verbally (in all examples except 10a), and observe that all of the O arguments are morphologically marked by the suffix **-re**. Thus, we see evidence that, as with Subjects, it is the grammatical role rather than the semantic role which is morphologically coded for Objects in Wanano. We also see that Wanano employs mixed means of argument coding: Subject arguments are coded by agreement while O arguments are coded by case-marking morphology.

5.3.1. Objects with and without -re

While recognizing that there is a tendency for Object nouns to be coded by **-re**, in fact, not all Os are so marked in Wanano, as we can see in the examples in 11.

(11) a.

		S	O	
	~bi-pʉ-re	**yʉ'ʉ**	**chʉa**	**boka-tu'sʉ-ha**
	now-LOC-TMP	1SG	food	find-just.compl.-VIS.IMPERF.1

thua-i **~di-ha**
return-V.NOM be.PROG-VIS.IMPERF.1
Now I've found food (and/so) I'm going home.

b.

S	O	
Ø	**khʉbo-kʉ-ri**	**yoa**
	soaked.manioc-CLS:tree-PL	do/make

We make soft manioc flatbread . . .

c.

S	O		
Ø	**bʉsa-ri-da**	**yoa-i-ta-i**	**~di-ha**
	adorn-NOM-CLS:threadlike	do/make-1-INTENT-NOM	be.PROG -VIS.IMPERF.1

I'll be making (I'm going to make) a necklace.

We wonder, then, why it is that some Os are coded by **-re** while others are not. Could it be that there other means of coding Os besides the morphological marker **-re**?

To address the question of alternate means of coding Os, we should consider the following adjacent sentences from a text about what happens on festival days in a Wanano community. 12a has prototypical SOV word order[9] with an unmarked O, **chʉa**, *food*, while in 12b, the same O noun, *food*, occurs after the transitive verb **-~da**, *take*, and before the complement **chʉ yoa-ra**, *to eat*. In this sentence, **chʉa** is coded by **-re**.

(12) a.

S	**O**	**V**
hi-phiti-ro	**chʉa**	**~da-ta'a**
COP-COLLEC-PART	food	bring/take-come

Everyone brings a lot of food.

b.

S	**V**	**O**		
ti-~da	**~da-~sa'a**	**chʉa-re**	**chʉ**	**yoa-ra**
ANPH -PL	bring/take-MOV.inside	food-OBJ	eat	do/make-VIS.IMPERF.NON.1

They take the food inside to eat.

These sentences suggest the possibility that word order may play a secondary role in the coding of O arguments. Specifically, my hypothesis is that a nominal constituent occupying the pre-verbal position in a syntactically transitive clause (one requiring two arguments) is interpreted as the O argument even if it is not morphologically marked with the case suffix **-re**, as in 11a-c and 12a. An analysis of this type is strengthened by the observation that any time an O occurs in *any* position other than pre-verbally, it is invariably coded by **-re**, as in 12b and 13a-c, where the Os occur post-verbally, and 13d, where the O occurs sentence-initially, before the Subject.

(13) a.

S			**V**	**O**
Ø	**~wa'ka-rʉka**	**~sʉ-~bʉ-a**	**~di-a**	**ti-ro-re**
	wake.up-INCEP	arrive-do.quickly-V.NOM	say-ASSERT.PERF	ANPH-SG-OBJ

Waking and rising up quickly, (the Curupira) said to him (the man):

b.

S	**V**	**O**	
~wiso-a	**chʉ-ka**	**bʉti-a**	**dita-re**
squirrel-PL	eat-ASSERT:IMPERF	be.hard-PL	only-OBJ

Squirrels eat hard things only.

[9] See also sections 5.4.3. and 5.7.1. below.

c. **S** **V** **O**
Ø **~yʉ-a** **ti-ro-re.** **phi-ri-ro** **~khʉ'a-a**
see/look-ASSERT.PERF ANPH-SG-OBJ be.big-NOM-SG be.lying-ASSERT.PERF
He saw him. The big guy was lying there.

d. **O** **S** **V**
yʉ ~be're-~baka-~ida-re **yʉ'ʉ** **~yʉ-ti-re** **wa'a-ati-i**
1SG.POSS COM/INST-belong.to-NOM:PL-OBJ 1SG visit-PURP-OBJ go-IMPERF-VIS.PERF.1
I used to go to visit my friends.

While clearly significant on some level, however, word order alone cannot explain O coding. Indeed, if word order were the main coding means for Os, why should so many Os occupying the pre-verbal 'O' slot need additional morphological marking? We find, in fact, that few O nouns in pre-verbal position *are* Ø marked, contrary to what we would expect if word order were the main coding means. In the *Curupira* text, for instance, of the 68 clauses with Os, 51 of these occur in pre-verbal position *and* are coded by **-re**. In 8 instances, Os occur post-verbally and, as expected, all of these are coded by **-re**. In only 9 of the 68 clauses does the O occur pre-verbally and without the **-re** morpheme. This distribution suggests that while coding by configuration or word order may be some type of coding means for O arguments, the primary means is morphological.

5.3.2. Further semantics of -re

While enlightening, observations on word order as a coding means still leave us without a complete explanation for the fact that some Os are morphologically marked while others are not. Thus we pose another question: does **-re** code anything about a noun *other than* its role as grammatical O?

There are some indications that **-re**, besides its case-marking function, may also mark an argument as definite. This hypothesis has been suggested by Gomez-Imbert for Tatuyo (Gomez-Imbert, 1982:63-65) and Barasana (Gomez-Imbert, 1997:10 and 2003:182). Evidence

that a similar analysis may be applicable in Wanano can be found in the sentences in 14, which I analyze as examples of noun incorporation.

(14) a. **yʉkʉ-kʉ kopa-pʉ die-~ku ~pho'da-ti-ra ti-ro**
tree-CLS:tree hole-LOC egg-lay offspring-VBZ-VIS.IMPERF.NON.1 ANPH-SG
(Toucans) reproduce by laying eggs in a hollow tree.(lit: by egg-laying)

b. **tʉ-~be're ~bʉ'ʉ wa'i-~kida-~waha-sito-ta-ka**
stick-COM/INST 2SG animal-PL-kill-MOV.circular-come-PREDICT.
With this stick, you'll go around hunting. (lit:animal-killing)

If we compare these examples with those in 11 above, we observe three striking similarities. First, in all cases, the O arguments occur pre-verbally and are *not* marked by **-re**. Second, all the O nominals are generic or unspecific, in essence indefinite; and third, the processes expressed by the predicate—food gathering, hunting, flatbread preparation, reproducing—are commonplace enough to be candidates for noun incorporation processes[10].

The difference between the instances of full noun incorporation in 14 and those of unmarked Os before verbs in 11 involves phonological fusion: the N-V combinations in 14 are fused within a single phonological word, whereas the N and V roots in 11 are phonologically independent. Because of the phonological patterns involved, I have not yet determined whether these should all be considered cases of noun incorporation or whether the 'indefinite' pre-verbal Os such as those in 11 occupy a transitional position on a scale which has, on one end, completely independent, definite or referential 'case-marked' O nouns and, on the other, phonologically fused, indefinite 'incorporated' Os. Mithun, in fact, discusses the possibility of juxtaposed N-V constructions in which the constituents retain phonological independence as one type of incorporation (Mithun 1984:849). Moreover, while certain

[10] Indeed, in their analysis of transitivity, Hopper and Thompson (1980) point out that in languages in which there is overt coding of Objects in transitive clauses, it is often the case that indefinite or non-referential Objects will be unmarked. The absence of Object coding indicates a 'lower' level of overall transitivity for a clause. In the case of a noun-incorporated verb, the notion of transitivity is essentially lost and the verb becomes intransitive.

analyses of ET languages refer to all unmarked generic nouns in pre-verbal position as incorporated (Barnes, 1999:220; Morse and Maxwell 1999:70-71), they do not mention the phonological features of such combinations[11]. The fact that similar NV constructions with phonologically distinct features exist in Wanano suggests that there are other syntactic or semantic differences between the constructions; for this reason, I represent them as separate constructions on Chart 5.5., which summarizes the hypotheses that **-re** codes definiteness as one of its semantic components.

OBJ	**CHARACTERISTICS**	**EXAMPLES**
DEFINITE / REFERENTIAL ↓	▪ marked by **-re** ▪ phonologically independent ▪ flexible position	a) **ti-ro** **tia-ro** **ka-ya-re** **~waha-a** ANPH-SG three-PART monkey-PL-OBJ kill-ASSERT.PERF *He killed three monkeys.* b) **~basa** **chʉ-era-ka** **die-ro-re** man eat-NEG-ASSERT:IMPERF dog-SG-OBJ *People don't eat dogs.*
	▪ marked by **-re** ▪ pre-verbal ▪ phonologically independent ▪ unmarked by **-re**	c) **wa'i-~kida-re** **~baka-sito-ta-a** animal-PL-OBJ look.for-MOV.circ.-come-ASSERT.PERF *He went around looking for animals.* d) **~bi-pʉ-re** **yʉ'ʉ chʉa boka-tu'sʉ-ha** now-LOC-TMP 1SG food find-just.compl.-VIS.IMPERF.1 *Now I've found food . . .*
INDEFINITE	▪ unmarked by **-re** ▪ pre-verbal ▪ phonologically fused / semantically incorporated	e) **die-~ku**, [diékũ] *egg-lay* f) **~daho-~sa** [nãɦṍsã] *flatbread-lay (bake)*

CHART 5.5. OBJECTS AND DEFINITENESS

[11] See chapter 3 for a discussion of the phonological word in Wanano, and chapter 2, sections 2.4.2. and 2.5.3. for descriptions of the phonological processes which I argue to be evidence of 'fusion.'

According to Chart 5.5, the more *definite* or *referential* the O noun is, the more likely it is to be marked by **-re**. This morphological coding, for its part, allows marked Os to occur in non-canonical (i.e. post-verbal or pre-Subject) positions. Conversely, the more *indefinite* or *less referential* the O noun is, the less likely it is to be marked by **-re**. Absence of morphological coding brings coding by configuration to the fore and creates a tighter bond between the verb and the O, which, in cases of extremely frequent usage, can lead to the kind of phonological and semantic fusion we see in examples *e* and *f*[12].

The only 'tricky' place in the analysis above is the apparent area of overlap in the middle of the chart. According to the analysis so far, if an O is *indefinite* and in *pre-verbal* position where it can be coded by configuration, it doesn't need **-re**. So, how can we explain the examples with indefinite nouns, *animals* (c) and *food* (d), in pre-verbal position, the former with the suffix **-re** and the latter without it?

Ramirez's analysis of **-re** in Tukano may shed some light on this issue. In his analysis, **-re** is (potentially) a marker of 'all non-Subject complement constituents,' but he states that its actual usage is linked to the noun's position on a 'scale of individuation.' Nouns higher on the scale, those which can take some form of 'individualizing' morphology—proper nouns, pronouns, animate humans, animate non-humans, and inanimate countable nouns—will be coded by **-re**, while generic or mass nouns will not (Ramirez, 1997a:224).

By combining Ramirez's analysis with Gomez-Imbert's analysis of definiteness/referentiality, we are better able to explain the 'tricky' Wanano examples (c and d) in Chart 5.5. Though both *animals* and *food* are indefinite, *animals* would be classed among the categories of 'individualizable' nouns and would therefore take **-re**, while *food*, a mass noun, would not. This is indeed what we observe. However, even the combination of

[12] For more on noun incorporation, see section 6.1.2. in chapter 6.

these two hypotheses cannot completely explain **-re** usage in Wanano. The 'scale of individuation' alone cannot explain the examples in 12, repeated below as 15, where we see that even a mass noun will be marked as **-re** if it is definite or occurs in non-canonical position.

(15) a.

S	**O**	**V**
hi-phiti-ro	**chʉa**	**~da-ta'a**
COP-COLLEC-PART	food	bring/take-come

Everyone brings a lot of food.

b.

S	**V**	**O**		
ti-~da	**~da-~sa'a**	**chʉa-re**	**chʉ**	**yoa-ra**
ANPH -PL	bring/take-MOV.inside	food-OBJ	eat	do/make-VIS.IMPERF.NON.1

They take the food inside to eat.

From what we have seen so far, we can only conclude that Object coding in Wanano and other ET languages is quite complex, requiring speaker recognition of the lexical class of the noun as well as evaluations of discourse-level distinctions of referentiality.

5.4. Complex transitives

Di-transitive, or complex transitive verbs are understood to be verbs which have three arguments: a Subject and either two Objects or an Object and an Oblique. Prototypical di-transitive verbs are those such as the Wanano verb **wa**, *give*, or verbs morphologically coded as benefactive. Such verbs have agentive Subjects and two obligatory Objects, one whose semantic role can be understood as Patient and the other whose semantic role can be viewed as Receiver or Benefactive. A second type of di-transitive has an agentive Subject, an obligatory O with the semantic role of Patient and an optional Oblique with the semantic role of Locative/Goal, such as the Wanano verb **~da**, *bring/take*. We shall see that all second Object or Oblique arguments of di-transitive verbs in Wanano are invariably coded by the morpheme **-re**.

5.4.1. Verbs with two Objects

The examples in 16 have the first type of di-transitive verb, which codes events involving the Agent's (S) movement or manipulation of the first, Patient O (typically inanimate) to or for a second, Reciever or Benefactive O (typically animate). In 16a and b, the movement of the Os **yahiri~pho'da**, *heart*, and **tʉ**, *stick*, is actual physical movement while in 16c, the movement of the O, **khiti**, *story*, is metaphorical only. 16d is an example of a simple transitive verb, **do'a**, *cook*, which has been recast as a di-transitive by the addition of **-bosa**, a valency-changing morpheme which indicates that the action of the verb is done specifically for a third-party's benefit[13].

(16) a.

O_1		**O_2**	**V**
~bʉ'ʉ	**yahiri~pho'da-re**	**yʉ'ʉ-re**	**wa-ga**
2SG(POSS) heart-OBJ		1SG-OBJ	give-IMPER

Give me your heart.

b.

S	**O_2**	**O_1**	**V**
Ø	**ti-ro-re**	**tʉ-re**	**wa-a**
	ANPH-SG-OBJ	stick-OBJ	give-ASSERT.PERF

He gave him the stick.

c.

S	**O_2**		**O_1**	**V**
Ø	**ti-ro-re**	**to-pʉ**	**khiti**	**ya'u-a**
	ANPH-SG-OBJ	REM-LOC	story	tell-ASSERT.PERF

They told him the story there.

d.

S	**O_1**	**V**	**O_2**
yʉ'ʉ	**wa'i-re**	**do'a-bosa-i-ta**	**~bʉ'ʉ-re**
1SG	fish-OBJ	cook-BEN-1-INTENT	2SG-OBJ

I'm going to cook the fish for you.

The examples above suggest that the linear positioning of second Os is more flexible than that of first Os. In 16a, the O_2 occurs between the O_1 and V; in 16b-c, it occurs before the O_1 and V; and, in 16d, the O_2 occurs post-verbally. Such flexibility may be due to the fact that second Os are consistently coded by the morphological case-marker **-re**, and thus do not

[13] See also section 5.3.4. below.

rely on configuration as a means of indicating their grammatical status. Additionally, the requirement for **-re** coding on O_2s may be linked to the fact that such arguments are prototypically animate and inherently definite and, as such, *must* be morphologically marked[14]. We should recall from section 5.3.1. above that all animate and definite Os require **-re** marking, regardless of linear position, whereas certain indefinite and inanimate Os can be coded by configuration (as in the O **khiti**, *story*, in 16c).

5.4.2. Verbs with Objects and Obliques

In the examples in 17, we see events with the second type of di-transtive verb, **~da**, *bring/take*. These involve the Agent's (S) movement of the Patient (O) to a specific Locative Goal (Oblique).

(17) a.

S	**V**	**O**	
ti-ro	**~da-ra**	**ti-re**	**ti-~phi-re**
ANPH-SG	bring/take-VIS.IMPERF.NON.1	ANPH-CLS:generic	ANPH-CLS:bladelike-OBJ

OBL
wese-p~~u~~-re
garden-LOC-OBJ

He always takes the machete to the garden.

b.

O			**S**
to	**wa'i-kiro**	**~waha-ri-ro-dita-re**	**~sa**
DEF	animal-SG	kill-NOM-SG-SOL-OBJ	1PL:EXC

V	**OBL**
~da-thua-i	**w~~u~~'~~u~~-p~~u~~-re**
bring/take-return-VIS.PERF.1	house-LOC-OBJ

We took home only the dead animal. (repeated from 2c)

We can see in 18a below (as well as in 3d, and 12a and b, repeated as 18b-d), that the verb **~da**, *bring/take* does not necessarily require a Locative argument. However, when a clause with this verb *does* have a Locative constituent (coded by the locative morpheme -**p~~u~~**),

[14] Such coding in Wanano again supports the analysis in Hopper and Thompson (1980) that transitivity is a scalar feature of verbs. Verbs which require an IO argument, one which is *both* definite and animate—and therefore marked—would be higher on the scale.

it is obligatorily coded as an Oblique as well by **-re**, as we observe in 18e. We should also note that while reciever/benefactive O_2s can occur in a variety of positions (as we saw in the examples in 16), Obliques such as those in 17 and 18e tend to occur post-verbally.

(18) a. **S** **O** **V**
Ø **~bʉ'ʉ chʉ-dua-re** **~da-ta-i**
2SG eat-DESID-OBJ bring/take-come-VIS.PERF.1
We brought what you wanted to eat.

b. **S** **O** **V**
Ø wa'i-~kida-~waha-ro wa'a-ro thʉ-re ~da-wa'a-ka'a
animal-PL-kill-V.NOM go-V.NOM stick-OBJ bring/take-go-do.moving

O **V**
wa'i-~kida phayʉ ~waha-ati-a
animal-PL many/a.lot kill-IMPERF-ASSERT.PERF
When he went hunting, he took the stick and would always kill lots of animals.

c. **S** **O** **V**
hi-phiti-ro chʉa ~da-ta'a
COP-COLLEC-PART food bring/take-come
Everyone brings a lot of food.

d. **S** **V** **O**
ti-~da ~da-~sa'a chʉa-re chʉ yoa-ra
ANPH -PL bring/take-MOV.inside food-OBJ eat do/make-VIS.IMPERF.NON.1
They take the food inside to eat.

cf.

e. **O** **V**
familia-re wese wa'a-~ida-re ~do'o-i wa'a-~ida-re yaka
family-OBJ garden go-NOM:PL-OBJ where-LOC go-NOM:PL-OBJ steal

V **OBL**
~da-wa'a-ka'a te ~baka-roka-pʉ-re
bring/take-go-do.moving until forest-DIST-LOC-OBJ
They would steal families going to their gardens or just people going anywhere, and carry them off into the forest.

5.4.3. Issues related to the morpheme -re

In the previous sections, we saw that the morpheme **-re** codes nominal arguments with Object and Oblique grammatical roles in Wanano. I gloss it as OBJ in reference to its primary function as a case-marking morpheme. Indeed, this appears to be the primary function of the

morpheme in other ET languages as well, as we can see from Chart 5.6., which summarizes cross-linguistic information on word order and Object argument coding means in ET languages[15].

Language	Basic Order	Alternate Order(s)	Marking of Object(s)
Wanano	(SOV)	S- initial for new ref. and final for known ref[16].	Ø/-**re** before V, -**re** elsewhere and for O_2
Tukano	SOV		Ø/-**re** before V, -**re** elsewhere and for O_2
Bara/Waimajã	SOV	OVS (possible)	-**re**
Carapana	OVS	SOV	Ø before V
Desano	SOV		-**re**
Siriano	SOV		-**re**
Tatuyo	OVS	SOV	-**re**
Tuyuca	SOV		-**re**
Yurutí	OV	S- initial for new ref. and final for known ref.	-**re**
Barasano/ Taiwano	OVS (strict)		Ø before V, -**re** elsewhere and for O_2
Macuna	SVO/OVS		-**re**

CHART 5.6. WORD ORDER AND ARGUMENT CODING IN ET LANGUAGES

Chart 5.6. shows that many of the tendencies found in Wanano—the possibility of unmarked Objects before verbs, obligatory O marking by -**re** when not pre-verbal, and consistent, obligatory O_2 marking by -**re**—surface throughout the family. Additionally, we

[15] Sources for the information on this chart include the descriptive grammars available for Kubeu (Morse and Maxwell, 1999), Desano (Miller 1999), Barasano (Jones and Jones, 1991; Gomez-Imbert 1997), Tatuyo, (Gomez-Imbert, 1982), and Tukano (Sorensen, 1969; Ramirez, 1997a), as well as the grammatical sketches of Tatuyo, Bará, Carapana, Barasana and Macuna (Gomez-Imbert), Kubeu (Ferguson, Hollinger, Criswell and Morse), Pisamira, (de Pérez), Siriano (Criswell and Brandrup), Tukano (Welch and West), Tuyuca (Barnes and Malone), Wanano (Waltz and Waltz), and Yuruti (Kinch and Kinch), found in the Caro y Cuervo collection: Lenguas Indígenas de Colombia, Una Visión Descriptiva. (de Pérez and de Montes, 2000).

[16] Though the Waltzes indicate basic SOV order for Wanano, I have found quite a bit of variation in my data which points to link between discourse-level information and position of the Subject argument. Subjects being introduced or re-introduced into discourse, which are frequently full NPs, tend to come pre-verbally (or pre-OV in the case of transitive clauses), while known Subjects, usually in pronominal form, often occur post-verbally. Additionally, we have seen cases of Ø-Subjects in textual data.

can see that in terms of word order, while the position of S varies, all ET languages have an OV core. To my mind, these tendencies suggest the hypothesis that diachronically, word order was a more important means of O coding and that the OV nucleus of a transitive clause was more tightly united. If word order was used to code Os, **-re** would originally have been the morphological means employed in more marked constructions involving O_2s. Over time, however, the use of **-re** on O_2s, and perhaps the notion of 'definiteness' associated with O_2 arguments spread to Os as well, weakening, though not eliminating, the OV link as a coding means of grammatical relations, but leading to greater flexibility in terms of word order. Weakening of the OV link and strengthening of overt morphological coding of both definite Os and O_2s (inherently definite) opened the way for reanalysis of the unmarked O in the OV nucleus as coding indefiniteness, leading to the synchronic instances of both marked and unmarked pre-verbal Objects which were analyzed in section 5.3.1.

Despite the fact that **-re** clearly functions as a grammatical case marker in ET languages, conclusive analyses of **-re** are difficult due to the fact that this same morpheme (or perhaps two homophonous morphemes) codes not only Object arguments but also Oblique locatives *and* temporal nominals. Finding a single, all-encompassing label for a morpheme with such a plethora of uses is admittedly complex, though terms such as 'specificity marker' (Barnes, 1999:220) or 'referential marker' (Waltz and Waltz, 1997:32) and (Ramirez, 1997a:223-225) have been used.

I have opted to gloss different instances of **-re** according to its functions in related, yet distinct semantic spheres or domains. At the grammatical level, **-re** codes arguments: Objects and Obliques (Goal/Source Locative). However, I have pointed out that there are additional means of coding Os besides morphological affixation (word order and Ø-coding), and that synchronically, for Os, **-re** codes other semantic distinctions such as definiteness. At the

discourse level, on the other hand, **-re** codes Temporal adjuncts, as we will see in section 5.6.2 below[17]. Because of these multiple functions of **-re**, (or multiple morphemes with the form **-re**), there are sentences such as 19, which has a Ø-3rd-singular Subject, in which every nominal constituent has one of these **-re** suffixes.

(19)

		TMP	
tu'sʉ		**ti ~yabi-re**	**~hi'da**
just.complete		ANPH night-TMP	EMPH

OBL	O	
~kha'a-ro-pʉ-re	**ti-ro-re**	**ya'u-a**
dream-V.NOM-LOC-OBJ	ANPH-SG-OBJ	warn-ASSERT.PERF

Then, that very night he was warned in a dream.

5.5. Non-prototypical cases

So far in this chapter I have discussed the prototypical argument structures of intransitive, transitive, and complex transitive verbs. In this section I will discuss a few types of verbs which occur in the data with non-prototypical structures: transitive stative and motion verbs with Oblique locatives, and verbs which take verbal complements, and valency-changing morphemes.

5.5.1. 'Transitive' stative verbs

While Locative nominals regularly occur in di-transitive verb constructions such as those with the verb **~da**, *bring/take*, they can also occur in clauses with otherwise intransitive stative and motion verbs. As such, they always have the grammatical role of Oblique and the semantic role of either Goal or Source Locative.

[17] There are, additionally, two more **-re** morphemes in other paradigms. Within the paradigm of noun classifiers, there is a **-re** classifier used on generic or abstract nouns such as **a'ri-re** (DEM:PROX-CLS:generic). Within the paradigm of verb-final clause modality suffixes, there is a **-re** evidential in the visual category (VIS.PERF.NON.1ST).

Givón classifies syntactically-transitive stative clauses as coding 'states of spatial location,' with the Locative functioning to code an important 'spatial *reference point* vis-a-vis which the subject is located' (Givón, 2001a:137). Stative verbs with Oblique Source Locatives are actually quite rare in Wanano, and given their rarity, I can only suppose that they are highly marked constructions used for specific pragmatic functions, and that the unusual coding of such *reference points* may involve notions of unexpectedness, distal deixis and/or previous discourse or cultural reference. 20-23 give examples of Oblique Locative constructions found in clauses with stative verbs.

20 is from the *Curupira Who Came to the Man's House* ... text, in which some evil beings come to a house intending to eat the residents. One of the beings is hidden inside a large basket full of fruit. The finite verb in the sentence is a locative stative verb[18], **~khʉ'a**, *be lying down*, and the Oblique Locative is derived from another locative stative verb, **phʉ'icha**, *be inside*. The marked Oblique indicates that the state of lying down took place *inside the basket*, and perhaps the situation is marked to emphasize that it is so unusual and unexpected[19].

(20) **OBL** **S**

ti-phʉ	**phʉ'icha-pʉ-re**	**~kʉ-iro**	**~basʉ-ro-se**	**hi-ri-ro**
ANPH-CLS:basket	be.inside-LOC-OBJ	one-NOM:SG	man-SG-be.like	COP-NOM-SG

V

bola-ro	**ti**	**~di-ri-ro-re**	**~kʉ-iro**	**~khʉ'a-ga**
Curupira-SG	ANPH	say-NOM-SG-OBJ	one/a-NOM:SG	be.lying.down-ASSERT.PERF

A human-like being (one called a Curupira) was lying inside that basket.

[18] For a description of locative stative verbs, see section 6.2.4. in chapter 6.

[19] Indeed, it is often the case that the means used to indicate transitivity at the sentence level are employed as a device to 'foreground' important information at the discourse level (Hopper and Thompson, 1980:294).

In Wanano, Locatives derived from stative verbs such as the copula can also be coded as Obliques, as in 21, where the Locative gives important spatial reference information and establishes the context within which the main action of the clause occurs. The example is from the *Weekend Story* text, which describes a particular type of get-together in a Wanano community, and the speaker was my Wanano consultant living in the U.S. The main action of the clause, *going to visit friends in other communities*, takes place within the marked Locative reference **hi-ro-pʉ**, *a 'being-place'* understood as *in the place I lived* or *where I come from,* distant both in time and space from the moment of speech.

(21)

			OBL
yʉ	**soa-~dʉba-ri-re**	**yʉ'ʉ**	**hi-ro-pʉ-re**
1SG.POSS	rest-day-PL-TMP	1SG	COP-V.NOM-LOC-OBJ

On my weekends (rest days), in the place I lived (where I come from),

	O	S	V	
yʉ	**~be're-~baka-~ida-re**	**yʉ'ʉ**	**~yʉ-ti-re**	**wa'a-ati-i**
1SG.POSS	COM/INST-belong.to-NOM:PL-OBJ	1SG	visit-PURP-OBJ	go-IMPERF-VIS.PERF.1

I used to go to visit my friends. (lit: go visiting)

The sentence in 22 comes from a short written text about jaguars[20]. Before talking about the jaguar's habits, however, the writer begins by establishing the fact that jaguars are wild, jungle-dwelling animals. The writer's use of **to-pʉ-re ~dukʉ-pʉ hi-ro**, *being/staying/living there in the forest* in the relative clause describing jaguars' prey reinforces that this specific location is the contextual backdrop against which all actions of the jaguars are to be understood.

[20] Given in full in the appendix.

(22) **OBL**

to-pʉ-re	**~dukʉ-pʉ**	**hi-ro**
REM-LOC-OBJ	virgin.forest-LOC	COP-V.NOM

O	**V**	**S**	
wa'i-~kida-re	**chʉ-ra**	**ti-ro**	**yai-ro**
animal-PL-OBJ	eat-VIS.IMPERF.NON.1	ANPH-SG	jaguar-SG

The jaguar eats animals living there in the forest.

5.5.2. 'Transitive' motion verbs

Like Stative verbs, motion verbs are prototypically intransitive and clauses with motion verbs do not necessarily require a Locative constituent in Wanano. Sometimes, in fact, the lexical properties of the verbs themselves or discourse context makes the referent location clear[21]. Still, motion verbs frequently occur with Adjunct expressions coded only by the Locative -**pʉ**, and there are certain motion verbs in Wanano which can be syntactically transitive. In other words, they take a second, Oblique argument coded by **-pʉ-re**.

Such verbs, according to Givón, express 'events of spatial motion,' their Oblique arguments being 'spatial references point(s) vis-a-vis which the subject moves' (Givón, 2001a:137). Examining all the examples of motion verbs occurring in syntactically transitive clauses leads to the observation that while there are cases in which a source location is coded by **-re**, such as 23a, syntactically transitive clauses with motion verbs usually involve *telic*-type motion verbs coding movement toward a specific goal, the location one heads for, arrives at, or returns to[22], as in 23b.

[21] For more on the semantics of motion verbs, see section 6.4.2.in chapter 6.

[22] Interestingly, a distinctive trait of the Wananos' (and speakers of other ET languages) Portuguese is the fairly consistent use of preposition 'para/prá' as an all-purpose marker of Objects, including Locative arguments of motion verbs which involve arriving. This interference indicates the tendency for the grammatical marking of these locatives in their own languages.

(23) a.

	OBL	**S**	**V**
~ayo	**~o-pʉ-re**	**yʉ'ʉ**	**khoʼa-wiʼi-kʉ-ka**
so/then	DEIC:PROX-LOC-OBJ	1SG	return- COMPL-NON.3.MASC-PREDICT.

That's how I'll get back <u>here</u>.

b.

OBL	**V**
kuʼtu-~ka-pʉ-re	**phiʼa-sʉ-ʼa**
clearing-DIM.-LOC-OBJ	MOV.out.into- COMPL-ASSERT.PERF

(He) <u>went out into a little clearing</u>.

c.

OBL	**V**
suʼa-ro-pʉ-re	**waʼa-era-ati-ga**
go.into.the.brush-V.NOM-LOC-OBJ	go-NEG-IMPERF-IMPER

Don't be going <u>into the brush</u>.

Though verbs of motion need not occur with an overtly stated Locative constituent if context makes the location clear, when a locative constituent *is* present, it is coded by the suffix **-re**, as we see in the pairs of contrastive examples in 24 and 25.

(24)

a.

	OBL	**S**	**V**
~ayo	**~o-pʉ-re**	**yʉ'ʉ**	**khoʼa-wiʼi-kʉ-ka**
so/then	DEIC:PROX-LOC-OBJ	1SG	return- COMPL-NON.3.MASC-PREDICT

That's how I'll get back here. (repeated from 23a)

cf.

b.

				S		
ti	**~dubi-a**	**waʼa-ri-baʼro-pʉ**		**~dubi-a**	**~yaʼa-ri-~basa**	**peri**
ANPH	woman-PL	go-NOM-afterwards-LOC		woman-PL	catch-NOM-man	all

V	
~bʉbʉ	**~sa-wiʼi-ʼa**
go.quickly	go.inside- COMPL-ASSERT.PERF

Just after the women's escape, all the kidnappers came quickly in (the longhouse).

(25) a.

				S
to	**waʼi-kiro**	**~waha-ri-ro**	**dita-re**	**~sa**
DEF	animal-SG	kill-NOM-SG	only-OBJ	1PL:EXC

V	**OBL**
~da-thua-i	**wʉ'ʉ-pʉ-re**
bring/take-return-VIS.PERF.1	house-LOC-OBJ

We took home only the dead animal. (repeated from 2c)

cf.

b.

	S		**V**	
~ata	**ti-~da**	**~boyo**	**thua**	**waʼa-waʼa-a**
still	ANPH-PL	fail	return	go-go-ASSERT.PERF

And so they went all the way back (to their village) empty-handed.

and **S** **V**

c. **~pate karaka duu-ri-pa yʉ'ʉ thua-kʉ-ka**
maybe rooster speak-NOM-time 1SG return-NON.3..MASC-PREDICT
I'll probably come back (home) at the first crow of the cock[23].

5.5.3. Verbs with clausal complements

In my investigation of Wanano so far, I have identified several types of constructions in which verbs take clausal complements. The first are modal constructions indicating *necessity, recommendation* or *obligation* in which the dependent verb takes a nominalized verb complement. The second are auxiliary verb constructions, most of which also take non-finite, nominalized verbal complements. The third are quoted speech constructions, in which the verb of speech takes a full, finite clause complement.

5.5.3.1. Modal verb constructions

We will see in section 6.4.8. of chapter 6 that modal constructions indicating *obligation* or *necessity* involve independent root + dependent root compounding. In such constructions, though phonologically fused, the independent verb is nominalized before the dependent root, which takes finite verb morphology.

(26) a. **~baka-roka ~baka-~ida-re die-ro-~be're**
forest-DIST belong.to-NOM:PL-OBJ dog-SG-COM/INST

boka-ro-~kha'ba-ra
find-V.NOM- DEON-VIS.IMPERF.NON.1
You have to find (hunt) the wild ones (turtles) with dogs.

b. **a'ri-~phi-~be're** **~da-ro-~kha'ba-re**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM-DEON-VIS.PERF.NON.1
You have to take it (your heart) out with this knife.

tua-ro-~be're yoa-ro-~ka **~daka-ro-~kha'ba-re**
be.strong-ADV-COM/INST do-V.NOM-EMPH. do.together-V.NOM- DEON-VIS.PERF.NON.1
You have do to it all at once, hard. (lit: it requires doing all at once)

[23] According to the Wanano daily time system, around 3 a.m.

5.5.3.2. Auxiliary verb constructions

As the semantic functions of different auxiliary verb constructions are discussed in detail chapter 6, section 6.7, in this section, I will merely call attention to the fact that the syntactic structure of most auxiliary verb constructions calls for a non-finite, nominalized verb complement to the finite (auxiliary) verb, as we see in the sentences in 27 and 28, which show four different types of auxiliary verb constructions.

In 27a we see a progressive construction with the auxiliary verb **~di**. Note that the complement **thua**, *return*, is nominalized by the morpheme **-i**, indicating the non-3rd Subject. In 27b, the auxiliary verb construction coding purpose or intent has the finite (auxiliary) verb **wa'a**, which has as its nominalized complement the verb **ya'u**, nominalized by the morpheme **-a**, indicating a 3rd-plural Subject.

(27) a. **~bi-pʉ-re** **yʉ'ʉ** **chʉa** **boka-tu'sʉ-ha**
now-LOC-TMP 1SG food find-just.complete-VIS.IMPERF.1

thua-i **~di-ha**
return-V.NOM be.PROG-VIS.IMPERF.1
Now I've found food (and/so) I'm going home.

b. **ti** **phʉ-kʉ-ro-re** **ya'u-a** **wa'a-ga**
3PL.POSS parent-MASC-SG-OBJ tell-V.NOM go-ASSERT.PERF
They went to tell their father. (repeated from 4c)

28 gives constructions coding the NON-VISUAL and INFERENCE evidential categories, both of which are constructions in which the finite verb has a nominalized complement. In 28a, the finite compounded verb **koa-ta**, which denotes non-visual—in this case *auditory*—perception has the complement **ta**, *come*, nominalized by the morpheme **-ro**, indicating a 3rd singular Subject. In 28b, the construction coding inference has the finite verb **hi**, *be*, whose complement **tu'sʉ**, *just complete*, is nominalized by the morpheme **-ri**.

I have no ready explanation as yet for why, in this particular construction, the **-ri** nominalizer, rather than Subject agreement morphology, is consistently used.

(28) a. **~kʉ-iro** **ta-ro koa-ta-a** **~so'o-ba'ro-pʉ**
one-NOM:SG come-V.NOM NON.VIS-come-ASSERT.PERF DEIC:DIST-be.close.by-LOC
Someone/something was coming closer (he heard it).

b. **yoa-ta-pʉ** **wiha-tu'sʉ-ri** **hi-ra**
be.far-REF-LOC MOV.outward-just.complete-V.NOM.INFER COP-VIS.IMPERF.NON.1
They've gone (they've just escaped).

5.5.3.3. Quoted speech constructions

Unlike the auxiliary verbs which take nominalized verbal complements, the 'all purpose' speech verb **~di**, *say, ask,* or *answer*, used in quoted speech constructions takes full finite clause complements. In other words, utterances with quoted speech and the speech verb **~di** contain two finite verbs, one within the quoted speech complement and the other being the speech verb itself. In 29, all three instances of the speech verb **~di** are made finite by **-'a,** the evidential marker used in most narratives. In the full-clause complements, however, we see a variety of finite verb constructions. In 29a, the verb **wa** in the complement clause is made finite by the imperative suffix **-ga**. The complement clause in 29b is a question and the verb **hi** made finite by the interrogative suffix **-ri**, while the complement clause in 29c is the answer to the question, a statement in which the verb **hi** is made finite by the evidential suffix **-a**.

(29)

a. **~bʉ'ʉ** **yahiri~pho'da-re** **yʉ'ʉ-re** **wa-ga** **~di-'a**
2SG(POSS) heart-OBJ 1SG-OBJ give-IMPER say-ASSERT.PERF
"Give me your heart," he (the Curupira) said.

b. **~do'o-i** **hi-ri** **~di-a**
INT-LOC COP-INT say-ASSERT.PERF
"Where is she?" he asked.

c. **~o-i** **hi-re** **~di-a**
DEIC:PROX-LOC COP-VIS.PERF.NON.1 say-ASSERT.PERF
"*Here she is," they answered.*

5.5.4. Valency-changing roots

Before moving on to the discussion of Adjuncts, I would like to discuss two verb roots which effect valency-changing operations. The first of these roots is the independent root **~kha'ba**, which means *do reciprocally, with each other* or *among themselves*. Use of this root reduces the valency of an otherwise transitive verb because it eliminates the need for a marked Object, as we see in the examples in 30.

(30) a. **~kha'ba do'ka-phiti-boka-a**
do.RECIP. crash-COLLECT-ASSERT.PERF

~doa-ro ti wʉ'dʉapo'ka waro-i-~hi'da
be.good-ADV 3PL.POSS forehead EMPH-LOC-EMPH
(... the two men) crashed into each other, right here with their foreheads.

b. **~dubi-a ~ya'a-~da wa'a ~hi'da ti-~baka-pʉ**
woman-PL catch- EXRT go EMPH ANPH-belong.to-LOC

~di-a **~kha'ba du-ruku** **yoa-a**
say-ASSERT.PERF do.RECIP. speak-CONT. do/make-ASSERT.PERF
"Let's go get women from that village," they said among themselves.

c. **~bi-pʉ-~ka-re yoa-~sidi-ra**
now-LOC-EMPH.-TMP do/make-do.yet/still-VIS.IMPERF.NON.1

~a yoa ti-~da **~kha'ba-phiti-boka**
so do/make ANPH-PL do.RECIP-COLLECT-meet
Nowadays, they still do that. Everybody gets together (for festivals).

The second verb in this set is the dependent verb **-bosa**, which is used to show that the action of the verb is being done for someone's benefit. Compounds with the benefactive marker result in increased valency of the independent verb, which requires both a direct and an Indirect Object, each coded by **-re**, as we see in 31.

(31) a. **si-koro** **phʉ'ʉ-ro-re** **ti-ro-re** **yoa-bosa-ro-ka**
DEM:DIST-FEM basket-PART-OBJ ANPH-SG-OBJ do/make-BEN-V.NOM-PREDICT.
She's going to make a basket for him.

b. **yʉ'ʉ** **wa'i-re** **do'a-bosa-i-ta** **~bʉ'ʉ-re**
1SG fish-OBJ cook-BEN-V.NOM-INTENT 2SG-OBJ
I'm going to cook the fish for you. (repeated from 16d)

5.6. Adjuncts

The lower portion of Chart 5.1. (repeated below) shows the four semantic roles coded by adjuncts in Wanano: Locative, Temporal, Comitative, and Instrument. Coding means for these adjuncts overlap: Locatives are coded by **-pʉ** and Temporals are coded by (**-pʉ**)**-re**. Both Comitatives and Instruments are coded by **~be're**.

ADJUNCTS		
SR: Locative	SR: Temporal	SR: Comitative / Instrument
CM: **-pʉ**	CM: **(-pʉ)-re**	CM: **-~be're**

5.6.1. Locative

In earlier sections we saw that nouns coded as Locatives can, in very special contexts, also be marked by **-re** as Oblique arguments of stative, motion, or di-transitive verbs. When so marked, they have the semantic role of either Locative/Goal or Locative/Source. In most cases, though, Locatives are not coded as core arguments but as simple adjuncts, providing additional information about the circumstances surrounding the state or event expressed by the verb. The examples in 32 are but a sample of the many adjunct Locatives, coded with **-pʉ** only, which occur in the data.

(32) a. **ti-~da hi-ra** **dia-pʉ**
ANPH-PL COP-VIS.IMPERF.NON.1 river-LOC

~baka-roka-pʉ **~baka-~ida**
forest- DIST-LOC belong.to-NOM:PL
Some (turtles) live in the river and some live far off in the forest (lit: are forest-dwellers).

b. **die-ro** **pari-saba-pʉ** **~koa-ra**
dog-SG lake-mud-LOC be.lying.in-VIS.IMPERF.NON.1
The dog is lying in the mud.

c. **~dubi-a da'ra wa'a-ra** **wese-pʉ**
woman-PL work go-VIS.IMPERF.NON.1 garden-LOC
Women go to work in the garden.

d. **ti-ro ~tidi-ka yʉkʉ-ri bu'i-pʉ**
ANPH-SG walk-ASSERT:IMPERF tree-PL be.on.top.of-LOC
A squirrel moves around up in the trees.

e. **yʉ'ʉ ~bo ~baka-ri-ro-pʉ hi-ha**
I Mo belong.to-NOM-SG-LOC COP-VIS.IMPERF.1
I am from Mo (Caruru Cachoeira). (Lit: I am a Mo-dweller/villager.)

f. **die-ro ~bʉsʉ-re ~waha-ra kopa-pʉ**
dog-SG anteater-OBJ kill-VIS.IMPERF.NON.1 hole-LOC
Dogs kill anteaters in their holes.

g. **ti-~da tiro-a ~wa'a-ka yʉkʉ-dʉ-~phu-ri-pʉ**
ANPH-PL wasp-PL hang.from-ASSERT:IMPERF tree-CLS:cylindrical-leaf-PL-LOC
Wasps hang (in nests) from the tree branches.

5.6.2. Temporal

There is quite a bit of overlap between the coding of Locative and Temporal adjuncts in Wanano. Indeed, some nominals with temporal reference are coded by both the locative suffix **-pʉ**, and the temporal **-re**. Note, for instance, the parallel coding of the Locative **te ti kha'a-pʉ**, *until he was there beside it*, in 31a, and the Temporal **te pa-~dʉba-pʉ**, *until the next day*, in 33b.

(33) a. **ti-re thʉ'o ti-ro sua-ta-a**
ANPH-CLS:generic hear ANPH-SG be.angry-come-ASSERT.PERF

te ti kha'a-pʉ
until ANPH be.next.to-LOC
When he heard that, he raged off until he was there beside it (the log).

cf. b. **chʉ tu'sʉ ti-~da ~khari-a wa'a-ra**
eat just.complete ANPH-PL sleep-V.NOM go-VIS.IMPERF.NON.1

te pa-~dʉba-pʉ ti-~da hi-ra
until ALT-day-LOC ANPH-PL COP-VIS.IMPERF.NON.1
As soon as they've eaten (dinner), they go to sleep until the next day.

Temporal expressions include temporal nouns, nominalized verbs, and dependent clauses or phrases showing temporal reference such as those in 34.

(34) a. **~yabicha-wa'a**
night-go
When it gets dark . . .

b. **~do'yo-wa'a**
dusk-go
When the sun's going down . . .

c. **ba'a-ro ~hi'da yoa-a**
do/be.after-ADV EMPH do/make-ASSERT.PERF
A long time later. . .

d. **ba'a-ro ~hi'da ~yabi-dacho-~baka-i waro-i**
do/be.after-ADV EMPH night-day-half-LOC EMPH-LOC
Later, right in the middle of the night . . .

e. **ti ~dʉba-i-ta ~hi'da**
ANPH day-LOC-REF EMPH
That very same day . . .

Temporal clauses indicating sequential actions, such as *as soon as* and *just after*, are constructed with the verb **tu'sʉ**, *finish*, which also functions to code recently completed actions[24]. Some examples of temporal sequential adverbial phrases used in the texts are given in 35.

(35) a. **tu'sʉ-ro-ka'a**
just.complete-ADV-do.moving
As soon as he got there . . .

b. **~a ~di tu'sʉ ~hi'da**
so say just.complete EMPH
As soon as he said that . . .

c. **chʉ tu'sʉ ~ba'o-ro-~ka-ta**
eat finish later-ADV-DIM.-REF
Just after he ate . . .

All temporals have adverbial-type functions and tend to come at the beginning of a sentence. Temporal Adjuncts are often formed from inherently temporal nouns, such as *today, now, day,* and *night*. They are coded as Adjuncts by the Temporal marker **-re** and sometimes by the Locatives **-i/pʉ**, which, as we saw in 33 above, can be used to indicate

[24] For more on this function, see chapter 6, section 6.4.5.

either spatial or temporal location. The examples in 36 show that Adjuncts indicating *distant* or *ongoing temporal* space are coded by both the Locative **-pʉ** and the Temporal **-re**.

(36) a. **~phado-pʉ-re**
long.ago-LOC-TMP
In the olden days . . .

b. **~wa'ba-ro-pʉ-re**
young/new-ADV-LOC-TMP
In the beginning . . .

c. **~bi-pʉ-re**
now-LOC-TMP
Now . . .

d. **~bi-pʉ-~ka-re**
now-LOC-EMPH.-TMP
Nowadays . . .

In contrast, the examples in 37 show that Adjuncts indicating *temporally bounded* or *singular* temporal referents are coded only by the temporal **-re**.

(37) a. **~bicha-re**
today-TMP
Today . . .

b. **~bicha-~ka-~ka-re**
today-DIM.-EMPH.-TMP
Right now . . .

c. **dacho-re**
day-TMP
During the day / In the daytime . . .

d. **ti ~yabi-re ~hi'da**
ANPH night-TMP EMPH
That very night . . .

5.6.3. Comitative

In addition to Adjuncts with the semantic roles of Locative and Temporal, Wanano codes nouns with the Comitative role, in other words, a noun, usually animate, which participates in the event coded by the verb along with another noun, *with X*. The comitative role is coded by the morpheme **-~be're** in Wanano, as we see in the examples in 38. Note that both nouns in the comitative relationship can be mentioned in the sentence, as in 38a, which has the Subject noun **ti phʉ-kʉ-ro**, *their father*, and the Comitative noun, **to ko-ya**, *his relatives*, which is coded by **~be're**. However, we have seen that Subjects are often Ø-coded in Wanano if reference is clear; thus, it can happen that only the Comitative noun is overtly present in the sentence, as we see in 38b. In 38c, the two participants in the event expressed by the verb are doubly referenced, once by the 1st person plural pronoun

~**sa**, *we* (EXCL), and again in a phrase which identifies who *we* are: **yʉ'ʉ phʉ-kʉ-~be're**, *I with my father*.

(38) a. **S** **COM**

ti	**phʉ-kʉ-ro**	**to-pʉ**	**wa'a**	**to**	**ko-ya-~be're**
3PL.POSS	parent-MASC-SG	REM-LOC	go	3SG.POSS	relative-PL-COM/INST

Their father went there with his relatives . . .

b. **S** **COM**

Ø	**~a-ta**	**yoa**	**ti-ro-~be're**	**du-ruku-a**	**yoa-a**
	so-REF	do/make	ANPH-SG-COM/INST	talk-CONT-V.NOM	do/make-ASSERT.PERF

So, (the man) started talking with him (the Curupira).

c. **(S)** **S** **COM**

~sa	**yoaro-pʉ**	**yʉ'ʉ**	**phʉ-kʉ-~be're**	**thʉ'o-i**
1PL:EXC	be.long-LOC	1SG	parent-MASC-COM/INST	hear-VIS.PERF.1

We, from far away, I with my father, heard (that sound).

5.6.4. Instrumental

The fourth adjunct in Wanano has the semantic role of Instrument, and like Comitatives, Instruments are coded by the morpheme -~**be're**. Instrument nouns are those used by Agents to perform or accomplish the action expressed by the verb, *do X with X*, or *use X to X*. Prototypically, Instruments are inanimate, as we see in the examples in 39: **tʉ**, *stick* (39a), **~phicho-ro**, *tail* (39b), **wʉ-ri-a**, *planes (lit: flying-things)* (39c), **kooti-ri-a ya**, *the Wanano language* (39d), and **a'ri-~phi**, *knife* (39e).

(39) a. **INST** **S** **V**

tʉ-~be're	**~bʉ'ʉ**	**wa'i-~kida-~waha**	**sito-ta-ka**
stick-COM/INST	2SG	animal-PL-kill	MOV.circular-come-PREDICT.

With this stick, you'll go around hunting.

b. **S** **INST** **V**

~ebo	**to**	**~phicho-ro-~be're**	**~wa'ba-duhi-~sʉ**	**chʉ-ka**
howler.monkey	3SG.POSS	tail-PART-COM/INST	wrap-DUR-COMPL	eat-ASSERT:IMPERF

A howler monkeys uses its tail to wrap (around a branch) to eat.

c. **S** **V** **INST**

~bari	**khe-ro-~ka**	**wa'a-dua-~da**	**wa'a-ka**	**wʉ-ri-a-~be're**
1PL.INC	be.fast-ADV-EMPH.	go-DESID-1PL	go-ASSERT:IMPERF	fly-NOM-PL-COM/INST

When we want to go (somewhere) quickly, we go by plane.

d. **S** **INST** **V**
Ø **kooti-ri-a** **ya-~be’re** **bu’e** **~hi’da**
Wanano-NOM-PL belong.to-COM/INST study/learn EXRT
Let’s study <u>in Wanano</u> (lit: using what belongs to the Wanano).

e. **S** **INST** **V**
Ø **a’ri-~phi-~be’re** **~da-ro-~kha’ba-re**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM-DEON-VIS.PERF.NON.1
You have to take it (your heart) out <u>with this knife</u>.

The fact that the comitative and instrument roles are coded by the same morpheme is certainly a reflection of their closely linked semantics. In the sentence in 40 below, for example, there are two possible interpretations of **die-ro-~be’re**, *with dogs*. If we analyze the relationship between people and dogs as comitative, we understand the sentence to mean that if you go hunting *with/accompanied by* dogs, you are more likely to find wild turtles. However, it is also possible to interpret the dogs in this case as a rare instance of an animate coded as an instrument: you will find wild turtles if you hunt *with/using* dogs[25]. The free translation given is intended to yield either of these interpretations.

(40) **S** **O** **INST/COM**
Ø **~baka-roka** **~baka-~ida-re** **die-ro-~be’re**
forest- DIST belong.to-NOM:PL-OBJ dog-SG-COM/INST

V
boka-ro-~kha’ba-ra
find-V.NOM- DEON-VIS.IMPERF.NON.1
You have to find (hunt) the wild ones (turtles) with dogs.

5.6.5. The status of ~be’re

We have seen that the morpheme **~be’re** is quite productively used as a marker of nouns with Comitative or Instrument roles. By extension, it is also used in the derivation of adverbials of manner from nominalized verbs such as **toa-ro-~be’re wa’a**, (be.fast-ADV-

[25] Interestingly, this was the gloss suggested by my consultant.

COM/INST go), literally *go with haste*[26].

Unlike **-re**, which clearly displays suffix-like features (it is mono-moraic and has no underlying specifications for tone or nasality), the morpheme **~be're** has the shape and nearly all the specifications of a lexical root. Even when it functions as a grammatical marker, it is bimoraic and is specified as nasal, though it does display phonological reduction and consistently occurs as low tone. Because of these phonological characteristics, I have analyzed **~be're** as a cliticized root (in chapter 3, section 3.2.2.). Further evidence that **~be're** has lexical root origins comes from the fact that the nominal word for *friends* is derived from it: **~be're-~baka-~ida**, literally *those who go with me, with whom I belong*. Since nouns can be derived from noun-noun or verb-noun compounds, it is not known whether the original root is nominal, something such as *companion*, or verbal, something along the lines of *accompany*. For this reason, in this singular occurrence as the independent root, the gloss indicates the evolution of the morpheme rather than its original lexical semantics.

(41)

yʉ	**~be're-~baka-~ida-re**	**yʉ'ʉ**	**~yʉ-ti-re**	**wa'a-ati-i**
1SG.POSS	COM/INST-belong.to-NOM:PL-OBJ	1SG	visit-PURP-OBJ	go-IMPERF-VIS.PERF.1

I used to go to visit <u>my friends</u>. (repeated from example 13d)

Wanano **~be're** has close cognates in other ET languages. According to Gomez-Imbert the Tatuyo counterpart **~beda** functions not only as an associative/instrumental, but also a pluralizer of certain nouns (Gomez-Imbert, 1982:66-67). The associative/instrumental morpheme in Barasana is **~raka**, analyzed as an independent clitic with underlying specifications for nasality marker and low tone (Gomez-Imbert, 1997:178-179), a direct parallel to my analysis of the Wanano morpheme **~be're**. The Desano cognate is identified as **~beda** (Miller, 1999:62), while **-ke** functions as the marker of instruments/accompaniment in Kubeo (Morse and Maxwell, 1999:119). The question of status of the morpheme is not

[26] Discussed in section 5.7.2.2. below.

addressed for either Desano or Kubeo. Ramirez views the cognate morpheme in Tukano, **me'ra**, as a marker of instruments, modes of transport, etc. and analyzes it as a dependent noun meaning *with*. He ascribes to it the same three functions found in Wanano: it marks a noun as Instrumental, Comitative, or as having adverbial-type functions (Ramirez, 1997a:249-250).

5.7. Verb Phrase Structure

In this section we will look at the structure of verb phrases in Wanano: the order of constituents and types of modification, including the use of nominalizations for adverbial functions.

5.7.1. Order of constituents in verb phrases

As is the case in other ET languages, there is a good deal of word order flexibility in Wanano. We saw examples of the flexible order of Object arguments in the examples in 16, and in Chart 5.6., I indicated that Subject arguments also have flexible position depending on discourse-level considerations. Despite this flexibility, however, we can observe some general tendencies. First, the verbal construct (which may include one or more verbal words, the final one in finite form) is more often than not the final element in a Wanano clause, and arguments, both Subjects and Objects, as well as adverbial-type modifiers, tend to precede the verbal component. As mentioned in section 5.6.2., Temporal adverbial-type constructions tend to occur sentence-initially, followed by the Subject, and Object(s). Other types of adverbial-type elements tend to occur directly preceding the verb, though we will see that there are some exceptions. The only constituents which consistently occur post-verbally are Adjunct or Oblique phrases, though any element, including Subjects and Objects can occur post-verbally for pragmatic purposes which will not be addressed here. Thus, the structure below is intended

as a representation of the most common order of constituents based on the overall tendencies found in the data.

VP					
ADV: TEMPORAL	**S**	**O**	**ADV: MANNER QUALITY EMPHATIC**	**VERBAL CONSTRUCT**	**LOCATIVE OBL**

CHART 5.7. ORDER OF CONSTITUENTS IN VERB PHRASES

5.7.2. Pre-verbal modification

Because arguments and temporal and locative Adjuncts have already been described, this section will focus on the adverbial-type lexical constituents which occur pre-verbally. Givón states that cross-linguistically, *adverb* is the word-class that is 'the least homogenous, semantically, morphologically, and syntactically; it is also, perhaps not surprisingly, the least universal' (Givón, 2001a:87). Indeed, as we saw in chapter 3, Wanano has no lexical class of adverbs, but uses a variety of means to code different kinds of adverbial-type information. In this section, we will examine the adverbial-type lexical elements which are derived from nouns or nominalizations of stative verb roots. Such nominalizations form lexical adverbial modifiers whose semantic spheres tend to be in complementary distribution to the adverbial-type compounding constructions described in chapter 6, section 6.4.3. Compounds tend to code spatial manner adverbial information, whereas lexical adverbials are used to code other manner distinctions as well as temporal (described in section 5.6.2.), qualitative, instrumental, and emphatic adverbial information.

5.7.2.1. Adverbials: quality / evaluation

Adverbs which indicate quality or evaluation generally occur immediately preceding the verb. They are derived from stative verbs such as **~doa**, *be good*, and **~ya**, *be bad*, by means of the nominalizer **-ro**, as in the text examples in 42.

(42) a. **to** **di'i** **~doa-ro** **koa-ka**
3SG.POSS meat be.good-ADV taste-ASSERT:IMPERF
Its (a cow's) meat tastes good.

b. **~bari** **~doa-ro** **~iriboa-re** **wi'bo-~basi-ka**
1PL.INC be.good-ADV lime-OBJ store-DEON-ASSERT:IMPERF
We should store limes well.

c. **~ya-ro** **~wiki-ri-ka** **ti-~da** **~wibi-a**
be.bad-ADV itch-ADMON-ASSERT:IMPERF ANPH-PL suck-3PL
It itches badly when they (flies) bite.

An interesting real-life example of these adverbs can be seen in the form below, which the Wanano themselves designed for a linguistic census we took during one of our workshops[27]. In the census, each person listed the languages he or she was familiar with in the lefthand column and then evaluated his or her ability to speak that language **noano**, *well*, **phiro**, *so-so*, (from the stative verb *be.slow*) or **ñano**, *badly*.

wamã (name)**:** **bʉhkʉaro** (age)**:** **mahkã** (community)**:**			
yʉ'ʉ durukuá (languages I speak)	**do'se duruhari?** (how do I speak?) **noano** (well)	**phiro** (so-so)	**ñano** (badly)
kootiria (Wanano)	✓		
dahsea (Tukano)	✓		
português (Portuguese)	✓		
buisemakã (Kubeo)		✓	
espanhol (Spanish)			✓
etc.			
phukhuro durukuá (father's language)**:** **phukhoro durukuá** (mother's language)**:** **mahkã mahkaina durkuá** (language of the community in which I live)**:**			

5.7.2.2. Adverbials: manner

Like the adverbs of quality, adverbials indicating the manner in which an action took place tend to occur directly preceding the verb. They are derived from stative verbs by means

of the nominalizer **-ro**, as we see in 43 a and b. In some cases (43c-f), the nominalized verb is additionally marked by the comitative morpheme **~be're**, yielding a subtype of adverb which Givón labels as 'instrumental' and which can be read literally as *with X* (compare 43a and 43e, which have the same verb root). Though similar in meaning, we can see that adverbials with the comitative often occur post-verbally, as in examples 43d and e, whereas those marked only with **-ro** do not.

(43) a. **khe-ro-~ka chʉ-'a**
be.fast-ADV-EMPH. eat-ASSERT.PERF
eat quickly

b. **phi-ro-~ka yoa-ka**
be.slow-ADV-EMPH. do/make-ASSERT:IMPERF
do slowly

c. **tua-ro-~be're yoa-ro-~ka**
be.strong-ADV-COM/INST do-V.NOM-EMPH.
do forcefully (lit: do with force)

d. **kasʉ-a hikue-ro-~ka-~be're**
be.lying.down-ASSERT.PERF dislike-ADV-EMPH.-COM/INST
woke up embarassed (lit: with dislike or shame)

e. **thua-ta ~ba'a khe-roka-~be're**
return-come road be.fast- DIST-COM/INST
return in a hurry (lit: with haste)

f. **toa-ro-~be're wa'a**
be.fast-ADV-COM/INST go
go quickly (lit: with haste)

5.7.2.3. Adverbials: emphasis—the functions of ~hi'da

One of the most frequently occurring discourse markers is ~**hi'da**. Though it has the shape and phonological characteristics of a root (it is bimoraic and has underlying specifications for nasality and tone), ~**hi'da** is always phonologically independent and never inflected. Furthermore, though it has the phonological features of a root, it behaves more independently than other roots, and thus, for the meantime, will be analyzed as an

[27] See chapter 1, section 1.4.

independent adverbial-type discourse marker. Waltz and Waltz analyze ~**hi'da** as a marker of 'finality' or of the 'culminating point in an episode' (Waltz and Waltz, 1997:43, translation mine). While this does indeed seem to be one of its functions, I view ~**hi'da** as coding several different emphasis-related functions, with variations depending on its position in a clause and the constituent it modifies[28].

The first function of ~**hi'da**, as the Waltzes point out, is to indicate finality or the end point in an episode. When employed in this function, ~**hi'da** occurs post-verbally, as we see in the following examples.

(44) a. **ti-ro** **ti-~da-re** **ko'ta-ga** **~hi'da**
ANPH-SG ANPH-PL-OBJ wait-ASSERT.PERF EMPH
. . . (the evil being) was there just waiting for them.

b. **ti** **bato-pɯ** **ti-koro** **wiha-ta'a-ga** **~hi'da**
ANPH be.last-LOC ANPH-FEM MOV.outward-come-ASSERT.PERF EMPH
Right at the end, the woman finally came out.

In 45 we see a second function of ~**hi'da** in post-verbal position. Here, in what is likely a semantic extension of its 'finality' function, it is employed as an exhortative.

(45) a. **~sa** **~di-~ba'a** **wa'a-wa'a** **~hi'da**
1PL:EXC say-FRUST-ASSERT.PERF go-go EXRT

~ya-~ida **hi-ra**
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
She urged, "Let's escape. These (beings) are evil."

b. **kooti-ri-a** **ya-~be're** **bu'e** **~hi'da**
Wanano-NOM-PL belong.to-COM/INST study/learn EXRT
Let's study in Wanano (repeated from 35d)

c. **~dubi-a** **~ya'a-~da** **wa'a** **~hi'da** **ti-~baka-pɯ**
woman-PL catch-V.NOM go EXHRT ANPH-belong.to-LOC

~di-a **~kha'ba** **du-ruku** **yoa-a**
say-ASSERT.PERF do.RECIP. speak-CONT. do/make-ASSERT.PERF
"Let's go get women from that village," they said among themselves.

[28] For its function on nouns, see section 4.6.6. in chapter 4.

However, the most frequent use of ~**hi'da** is shown in the examples in 46, where it functions as an adverbial emphasizing the immediacy of an action. When employed in this function, ~**hi'da** occurs pre-verbally and yields the interpretation that the action was done *immediately, right then,* or *right away*.

(46) a. **~ayo ~di tu'sʉ ti-ro ~hi'da to puka-re wʉa**
so/then say finish ANPH-SG EMPH 3SG.POSS blowgun-OBJ pick.up

waka-sa-re waha-~bʉ wa'a-wa'a-'a ~bakaka-pʉ
poison.darts-carrier-OBJ pick.up-do.quickly go-go-ASSERT.PERF forest-LOC
As soon as he said that, he immediately got his blowgun and basket of darts, shouldered them and went off into the forest.

b. **~a yo ~hi'da ti-ro to-pʉ-re wisi-a-wa'a to ~ba'a-re**
so do/make EMPH ANPH-SG REM-LOC-OBJ be.lost-AFFEC-go 3SG.POSS path-OBJ
Right then, he lost his way.

c. **ba'a-ro ~basʉ-ro-se'e ~hi'da ti-ro-re ~di-a**
do/be.after-ADV man-SG-CONTR. EMPH ANPH-SG-OBJ say-ASSERT.PERF
Then the man immediately said to him (the evil beast) . . .

d. **bo're-ka'a-chʉ ~yʉ ~hi'da ti-ro wiha-a**
be.light-do.moving-SW.REF realize EMPH ANPH-SG MOV.outward-ASSERT.PERF
Realizing it was morning, he immediately went out.

e. **ti-~phi-re ti-ro ~hi'da ~ya'a**
ANPH-CLS:bladelike-OBJ ANPH-SG EMPH grab

to yahiri~pho'da-re phi-ro-~ka be-~yʉ-a
3SG.POSS heart-OBJ be.slow-ADV-EMPH. cut-try-ASSERT.PERF
He (C) immediately grabbed the knife and slowly tried to cut out his heart.

We can see in the final example below that, like **-re**, there is no restriction on multiple uses of ~**hi'da** within a single sentence. In line *a*, ~**hi'da** emphasizes the previous noun, a function discussed in chapter 4, whereas in lines *b* and *c*, it has the adverbial function of emphasizing the immediacy of the actions.

(47) a. **ba'a-ro** **~basʉ-ro** **~hi'da** **to-pʉ-ro-ta**
do/be.after-ADV man-SG EMPH REM-LOC-ADV-REF
The same guy right then

b. **~hi'da** **to** **yʉ'so-ri-~phi-~ka-re** **~da**
EMPH 3SG.POSS cut-NOM-CLS:bladelike-DIM.-OBJ get
immediately took out his knife

c. **~hi'da** **ti-ro** **ka** **yahiri~pho'da-re** **waye-rʉka-a**
EMPH ANPH-SG monkey heart-OBJ cut.open-INCEP-ASSERT.PERF
and right away started to cut out one of the monkeys' hearts.

5.7.2.4. Adverbials: similarity

Another interesting type of adverbial is an analytical construction which is used to indicate similarity: *do like X*. This construction has the auxiliary verb **yoa**, *do*, and the dependent verb **se**, *be like*. It can occur pre- or post-verbally, as we see in the examples below.

(48) **V**

a. **phi-ro-ta** **~sayo-a** **~basa-ro** **yoa-ro-se** **~phido-ro-wʉ'rʉ**
be.big-SG-REF scream-ASSERT.PERF man-SG do/make-ADV-be.like snake-SG-AUG.
The snake screamed loudly like a person.

b. **~chipe** **yoa-ro-se** **~chipe** **yoa-ro-se**
sap do/make-ADV-be.like sap do/make-ADV-be.like

V

~wita-ri-ro **hi-a** **ti-ro** **to** **pakʉ-pʉ**
be.sticky-NOM-SG COP-ASSERT.PERF ANPH-SG 3SG.POSS body-LOC
His body was sticky like sap, like sap.

c. **to-pʉ** **doparoa** **yoa-ro-se** **~du-re**
REM-LOC bees do/make-ADV-be.like buzz-CLS:generic

V

~sa-ga **ti-~da** **peri**
be.inside-ASSERT.PERF ANPH-PL all
There inside, all of them were buzzing like bees.

5.7.2.5. Adverbials: interrogative

The final type of adverbial I will discuss is the interrogative adverbial. In chapter 4, section 4.6.2.4.1., we saw that Wanano has several nominal interrogatives used in questions of the types *which X, what kind of X, how much/many X, who, from/to where, what X,* and *whose X*. In addition to these nominal forms, there are three adverbial-type question constructions built from the interrogative **do'se**.

Used by itself, **do'se** questions something about the manner in which the activity or state expressed by the verb is realized: *how do/did/can one X (activity), how is X (state) realized*? 49a-c specifically question processes: the best way to catch a species of fish (49a), how to remove one's own heart (49b), and what to do in a particular situation (49c). 49d-e refer to states: how something appears (49d) and what something is good for (49e). In 49f, **do'se** is used to question the content of the complement of a speech verb: how/what was said?

(49) a. **do'se yoa yo'ga-hari a'ri-ro-re**
how do/make fish-INT.IMPERF DEM:PROX-SG-OBJ
How do you fish for this one (a type of fish)?

b. **~bʉ'ʉ do'se yoa ~da-ri ~bʉ'ʉ yahiri~pho'da-re**
2SG how do/make bring/take-INT 2SG(POSS) heart-OBJ
How did you take out your heart?

c. **do'se yoa-~basi ~bari a'ri-a ~ya-ri-re**
what do/make-know 1PL.INC DEM:PROX-PL be.bad-NOM-OBJ
"What can we do about these evil ones?" (How can we know what to do about them?)

d. **do'se bahu-~ida hi-ra ti-~da**
how appear-NOM:PL COP-VIS.IMPERF.NON.1 ANPH-PL
This is how they (different types of fish) look:

e. **do'se yoa phʉ'ʉ-se-~ka ~do-hari**
what do/make basket-PL-DIM. be.worth-INT.IMPERF
What are these little baskets (good) for? (lit: How are these baskets useful?)

f. **do'se ~di du-ruku-ri ti-ko-ro**
what say talk-CONT-INT. ANPH-FEM-SG
What did she say?

There are also two adverbial-type question constructions with **do'se**. The first asks about *when* the activity expressed by the verb occurred. It is a dependent clause construction with the copula and the switch-reference marker: **do'se hi-chʉ**, literally *when was it that X happened?*

(50) a. **do'se hi-chʉ ~bʉ'ʉ wi'i-ri**
when COP-SW.REF 2SG arrive-INT
When did you arrive?

b. **do'se hi-chʉ ~bʉ'ʉ-re ya'u-ri**
when COP-SW.REF 2SG-OBJ tell-INT
When did they tell you (something)?

The second construction asks *why* the activity expressed by the verb occurred. It is a nominalization formed by **do'se** and the auxiliary verb **yoa**, *do*, coded by Subject agreement markers: **-kʉ**, NON.3.MASC (51a); **-da**, NON.3.PL (51b); and **-ro**, 3SG.

(51) a. **do'se yoa-kʉ ~a yoa-ri ~bʉ'ʉ**
why do/make-1/2SG.MASC so do/make-INT 2SG
Why did you (masc) do that?

b. **do'se yoa-~da ~di-hari ~bʉsa**
why do/make-1/2PL be.PROG-INT.IMPERF 2PL
Why are you (plural) doing that?

c. **do'se yoa-ro a'ri-ro yʉ'ʉ-re yʉ'ti-era-hari**
why do/make-V.NOM DEM:PROX-SG 1SG-OBJ answer-NEG-INT.IMPERF
Why isn't he answering me?

5.8. Summary

In this chapter I outlined the basic syntax of intransitive, transitive and complex transitive verbs and discussed the grammatical and semantic roles of their associated arguments. Evidence was given to show that Wanano is typologically nominative-accusative, and that it codes the grammatical rather than the semantic roles of core arguments.

I demonstrated that Wanano codes Subject arguments by a mixture of head and dependent marking strategies: Subject nominals are themselves unmarked for grammatical

case, but there is agreement within the verbal paradigm and Subject agreement morphology is used to nominalize dependent constituents. Object and Oblique arguments, as well as Adjuncts are coded morphologically on the nominal words.

We saw that Object arguments can be coded by different means, the principal one being the suffix **–re**, though word order also plays a secondary role. I also showed that the coding of Objects is no simple matter and that other semantic features, such as noun class and definiteness, in part influence choice of coding means.

We also learned that there are certain classes of verbs which take non-prototypical arguments: Oblique arguments may be optionally included in the structure of certain stative and motion verbs, while a number of other verbal constructions require clausal complements.

I also described four kinds of adjuncts, which have the semantic roles of Locative, Temporal, Comitative and Instrument, and showed how the coding means for nouns in these roles at times overlap with those employed for core arguments, leading to the discussion of the multiple functions of the suffix **-re**.

Finally, I discussed the prototypical order of constituents in verb phrases and described five different types of pre-verbal, 'adverbial-type' modification.

CHAPTER 6

VERBAL SEMANTICS AND MORPHOLOGY

This chapter describes the major semantic classes of Wanano verbs and their corresponding morphological paradigms, though the verb-final coding of modality is addressed separately in chapter 7. Section 1 gives the basic structure of lexical verb roots and discusses two types of derived verbal roots. Section 2 discusses stative verbs: the copula, verbs of existence/non-existence, possessive, locational, and adjectival statives. In Section 3, I contrast the morphological paradigms of stative and non-stative verbs and discuss the process of root compounding. In Section 4, I discuss non-stative verbs and three important subcategories of non-stative verbs: activity verbs, verbs of motion (directional, relational, and verbs of placement), and verbs of perception and mental processes. For each of these subcategories, I discuss the semantics of verbs in independent position and then, in the case of motion and mental process verbs, their functions in dependent position. I show that verbs of motion are employed to code manner and aspect, while verbs of mental processes are used to code modal distinctions. I also discuss the other morphemes in the paradigm which code aspectual and modal distictions. Section 5 discusses verbal morphology coding negation and intensification. In Section 6, I discuss the grammatical status and phonological specifications of verbal morphemes and show that, as with nominal morphemes, there is a continuum of different types of morphemes with varying degrees of grammaticalization. Section 7 describes the semantic functions of auxiliary verb constructions.

6.1. Verb roots: structure and derivational processes

All lexical roots in Wanano, whether nominal or verbal, have the same basic phonological structure. Thus, verb roots share with noun roots the following characteristics:

- they are bimoraic;
- they are lexically specified as all nasal or all oral;
- they are lexically specified for a tonal melody, either <L>HL or <L>H, each root requiring at least one high tone.

Verb roots may have the following shapes:

(1)	a.	V	**~o**	[õ̋õ̋]	*hang by a thread or stem*
			u	[úú]	*root (like a pig)*
	b.	CV	**~hʉ**	[ɲʉ̃ʉ̃]	*burn*
	c.	CVV	**yoa**	[yóá]	*do/make*
	d.	CVCV	**phuti**	[pʰuʰtí]	*blow (play a flute)*
			thʉ'o	[tʰʉʔó]	*hear/perceive*
	e.	CVʔCV	**~kha'ba**	[kʰãʔmã̋]	*want*

As with noun roots, the great majority of verb roots are of types *c*, *d*, and *e*, the most common shape being the CVCV shape exemplified in *d*.

In chapter 4 we saw that root compounding is one process by which new nominals are derived in Wanano, and we will see in section 6.3.3. that verb root compounding is also the most productive means of deriving new, or more semantically detailed verbs. However, there are two additional processes whereby verbs can be derived in Wanano. The first is by means of the verbalizing morpheme **-ti**, and the second is the process of noun incorporation, in which a transitive verb and an associated noun Object combine to create a more semantically specific intransitive verbal stem.

6.1.1. Roots derived with the verbalizer -ti

The morpheme **-ti** on a nominal root has a verbalizing function, as we see in 2 below. In 2a, the verb **~pho'dati** [pʰoʔnã́ti], *reproduce/have babies* is derived from the noun **~pho'da**, *children* or *offspring*, and in 2b, the verb **koti** [kóótí], *take medicine*, is derived from the noun **ko**, *water* or *medicine*. Once derived, the new verb takes normal verbal morphology such as the evidential suffixes **-ra** in 2a and **-a** in the first occurrence in 2b, or it can be nominalized, as we see in the second occurence in 2b, where the verb **koti** is nominalized by the agreement morpheme **-ro**, resulting in *medicine-taking*.

(2) a. **ti-~da-ba'ro** **phay~~ɯ~~** **~pho'da-ti-ra**
ANPH-PL-kind many/a.lot offspring-VBZ-VIS.IMPERF.NON.1
This kind (anteaters) have a lot of offspring.

b. **ko-ti-~ba-a** **ko-ti-ro-se'e**
medicine-VBZ-FRUS-ASSERT.PERF medicine-VBZ-V.NOM-CONTR.

~de **ti-ro-re** **th~~ɯ~~o-era**
NEG ANPH-SG-OBJ cure-NEG
He took medicine, but it (the medicine-taking) never cured him.

6.1.2. Derived verbs with incorporated nouns

The second type of derived verb in Wanano involves noun incorporation, which was mentioned in the discussion of the semantics of **-re** in section 5.3.2. in chapter 5. Noun incorporation 'consists of the derivation of a complex lexical item from a combination of two or more stems [resulting in a new verb denoting an] activity recognized sufficiently often to be considered name-worthy in its own right' (Mithun, 1984:848). The examples of noun incorporation I have identified so far are, for the most part, prototypical of the basic process of Mithun's 'Type I' noun incorporation in which a) the compounded stems are a V and its N Patient O, which is b) non-referential, meaning that it is not marked for

definiteness or number (as we saw in sectin 5.3.2.)[1]. The result is c) an intransitive predicate denoting a unitary concept, an habitual or ritualized action. The examples in 3-5 show instances of this type of noun incorporation. Once derived as a new verbal form, we see that regular morphological processes apply, such as the nominalizing morphology **-~ida** in 3b and **-ri** in 4, and the verbal morphology **-sito-ta-ka** in 5.

(3) **die~ku** [diékũ] *egg-lay*[2]

a. **yʉkʉ-kʉ kopa-pʉ die-~ku ~pho'da-ti-ra ti-ro**
tree-CLS:tree hole-LOC egg-lay offspring-VBZ-VIS.IMPERF.NON.1 ANPH-SG
(A toucan) reproduces by laying eggs in a hollow tree.

b. **die- ~ku-~ida ti-ro-ba'ro**
egg-lay-NOM:PL ANPH-SG-kind
This kind (of fish, bass) are egg-layers.

(4) **~daho-~sa** [nãɦṍsã] *flatbread-lay (bake)*

~daho-~sa-ri hi-ka
flatbread-lay-V.NOM.INFER COP-ASSERT.IMPERF
Somebody is making (baking) flatbread.

(5) **wa'i-~kida-~waha** [waʔík̃ínãw̃ãɦã́] *animal-PL-kill (hunt)*

tʉ-~be're ~bʉ'ʉ wa'i-~kida-~waha-sito-ta-ka
stick-COM 2SG animal-PL-kill-MOV.circular-come-PREDICT.
With this stick, you'll go around hunting.

While the great majority of examples of noun incorporation in Wanano would fall into Mithun's 'Type I' category, there is at least one example in the data which can be analyzed as belonging to her 'Type IV' category. These are cases in which 'the compound stem can be accompanied by a more specific external NP which identifies the argument implied by the incorporated noun' (Mithun, 1984:863). In other words, the resulting noun-incorporated verb

[1] I include here only cases where the NV compound is phonologically fused. If I were to analyze cases of juxtaposed but phonologically independent NV combinations as noun incorporation, I could give many more examples.

[2] Some speakers use verb **~sa**, the root for 'be/have inside,' in an alternate construction for 'egg-lay.'

is syntactically transitive and can take an independent NP as O. This is the case in 6 below, where the verb **~dabo-da're**, *wife-make* has the marked O **ti-~da-re**, *them*, identified subsequently as *young women from many different groups*, and referentially coded as O by the final **-re** morpheme on **~pho'da- ~dubi-a**, *young women.*

(6) **~dabo-da're** [nãmṍdaʔre] *wife-make*

O	**V**
ti-~da-re	**~dabo-da're-a-ta-a**
ANPH-PL-OBJ	wife-make-AFFEC-REF-ASSERT.PERF

		O	
phayʉ	**~basa**	**kuru-a**	**~pho'da- ~dubi-a-re**
many/a.lot	man	group-PL	children-female-PL-OBJ

(They) married them, young women from many different groups (tribes).

According to Mithun, by implicational hierarchy, languages which display 'Type IV' noun incorporation normally display 'Types I-III' as well, and further investigation may prove this to be the case in Wanano. So far, however, besides this singular example of 'Type IV' incorporation, I have identified only examples of 'Type I' incorporation, which suggests that Wanano may have once employed all types of incorporation more frequently, but that synchronically, only 'Type I' is productive. Certainly, noun incorporation will be a interesting issue to explore in detail in future studies.

6.2. Classes of verbs: stative

In this section I will discuss stative verbs as the first major semantic class of verbs in Wanano. My overall classification of verbs as stative/non-stative is based on evidence from verbal morphosyntax, basically, that stative and non-stative verbs have distinct morphological paradigms (which I discuss in sections 6.3.1. and 6.3.2. below). The subclassification of non-stative verbs is also based on evidence from verbal morphosyntax,

essentially that in the compounding processes which are so prevalent in the paradigm of non-stative verbal constructs, certain classes of verbs have specific semantic functions[3].

The following types of stative verbs will be discussed in this section: the copula verb **hi** [híi], *be/stay/exist*; the 'non-existential' verb, **~badia** [mãn̈ĩã]; the stative possessive verb **khʉa** [k^{h}ʉá], *have/hold*; locative or positional verbs; and finally, adjectival stative verbs. We saw in chapter 5, section 5.2. that verbs in this category are prototypically intransitive; in other words, they require only one nominal argument, the Subject. However, in section 5.5.1. we also saw a few cases of stative verbs in syntactically transitive clauses with marked Oblique Locative arguments.

6.2.1. Copula: hi

The form of the Wanano copula, **hi**, differs quite a bit even from the closest cognate forms in other ET languages, **~(a)di** (TUC, TUY, DES, TAT), having lost both nasality and what was most likely once an initial V syllable[4]. We shall see in section 6.7.3. below, however, that the cognate form ~**di** [n̈ĩ̈ĩ] is has been retained in Wanano in the auxiliary verb construction coding progressive actions. This suggests that Wanano **hi** is a more recent development from a single historical form, ~**di**, which still occurs in the Wanano progressive construction and is itself employed as the copula in other ET languages.

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[3] Only a few studies of ET languages propose classes of verbs. Morse and Maxwell distinguish between 'stative' and 'dynamic' verbs in Kubeo (1999:15), and Sorensen (1970:132-134) refers to classes of 'stative' and 'active' verbs in Tukano. Both these studies justify the distinctions based on morphological paradigms. In Ramirez's study of Tukano, he identifies the semantic classes of 'stative' 'position' (stative), 'adjectival' (also stative), 'active,' and 'process' verbs, although he later states that the only real distinction occurs in the morphological behavior of stative verbs in auxiliary verb constructions. (1997a:95;152)

[4] Other languages show even more distinct forms such as **~ya** (BAS, YUR) **ba** / **kʉ** (KUB) and **~ara** (SIR).

The Wanano copula **hi** is used, first of all, in constructions which code the *permanent states* or *attributes* of entities, as we see in 7. Predicates of the copula in such constructions are always nominals, either lexical nouns (7a), nouns derived from other nouns (7b-c) or nominalizations of verbs (7d-f). In 7e and f, the dependent verb **ti**, attributive *have*, is a constituent of the nominalizing construction *one-who-has-X*.

(7) a. **a'ri-ro** **hi-ra** **ba'a**
DEM:PROX-SG COP-VIS.IMPERF.NON.1 bass
This is a bass.

b. **yʉ'ʉ** **hi-ha** **ko-iro**
1SG COP-VIS.IMPERF.1 relative-NOM:SG
I am your/a relative.

c. **~dʉkʉ-~wati-ro** **hi-'a**
forest-evil.being-SG COP-ASSERT.PERF
He was a forest devil.

d. **ke-ro** **yoa-ri-ro** **hi-ka** **dasa**
beak-PART be.long-NOM-SG COP-ASSERT:IMPERF toucan
A toucan has a long beak. (Lit: A toucans is a long-beaked-one.)

e. **phoa-ri~yai-ti-ri-ro-wʉ'rʉ** **hi-a** **ti-ro**
hair-PL-be.bad-ATTRIB-NOM-SG-AUG. COP-ASSERT.PERF ANPH-SG
He was really hairy. (Lit: He was one-who-had-a-lot-of-hair.)

f. **ti-ro** **~dabo-ti-ri-ro** **hi-ra**
ANPH-SG wife-ATTRIB-NOM-SG COP-VIS.IMPERF.NON.1
He is married. (Lit: He's one-who-has-a-wife.)

Moreover, states of the weather, frequently coded with dummy Subjects in other languages, are often expressed by a nominal head and the copula in Wanano, as in 8.

(8) **si-ri** **dacho** **hi-ra**
be.hot-NOM day COP-VIS.IMPERF.NON.1
It's hot. (Lit: The day is hot.)

Second, the copula occurs in constructions which indicate states of *location*[5], whether permanent (9a-b) or temporary (9c).

(9) a. **ti-ro** **dia-pʉ** **hi-ka**
ANPH-SG river-LOC COP-ASSERT:IMPERF
It (bass) live in the water.

b. **yʉ'ʉ** **~bo** **~baka-ri-ro-pʉ** **hi-ha**
I Mo belong.to-NOM-SG-LOC COP-VIS.IMPERF.1
I am from Mo (Caruru Cachoeira). (Lit: I am a Mo-dweller/villager.)

c. **ti-~da** **ti** **wʉ'ʉ** **phi-ri-wʉ'ʉ-pʉ** **hi-ra**
ANPH-PL 3PL.POSS house be.big-NOM-house-LOC COP-VIS.IMPERF.NON.1
They (the women) were inside their house, the longhouse.

Finally, the copula functions to indicate *existence*, as in 10.

(10) a. **tia-ro** **~dubia** **hi-ra**
three-PART women COP-VIS.IMPERF.NON.1
There were three women (in the longhouse).

b. **bʉhʉ-~ida** **da-~ida-~ka** **ba'a-a** **hi-ka**
be.large-NOM:PL be.small-NOM:PL-DIM bass-PL COP-ASSERT:IMPERF
There are large and small bass.

c. **~phado-pʉ-re** **hi-ati-a** **~basʉ-yaka-~ida**
long.ago-LOC-TMP COP-IMPERF-ASSERT.PERF being-steal-NOM:PL
In olden times there used to be people-stealers.

6.2.2. Non-existence: ~badia

A common feature of ET languages is that they have at least one inherently negative stative verb indicating *non-existence*, or *not having*. In Wanano this verb is **~badia**[6],

[5] In sentence such as 9a, consultants often suggest *stay* rather than *be* as the most appropriate gloss.

[6] This verb is most likely not a rare case of a root with three morae, but the root **~badi** suffixed by a morpheme **-a**. However, I do not yet have an analysis of this final morpheme and thus have opted to give a single morphological gloss.

which has nearly exact cognates throughout the family[7]. 11a, taken from a conversation, and 11b-c, from texts, are examples of this special verb.

(11) a. **~bʉ ~ba-ko to hi-ro-pʉ-re ~bachu ~badia-ri**
2SG.POSS child-FEM 3SG.POSS COP-V.NOM-LOC-OBJ leafcutter.ant not.exist-INT
Weren't there any (edible) ants in your daughter's village?

~de ~badia-re
NEG not.exist-VIS.PERF.NON.1
No, there weren't.

b. **~bari-re chʉa ~badia-ra**
1PL.INC-OBJ food not.exist-VIS.IMPERF.NON.1
There isn't any food for us.

c. **~de ~badia-a to ~dabo-ro**
NEG not.exist- ASSERT.PERF 3SG.POSS wife-SG
His wife wasn't there.

6.2.3. Stative possession: khʉa

The examples in 12 show the verb **khʉa**, *have*, which codes the state of possession, though it is also used, less frequently, in the semantically related sense of *hold* as in 12g below[8]. Note that in 12b, **khʉa** is a constituent in a relative clause construction, and as such is nominalized.

(12) a. **~ayo ti-ro picha-kʉ khʉa**
so ANPH-SG shoot-CLS:tree hold/have
So, he (the father) had a shotgun . . .

[7] Cognates are labeled and glossed in different ways in the literature. Miller glosses the Desano cognate **bãra** as 'not.be' (Miller, 1999:110); Barnes glosses the Tuyuca cognate **bãd̃ɨ** as 'not.have' (Barnes, 1999:220). Ramirez lists two negative stative verbs in Tukano: **mãrí,** glossed as 'not be/exist' and **moó**, glossed as 'not have/possess.' (Ramirez, 1997a:154)

[8] According to Givón, possessive *have*-type verbs commonly develop from transitive *hold*-type verbs. Wanano is a clear example of a language with this kind of semantic link, as we find that the same verb has both meanings synchronically. The decision to analyze the verb with the stative meaning as primarily was the result of a greater number of occurrences in the data where the verb displayed these semantics.

b. **~da-boro'a** **ti** **~si'a-ri** **khʉa-ri-re**
bring/take-lower-ASSERT.PERF ANPH set.fire-NOM hold/have-NOM-OBJ
(They) took down the torches they had . . .

c. **~ayo** **~ose** **hi-a-re** **khʉa-ri** **a'ri-~da**
so DEIC:REF COP-PL-OBJ hold/have-INT DEM:PROX-PL
So! These people have ones (baskets) like this?

d. **~phuri-a** **khʉa-ri-ro** **hi-ra** **ti-ro**
poison-PL hold/have-NOM-SG COP-VIS.IMPERF.NON.1 ANPH-SG
They (pit vipers) are poisonous.

6.2.4. Locative / position

A fourth type of stative verb codes the position or location of an entity. 13 gives a sample of position verbs gleaned from the texts. We can see that stative position verbs can be stems for nominalizations (13a) or locative constructions (13b-c), or fully inflected verbs in finite clauses (13d-f).

(13) a. **duku** — *be standing*
duku-ri-ro
be.standing-NOM-SG
Someone standing up.

b. **phʉ'icha** — *be inside (something)*
ti **~khubu** **phʉ'icha-pʉ** **ti-~da** **hi-ati-ga**
ANPH log be.inside-LOC ANPH-PL COP-IMPERF-ASSERT.PERF
They were all inside the trunk.

c. **ka'a** — *be near*
~sʉ-a **to** **ka'a-i** **bʉe~dete** **khʉa-~doka**
arrive-ASSERT.PERF REM be.near-LOC bow hold/have- do/be.together
bʉea-yʉkʉ-ri **khʉa-ri-ro**
arrow-tree-PL hold/have-NOM-PART
He went up close (to him,) clutching a bow and arrows.

d. **~koa** — *be lying in (something)*
die-ro **pari-saba-pʉ** **~koa-ra**
dog-SG lake-mud-LOC be.lying.in-VIS.IMPERF.NON.1
The dog is lying in the mud.

e. **po'sa** — *be living inside (something)*
~o **wʉ'ʉ** **yoa-ro-se** **phi-ri** **~khubu**
DEIC:PROX house be.long-V.NOM-be.like be.big-NOM log
They made a kind of house in the big tree trunk.
ti **~khubu-pʉ** **ti-~da** **po'sa-ati-a**
ANPH log-LOC ANPH-PL live.inside-IMPERF-ASSERT.PERF
and were all living inside.

f. **pisa**
be on top of (something)

ti-ro **to-pʉ** **pisa-ga**
ANPH-SG REM-LOC be.on.top.of-ASSERT.PERF
He just sat up there (on the roof) . . .

to **ka'sa-ro-re** **~o-baro-i** **pisa-ruku-ga**
3s.POSS skin-PART-OBJ DEIC:PROX-far-LOC be.on.top.of-CONT-ASSERT.PERF
His skin was there draped over (a windowsill).

6.2.5. Adjectival

As we saw in chapter 3, Wanano has no lexical class of adjectives; rather, adjectival notions are expressed by stative verbs. These verbs are frequently, though not always, nominalized and function as the predicates of the copula verb, as in the examples below[9].

(14) a. **ke-ro** **yoa-ri-ro** **hi-ka** **dasa**
beak-PART be.long-NOM-SG COP-ASSERT:IMPERF toucan
A toucan has a long beak. (Lit: A toucans is a long-beaked-one.)(repeated from 7d)

b. **ti-~da** **ti** **wʉ'ʉ** **phi-ri-wʉ'ʉ-pʉ** **hi-ra**
ANPH-PL 3PL.POSS house be.big-NOM-house-LOC COP-VIS.IMPERF.NON.1
They (the women) were inside their house, the longhouse.(repeated from 9c)

c. **si-ri** **dacho** **hi-ra**
be.hot-NOM day COP-VIS.IMPERF.NON.1
It's hot. (Lit: The day is hot.) (repeated from 8)

d. **a'ri-ro** **~yaba** **phi-ri-ro** **hi-ra**
DEM:PROX-SG deer be.big-NOM-SG COP-VIS.IMPERF.NON.1
This is a big deer

e. **bʉhʉ-~ida** **da-~ida-~ka** **ba'a-a** **hi-ka**
be.large-NOM:PL be.small-NOM:PL-DIM bass-PL COP-ASSERT:IMPERF
There are large and small bass.(repeated from 10b)

Although adjectival stative verbs are usually nominalized, they can also be inflected by regular verbal morphology, as we see in the examples in 15. In 15a, the adjectival stative verb **sua**, *be angry*, is compounded with the motion verb **ta**, *come*, and made finite by the evidential suffix **-a**. In 15b and 15c, the adjectival stative verbs **wache**, *be happy*, and **kʉa**, *be frightened*, are the heads of finite 'change-of-state' constructions with the verb

[9] See chapter 4, section 4.3.4. for additional examples and a description of the morphological process by which nominals are derived from stative verbs.

wa'a (see more on these constructions in section 6.3.1.). Additionally, the adjectival stative in 15c takes the verbal intensifier morpheme **-yʉ'dʉ**.

(15) a. **ti-re** **thʉ'o** **ti-ro** **sua-ta-a**
ANPH-CLS:generic hear ANPH-SG be.angry-come-ASSERT.PERF

te **ti** **kha'a-pʉ**
all.the.way ANPH be.next.to-LOC
When he heard that, he raged off until he was there beside it (the log).

b. **ti-~da-re** **~waha** **ti-ro** **wache-a-wa'a-a**
ANPH-PL-OBJ kill ANPH-SG be.happy-AFFEC-become-ASSERT.PERF
He killed them (some monkeys), and he was happy.

c. **ti-ro** **kʉa-yʉ'dʉ-a-wa'a-a**
ANPH-SG be.frightened-INTENS-AFFEC-become-ASSERT.PERF
He became very frightened.

6.3. Morphological paradigms

I stated in the introduction to the discussion of stative verbs that a distinction can be made between stative and non-stative verbs based on their morphological paradigms. I will now discuss the paradigm for stative verbs, which will be contrasted in section 6.3.2. below with the more complex paradigm for non-stative verbs.

6.3.1. Morphology of finite stative verbs

The morphology of stative verbs is generally less complex than that of non-stative verbs. While the two obligatory morphological elements of a finite stative verb, as with any verbal construct in Wanano, are the lexical root and the final suffix coding clause modality[10], for stative verbs, only a limited number of *optional* morphemes tend to occur between these obligatory initial and final constituents. The paradigm for stative verbs can

[10] See chapter 7 for a full overview of the modality categories coded in verb-final morphemes.

be analyzed as a reduction of the full paradigm for non-stative verbs, as the morphemes listed in Chart 6.1. occur in both.

STEM					
SIMPLE Stative Verb Root	+4 NEG	+5 INTENS	+6 MOD	+7 ASP	+CLAUSE MOD.
	-era	**-yʉ'dʉ**	**-dua -bo** **-~ba -pe** **-~bʉ -ti**	IMPERF **-ati** PERF **-(k)a-wa'a**	EVIDENT IMPER INTERROG IRREALIS

CHART 6.1. MORPHOLOGY OF FINITE STATIVE VERBS

Though there are rare examples of a stative verb occurring with a compound stem, and with morphemes coding modality as in 16a, in the data, by far the most common optional morphemes which appear on stative verb roots are the negative morpheme **-era** (16b-c), and the morphemes coding the internal aspectual nature of the state. Imperfective is coded by the morpheme **-ati**, as in 16d-e. In 16d, it indicates a bounded yet durative state: something that *used to be*, while in 16e, the imperfective codes an ongoing state: *to be living inside*[11].

(16) a. **cho ~o-i-ta** **hi-~doka-bo-kapa**
Oh! DEIC:PROX-LOC-REF COP-COMPL-DUB-PREDICT
Oh, maybe he's here.

b. **~de ~bari phʉ-kʉ hi-era-ra**
NEG 1PL.INC.POSS parent-MASC COP-NEG-VIS.IMPERF.NON.1
This isn't our father.

c. **~de** **bahu-era-a**
NEG be.visible-NEG-ASSERT.PERF
It wasn't there anymore.

d. **~phado-pʉ-re** **hi-ati-a** **~basʉ-yaka-~ida**
long.ago-LOC-TMP COP-IMPERF-ASSERT.PERF being-steal-NOM:PL
In olden times there used to be people-stealers. (repeated from 10c)

[11] See section 6.5.1. below for more on **-era** and section 6.4.6.1. for more on **-ati**.

e. **~o wʉ'ʉ yoa-ro-se phi-ri ~khubu**
DEIC:PROX house be.long-V.NOM-be.like be.big-NOM log
They made a kind of house in the big tree trunk

ti ~khubu-pʉ ti-~da **po'sa-ati-a**
ANPH log-LOC ANPH-PL live.inside-IMPERF-ASSERT.PERF
and were all living inside. (repeated from 13e)

Adjectival statives can additionally take the morpheme **yʉ'dʉ**, which codes intensification (17a-b), and occur in the compound construction with the dependent verb **wa'a**, *go*, which I analyze as coding perfective aspect, as it indicates a change to a new internal (17a-c) or physical (17d) state[12]. (I gloss it as *become* when it has this semantic function).

(17) a. **ti-ro** **kʉa-yʉ'dʉ-a-wa'a-a**
ANPH-SG be.frightened-INTENS-AFFEC-become-ASSERT.PERF
He became very frightened. (repeated from 15c)

b. **~a-ta yoa ~kʉ-ta ~hida ti-ro**
so-REF do/make one-REF time ANPH-SG

phayu-ro **~si'di-~kha'a-yʉ'dʉ-a-wa'a-a**
caxiri.beer-PART drink-dream-INTENS-AFFEC-become-ASSERT.PERF
Then, one day he got really drunk on caxiri beer.

c. **ti-~da-re ~waha ti-ro** **wache-a-wa'a-a**
ANPH-PL-OBJ kill ANPH-SG be.happy-AFFEC-become-ASSERT.PERF
He killed them (some monkeys), and he was happy.

d. **ti-ko-ro-re ~kʉ sus'su-ro-se'-ta yoa-~bʉ-a**
ANPH-FEM-SG-OBJ one embrace-PART-be.like-REF do/make-do.quickly-ASSERT.PERF

ti-ko-ro-re **~sʉ'a-a-wa'a-ga**
ANPH-FEM-SG-OBJ stick.on-AFFEC-become-ASSERT.PERF
Quickly, just like an embrace, he stuck onto her.

[12] For more on the perfective function of **wa'a**, and the coding of affectedness by **-(k)a**, see sections 6.4.6.2. and 6.4.6.2.2. below.

6.3.2. Morphology of finite non-stative verbs

The full paradigm of verbal morphemes is given in Chart 6.2. Note that, while the basic components of a finite form are the same for both the stative and non-stative paradigms (a verbal root and a suffix coding clause modality), the *internal* morphology for non-stative verbs can be much more complex.

STEM								
SIMPLE	COMPLEX (6.3.3.)							
	+1	+2	+3	+4	+5	+6	+7	CLAUSE
	MAN	ASP	MOD	NEG	INTENS	MOD	ASP	MOD.
VerbR (indep)	**-wa'a** **-ta** **-ka'a** **-sito** **-~bʉ** **-~tidi**	**-~daka -doka** **-rʉka roka** **-ruku -~sidi** **-wi'i -~sʉ** **-bosa -tu'sʉ**	**-~basi** **-~kha'ba**	**-era**	**-yʉ'dʉ**	**-dua** **-bo** **-~ba** **-pe** **-~bʉ** **-ti**	**-ati** **-(k)a -wa'a**	EVIDENT IMPER INTERROG IRREALIS
	(6.4.2.)	(6.4.4.)	(6.4.8.)	(6.5.1.)	(6.5.2.)	(6.4.9.)	(6.4.6.)	(chapter 7)

CHART 6.2. MORPHOLOGY OF FINITE NON-STATIVE VERBS

Chart 6.2. summarizes the basic order and semantic categories of morphemes which regularly occur in finite non-stative verb constructions in Wanano (and gives the paragraph reference in which each category is discussed). The first four columns represent different categories of identifiable verb roots which can be compounded or serialized within a single verb stem which has a non-stative verb as its head. The leftmost column represents the initial *independent* verb root, which, as we saw in chapters 2 and 3, is the phonological head of the construction. All roots to the right of the independent root are analyzed as *dependent* roots due to the fact that they become phonologically fused with the independent root and dependent on it for tone, though each of the roots retains its underlying specification for

nasality[13]. Many, though not all, dependent roots can also function as independent roots and retain their bimoraic structure[14].

In the following sections I will describe subclasses of non-stative verbs, and will show that the classification is linked to the semantic functions of each class in compounding processes. We will see that motion verbs in dependent position code two types of information: *adverbial*, indicating some detail about the manner in which the action occurs; and *aspectual*, giving information as to the internal quality of the action. Verbs of perception and mental processes code *modal* information, indicating the speaker's ability or need (deontic) to perform the action.

Immediately following the lexical stem, which can be simple (a single verbal root) or complex (compounded roots), we find additional verbal morphemes coding negation, emphasis, and other kinds of modality and aspect. These morphemes, as with certain categories of nominal morphemes, display a higher degree of grammaticalization than do dependent roots. In section 6.6. below I show that these intermediate morphemes retain their inherent specification for the [± nasal] feature, but not for tone, and many of them are now monomoraic, evidence which suggests that these morphemes have quite likely derived from lexical roots which are no longer recoverable. All of the morphemes in these categories are bound.

The final column indicates morphemes coding clause modality, which is the topic of chapter 7.

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[13] For a discussion of the properties of different kinds of verbal morphemes, see section 6.6. below.

[14] There are some dependent roots, however, whose forms vary between a full and a reduced form, such as **ta/ta'a**, *come*, **~sa/~sa'a,** *move inside*, and ~**bʉ/bʉbʉ**, *do quickly*.

6.3.3. Compounds: issues and cross-linguistic information

I will give many examples of root + dependent root compounds in the sections which follow, but before we examine these occurences and discuss their semantic functions, I will point out some of the tendencies which occur in compounding processes and outline some of the issues which come up in analyzing them.

Overwhelmingly, two-root compounds such as those in 18 are the most common compounding pattern in Wanano, though a significant number of cases of verbs with more than two roots can be found in the data, as we see in 19.

(18) a. **ti** **bato-pʉ** **ti-koro** **wiha-ta'a-ga** **~hi'da**
ANPH be.last-LOC ANPH-FEM MOV.outward-come-ASSERT.PERF EMPH
Right at the end, the woman came out (of the hollow log).

b. **tʉ-re** **~ya'a-~daka-a**
stick-OBJ grab-do/be.together-ASSERT.PERF
He took the stick with him.

(19) a. **familia-re** **wese** **wa'a-~ida-re** **~do'o-i** **wa'a-~ida-re** **yaka**
family-OBJ garden go-NOM:PL-OBJ where-LOC go-NOM:PL-OBJ steal

~da-wa'a-ka'a **te** **~baka-roka-pʉ-re**
bring/take-go-do.moving until forest- DIST-LOC-OBJ
They would steal families going to their gardens or just people going anywhere, and carry them off into the forest.

b. **wa'i-~kida-~waha-ro-wa'a-ro** **thʉ-re** **~da-wa'a-ka'a**
animal-PL-kill-V.NOM-go-V.NOM stick-OBJ bring/take-go-do.moving
When he went hunting, he took the (magic) stick along . . .

c. **to** **~ba-kʉ-ro-~ka-re** **~da-wʉa-rʉka-ga**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy.

d. **ti-ro** **die-ro-re** **waha-wa'a-ka'a** **~so'o-ba'ro-pʉ**
ANPH-SG dog-SG-OBJ pull-go-do.moving DEIC:DIST-be.close.by-LOC
He dragged the dog off a little way . . .

When considering the semantics of root compounds, the first question that must be addressed is that of their semantic relationship. Which root is the head and which the

complement? We should recall from chapter 4 that in the case of noun compounds, the dependent root is the semantic head and the independent root the complement, as in **bu'eri-wʉ'ʉ**, *schoolhouse*. Does the same relationship hold true for verb root compounds?

The question of the semantic relationship between compounded roots in ET languages has been addressed in some way by Kaye (Kaye, 1970) and Miller (Miller, 1999) for Desano, Gomez-Imbert for Tatuyo and Barasana (Gomez-Imbert, 1988), and by Sorensen (Sorensen, 1969) and Ramirez (Ramirez, 1997a) for Tukano. However, while there is general agreement that compounds (alternately called independent-dependent roots, or nuclear-satellite roots) form a single phonological unit based on criteria such as stress (Miller, 1999:88) and tone (Ramirez, 1997a:171), there are differing views of the mechanics of how the semantics of verb-verb combinations blend.

In Kaye's analysis of Desano verb morphology, he refers to certain 'constituents' as potentially being verb roots themselves, and posits that some of these, such as the desiderative **dia**, should be analyzed as the syntactic head of the construction, so that a combination such as **waa-dia**, *go-want*, should be read as 'want to go' (Kaye, 1970:75-76). Miller, on the other hand, while affirming the existence of multiple root constructions, views the leftmost root as both the phonological and semantic head of the compound, so a combination such as **ãĩ-bũhũ**, *carry-cause.to.ascend*, should be read as 'carry up' (Miller, 1999:100). Ramirez, however, claims exactly the opposite for Tukano, stating that each root complements the root to its right. In a two-root combination, the leftmost, 'independent' root, though the phonological head of the combination, is the semantic complement to the dependent root which follows, so that a compound such **oho-mĩĩ**, *dive-take.out* should be read as 'take out (by) diving.' He does point out, however, that compounds with dependent

roots indicating motion or position should be interpreted as simultaneous, so that a combination such as **ba'â-siha**, *eat-walk* can be read as either 'to eat (while) walking' or 'to walk (while) eating' (Ramirez, 1997a:182).

Gomez-Imbert presents a more detailed analysis of the question and argues that while the leftmost 'nuclear verb' is complemented by the 'satellite verb' to its right, one cannot claim categorically that the linear sequence of roots dictates the semantic relationship between them. She claims that there are three possible relationships which can obtain in verb-verb combinations: a) a *direct* relationship between the sequential order of roots and the referential chronology, as in (Tatuyo) **páá-wáá**, *hit-divide.in.half,* read as 'to hit something round and divide it in two;' b) a *simultaneous* relationship between the actions designated by the two roots, as in (Barasana) **yî-~tîbá**, *do-be.fast,* read as 'do quickly;' and c) an *inverse* relationship, in which the sequential order of the elements corresponds to an inverse chronological order, so that (Tatuyo) **wéé-atî**, *paddle-come*, is read as 'to come (by) paddling.' These different readings are determined by combinations of the features of each root: whether intransitive or transitive, and if transitive, whether oriented to the Subject or Object of the clause. A direct relationship obtains when both the nuclear and satellite roots are transitive and orient to the Object. A simultaneous relationship obtains when the satellite verb is intransitive (thus having no effect on the valency of the nuclear root, which may be transitive or intransitive) and un-oriented, meaning that it merely indicates some spatial, aspectual, or adverbial quality of the nuclear root. Inverse relationships obtain in two kinds of combinations. First, inverse readings obtain when intransitive 'go/come' motion verbs are the satellite verbs; these verbs orient to the Subject of transitive or intransitive nuclear verbs and have no effect on valency. Second, inverse readings obtain when transitive modal

'know/order' verbs are the satellite verbs to either transitive or intransitive nuclear verbs; 'know' does not effect the valency of the nuclear verb, while 'order' determines it, but both share an orientation to the Subject of the nuclear verb (Gomez-Imbert, 1988:100-106).

Verb compounding is not addressed as such by Waltz and Waltz in their studies of Wanano. Verb roots which appear in a series are glossed as independent words; and verbal morphology is presented as categories of verbal suffixes which code evidentiality, future tense, interrogative and imperative moods, negation, finality and aspect (Waltz and Waltz, 1997:37-43).

My analysis views compounding as an essential component of verbal morphology and semantics in Wanano and, as such, worthy of extended examination. I adopt the terms independent/dependent verb from Ramirez to identify the linear position of verbal constituents in compounds, and will show that the different classes of verbs described in the following sections tend to have specific functions when used as dependent verbs. The following sections, then, will describe the general semantics of subclasses of non-stative verbs and their functions as dependent verbs in compounds, as well as the morphological patterns of the phrases in which they occur.

6.4. Classes of verbs: Non-stative

In the following sections, I will discuss different types of *non-stative* verbs, grouped together under the general heading *non-stative* to reflect the fact that the morphological paradigm in which they participate contrasts with that of stative verbs (as discussed in section 6.3. above). The major subcategories of non-stative verbs I will discuss are *active* verbs, verbs of *motion*, and verbs of *perception* and *mental processes*, identified as distinct because of the specific functions verbs from each category perform in compounding processes.

6.4.1. Activity

Many verbal roots in Wanano are activity verbs such as **~waha** *kill*, **soa**, *grind*, **da'ra**, *work*, and **chowe**, *vomit*. Activity verbs coding events and actions may be syntactically intransitive (20), transitive (21) or di-transitive (22), and prototypically have agentive Subjects[15].

(20) intransitive

a. **S**
~khadʉ-re **yʉ'ʉ** **da'ra-i**
yesterday-TMP 1SG work-VIS.PERF.1

S
ti-ro-se'e **dacho-puro** **~khari-re**
ANPH-SG-CONTR. day-QUANT:M sleep-VIS.PERF.NON.1
Yesterday I worked. He, on the other hand, slept all day.

b. **S**
~bʉ'ʉ **ba'a-~pha'a-re**
2SG swim-MOV.across-VIS.PERF.NON.1.
You swam across (a river).

c. **phi-ro-ta** **~sayo-a** **~basa-ro** **yoa-ro-se**
be.big-ADV-REF scream-ASSERT.PERF man-SG do/make-V.NOM-be.like

S
~phido-ro-wʉ'rʉ
snake-SG-AUG
The big snake screamed loudly like a person.

d. **S**
wese-re **phi'a** **chʉ-ka** **ti-ro**
garden-OBJ MOV.out.into eat-ASSERT:IMPERF ANPH-SG
He (the agouti) goes out into the garden and eats.

e. **S**
~ba-kʉ-~da-~ka **sipaka-pʉ** **pape-ra**
child-MASC-PL-DIM. door-LOC play-VIS.IMPERF.NON.1.
Children play outside.

[15] As discussed in chapter 5, sections 5.2., 5.3., and 5.4.

(21)

a. **S** **O**
ti-ro **tia-ro** **ka-ya-re** **~waha-a**
ANPH-SG three-PART black.monkey-PL-OBJ kill-ASSERT.PERF
He killed three monkeys.

b. **to-pʉ-re** **~dukʉ-pʉ** **hi-ro**
REM-LOC-OBJ virgin.forest-LOC COP-V.NOM

O **S**
wa'i-~kida-re **chʉ-ra** **ti-ro** **yai-ro**
animal-PL-OBJ eat-VIS.IMPERF.NON.1 ANPH-SG jaguar-SG
The jaguar eats animals living there in the forest.

c. **S** **O**
~phiro-ro-wʉ'rʉ **ti-ro-re** **chowe-rʉka-a**
snake-SG-AUG. ANPH-SG-OBJ vomit-INCEP-ASSERT.PERF
The big snake began to vomit him (the dog) up.

d. **DO** **S**
a'ri **thu-re** **hoa-ha** **~sa** **kooti-ri-a**
DEM:PROX CLS:stacked-OBJ write-VIS.IMPERF.1 1PL:EXC Wanano-NOM-PL
We Wananos are writing this book.

e. **S** **O**
~wiso-a **chʉ-ka** **bʉti-a** **dita-re**
squirrel-PL eat-ASSERT:IMPERF be.hard-PL only-OBJ
Squirrels eat hard things only.

f. **S** **O** **(and)** **O**
ti-ro-baro **~basa-re** **wa'i-~kida-re** **wa'a-~sʉ** **~wibi-ka**
ANPH-SG-kind man-OBJ animal-PL-OBJ go- COMPL suck-ASSERT:IMPERF
This kind (of biting fly) lands on people and animals and sucks (their blood).

(22) di-transitive

a. **O_1** **O_2**
~bʉ'ʉ **yahiri~pho'da-re** **yʉ'ʉ-re** **wa-ga**
2SG(POSS) heart-OBJ 1SG-OBJ give-IMPER
Give me your heart.

b. **O_2** **O_1**
ti-ro-re **tʉ-re** **wa-a**
ANPH-SG-OBJ stick-OBJ give-ASSERT.PERF
He gave him the stick.

c. **S** **O_1** **O_2**
yʉ'ʉ **wa'i-re** **do'a-bosa-i-ta** **~bʉ'ʉ-re**
1SG fish-OBJ cook-BEN-V.NOM-INTENT 2SG-OBJ
I'm going to cook the fish for you.

	O_2		O_1	
d.	**ti-ro-re**	**to-pu**	**khiti**	**ya'u-a**
	ANPH-SG-OBJ	REM-LOC	story	tell-ASSERT.PERF

They told him the story there.

Though activity verb roots can occur with incorporated nouns in compounds such as **~basu-yaka**, *people-steal / kidnap*, they seldom appear in dependent root position in verb-verb compounds. Because activity verbs occur almost exclusively in the independent root position in the verbal paradigm, they differ from the classes discussed in subsequent sections, which can occur as both independent roots and as dependent roots with specific semantic functions.

6.4.2. Verbs of motion

In this section I will discuss the basic semantics of motion verbs when they occur as the independent root in a Wanano verbal construct. Wanano has a number of different types of motion verbs. One subset of motion verbs is inherently directional, indicating movement *up* or *downhill, up* or *downriver*, another subset indicates relational movements *out of, into, across* or *toward* a referential point, while a third indicates *placement* or *positioning*. In sections 6.4.3. and 6.4.4. below, I will discuss the semantic functions of motion verbs used as dependent verbs.

6.4.2.1. Basic motion verbs

The most basic and frequently occuring motion verbs are **wa'a**, *go*, and **ta**, *come*, which code translocative and cislocative[16] motion. 23 and 24 give examples of these verbs used as the independent roots in verbal words.

[16] Terms as defined in Mithun (1999:139). In some of the literature on ET languages, such verbs are also labeled as 'centrifugal' and 'centripetal' respectively.

(23) **wa'a** [waʔá] *go*

a. **su'a-ro-pʉ-re** **wa'a-era-ati-ga**
go.into.the.brush-V.NOM-LOC-OBJ go-NEG-IMPERF-IMPER
Don't be going into the brush.

b. **to ~badu-ro pase-pʉ** **wa'a-a**
3SG.POSS husband-SG far.away-LOC go-ASSERT.PERF
Her husband left.

c. **~sa ~di-~ba-'a** **wa'a-wa'a ~hi'da**
1PL:EXC say-FRUST-ASSERT.PERF go-go EMPH

~ya-~ida hi-ra
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
She urged, "Let's escape. These (beings) are evil."

(24) **ta**[17] [táa] *come*

a. **~kʉ-iro** **ta-ro** **koa-ta-a** **~so'o-ba'ro-pʉ**
one-NOM:SG come-V.NOM NON.VIS-come-ASSERT.PERF DEIC:DIST-be.close.by-LOC
Someone was coming closer (he heard it).

b. **koro** **ta-chʉ** **du-ra**
rain come-SW.REF talk-VIS.IMPERF.NON.1
(Frogs) croak when it rains.

c. **~dubi-a ~ya'a-~ida** **ta-a** **~di-a**
woman-PL catch-NOM:PL come-V.NOM be.PROG-V.NOM

koa-ta-ra
NON.VIS-come-VIS.IMPERF.NON.1
Women-kidnappers are coming (she heard them).

d. **yʉ'ʉ ti-ro-re ~waha-~kha'ba-i** **ta-i** **~di-ha**
1SG ANPH-SG-OBJ kill-DEON-V.NOM come-V.NOM be.PROG-VIS.IMPERF.1
I'm coming here to avenge him.

25-29 give examples of other motion verbs from the text data, but these are by no means intended to represent an exhaustive list of motion verbs. This sample demonstrates that more generic motion verbs, such as **~bʉbʉ**, *go quickly/run*, **~tidi**, *wander/move around/walk,*

[17] The form of this verb varies between the full form **ta'a** [taʔá] (as in example 31 below) and the reduced form **ta** [táa]. It is not clear whether this is a fast speech phenomenon, an indication of a change in progress, or evidence of dialect variation, though there does seem to be a certain tendency for speakers from one village to use of the full form whereas consultants from another village tend to use the short form.

~dudu, *follow/chase*, and **sito**, *circular movement/go around doing something/do something here and there* occur frequently, while others, such as *slide*, *fly*, and *swim* are more context specific.

(25) **~bubu** [mŭmŭ́] *go quickly / run*

a. **~bubu-diha** **wa'a** **ya-ro-~ka**
go.quickly-go.down go belong.to-V.NOM-DIM.

du'ti-~bu **wihi-a**
hide-do.quickly go.outside-ASSERT.PERF
They quickly got down (from their own hammocks) and quickly hid outside.

b. **~ku-iro** **die-ro-~ka** **parita-ro-re** **~bubu** **bu'su** **thuti-a**
one-NOM:SG dog-SG-DIM. lake-PART-OBJ go.quickly shore bark-ASSERT.PERF
Then the little dog ran down to the shore of a lake and barked.

c. **ti-~da** **~bu-ruka-wa'a-ka'a** **~su** **~yu-a**
ANPH-PL go.quickly-INCEP-go-do.moving arrive see/look-ASSERT.PERF
They (the sons) went running, got there, and looked.

(26) **~tidi** [tĩnĩ́] *walk / move around / roam around (as when hunting)*

a. **dacho-re** **~tidi-ka** **ti-ro** **~baka** **chu-ro**
day-TMP walk-ASSERT:IMPERF ANPH-SG look/search.for eat-V.NOM
During the day, it (the anteater) goes around looking for food.

b. **ti-ro** **~tidi-ka** **yuku-ri** **bu'i-pu**
ANPH-SG walk-ASSERT:IMPERF tree-PL be.on.top.of-LOC
A squirrel moves around up in the trees.

c. **~de** **to-pu-re** **ti-pu-re** **~tidi-era-ha**
NEG REM-LOC-OBJ ANPH-LOC-OBJ walk-NEG-VIS.IMPERF.1
I never go hunting there in that place.

(27) **~dudu** [nŭnŭ́] *follow / chase*

a. **ti** **phu-ko-ro-re** **~kha'i** **~dudu-ti'a-ga**
3PL.POSS parent-FEM-SG-OBJ love follow-go.behind-ASSERT.PERF

te **to-pu**
all.the.way REM-LOC
They loved their mother and followed her all the way there (into the forest).

b. **die-ro** **~dudu-wa'a-ka**
dog-SG follow/chase-go-ASSERT:IMPERF
Dogs chase them (cotias).

(28) **sito** [sitó] *move in a circular fashion / run around*

a. **~yʉ-se-~baha-ri** **sito-ta-a**
see/look-PL-up.and.down-NOM MOV.circular-come-ASSERT.PERF

ti **yoa-ri-pa** **~dʉdʉ-sito-ta-a**
ANPH be.long-NOM-time follow/chase-MOV.circular-come-ASSERT.PERF
They (the dogs) ran around looking all over. They chased around for a long time.

b. **tʉ-~be're** **~bʉ'ʉ** **wa'i-~kida-~waha** **sito-ta-ka**
stick-COM 2SG animal-PL-kill MOV.circular-come-PREDICT.
With this stick, you'll go around hunting.

(29) **~sio** [sĩő] *slide* **wʉ** [wʉ́ʉ́] *fly* **ba'a** [baʔá] *swim*

a. **a'ri-a-se** **~sio-~bʉ** **wiha-ta-~da'a-ka'a**
DEM:PROX-3SG/PL-be.like slide-do.quickly MOV.outward-come-CMPL-do.moving
It (the snake) slid out, stretching itself out like this.

b. **a'ri-a** **wʉ-ri-a** **wʉ-ka** **~bidicha-~ka** **yoa-ro-se**
DEM:PROX-PL fly-NOM-PL fly-ASSERT:IMPERF bird-DIM. do-V.NOM-be.like
These planes fly like birds.

c. **thʉ** **ba'a** **~bʉ-wiha** **wa'a-a** **dia-pʉ** **kotia-ro-pʉ**
push swim MOV.quickly-MOV.outward go-ASSERT.PERF river-LOC current-PART-LOC
She pushed and quickly swam out into the river current.

6.4.2.2. Directional motion verbs

An interesting subset of motion verbs in Wanano are those which code movement in a specific direction, having, in a sense, an inherent Goal. The most common verbs of this type are ~**baha** [mãhấ] *go uphill*, **bu'a** [buʔá], *go downhill*, **bʉria** [bʉriá], *go downriver*, and **yoha** [johá], *go upriver*. These verbs express spatial orientations which are essential in the day-to-day life of the Wanano. Extensive travel is only possible on the river, and the Wanano, like other groups in the Vaupés social system, travel frequently to visit in-laws, participate in festivals, or take care of business in larger communities. Nowadays most travel is for pacific purposes, but in the past, wars, raids and wife-kidnapping were

common among neighboring groups, so knowing someone's origin or destination could be an indication of their possible intentions. Still today, part of each community's identity is related to its position on the river and in relation to other communities, and the habit of immediately identifying a person's direction of travel on the river or the direction from which a person is arriving persists and can indicate a wealth of known, or assumed, information[18].

The origin of the *up* and *downhill* directional verbs lies in the fact that the Wanano live on a river whose water levels fluctuate greatly from season to season—as much as 6-7 meters in the annual cycle which includes two periods of flooding and draining (Chernela, 1993:88). Thus, communities are strategically established on hills or on land elevated enough so as not to be flooded during periods of high water. Furthermore, an essential requirement of an adequate community location is that there be an accessible river port nearby. One or more paths from the community will lead to the port, and these paths are used continually throughout the day, as much of the business of daily life, such as washing and bathing, as well as all arrivals and departures occur at or near the port. Thus, when a speaker uses verbs such as ~**baha**, *go uphill*, or **bu'a**, *go downhill*, one automatically understands the movement to be between the river port and a dwelling, and these need not be explicitly mentioned. Such is the case in 30, from the *Curupira Who Came to the Man's House* . . . text. The evil, people-eating beings have arrived at a house in human form, but the woman of the house realizes that they are not human and probably intend to eat her and her children, so she devises a plan to escape. Making an excuse that she needs

[18] When traveling on the river, the first question you are asked on arrival in any community is whether you are 'subindo' or 'abaixando,' the Portuguese equivalents of these river-based directional verbs, and as soon as you tell someone your direction of travel, you immediately hear their hypothesis for what you're probably doing. For example, I was surprised to hear comments such as "Oh, you must be the one who's going to do the workshop with the Wanano" (on my way upriver the to Wanano communities).

to fetch some water with which to wash the fruit they have brought her, she heads to the port with her children and a big basin to use as a raft.

(30) **bu'a-a**
go.downhill-ASSERT.PERF

bu'a **~sʉ** **ti-~da-~ka-re** **to-pʉ** **phosa-a**
go.downhill arrive ANPH-PL-DIM-OBJ REM-LOC fill.up-ASSERT.PERF
She went down (to the port). When she got down there (at the port), she put the little ones in (the basin).

In 31, from the *Story of How our Ancestors Got Women* text, some men have arrived in a distant village in the middle of the night on a wife-kidnapping mission. From inside the longhouse (on higher ground), a woman hears them approaching (from downhill at the port).

(31) **~kʉ-ko-ro** **ti** **~baha-ta'a-chʉ** **thʉ'o-roka-a**
one/a-FEM-SG 3PL.POSS go.uphill-come-SW.REF hear- DIST-ASSERT.PERF
(From inside the longhouse) one woman heard them coming closer.

6.4.2.3. Relational motion verbs

Another subset of motion verbs in Wanano indicates movement in relation to a contextually-established reference point. 32 gives examples of relational motion verbs such as **phi'a** [pʰiʔá] *move out into* (32a), **~sa'a** [sãʔã́] *move inside* (32b-c), **wiha** [wihá] *move outward* (a person, as in 32d-e), and **~wio** [w̃ĩ́ṍ] *move outward* (32f). Information to aid the reader's understanding of the reference point established in the context is given in parentheses in the glosses.

(32) a. **ku'tu-~ka-pʉ-re** **phi'a-sʉ-'a**
clearing-DIM.-LOC-OBJ MOV.out.into- COMPL-ASSERT.PERF
He went out (of the forest) into a little clearing.

b. **ti-~dubi-a-re** **~ya'a** **tua-ro-~be're**
ANPH-woman-PL-OBJ catch be.fast-ADV-COM/INST

~bʉ-ruku-ta'a **~sa'a** **~ya'a-ati-a**
MOV.quickly-CONT-MOV.toward MOV.inside catch-IMPERF-ASSERT.PERF
They would kidnap women quickly, by surrounding (the longhouse) and then quickly running (inside) to catch them.

c. **wʉ'ʉ du'tuka-i** **~sa'a-~ba'do-ta**
house be.nearby-LOC MOV.inside- MOV.into-REF
(He) was just going into (the forest) near his house . . .

d. **yoa-ta-pʉ** **wiha** **tu'sʉ-ri** **hi-ra**
be.far-REF-LOC MOV.outward just.complete-V.NOM.INFER COP-VIS.IMPERF.NON.1
They've just escaped (from inside the longhouse into the surrounding forest).

e. **ti** **bato-pʉ** **ti-koro** **wiha-ta'a-ga** **~hi'da**
ANPH be.last-LOC ANPH-FEM MOV.outward-come-ASSERT.PERF EMPH
Right at the end, the woman came out (of the hollow log where she was held prisoner). (repeated from 18a)

f. **phore-ro-ka** **~wio** **~yʉ-rʉka-a**
make.hole-V.NOM-CLS:rounded MOV.outward see/look-INCEP-ASSERT.PERF
He made a hole (from inside a small shelter with leaf walls) and looked out.

As we saw in section 5.5.2 in chapter 5, certain relational verbs such as **kho'a** [$k^hoʔá$] and **thua** [$t^huá$] both *return*, and ~**sʉ** [sṹũ̃] *arrive*, are motion verbs which can occur in syntactically transitive clauses with Oblique arguments. In fact, ~**sʉ** is the motion verb which is most consistently transitive, perhaps because it is most commonly used to indicate arrival at a place that is new in the discourse (33a)[19]. It is also used to indicate the action of 'arriving' at or near a specific animate entity rather than a spatial location, as we see in 33b-c. However, 33d shows that this verb can also be used intransitively with a contextually implied or understood locative Goal.

(33) a. **ti-~da** **wese-pʉ-re** **~sʉ** **yʉkʉ-ri-re** **~kha-ra**
ANPH-PL garden-LOC-OBJ arrive tree-PL-OBJ chop-VIS.IMPERF.NON.1
Then when they arrive at the garden, they cut down the trees.

b. **~sʉ** **ti-ro-re** **phicha** **ba'a** **yoa-a**
arrive ANPH-SG-OBJ shoot do/be.after do/make-ASSERT.PERF
He went over/arrived (to the snake) and shot it.

[19] In contrast to **thua**, which implies arriving back at a previously established place.

c. **~sʉ-~doka** **to ~ba-kʉ-ro-~ka-re** **~so'o-pʉ ti-ro pape-ro**
arrive-COMPL 3SG.POSS child-MASC-SG-DIM.-OBJ DEIC:DIST-LOC ANPH-SG play-V.NOM

~bidicha-~ka-re bʉe-pe-ro ~di-a bʉaphi-~ba-'a
bird-DIM-OBJ shoot-FAV-V.NOM be.PROG-ASSERT.PERF motion-FRUST-ASSERT.PERF
She got close to her son, who was (on top of the house) shooting birds, and motioned to him.

d. **~sʉ-~doka-a** **ti-ro**
arrive-COMPL-ASSERT.PERF ANPH-SG
He soon arrived (home).

6.4.2.4. Verbs of placement

A special subset of verbs involving movement are those which indicate a deliberate positioning or placement of an object or entity. While certainly not a complete list, examples of such verbs in the data include verbs such as **dura** [durá] *put down* (34a), **bora** [borá] *fall down* (34b), **boro** [boró] *take down, lower*, ~**daba** [nãmɐ́] *turn over* (34c), **phayo** [p^{h}ajó] *spread out* (34c), **wʉa** [wʉá] *pick up*, and **tui** [tuí] *put in front of* (34d).

(34) a. **~o-baro-i ti-ro-re fantasma dura-phayo-ga**
DEIC:PROX-be.deep-LOC ANPH-SG-OBJ Curupira put.down-spread.out-ASSERT.PERF
They put down (some fruit) on top of the Curupira there inside (a big basket).

b. **bora-~sʉ-ka** **wa'a-ro** **koa-ta-a**
fall.down- COMPL-EMPH go-V.NOM NON.VIS-come-ASSERT.PERF
He fell right down. (lit: his falling down was perceived)

c. **khata-ro ~wiha sʉ'a-phayo**
flatbread.oven-PART set.fire.to sift-spread.out

ba'ro **~daba-~ha'-re** **phayo** **yoa-ha**
afterwards turn.over-RSLT-CLS:generic spread.out do/make-VIS.IMPERF.1
We light the fire and spread out the flatbread, and after it's turned over, we spread out another.

d. **to** **~ba-kʉ-ro-~ka-re** **~da-wʉa-rʉka-ga**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy.

pa-ko-ro-~ka-re **tui-~daka-a**
ALT-FEM-SG-DIM.-OBJ put.in.front.of-do/be.together-ASSERT.PERF
She put her little girl in front of her.

pita-~ba-pʉ **bu'a-wa'a-ga**
port-CLS:river-LOC go.downhill-go-ASSERT.PERF
They went down to the river port.

6.4.3. Motion verbs as dependent roots coding manner

If we return to the +1 column in Chart 6.2., we see frequently used dependent roots which code information about the manner in which an action occurs. The most frequently occurring of such adverbial-type dependent verbs are the motion verbs **wa'a**, *go*, and **ta**, *come*. As dependent verbs, **wa'a** and **ta** indicate that the action of the independent root was accomplished while physically moving away from (translocative motion) or toward (cislocative motion) the speaker or other fixed reference point.

These verbs commonly compound with the verb **~da** [nãã́], with the resulting meaning of *bring* or *take*, depending on the direction of motion coded by the dependent verb, as we see in the examples in 35.

(35) a. **~bʉ'ʉ** **chʉ-dua-re** **~da-ta-i**
2SG eat-DESID-OBJ bring/take-come-VIS.PERF.1
We brought you what you wanted to eat.

b. **to-i** **du'te-sito-ta-a.** **~da-ta-a**
REM-LOC chop.up-MOV.circular-come-ASSERT.PERF bring/take-come-ASSERT.PERF
He went around cutting leaves. He brought them back.

c. **familia-re** **wese** **wa'a-~ida-re** **~do'o-i** **wa'a-~ida-re** **yaka**
family-OBJ garden go-NOM:PL-OBJ where-LOC go-NOM:PL-OBJ steal

~da-wa'a-ka'a **te** **~baka-roka-pʉ-re**
bring/take-go-do.moving until forest- DIST-LOC-OBJ
They would steal families going to their gardens or just people going anywhere, and carry them off into the forest. (repeated from 19a)

d. **wa'i-~kida-~waha-ro-wa'a-ro thʉ-re** | **~da-wa'a-ka'a**
animal-PL-kill-V.NOM-go-V.NOM stick-OBJ | bring/take-go-do.moving
When he went hunting, he took the (magic) stick along . . .

However, these same motion verbs can combine with almost any verb root to indicate the spatial direction or orientation of the action, as we see in the examples in 36. We should also note that a motion verb can be the dependent root on another (independent) motion verb root, as in 36a **bu'a-wa'a**, *go.downhill-go*, 36f **wiha-ta'a**, *move.outward-come* and 36g **~baha-ta'a**, *go.uphill-come*.

(36) a. **pita-~ba-pʉ** | **bu'a-wa'a-ga**
port-CLS:river-LOC | go.downhill-go-ASSERT.PERF
They went down to the river port. (repeated from 34d)

b. **~dʉdʉ-wa'a-ka'a** | **ti-~da**
follow/chase-go-do.moving | ANPH-PL
They (the dogs) went chasing after it (an animal).

c. **ti-ro die-ro-re** | **waha-wa'a-ka'a** | **~so'o-ba'ro-pʉ**
ANPH-SG dog-SG-OBJ | pull-go-do.moving | DEIC:DIST-be.close.by-LOC
He dragged the dog off a little way. (repeated from 19c)

d. **~yabi-re pisʉ-ga ~di-chʉ**
night-TMP call-IMPER say-SW.REF

ti ora-re wati-ro | **pisʉ- ta'a-ga**
ANPH hour-TMP devil-sg | call-come-ASSERT.PERF
If you tell someone to call at night, the devil will come calling instead.

e. **ti-re thʉ'o ti-ro** | **sua-ta-a**
ANPH-CLS:generic hear ANPH-SG | be.angry-come-ASSERT.PERF

te ti kha'a-pʉ
all.the.way ANPH be.next.to-LOC
When he heard that, he raged off until he was there beside it (the log). (repeated from 15a)

f. **ti bato-pʉ ti-koro** | **wiha-ta'a-ga** | **~hi'da**
ANPH be.last-LOC ANPH-FEM | MOV.outward-come-ASSERT.PERF | EMPH
Right at the end, the woman came out (of the hollow log). (repeated from 18a)

g. **~kʉ-ko-ro ti** | **~baha-ta'a-chʉ** | **thʉ'o-roka-a**
one/a-FEM-SG 3PL.POSS | go.uphill-come-SW.REF | hear- DIST-ASSERT.PERF
One woman heard them coming closer. (repeated from 31)

The motion verb **sito** is another good example of how motion verbs in dependent position code the manner of the action of the independent verb. As an independent verb, **sito** means to *move in a circular fashion* or *run around*; as a dependent verb, it indicates that the action of the independent verb was repeated *here and there* or *go around doing X*.

(37) a. **~yʉ-se-~baha-ri** **sito-ta-a**
see/look-PL-up.and.down-NOM MOV.circular-come-ASSERT.PERF

ti **yoa-ri-pa** **~dʉdʉ-sito-ta-a**
ANPH be.long-NOM-time follow/chase-MOV.circular-come-ASSERT.PERF
They (the dogs) ran around looking all over. They chased here and there for a long time. (repeated from 28a)

b. **to-i** **du'te-sito-ta-a**
REM-LOC chop.up-MOV.circular-come-ASSERT.PERF
(He) went around cutting leaves. (repeated from 35b)

Another frequently occurring motion verb which codes a manner distinction when used as a dependent root is **~bʉbʉ**, *go quickly*. As a dependent verb (often in reduced form **~bʉ**), it has a more general adverbial meaning *do quickly*. We can see from the two instances of **~bʉ**(**bʉ**) in 38 that, like the other motion verbs discussed so far in this section, **~bʉbʉ** can function as both a dependent and an independent verb.

(38) **~bʉbʉ-diha** **wa'a** **ya-ro-~ka**
MOV.quickly-go.down go belong.to-V.NOM-DIM.

du'ti-~bʉ **wihi-a** **wa'a-wa'a-a** **ti-~da**
hide-do.quickly go.outside- ASSERT.PERF go-go-ASSERT.PERF ANPH-PL
They quickly got down (from their own hammocks) and quickly went to hide outside.

There are, however, some motion verbs used adverbially which occur strictly as dependent verbs. One such verb is **-ka'a**, which indicates that the action is done *while moving continuously*. Given its specific semantics, it frequently occurs as the final root in compounds of three verb roots, as we see in the examples in 39.

(39) a. **familia-re** **wese** **wa'a-~ida-re** **~do'o-i** **wa'a-~ida-re** **yaka**
family-OBJ garden go-NOM:PL-OBJ where-LOC go-NOM:PL-OBJ steal

~da-wa'a-ka'a **te** **~baka-roka-pʉ-re**
bring/take-go-do.moving until forest- DIST-LOC-OBJ
They would steal families going to their gardens or just people going anywhere, and carry them off into the forest. (repeated from 19a)

b. **~dʉdʉ-wa'a-ka'a** **ti-~da**
follow/chase-go-do.moving ANPH-PL
They (the dogs) went chasing after it (an animal). (repeated from 36b)

c. **ti-ro** **die-ro-re** **waha-wa'a-ka'a** **~so'o-ba'ro-pʉ**
ANPH-SG dog-SG-OBJ pull-go-do.moving DEIC:DIST-be.close.by-LOC
He dragged the dog off a little way. (repeated from 19c)

40 lists other motion verbs of the 'relational' subclass and exemplifies the extended manner-type semantics they add to the verbal action when employed as dependent verbs.

(40) a. **~ba'do**
move into, penetrate
~bʉ-~sa'a-~ba'do
MOV.quickly-MOV.inside-MOV.into
quickly reaching into (something)

b. **-diha**
move/get down from
~bʉbʉ-diha
MOV.quickly-go.down
quickly getting down (from something like a hammock)

c. **-~pha'a**
move across
~bʉbʉ-~pha'a
MOV.quickly-MOV.across
run crossing

d. **~sa'a**
move inside
~bʉbʉ-~sa'a
MOV.quickly-MOV.inside
run entering

e. **-bʉ'a**
move downward
~yʉ-bʉ'a
see/look-MOV.downward
looking down

f. **-~tidi**
do repeatedly
~yu-~tidi
visit-do.repeatedly
go visiting

h. **-~wio**
move outward
~yu-i~wio
look-LOC-MOV.outward
looking out

Finally, like other motion verbs, verbs of placement can be used as dependent verbs to express the manner in which an action was accomplished. In 41a, the action of getting the torches involves *lowering*, as indicated by the dependent verb **boro** [boro] *lower*. 41b is part of a description of the process of flatbread making, which involves sifting manioc meal onto a large flatbread oven. When done in the proper manner, this sifted manioc meal should be *evenly spread out*, as indicated by the dependent verb **phayo**. Finally, in 41c, the manner in which the woman gets her child is by *picking him up*, as indicated by the dependent verb **wʉa**, *pick up.*

(41) a. **~da-boro-'a** **ti** **~si'a-ri** **khʉa-ri-re**
bring/take-lower-ASSERT.PERF 3PL.POSS set.fire.to-NOM hold/have-NOM-OBJ
They took down the torches they had[20].

b. **khata-ro** **~wiha** **sʉ'a-phayo**
flatbread.oven-PART set.fire.to sift-spread.out

ba'ro **~daba-~ha'-re** **phayo** **yoa-ha**
afterwards turn.over-RSLT-CLS:generic spread.out do/make-VIS.IMPERF.1
We light the fire and spread out the flatbread, and after it's turned over, we spread out another.

c. **to** **~ba-kʉ-ro-~ka-re** **~da-wʉa-rʉka-ga**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
(She) picked up her little boy. (repeated from 18c)

By contrasting these examples with those in 36, we can conclude that dependent verbs of motion in compounds with other classes of verbs attach a motion 'feature' to the action of the independent verb. In compounds of two motion verbs, the result is a refined specification of the motion coded by the independent verb; the semantics of the compounded roots 'fuse' into a singular, more specified action.

[20] Household items and utensils are often hung or stored on shelves in the open space under the rafters in Wanano dwellings.

6.4.4. Motion verbs as dependent roots coding aspect

A second major function of dependent roots in general is to code internal aspectual qualities of an action or state—its inception, completion, duration, repeated or continuous realization or its direct relation to a temporal reference, just to name a few. Verbs which code aspectual distinctions often, though not exclusively, come from the semantic class of motion and position verbs. Some of these verbs can occur as both independent and dependent roots while others occur only in the dependent root position. The most commonly occurring dependent roots coding aspect are shown in the +2 morphological position on Chart 6.2.

Among the most frequently occurring dependent roots with aspectual functions are those given and exemplified in 42-46. The first three of these roots: **ruku**, **rɯka**, and **roka** all undergo an interesting phonological reduction. In each, the initial vowel is completely devoiced before the unvoiced consonant /k/, disappearing in normal speech and resulting in what sounds like a [r^{h}k] consonant cluster[21].

The first verb in this group is **ruku**, *to stand*, which, when used as a dependent verb, adds the aspectual meaning of a continuous action or state. In 42a, it indicates that the two protagonists began to have an extended conversation; in 42b, it indicates the continuous movement of surrounding; in 42c, it is used with a verb of placement and indicates that an

[21] Because the initial vowels are devoiced and the final vowels are similar, it is often quite difficult to hear which of these dependent verbs is actually being used, though context and residual lip movement can be useful indications. I am grateful to Nathan Waltz for pointing out some of the semantic differences between these similar forms and for his indication (in personal communication) of the original full verbs.
These roots are among the most frequently employed dependent verbs and already display evidence of phonological reductions which indicate a higher degree of grammaticalization. As these roots grammaticalize further toward suffix status, I believe that not only will the vowels be completely lost, but eventually also the initial /r/, given the restriction on consonant clusters in Wanano. Synchronically, speakers already often do not identify the existence of the first vowel when asked about it, nor do they indicate one in their writing.

object has been deliberately put in a specific place or position; and, in 42d, we see vestiges of its original sense of *standing*.

(42) **-ruku** [r^{h}ku] *stand; do continuously*

a. **~a-ta yoa ti-ro-~be're du-ruku-a yoa-a**
so-REF do/make ANPH-SG-COM/INST talk-CONT-V.NOM do/make-ASSERT.PERF
So, the man started talking with the Curupira.

b. **ti-~dubi-a-re ~ya'a tua-ro-~be're**
ANPH-woman-PL-OBJ catch be.fast-ADV-COM/INST

~bu-ruku-ta'a ~sa'a ~ya'a-ati-a
MOV.quickly-CONT-MOV.toward MOV.inside catch-IMPERF-ASSERT.PERF
They would kidnap women by quickly surrounding (the longhouse) and catching them (inside). (repeated from 32b)

c. **to ka'sa-ro-re ~o-baro-i pisa-ruku-ga**
3s.POSS skin-PART-OBJ DEIC:PROX-far-LOC be.on.top.of-CONT-ASSERT.PERF
His skin was there draped over (a windowsill). (repeated from 13f)

d. **ti-ro bola-ro-wu'ru wa'ka-ruku-~su bahua-~doka-a**
ANPH-SG Curupira-SG-AUG. ~wake.up-stand- COMPL appear-COMPL -ASSERT.PERF
The big Curupira woke up and appeared (stood) right there before him.

The verb **ruka**, *to begin*, is one of the dependent roots coding aspect which is not from the class of motion verbs. It has similar semantics when occurring as an independent or a dependent verb in that it codes the beginning or inception of an action. However, speakers also say that it can indicate that the action begins quickly, as in 43c, suggesting there may have been a 'movement' component to its original semantics.

(43) **-ruka** [r^{h}ka] *begin; inception*

a. **ti-~da ~bu-ruka-wa'a-ka'a ~su ~yu-a**
ANPH-PL go.quickly-INCEP-go-do.moving arrive see/look-ASSERT.PERF
They (the sons) went running, got there, and looked.(repeated from 25c)

~phiro-ro-wu'ru ti-ro-re chowe-ruka-a
snake-SG-AUG. ANPH-SG-OBJ vomit-INCEP-ASSERT.PERF
The big snake began to vomit him (the dog) up. (repeated from 21c)

to ~ba-ku-ro-~ka-re ~da-wua-ruka-ga
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy. (repeated from 19c)

The third verb in this group is **roka**, *to throw* or *project*, again, a verb whose semantics involve motion. When used as a dependent verb, **roka** adds not only aspectual meaning but a deictic element to the action of the independent root. It indicates that the action or state takes place *at*, *toward*, or *from a distance*. In 44a, it connotes an outwardly-exploding motion; in 44b and c, it implies things literally thrown away or gotten rid of; and, in 44d, it is used with the copula in a nominalization indicating a far-off place, *out/off/in the middle of the forest*.

(44) **-roka** [r^{h}ka] *do/be at a distance*

a. **to dapu waro-i** **phicha-wa'a-roka-a**
3SG.POSS head EMPH-LOC shoot-go- DIST-ASSERT.PERF
The snake's head exploded (when it was shot).

b. **du'te-ta** **~khoa-roka-a**
chop.up-REF throw- DIST-ASSERT.PERF
He cut it into pieces and threw them apart.

c. **~waha-~ida** **~khoa-roka-a** **chʉ-~doka-a**
kill-NOM:PL throw- DIST- ASSERT.PERF eat-COMPL-ASSERT.PERF
The murders killed them and got rid of them, or ate them up.

d. **ti-~da hi-ra dia-pʉ**
ANPH-PL COP-VIS.IMPERF.NON.1 river-LOC

~baka-roka-pʉ ~baka-~ida
forest- DIST-LOC belong.to-NOM:PL
Some (turtles) live in the river, and some live far off in the forest (lit: are forest-dwellers).

Similar to the position verb **ruku**, *stand*, which codes continuous aspect when used as a dependent verb, the verb **duhi**, *sit*, when employed as a dependent verb, codes durative aspect, indicating that the activity or action goes on for an extended period of time. 45a, in which **duhi** appears first as an independent verb and is later used as a dependent verb, is part of a description of a Wanano festival. Such festivals, in fact, begin in the late afternoon and go on all night long, with people sitting around the longhouse, drinking caxiri beer, talking,

playing instruments and dancing until dawn. 45b is from a description of a howler monkey, who uses its tail for balance while it eats.

(45) **-duhi** [duhí] *sit; do for a period of time*

a. **chʉ-tu'sʉ** **ti-~da** **duhi-~sʉ** **du-ruku-duhi** **~si'dia-re**
eat-just.complete ANPH-PL sit-COMPL speak-CONT-DUR caxiri.beer-OBJ
As soon as they're done eating, they sit down, converse, drink caxiri beer . . .

b. **~ebo** **to** **~phicho-ro-~be're** **~wa'ba-duhi-~sʉ** **chʉ-ka**
howler.monkey 3SG.POSS tail-PART-COM/INST wrap-DUR-COMPL eat-ASSERT:IMPERF
A howler monkeys wraps its tail (around a branch) to eat.

In section 6.4.2.1., we saw that Wanano codes the translocative (movement away from) / cislocative (movement toward) distinction in the motion verbs **ta**, and **wa'a**. It also codes the distinction between translocative and cislocative *arrival* in the motion verbs **~sʉ**, *arrive there* (at a place away from the speaker or a fixed reference point), and **wi'i**, *return*, (arrival back to the speaker's location or a fixed reference point). Examples of these verbs used as the independent verb are given in 46a and 47a. As with so many other motion verbs, when used as dependent verbs, **~sʉ** and **wi'i** function to give aspectual information: they indicate that the translocative or cislocative motion of the independent verb is complete, as we see in 46b-c and 47b-c.

(46) a. **to-pʉ** **~sʉ** **~yʉ** **~baka-~ba-'a**
REM-LOC arrive see/look look/search.for-FRUST-ASSERT.PERF
He got there and looked, searching all over.

b. **bora-~sʉ-ka** **wa'a-ro** **koa-ta-a**
fall.down- COMPL-AFFEC go-V.NOM NON.VIS-come-ASSERT.PERF
He fell right down. (lit: his falling down:non-visual perception)
(repeated from 34b)

c. **ti-ro** **bola-ro-wʉ'rʉ** **wa'ka-ruku-~sʉ** **bahua ~doka-a**
ANPH-SG Curupira-SG-AUG. ~wake.up-stand- COMPL appear-COMPL -ASSERT.PERF
The big Curupira woke up and appeared (stood) right there before him.(repeated from 42d)

(47) a. **ti-ro ti phʉ-ko-ro-pʉ-re** **wi'i** **~sʉ'a-ga**
ANPH-SG 3PL.POSS parent-FEM-SG-LOC-OBJ arrive stick.onto-ASSERT.PERF
He (came up to and) stuck onto their mother.

b. **~ayo ~o-pʉ-re yʉ'ʉ** **kho'a-wi'i-kʉ-ka**
so/then DEIC:PROX-LOC-OBJ 1SG return-COMPL-NON.3.MASC-PREDICT.
That's how I'll get back here.

c. **ti ~dubi-a wa'a-ri-ba'ro-pʉ ~dubi-a ~ya'a-ri-~basa**
ANPH woman-PL go-NOM-afterwards-LOC woman-PL catch-NOM-man

peri ~bʉbʉ **~sa-wi'i-'a**
all go.quickly go.inside-COMPL-ASSERT.PERF
Just after the women's escape, all the kidnappers came quickly in (the longhouse).

6.4.5. Other dependent roots coding aspect

We have seen in the previous section that a great number of motion verbs function, when employed as dependent roots, to code aspectual distinctions. However, there are additional means of coding aspect in the morphological paradigm which I will now discuss. Most of these morphemes are also full verb roots, though some occur only in dependent verb position. One such root is **-~doka,** which indicates that the action is *complete* or *permanent*, as we see in the examples in 48.

(48) **-~doka** [nõkã] *do completely* or *permanently*

a. **~sʉ-~doka-a** **ti-ro**
arrive-COMPL-ASSERT.PERF ANPH-SG
He soon got all the way home.

b. **~bʉbʉ-~sa'a** **wi'i-~doka-a**
go.quickly-MOV.inside arrive-COMPL-ASSERT.PERF
They all quickly ran inside.

c. **pate-~da ti-~da** **~boyo-~doka-ati-a**
sometimes-PL ANPH-PL fail-COMPL-IMPERF-ASSERT.PERF
But sometimes they would be totally unsuccessful.

buti-~doka-a **ti-~da**
disappear- COMPL-ASSERT.PERF ANPH-PL
They had disappeared.

d. **ti-ro bola-ro-wɯ’rɯ wa’ka-ruku-~sɯ bahua ~doka-a**
ANPH-SG Curupira-SG-AUG. ~wake.up-stand- COMPL appear-COMPL -ASSERT.PERF
The big Curupira woke up and appeared (stood) right there before him.(repeated from 42d)

Another verb root which occurs only as a dependent verb is **-~daka,** which indicates that the action involves the Subject *together with* some other object or entity, as in the examples in 49.

(49) **-~daka** [nãkã] *do/be together*

a. **ti-ro-re ~da-~daka-a ti-ro thua-a**
ANPH-SG-OBJ bring/take-do/be.together-ASSERT.PERF ANPH-SG return-ASSERT.PERF
He took it (the dead jacu bird) with him. He went back home.

b. **tɯ-re ~ya’a-~daka-a**
stick-OBJ grab-do/be.together-ASSERT.PERF
He took the stick with him.

c. **pa-ko-ro-~ka-re tui-~daka-a**
ALT-FEM-SG-DIM.-OBJ put.in.front.of-do/be.together-ASSERT.PERF
She put her little girl in front of her.

pita-~ba-pɯ bu’a-wa’a-ga
port-CLS:river-LOC go.downhill-go-ASSERT.PERF
They went down to the river port.(repeated from 34d)

The dependent verb **-~sidi** gives a different kind of aspectual information in that it associates the action with a specific referential time. In 50a, the reference time is the moment of speech, while in 50b, the action, *passing out*, takes place exactly following and as a result of the protagonists previous action of running into each other head on. In 50c and d, the reference is a more generalized current time, *now*, or *nowadays*.

(50) **-~sidi** [s̃ĩnĩ] *do at the moment; do yet/still*

a. **yɯ’ɯ ~bicha-~ka-~ka-re ~kɯ khiti ya’u-~sidi-ta-i ~di-ha**
1SG today-DIM-EMPH-TMP one story tell-do.at.moment-REF-V.NOM be.PROG-VIS.IMPERF.1
I’m going to tell you a little story right now.

b. **yu’dɯ-ka wa’a-~sidi-a ti-~da**
pass.out-ASSERT:IMPERF go-do.at.the.moment-ASSERT.PERF ANPH-PL
They passed out right then.

c. **ti-re** **yʉ'ʉ** **~bi-pʉ-re** **~de** **bo-era-~sidi-ka**
ANPH-CLS:generic 1SG now-LOC-TMP NEG forget-NEG-do.yet/still-ASSERT:IMPERF
That, I have never forgetten.

d. **~bi-pʉ-~ka-re** **yoa-~sidi-ra**
now-LOC-EMPH.-TMP do/make-do.yet/still-VIS.IMPERF.NON.1

~a yoa **ti-~da** **~kha'ba-phiti-boka**
so do/make ANPH-PL do.RECIP-COLLECT-meet
Nowadays, they still do that. Everybody gets together (for festivals).

The verb **tu'sʉ** [tuʔsɨ́], which means *finish* when used as an independent verb, also codes aspectual information when used as a dependent verb. Its use indicates that the action of the independent verb has *recently* or *just* been completed, as we see in the examples in 51.

(51) a. **ti-ro-re** **~waha-tu'sʉ** **chʉ-ro-pʉ** **~di-a**
ANPH-SG-OBJ kill-just.complete eat-V.NOM-LOC be.PROG-ASSERT.PERF
(The snake) had just killed the dog and was already eating it.

b. **~bari** **phʉ-kʉ** **ta-tu'sʉ-ro** **koa-ta-ka**
1PL.INC parent-MASC come-just.complete-V.NOM NON.VIS-come-ASSERT:IMPERF
(I heard) our father's just arrived. (Lit: his arrival)

c. **~bi-pʉ-re** **yʉ'ʉ** **chʉa** **boka-tu'sʉ-ha** **thua-i** **~di-ha**
now-LOC-TMP 1SG food find-just.comp.-VIS.IMPERF.1 return-V.NOM be.PROG-VIS.IMPERF.1
Now I've found food (and/so) I'm going home.

d. **yoa-ta-pʉ** **wiha-tu'sʉ-ri** **hi-ra**
be.far-REF-LOC MOV.outward-just.complete-V.NOM.INFER COP-VIS.IMPERF.NON.1
They've gone (they've escaped). (repeated from 24e)

6.4.6. Imperfective and perfective aspect

Moving from the lefthand to the righthand part of Chart 6.2., in the +7 column we see morphemes which code grammatical imperfective or perfective aspect. The distinction between perfective and imperfective aspects is understood here to be one of perspective focus '. . . on termination and boundedness' for the perfective, and '. . . away from termination and boundedness' for the imperfective, which includes progressive or durative processes as well as habitual or repetitive events (Givón, 2001a:288-289).

6.4.6.1. Imperfective: -ati

Grammatical imperfectivity in Wanano is coded by the morpheme **-ati**. The interaction of this morpheme and the inherent properties of stative or non-stative verbs creates some interesting semantic distinctions. For example, we saw in Charts 6.1. and 6.2. that **-ati** occurs in both verbal paradigms. The combined use of the imperfective **-ati** with clause-final perfective suffixes on a stative verb or a verb of mental processes (described in section 6.4.7. below) yields readings of bounded yet durative states that *used to be* (52a-b) and processes that *went on for a period of time* (52c-d). The same combination of morphemes on activity verbs yields readings of habituality or repetitiveness (52e-g).

(52) a. **~phado-pʉ-re** **hi-ati-a** **~basʉ-yaka-~ida**
long.ago-LOC-TMP COP-IMPERF-ASSERT.PERF being-steal-NOM:PL
In olden times there used to be people-stealers. (repeated from 10c)

b. **yʉ phʉ-kʉ ~bʉ'do hu-ri-ro** **hi-ati-~ba-re**
1SG.POSS parent-MASC tobacco smoke-NOM-SG COP-IMPERF-FRUS-VIS.PERF.NON.1
My dad used to be a smoker.

c. **ti-ko-ro to ~dabo-ro** **chʉ-dua-ati-ga** **wa'so-re**
ANPH-FEM-SG 3SG.POSS wife-SG eat-DESID-IMPERF-ASSERT.PERF siringa.fruit-OBJ
The woman, his wife wanted to eat siringa fruit. (lit: *was wanting*)

d. **ti-re yʉ'ʉ pate~di** **~waku-ati-i**
ANPH-OBJ 1SG sometimes-be.PROG remember-IMPERF-VIS.PERF.1
I think about that sometimes.

e. **ti-~dubi-a-re ~ya'a tua-ro-~be're**
ANPH-woman-PL-OBJ catch be.fast-ADV-COM/INST

~bʉ-ruku-ta'a ~sa'a **~ya'a-ati-a**
MOV.quickly-CONT-MOV.toward MOV.inside catch-IMPERF-ASSERT.PERF
They would kidnap women by quickly surrounding (the longhouse) and catching them (inside). (repeated from 32b)

f. **pate-~da ti-~da** **~boyo-~doka-ati-a**
sometimes-PL ANPH-PL fail- COMPL-IMPERF-ASSERT.PERF
But sometimes they would be totally unsuccessful. (repeated from 48c)

g. **yʉ'ʉ-se'e** **bu'e-wa'a** **yoa-ati-i**
1SG-CONTR. study/learn-go do.make-IMPERF-VIS.PERF.1
I, on the other hand, was always going away to study.

In clauses with motion or position verbs and a plural Subject, the use of the imperfective often has a distributive reading. In 53a, for instance, it indicates the same location or position for each individual in the collective; in 53b, it shows that all three boys were doing the chasing; and, in 53c, the imperative is addressed to the second person plural, and the admonition is equally distributed to all addressees.

(53) a. **ti ~khubu phʉ'icha-pʉ ti-~da hi-ati-ga**
ANPH log be.inside-LOC ANPH-PL COP-IMPERF-ASSERT.PERF
They were all inside the trunk. (repeated from 13b)

b. **ti-~da ~dʉdʉ-ati-ga ~kʉ-iro ~wa'bʉa-ta-ri-ro**
ANPH-PL follow/chase-DISTR-ASSERT.PERF one-NOM:SG adolescent-REF-NOM-SG

do'kai pa-iro tia-ro to ~pho'da hi-a
boy ALT-NOM:SG three-SG 3SG.POSS children COP-ASSERT.PERF
They chased (after their mother). One adolescent, a younger boy, and another one; (they were) her three sons.

c. **su'a-ro-pʉ-re wa'a-era-ati-ga**
go.into.the.brush-V.NOM-LOC-OBJ go-NEG-IMPERF-IMPER
Don't be going into the brush. (repeated from 23a)

6.4.6.2. Perfective: wa'a

Grammatical perfectivity in Wanano is coded in two ways. The first, involving the verb **-wa'a**, *go*, as a dependent root will be addressed in this section. The second, an analytical construction involving the auxiliary verb **yoa**, *do*, will be described in section 6.7.1. below.

We have already seen that **wa'a**, *go* has several functions in Wanano: as an independent verb, it codes simple translocative motion (section 6.4.2.1.), and as a dependent verb, it can indicate the directionality of an associated action (section 6.4.3.). Furthermore, in section 6.3.1., we saw that in compounds with stative verbs, **wa'a** codes change to a new state, an essentially perfective function. The examples in 54 demonstrate its perfective function on certain classes of non-stative verbs as well. We should note, however, that both in

the case of changes of state and the examples of perfective events below, the Subject is a Patient or 'experiencer' rather than an Agent. The perfectivity of a verb with an agentive Subject is accomplished by the analytical construction involving the verb **yoa**.

(54) a. **~aga** **~kho'o-a-wa'a-a**
pit.viper bite-AFFEC-go-ASSERT.PERF
(He) was bitten by a poisonous snake.

b. **~kʉiro** **die-ro** **phi-ri-ro-wʉ'ʉ**
one/a-NOM:SG dog-SG be.big-NOM-SG-AUG.

hi-ri-ro-wʉ'rʉ **buti-a-wa'a-a**
COP-NOM-SG-AUG. disappear-AFFEC-go-ASSERT.PERF
One dog, the biggest of all, disappeared.

c. **wa'a sʉka** **~khari-a-wa'a-a**
go lie.down sleep-AFFEC-go-ASSERT.PERF
. . . he laid down and went to sleep.

6.4.6.2.1 Status and phonological features of wa'a

The perfective construction with **wa'a** has some interesting phonological features to which I would like to call attention. First, in its perfective function, **wa'a** behaves phonologically like other dependent roots, in that it loses its underlying tonal melody. Thus, a verbal construct such as that in 54b, which begins with the <L>HL root, **buti** [butí], *disappear,* and has **wa'a** [waʔá] in dependent position is pronounced [butíawaʔaʔa]. The tonal melody of the independent root supersedes that of the dependent root, and the only high tone remaining is that occurring on the second mora of the independent root. This kind of phonological fusion has been used throughout this analysis as evidence for the dependent status of both nominal and verbal roots.

However, phonological fusion does *not* occur in constructions such as those in 55 below. Even though **wa'a** has a perfective semantic function in these examples, we will see that it occurs as a different kind of syntactic constituent. The constructions in 55 code the evidential categories of INFERENCE (55a-b) or NON.VISUAL (55c) information, two of the

verb-final modal categories described in detail in chapter 7. The important thing to call attention to here is the fact that these modal categories are coded by analytical constructions. The final element of these constructions is a finite verb—either the copula **hi**, for the INFERENCE category, or the verb of perception **koa**, for the NON.VISUAL category, which takes a nominalized verb as its complement. When **wa'a** occurs as the nominalized element in either of these constructions, it is phonologically independent from the elements preceding it and retains its original <L>H tonal melody. Thus, a verbal construct such as that in 55a begins with the <L>H roots, **~khari** [kʰãrĩ́], *sleep*, followed by the dependent intensifier **yʉ'dʉ**, pronounced as a single phonological unit [kʰãrĩ́yʉʔdʉa]. These are followed by **wa'a** in its perfective function, but occurring as the nominalized constituent of the analytical construction coding INFERENCE. As such it constitutes an independent phonological unit, separate both from the verbal construct which precedes it and the final verbal construct which follows. It retains its underlying <L>H specification for tone, and the final H tone spreads to the nominalizing suffix **-ri** producing [wa'árí]. The finite copula which closes the construction forms yet another independent phonological unit.

(55) a. **yʉ'ʉ ~khari-yʉ'dʉ-a wa'a-ri hi-ka**
1s sleep-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT:IMPERF
I (must have) slept a long time.

b. **ba-yʉ'dʉ-ka wa'a-ri hi-a**
be.rotten-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT.PERF
It had decomposed completely.

c. **bora-~sʉ-ka wa'a-ro koa-ta-a**
fall.down-COMPL-AFFEC go-V.NOM NON.VIS-come-ASSERT.PERF
He fell right down. (lit: his falling down was perceived) (repeated from 34b)

This phonological variation suggests that **wa'a** in the more frequently occurring constructions—those which synchronically show phonological fusion—may be undergoing a

process of cliticization. In the less frequently occurring analytical constructions, an older paradigm in which **wa'a** has the status of an independent auxiliary verb in an analytical perfective construction still persists. There are several such analytical constructions with auxiliary verbs in Wanano, as we will see see in section 6.7 (Functions of auxiliary verb constructions) below.

6.4.6.2.2. The function of the -ka / -a morphemes

If we look at the examples in 54 and 55, we note that the morphemes **-ka** or **-a** occur in nearly all perfective constructions with **wa'a**[22]. The functions of these morphemes in Wanano are as yet not completely clear, though a review of the literature reveals a number of different analyses for their cross-linguistic counterparts. **-ka**, for instance, has been analyzed by Sorensen for Tukano as an indicator of 'changed status (whether openly expressed, or implied) in the object of the verb . . . or in the verb itself as its own object, as a result of the activity or state expressed in the verb' (Sorensen, 1969:165-166). Though it occurs infrequently in the Wanano data, it seems to have similar semantics: to emphasize the completeness of the verb to the point of indicating a change in status in the affected party. In 56a, for instance, a body has decomposed so completely that it has literally disappeared. In 56b, an evil being has been tricked into stabbing and killing itself; the 'falling down' implicitly codes that it has died.

[22] I say *nearly all* due to the fact that it is not always clear whether or not the **-a** morpheme is present on verb stems or other morphemes which end in /a/. There is a tendency in Wanano for like vowels to fuse at morphemic boundaries in normal speech, while in more careful or slow speech they receive their full moraic weight. Thus, it is easy to identify the presence of the **-a** morpheme if it follows a different vowel, as in 55a, and difficult to affirm its presence in examples where the preceding morpheme ends in /a/.

(56) a. **ba-yʉ'dʉ-ka** **wa'a-ri** **hi-a**
be.rotten-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT.PERF
It had decomposed completely.

~de **bahu-era**
NEG be.visible-NEG
There was nothing there anymore. (repeated from 55b)

b. **bora-~sʉ-ka** **wa'a-ro** **koa-ta-a**
fall.down-COMPL-AFFEC go-V.NOM NON.VIS-come -ASSERT.PERF
He fell right down. (lit: his falling down was perceived) (repeated from 34b)

There are more hypotheses as to the function of the more frequently occurring **-a** morpheme. Kaye, for example, analyzes **-a** as marker of 'non-present time or space' in Desano (Kaye, 1970:47) while Miller lists it as an aspectual suffix coding 'perfect' (Miller, 1999:77). Ramirez categorically states his uncertainty of its function in Tukano, saying only that it acts like a suffix and is phonologically fused with the preceding root (Ramirez, 1997a:194). In Sorensen's analysis of Tukano, he describes **-a** as a morpheme which 'closes' a verb and prepares it to be followed by the auxiliary verb **wa** *go*, to which all further inflectional morphology is transferred. He adds that when the **-a** morpheme occurs on a verb that is not followed by **wa**, it functionally resembles an infinitive marker (Sorensen, 1969:85-186).

Waltz and Waltz suggest two functions for **-a** in Wanano: that it can mark 'emphatic aspect or that it codes the completed nature of a verb (as Miller suggests for Desano), though they add that it 'seems to occur at the end of an episode or the end of a series of actions' (Waltz and Waltz, 1997:42:46, translation mine). What Sorensen recognizes for Tukano but that Miller and the Waltzes do not include in their analyses of Desano and Wanano is that this particular morpheme is a constituent in a specific type of *verbal construction* with a specific semantic function. In the case of Wanano, the **-a** morpheme consistently occurs in

constructions with **wa'a** which code perfectivity, which suggests that the function (or perhaps functions) of this morpheme should be investigated as part of this construction as a whole.

Though still a working hypothesis, I posit that **-a** and **-ka** are variations of a single morpheme. Both occur in analyical constructions with the verb **wa'a**, in exactly the same position and with apparently related semantics which include notions of 'completeness,' 'change of state,' and 'affectedness.' The relative infrequency of **-ka** as compared to **-a** may indicate an evolution of the morpheme from a CV to V shape, though more investigation is needed before absolute conclusions can be reached. For the meantime, both morphemes are glossed as AFFEC to reflect the notion of affectedness which is central to this construction.

In this section, we have examined the coding of aspect by verbal morphology and have seen that roots from the class of motion verbs are frequently employed as dependent verbs to code aspectual information. A review of the examples leads to the conclusion that, like the dependent verbs of motion which code manner distinctions, the motion or position verbs which code aspectual information also 'fuse' with the independent to indicate the internal nature of a specific action.

6.4.7. Verbs of perception and mental processes

Like verbs of motion, Wanano verbs of perception and mental processes are analyzed together as a subclass of non-stative verbs due, primarily, to the specific funtions they perform when in dependent root position. In the following sections, I will first describe the semantics of these verbs when they occur in independent root position and will then discuss their functions as dependent verbs. We will see that perception verbs and verbs of cognitive processes interact in specific ways with each other—sometimes displaying semantic overlap—and with verb-final modal morphology analyzed in depth in chapter 7.

6.4.7.1. Verbs of perception

(57)	a.	**~yʉ**	[ɲʉ̃ʉ̃]	*see/look*
	b.	**thʉ'o**	[tʰʉʔó]	*hear/feel*
	c.	**thʉ'o-thua**	[tʰʉʔótʰua]	*smell (lit:feel-think)*
	d.	**koa**	[kóá]	*taste*
	e.	**koa-ta**	[kóáta]	*general direct non-visual perception (evidential construction)*

The Wanano verbs of perception are listed in 57 above and exemplified in 58 and 59 below. The most semantically specific perception verb is **~yʉ** [ɲʉ̃ʉ̃], denoting visual perception. It is used both transitively (58a-b) and intransitively (58c-d).

(58) a. **~yʉ-a** **ti-ro-re**.
see/look-ASSERT.PERF ANPH-SG-OBJ

phi-ri-ro **~khʉ'a-a**
be.big-NOM-SG be.lying-ASSERT.PERF
He saw him. The big guy was lying there.

b. **wa'a** **~yʉ-a** **ti** **~khubu-wʉ'rʉ-pʉ-re**
go see/look-ASSERT.PERF ANPH log-AUG.-LOC-OBJ
They went and looked inside the big log.

c. **~yʉ-bʉ'a-a** **~yʉ-boka-a**
see/look-MOV.downward-ASSERT.PERF see/look-find-ASSERT.PERF
He looked down. He spotted (it).

d. **~o** **pa-ri** **kopa-ka** **phore-ro-ka** **~wio**
DEIC:PROX size-NOM hole-CLS:rounded make.hole-V.NOM-CLS:rounded MOV.outward

~yʉ-roka-a
see/look- DIST-ASSERT.PERF
He made a hole like this (from inside the shelter) and looked out.

When used on its own, the root **thʉ'o** [tʰʉʔó] most commonly denotes auditory perception (59a); however, it can also be semantically generalized to other kinds of non-visual perception, such as touch (59b), and in the compound **thʉ'o-thua**, *feel-think*, used to refer to the sense of smell (59c).

(59) a. **~kʉ-ko-ro ti ~baha-ta'a-chʉ** **thʉ'o-roka-a**
one/a-FEM-SG 3PL.POSS go.uphill-come-SW.REF hear- DIST-ASSERT.PERF
One woman heard (from afar) them coming closer (lit: their coming closer).

b. **to-pʉ ~waku-ro to dura phayo-chʉ**
REM-LOC be.aware-ADV 3SG.POSS put.down spread.out-SW.REF
When (the creature hiding in the basket) felt the woman reaching (into the basket)

ti-ro kʉa-~bʉ-a
ANPH-SG be.surprised-do.quickly-ASSERT.PERF
he started (jumped).

ti-ko-ro ~khʉ **thʉ'o-~basi-~bʉ-a**
ANPH-FEM-SG ADD feel-DEON-do.quickly-ASSERT.PERF
She too could feel it right away.

c. **wa'i-~ʉri-~da** **thʉ'o-thu'a-ha**
fish-be.smelly-PL feel-think-VIS.IMPERF.1
I smell rotten fish.

Taste is indicated by the root **koa** (60a-b), which is also the head of the evidential construction **koa-ta**, used to code all statements based on direct NON-VISUAL perception (60c)[23]. Though semantically related, there is a major functional difference between the verbs in 57a-d and the evidential construction in 57e. The verbs in 57a-d are used to code the direct perceptions of the Subject, while the construction in 57e is an evidential: it indicates the source of information upon which a speaker bases a statement.

(60) a. **ko-iro ~bʉ'ʉ yahiri ~pho'da ~doa phitia-ro** **koa-ka**
relative-NOM:SG 2SG(POSS) heart be.good EMPH-ADV taste-ASSERT:IMPERF
Relative, your heart tastes really good.

b. **to di'i ~doa-ro** **koa-ka**
3SG.POSS meat be.good-ADV taste-ASSERT:IMPERF
Its (a cow's) meat tastes good.

c. **~kʉ-iro ta-ro** **koa-ta-a** **~so'o-ba'ro-pʉ**
one-NOM:SG come-V.NOM NON.VIS-come-ASSERT.PERF DEIC:DIST-be.close.by-LOC
Someone was coming closer (he heard it). (repeated from 24a)

[23] See chapter 7, section 7.2.3.2.2. for further examples.

6.4.7.2. Verbs of mental processes

Like verbs of perception, most Wanano verbs denoting mental processes such as *love, hurt, forget, remember, be concerned/worry about, want, wish,* and *know* can be used both intransitively (61b/j/f and the first line in 61c) and transitively (61a/g/h and the second line of 61c) . We can also see that there is definite semantic overlap between verbs of perception and mental processes in the use of ~**yʉ**, *see,* in the sense of *realize* (61i) and **thʉ'o**, *hear,* in the sense of *understand* (61j).

(61) a. **ti phʉ-ko-ro-re ~kha'i ~dʉdʉ-ti'a-ga te to-pʉ**
3PL.POSS parent-FEM-SG-OBJ love follow-go.behind-ASSERT.PERF all.the.way REM-LOC
They loved their mother and followed her all the way there.

b. **~phudi-yʉ'dʉ-a-ka**
hurt-INTENS-AFFEC-ASSERT:IMPERF
It hurts a lot.

c. **~basi-era-ha yʉ'ʉ**
know-NEG-VIS.IMPERF.1 1SG
I don't know (traditional Wanano songs and dances).

bo-era-kʉrʉ ti-re
forget-NEG-ADVERS ANPH-CLS:generic
I forget those (unfortunately).

d. **~de yʉ'ʉ ~basi-era-ka ~di-ha**
NEG 1SG know-NEG-EMPH say-VIS.IMPERF.1
I don't know anything to say.

e. **~de ahi-ka ~di-era to-pʉ**
NEG worry-AFFEC be-NEG REM-LOC
He was there not worrying about anything.

f. **ahi-ri-ro hi-ri hi-re ~waku-~basi-a to-re**
worry-NOM-SG COP-V.NOM.INFER COP-VIS.PERF.NON.1 remember-DEON-PL REM-OBJ
You should remember that there's a dangerous (worrisome) being there.

g. **ti-ko-ro to ~dabo-ro chʉ-dua-ati-ga wa'so-re**
ANPH-FEM-SG 3SG.POSS wife-SG eat-DESID-IMPERF-ASSERT.PERF siringa.fruit-OBJ
The woman, his wife wanted to eat siringa fruit.

h. **yʉ'ʉ** **wa'so-re** **chʉ-dua-~ba-ko**
1SG siringa.fruit-OBJ eat-DESID-FRUS-FEM
I wish I had some siringa fruit to eat.

i. **bo're-ka'a-chʉ** **~yʉ** **~hi'da** **ti-ro** **wiha-a**
be.light-do.moving-SW.REF realize immediately DEM-SG MOV.outward-ASSERT.PERF
Realizing it was morning, he went out.

j. **to** **~phidi-ta-re** **~bari** **thʉ'o-era** **phiti-a**
DEF right.there-REF-OBJ 1PL.INC understand-NEG everyone-PL
If she does that (speaks in another language), we won't understand . . .

6.4.8. Verbs of mental processes as dependent roots coding modality

The +3 column of Chart 6.2. indicates the dependent roots used to code modality. In Wanano, deontic modality, that which Bybee et al. refer to as 'agent-oriented modality' is coded by dependent verbs from the subset of verbs of mental processes. Agent-oriented modality ' . . . reports the existence of internal and external conditions on an agent with respect to the completion of the action expressed in the main predicate' (Bybee et al., 1994:177). Included in this type of modality are the related notions of *obligation*, *necessity*, *desire* and *ability*. Bybee's study shows that languages may develop grammaticalized markers or employ lexical items to code these notions. It also shows that a language may use multiple means to code a single notion and that areas of semantic overlap are common—often grammatical and lexical items code more than one of these general notions, or several grammatical elements code a single notion. This is certainly the case in Wanano, which has multiple means of coding agent-oriented modal functions: two perception/mental process verbs **~basi** [mãsĩ́] *know*, and **~kha'ba** [kʰãʔmã́] *want*, as well as a desiderative morpheme **-dua,** discussed in section 6.4.9.1. below.

The first of the deontic, or agent-oriented modality verbs, **~basi**, can occur as an independent verb with the meaning *know*, as in 62 (and the second line of 63a).

(62) **~basi-era-ha** **yʉ'ʉ** **bo-era-kʉrʉ** **ti-re**
know-NEG-VIS.IMPERF.1 1SG forget-NEG-ADVERS ANPH-CLS:generic
I don't know (traditional Wanano songs and dances); I forget those (unfortunately).
(repeated from 61c)

Interestingly, *know*-type verbs, are, according to Bybee et al. '[t]he most commonly documented lexical source for ability' (Bybee et al., 1994:190). In Wanano, when **~basi,** *know* occurs as a dependent verb, it can have three different modal meanings including *ability to perform an action* (63a-b), *possibility* (63c), and *advisability* or *suggestion* (63d-e).

(63) a. **yʉ'ʉ** **yahiri~pho'da-re** **wa-~basi-era-ka**
1SG(POSS) heart-OBJ give-DEON-NEG-ASSERT:IMPERF
I can't give you my heart.

~da **to** **~basi-era-ka**
bring/take DEF know-NEG-ASSERT:IMPERF
I don't know(how to) take it out.

b. **ti-ro-re** **die-ro** **boka-~basi-ra** **yʉkʉ-kopa-pʉ** **kopa-pʉ**
ANPH-SG-OBJ dog-SG find-DEON-VIS.IMPERF.NON.1 tree-hole-LOC hole-LOC
Dogs can find (armadillos) in holes in trees or holes (in the ground).

~a **yoa-~da** **~sa** **~dʉdʉ-~waka** **~waha-~basi-ha**
so do/make-1.PL 1PL:EXC follow/chase MOV.away kill-DEON-VIS.IMPERF.1
That's how we go after them and are able to kill them.

c. **~waha-ro** **wa'a-ro** **~boyo-era-ra** **ti-ro**
kill-V.NOM go-SG fail-NEG-VIS.IMPERF.NON.1 ANPH-SG
When (Luis) goes fishing, he never fails.

to **wa'a-chʉ** **~yʉ-ra** **chʉ~daka** **~di-~basi-ha**
REM go-SW.REF see/look-VIS.IMPERF.NON.1 eat-do.together say-DEON-VIS.IMPERF.1
When we see him going (fishing), we can say, "Let's eat!"

d. **~iriboa-re** **~bari** **~basa** **do'a-ti-ra**
lime-OBJ 1PL.INC man sickness-VBZ-VIS.IMPERF.NON.1

~baka-~basi-ka
look/search.for-DEON-ASSERT:IMPERF
People who are sick should look for limes.

e. **~doa-ro** **~waku-~basi** **duhi-~basi-ha**
be.good-ADV be.aware-DEON sit-DEON-VIS.IMPERF.1
(In airplanes) we should pay attention well and sit still.

The second of the dependent verbs which codes agent-oriented modality is **~kha'ba**, which, as an independent verb means *want*, as in 64.

(64) **~bari ~basa ~do'o ~kha'ba-~da pho'ka-~be're ~bore-ka**
1PL.INC man when want-V.NOM manioc.flour-COM/INST mix-ASSERT:IMPERF
phia-a ~si'di-dua-ra
be.sour-V.NOM drink-DESID-VIS.IMPERF.NON.1
When people want, (they) mix it (lime juice) with manioc flour to make the sour drink.

As a dependent verb, however, **-~kha'ba** indicates *necessity*, as in 65a, and in the compound **~waha-~kha'ba**, *kill-want*, with the resultant meaning of a*venge* in 65b. It can also code strong *recommendation* or *obligation*, as in 65c. Note that, as mentioned in chapter 5, section 5.5.3.1., the independent verb is a nominalized complement in this type of modal construction, as the glosses indicate.

(65) a. **~baka-roka ~baka-~ida-re die-ro-~be're**
forest-DIST belong.to-NOM:PL-OBJ dog-SG-COM/INST
boka-ro-~kha'ba-ra
find-V.NOM- DEON-VIS.IMPERF.NON.1
You have to find (hunt) the wild ones (turtles) with dogs.

b. **yʉ'ʉ ti-ro-re ~waha-~kha'ba-i ta-i ~di-ha**
1SG ANPH-SG-OBJ kill-DEON-V.NOM come-V.NOM be.PROG-VIS.IMPERF.1
I'm coming here to avenge him. (repeated from 24d)

c. **a'ri-~phi-~be're ~da-ro-~kha'ba-re**
DEM:PROX-CLS:bladelike-COM/INST bring/take-V.NOM-DEON-VIS.PERF.NON.1
You have to take it (your heart) out with this knife.

tua-ro-~be're yoa-ro-~ka ~daka-ro-~kha'ba-re
be.strong-ADV-COM/INST do-V.NOM-EMPH. do.together-V.NOM- DEON-VIS.PERF.NON.1
You have do to it all at once, hard. (lit: it requires doing all at once)

Dependent roots coding modality do not 'fuse' with the independent verb into a singular, more detailed action in the same way dependent roots coding manner and aspect do. Rather than adding detail to the action of the independent root, these dependent roots take the action expressed by the independent as their complements.

6.4.9. Other morphology coding modality

Not only are certian modal notions coded by dependent roots, but in the +6 morphological position on Chart 6.2. we find other modal morphemes coding information related to the speaker's attitude toward the action or event, or his assessment of how it will affect one of the participants in the discourse. Among such 'attitudes' are *desire*, *doubt*, and *favorable*, *negative* or *unexpected affectedness* or *results*. We should note that morphemes from this group can co-occur, as in 66d, and that there seems to be some flexibility in terms of pragmatic placement of these morphemes within the verbal construction (see 69 below).

6.4.9.1. Desiderative: -dua

The desiderative morpheme **-dua** indicates the Subject's desire to perform the action indicated by the verb, as in 66a-c. When followed by the frustrative **-~ba**, it indicates a desire that is unattainable, in other words, a wish, as in 66d.

(66) a. **yʉ'ʉ** **chʉ-dua-ka**
1SG eat-DESID-ASSERT:IMPERF
I want to eat it.

b. **yaba-~ida** **~bʉ'ʉ** **~waha-dua-~ida-re** **~waha-ga**
who/which-NOM:PL 2SG kill-DESID-NOM:PL-OBJ kill-IMPER
Go kill whatever you want (lit: ones you're wanting to kill)

c. **~bari** **khe-ro-~ka** **wa'a-dua-~da** **wa'a-ka** **wʉ-ri-a-~be're**
1PL.INC be.fast-ADV-EMPH. go-DESID-1PL go-ASSERT:IMPERF fly-NOM-PL-COM/INST
When we want to go (somewhere) quickly, we go by plane.

d. **yʉ'ʉ** **wa'so-re** **chʉ-dua-~ba-ko**
1SG siringa.fruit-OBJ eat-DESID-FRUS-NON.3.FEM
I wish I had some siringa fruit to eat.(repeated from 61h)

6.4.9.2. Dubitative: -bo

The dubitative morpheme **-bo** indicates that as far as the speaker is concerned, the event expressed by the verb is less than completely certain to occur or is not completely

true[24]. The dubitative is used in 67a to refer to plans that might or might not occur; in 67b, it is used to indicate the event that would have happened if an unexpected change had not occurred; in 67c it is used in a hypothetical construction; in 67d, the speakers are accusing their father of lying to them about his plans.

(67) a. **da'ra-~da** **wa'a-bo-ka**
work-1PL go-DUB-PREDICT.
We might go to work.

b. **~bʉ'ʉ-re** **chʉ-~doka-bo-a**
2SG-OBJ eat-COMPL-DUB-ASSERT.PERF
We would have eaten you.

c. **~patedi** **yʉ'ʉ** **thua-kʉ** **yʉ'ʉ-~khʉ** **bu'e-bo-ka**
if 1SG return-NON.3.MASC 1SG-ADD study/learn-DUB-PREDICT
If I went back, I would also learn.

d. **~bʉ'ʉ** **~a** **~di-era-bo-ri** **hi-ra** **~sa-re**
2SG so say-NEG-DUB-V.NOM.INFER COP-VIS.IMPERF.NON.1 1PL:EXC-OBJ
You shouldn't have told us that.

6.4.9.3. Frustrative: -~ba

The frustrative morpheme **-~ba** indicates the speaker's assessment that an expected state is no longer true, or that an action did or cannot produce the desired outcome (see also 66d above). In 68a and b, the frustrative indicates that although spoken demands were made, they were not obeyed; in 68c, it implies that the woman's gesture for her son to come down from the roof was in vain; in 68d, it shows that the man's efforts of looking all over did not result in his finding anything.

(68) a. **yʉ'ʉ-re** **khe-ro** **~bʉ'ʉ** **yahiri~pho'da-re**
1SG-OBJ be.fast-ADV 2SG(POSS) heart-OBJ

yʉ'ʉ-re **wa-ga** **~di-~ba-'a**
1SG-OBJ give-IMPER say-FRUST-ASSERT.PERF
"Give me your heart right now," he demanded.

[24] For more on this morpheme and its relations with evidentials and other markers of clause modality, see chapter 7, sections 7.2.3.5. and 7.3.3.

b. **~sa** **~di-~ba-'a** **wa'a-wa'a** **~hi'da**
1PL:EXC say-FRUST-ASSERT.PERF go-go EMPH
She urged, "Let's escape . . ." (repeated from 23c)

c. **to** **~ba-kʉ-ro-~ka-re** **~so'o-pʉ** **ti-ro** **pape-ro**
3SG.POSS child-MASC-SG-DIM.-OBJ DEIC:DIST-LOC ANPH-SG play-V.NOM

~bidicha-~ka-re **bʉe-pe-ro** **~di-a**
bird-DIM.-OBJ hunt.with.arrows-FAV-V.NOM be.PROG-ASSERT.PERF

bʉaphi-~ba-'a
signal.with.hand-FRUST-ASSERT.PERF
She motioned to her son who was there (on top of the house) happily playing at hunting birds.

d. **to-pʉ** **~sʉ** **~yʉ** **~baka-~ba-'a**
REM-LOC arrive see/look look/search.for-FRUST-ASSERT.PERF
He got there and looked, searching all over. (repeated from 46a)

6.4.9.4. Favoritive: -pe

The favoritive morpheme **-pe** indicates that the speaker assesses the action of the verb to be favorable or enjoyable to one of the participants, as in 68c above, where the woman gestures to her son, who is *happily/enjoyably* playing up on the roof. In 69, the speaker's use of the favoritive indicates that he's happy to be telling the story. The position of the marker in 69, directly following the verb root rather than following the aspectual dependent roots, suggests some flexibility in the placement of this morpheme for pragmatic purposes.

(69) **yʉ'ʉ** **~kʉ-ro** **khiti-~ka** **ya'u-pe-rʉka-~sidi-ta-i** **~di-ha**
1SG one-PART story-DIM. tell-FAV-INCEP-do.at.moment-REF-V.NOM be.PROG-VIS.IMPERF.1
I'm happy to be telling this little story right now.

6.4.9.5. Purpose: -ti

Finally, a speaker can code a verb by the morpheme **-ti**, indicating his view of the intended result or purpose of an action or state, as we see in the examples below.

(70) a. **~sa** **~pho'da** **bu'e-ti** **hi-ra**
1PL:EXC.POSS children study/learn-PURP COP-VIS.IMPERF.NON.1
(This book) is for our children to study/learn (our language).

b. **yʉ ~be're-~baka-~ida-re**
1SG.POSS COM/INST-belong.to-NOM:PL-OBJ

yʉ'ʉ ~yʉ-ti-re wa'a-ati-i
1SG visit-PURP-OBJ go-IMPERF-VIS.PERF.1
I used to go to visit my friends.

6.5. Other verbal morphology

In this section I will discuss the two remaining morphemes on Chart 6.2., **-era**, coding negation and **-yʉ'dʉ**, coding intensification.

6.5.1. Negation

We saw in section 6.2.2. that Wanano has one inherently negative verb, **~badia**, which codes non-existence. All other verbs can be negated by the morpheme **-era**, which occurs following the stem (whether simple or complex) and preceding secondary modal and aspectual morphemes and the final modal suffixes. It is indicated in the +4 morphological position on Chart 6.2.

The examples in 71 clearly show that **-era** negates all semantic classes of verbs—stative (71a-b), activity (71c/j), motion (71g/k), perception and mental processes (71h-i)—as well as transitive (71c/d/g); intransitive (71a/b/e/f/i/j); and even nominalized verbs (71k).

(71) a. **~de ~bari phʉ-kʉ hi-era-ra**
NEG 1PL.INC.POSS parent-MASC COP-NEG-VIS.IMPERF.NON.1
This isn't our father. (repeated from 16a)

b. **~o ~wupo-~ba'do-era-ra**
DEIC:PROX tie.off-be.finished-NEG-VIS.IMPERF.NON.1
It (the edge of a basket) isn't finished here.

c. **~basa chʉ-era-ka die-ro-re**
man eat-NEG-ASSERT:IMPERF dog-SG-OBJ
People don't eat dogs.

d. **yʉ'ʉ yahiri~pho'da-re wa-~basi-era-ka**
1SG(POSS) heart-OBJ give-DEON-NEG-ASSERT:IMPERF
I can't give you my heart. (repeated from 63a)

e. **ti ~phicho-ro-~be're bora-era-ka**
3PL.POSS tail-PART-COM/INST fall.down-NEG-ASSERT:IMPERF
Because of their tails, they (monkeys) never fall.

f. **~waha-ro wa'a-ro ~boyo-era-ra ti-ro**
kill-V.NOM go-V.NOM fail-NEG-VIS.IMPERF.NON.1 ANPH-SG
When (Luis) goes fishing, he never fails. (repeated from 63c)

g. **~de to-pʉ-re ti-pʉ-re ~tidi-era-ha**
NEG REM-LOC-OBJ ANPH-LOC-OBJ wander.around-NEG-VIS.IMPERF.1
I never go hunting there in that place. (repeated from 26c)

h. **to ~phidi-ta-re ~bari thʉ'o-era phiti-a**
DEF right.there-REF-OBJ 1PL.INC understand-NEG everyone-PL
If she does that (speaks in another language), we won't understand . . .
(repeated from 61j)

i. **~yʉ-era ti ~basi-era-ka yʉ'ʉ**
see/look-NEG ANPH know-NEG-EMPH 1S
I didn't see (that), I don't know (anything) about it.

j. **yʉ'ti-era-'a ti-ro-se'e ko-iro**
answer-NEG-ASSERT.PERF ANPH-SG-CONTR relative- NOM:SG
The relative didn't respond.

k. **pa-iro die-ro wese wa-era-ri-ro hi-ka**
other-NOM:SG dog-SG garden go-NEG-NOM-SG COP-ASSERT:IMPERF
Some dogs are ones-who-don't-want-to-go-to-the-garden (they're lazy).

6.5.1.1. Morphological status of the negative morpheme

My discussion of verb root compounding in previous sections has suggested that compounding in Wanano is a means of defining and refining details of an event. I have also shown that dependent verbs occur immediately to the right of the independent root. The negative marker immediately follows a simple (independent root) or complex (compounded) stem, and has a form similar to a root, which leads us to speculate on its grammatical status and lexical origin.

According to Givón, the grammaticalization of negation-marking morphemes from inherently negative verbs is a widely attested process. As such verbs grammaticalize,

‘ . . . their more specific semantic features are bleached out, leaving only their negative inference’ (Givón, 2001a:267). This is quite probably the case for the negative markers in ET languages. According to Ramirez, for example, Tukano has two means of coding negation, a suffix, **-ti** and a dependent verb, **we’e** (Ramirez, 1997a:152-153). In Wanano, however, we find a single negative morpheme, **-era**, which, based on semantic and phonological evidence, shows a higher degree of grammaticalization than does its Tukano counterpart. Semantically, though **-era** may indeed have derived from an inherently negative verb root, that root is no longer recoverable and the morpheme has taken on a highly generalized and paradigmatic semantic function. Although this marker is synchronically bimoraic and is inherently oral, the present VCV form suggests that initial-consonant erosion of a previous CVCV structure has already taken place.

6.5.1.2. Phonological processes and the negative morpheme

Another interesting thing to point out about the negative morpheme is that it is one of the few morphemes to display a systematic phonological effect on the root it modifies[25]. Wanano, though highly polysynthetic, actually displays relatively few phonological processes across morpheme boundaries. Those that do occur, such as nasalization and tone spreading, are applied regularly and show systematic left-to-right directionality. Few irregular phonological phenomena (meaning those with selective phonological environments or right-to-left directionality) have, at least up to now, been identified. This makes the phonological phenomena associated with the negative all the more interesting and exceptional, as it displays both a restricted target and atypical directionality.

[25] For considerations on the tonal effects of this morpheme, see chapter 2, footnote 42.

All verb roots are affected by the tonal melody of the negative; however, those which end in the back vowel /a/ are also the targets for final vowel deletion. In other words, the target for deletion is /a/ when it is the V_2 constituent of a CV_1CV_2 root or V in a CV root[26]. This final vowel along with its associated tone is deleted before the negative morpheme. In effect, the initial H tone of the HL melody associated with the negative morpheme is shifted to the final mora of the root, as we see in column *a* in 72. Compare these with the verbs in column *b*, where no deletion of root-final vowels /i ɯ u o/. Though both the final vowel of the root and the initial vowel of the negative morpheme are realized, they are often fused into a single mora (in dipthong-like fashion) bearing the H tone of the negative. Lastly, note that the final vowel of roots ending in /e/ fuses with the initial vowel of the negative, as we see in the final example in column *b*.

Clearly, the negative morpheme is an exception to the normal processes of morpheme agglutination with little cross-morphemic modification and of left-to-right tonal spread. These deviant phonological features, which shift phonological saliency to this morpheme, may be a means of underscoring the importance of negation to the semantics of a proposition, but this is only a working hypothesis that will need to be left for analysis in future studies.

(72)

a.			b.		
boa-era →	[boéra]	*not pray*	**hi-era**	[hi̯éra]	*not be*
basa-era →	[baséra]	*not bless*	**bo-era**	[bo̯éra]	*not forget*
wa'a-era →	[waéra]	*not go*	**chɯ-era**	[chɯ̯éra]	*not eat*
khɯa-era →	[khɯéra]	*not have/hold*	**bahu-era**	[bahu̯éra]	*not be visible / appear*

[26] There is only one attested case so far of the negative affecting both /a/ vowels in a CVCV root: ~**waha-era**, *kill-neg*, becomes [w̃ẽhéra].

boka-era →	[bokéra]	*not find*	**~basi-era**	[mãsĩ̯éra]	*not know*
yoa-era →	[yoéra]	*not do*	**~boyo-era**	[mõŋõ̯éra]	*not fail*
tua-era →	[tuéra]	*not be strong*	**~di-era**	[nĩ̯́éra]	*not say*
~kha'ba-era →	[khãʔmẽ́ra]	*not need*	**~yʉ-era**	[ŋ̃ʉ̯́éra]	*not see*
~da-era →	[nẽ́ra]	*not bring/take*	**pape-era**	[papéra]	*not play*

6.5.2. Intensification / emphasis

The morphological means of coding intensification of or emphasis on the action of the verbal complex is the dependent root -**yʉ'dʉ**, listed in the +5 position on Chart 6.2. The examples in 73 show that it can function to intensify or emphasize a state or an action.

(73) a. **~doa-yʉ'dʉ-ri-a** **hi-ra** **wi'o**
be.beautiful-INTENS-NOM-PL COP-VIS.IMPERF.NON.1 CONTR
But they're very beautiful.

b. **ti-ro** **kʉa-yʉ'dʉ-a-wa'a-a**
ANPH-SG be.frightened-INTENS-AFFECT-become-ASSERT.PERF
He became very frightened. (repeated from 15c)

c. **yʉ'ʉ** **~khari-yʉ'dʉ-a** **wa'a-ri** **hi-ka**
1s sleep-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT:IMPERF
I (must have) slept a long time. (repeated from 55a)

d. **~a-ta** **yoa** **~kʉ-ta** **~hida** **ti-ro**
so-REF do/make one-REF time ANPH-SG

phayu-ro **~si'di-~kha'a-yʉ'dʉ-a-wa'a-a**
caxiri.beer-PART drink-dream-INTENS-AFFEC-become-ASSERT.PERF
Then, one day he got really drunk on caxiri beer. (repeated from 17b)

6.6. Status and specifications of verbal morphemes

Though we have yet to examine the verb-final morphemes coding clause modality which occur in the rightmost morphological position on Chart 6.2, our examination of verb morphology up to this point leads us to ponder whether or not there is a continuum of grammaticalization for verbal morphemes similar in any way to the one shown for

nominal morphemes (Chart 4.5 in chapter 4). Chart 6.3. summarizes the features of form, semantics, and status for the categories of verbal morphemes from Chart 6.2, and suggests that there is indeed a continuum in which certain types of morphemes display greater or lesser degrees of grammaticalization.

On the lefthand side we find the various categories of lexical verb roots which may be optionally compounded to yield increasingly specified verbal actions. The dependent roots which code adverbial (manner) information and those with modal functions are clearly the least grammaticalized constituents; many can function as either independent or dependent roots with closely-related, if not identical semantics. Such roots retain their full bimoraic structure and their underlying specification for nasality, losing only their specification for tone when in dependent position. Dependent roots coding aspectual information show a slightly higher degree of grammaticalization in that they no longer, or at best rarely, function as independent roots and their original semantics have become more generalized. Still, their retention of the phonological features of bimoraic structure and inherent specification for nasality attest to their status as verbal roots, albeit nearly always dependent ones.

STATUS	+lexical, optional ⟷ +grammaticalized, obligatory							
SEMANTICS	+specific (qualify verbs according to salient details: manner/aspect/modality/ intensity/negation/etc.) ⟷ +general (code clause-level modal distinctions: realis/irrealis/ interrogative/imperative/etc.)							
FORM	**INDEPENDENT (OBLIG) / DEPENDENT ROOTS (OPT)** (full form)			**CLITICS** (unrecoverable root / phonologically reduced root)				**SUFFIXES**
EXAMPLES	**-wa'a** **-ta** **-ka'a** **-sito** **-~bʉ** **~-tidi**	**-~daka** **-rʉka** **-ruku** **-wi'i** **-~sʉ** **-tu'sʉ**	**-~basi** **-~kha'ba**	**-era**	**-yʉ'dʉ**	**-dua** **-bo** **-~ba** **-pe** **-~bʉ** **-ti**	**-ati** **-(k)a-wa'a**	EV (**-re-ra,-ha** ...) IMPER (**-ga**) INTERROG (**-ri**, **-hari** ...) IRR (**-ka**)

CHART 6.3. A CONTINUUM OF VERBAL MORPHEMES

Moving toward the middle we find categories of verbal morphemes such as the negative, the intensifier, and other types of modal morphemes. Because many of these morphemes are specified for the [± nasal] feature (which I argue to be the most deeply rooted phonological feature linked to lexical identity), it is likely that these have derived from verb roots; however, unlike the clearly recognizable roots in the first three columns, they display other types of phonological reductions which may indicate cliticization and shift in status in progress. The only clearly identifiable whole root in this group is **-wa'a**, which, as I argue above, may represent a recent shift from auxiliary verb status to bound morpheme.

On the far righthand side are the fully grammaticalized obligatory clause modality suffixes which will be examined in chapter 7. These are nearly always mono-moraic, are unspecified for tone and nasality, and have much more generalized semantics coding

categories including *realis*, *irrealis*, *interrogative*, and *imperative*. The only obligatory constituent of a finite verb besides the lexical root is a morpheme from this category.

With the exception of the leftmost, independent verb root and the rightmost final suffix coding clause modality, the organization of Chart 6.2 is not intended to represent absolutely fixed positions for the different categories of verbal morphemes. It does, however, represent several observed tendencies such as a) dependent roots generally occur closer to the independent root than do modal morphemes such as the frustrative; b) the negative is the first morpheme to occurs after the stem (simple or complex); and c) perfective/imperfective coding occur just before markers of clause modality. Some flexibility is possible, though, as noted in section 6.4.9.; the modal morphemes which tend to occur late in a verbal construct occasionally occur closer to the independent root, presumably for pragmatic purposes such as emphasis. Also, while there are clear tendencies for the adverbial-type dependent roots to occur before those coding aspectual information, as in 74a, it is possible for an aspectual root to occur between two different motion verbs, as in 74b and 74c.

(74) a. **to** **~ba-kʉ-ro-~ka-re** **~da-wʉa-rʉka-ga**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy. (repeated from 19c)

b. **ti-~da** **~bʉ-rʉka-wa'a-ka'a** **~sʉ** **~yʉ-a**
ANPH-PL go.quickly-INCEP-go-do.moving arrive see/look-ASSERT.PERF
They (the sons) went running, got there, and looked.(repeated from 25c)

c. **ti-~dubi-a-re** **~ya'a** **tua-ro-~be're**
ANPH-woman-PL-OBJ catch be.fast-ADV-COM/INST

~bʉ-ruku-ta'a **~sa'a** **~ya'a-ati-a**
MOV.quickly-CONT-MOV.toward MOV.inside catch-IMPERF-ASSERT.PERF
They would kidnap women quickly, by surrounding (the longhouse) and then quickly running (inside) to catch them.(repeated from 32b)

Thus, the positions of categories on the chart represent tendencies rather than rules, and speakers quite clearly can manipulate the order of morphemes for pragmatic or other purposes which will be left to be analyzed in future research.

Other tendenceis are also clear. For instance, though two-root combinations are the most common type of compound, three-root compounds do occur, and tend to include more than one motion verb, as in the examples in 35 and 75 below.

(75) a. **familia-re** **wese** **wa'a-~ida-re** **~do'o-i** **wa'a-~ida-re** **yaka**
family-OBJ garden go-NOM:PL-OBJ where-LOC go-NOM:PL-OBJ steal

~da-wa'a-ka'a **te** **~baka-roka-pʉ-re**
bring/take-go-do.moving until forest- DIST-LOC-OBJ
They would steal families going to their gardens or just people going anywhere, and carry them off into the forest. (repeated from 19a)

b. **ti-~da** **~bʉ-rʉka-wa'a-ka'a** **~sʉ** **~yʉ-a**
ANPH-PL go.quickly-INCEP-go-do.moving arrive see/look-ASSERT.PERF
They (the sons) went running, got there, and looked.(repeated from 25c)

As for co-occurrence of morphemes from the same category, we have seen examples of constructions with more than one 'manner' dependent root (76a), more than one 'aspect' dependent root (76b), and more than one 'modal' morpheme (76c)[27].

(76) a. **to-i** **du'te-sito-ta-a.** **~da-ta-a**
REM-LOC chop.up-MOV.circular-come-ASSERT.PERF bring/take-come-ASSERT.PERF
He went around cutting leaves. He brought them back.(repeated from 35b)

b. **chʉ-tu'sʉ** **ti-~da** **duhi-~sʉ** **du-ruku-duhi** **~si'dia-re**
eat-just.complete ANPH-PL sit-COMPL speak-CONT-DUR caxiri.beer-OBJ
As soon as they're done eating, they sit down, converse, drink caxiri beer . . . (repeated from 45a)

c. **yʉ'ʉ** **wa'so-re** **chʉ-dua-~ba-ko**
1SG siringa.fruit-OBJ eat-DESID-FRUS-FEM
I wish I had some siringa fruit to eat. (repeated from 61h)

[27] In chapter 7 we will also see how certain modal morphemes co-occur with clause-final modal suffixes to code evidential nuances.

Only cases where the use of one morpheme would logically exclude the other, such as the simultaneous coding of cislocative/translocative motion or perfective/imperfective aspect seem to constitute absolute restrictions.

6.7. Functions of auxiliary verb constructions

6.7.1. Auxiliary verb: yoa

The verb **yoa**, *do*, is used as an auxiliary verb in constructions with three different functions. Two of the functions will be described in this section and the third, which is adverbial, was described in section 5.7.2.4. in chapter 5. First, parallel to constructions with **wa'a,** auxiliary verb constructions with **yoa** also codes perfectivity, the difference being that the grammatical Subjects of constructions with **yoa** are agentive. If we compare 77a to 77b-d, we see that the former has **wa'a** and an experiencer Subject, while the latter have **yoa** and agentive Subjects. We can see that the constructions are essentially the same and occur in complementary semantic distribution. They differ phonologically, however, according the observations made in section 6.4.6.2. above, where I suggest that the **wa'a** perfective construction is undergoing a process of cliticization.

(77) a. **~aga ~kho'o-a-wa'a-a**
pit.viper bite-AFFEC-go-ASSERT.PERF
(He) was bitten by a poisonous snake. (repeated from 54a)

cf. b. **~dubi-a ~ya'a-~da wa'a-~hi'da ti-~baka-pʉ**
woman-PL catch-V.NOM go- EXRT ANPH-belong.to-LOC

~di-a ~kha'ba du-ruku yoa-a
say-ASSERT.PERF do.RECIP. speak-CONT. do/make-ASSERT.PERF
"Let's go get women from that village," they said among themselves.

c. **to ya-wʉ'ʉ-pʉ thu-~sʉ ti-ro-re khata~ba'a-re**
3SG.POSS POSS.REF-house-LOC return-COMPL ANPH-SG-OBJ jacu.bird-OBJ

to ~dabo-ro-re wa yoa-a
3SG.POSS wife-SG-OBJ give do/make-ASSERT.PERF
When he got to his house, he gave the jacu bird to his wife.

d. **to yai-ro ch~~ʉ~~-to ~phado ~k~~ʉ~~-iro**
DEF jaguar-SG eat-ANT before one/a-NOM:SG

bo'so ~waha **yoa-re**
cutia kill do/make-VIS.PERF.NON.1
He (the dog) had eaten a cutia before the jaguar killed him.

e. **y~~ʉ~~'~~ʉ~~-se'e** **bu'e-wa'a yoa-ati-i**
1SG-CONTR. study/learn-go do.make-IMPERF-VIS.PERF.1
I, on the other hand, was always going away to study. (repeated from 52g)

The perfective construction with **yoa** can also 'finalize' a series of verbs, each representing a specific perfective action on the part of the same agentive Subject, as we see in the examples below.

(78) a. **ti-ro-re ~da-thua-a**
ANPH-SG-OBJ bring/take-return-ASSERT.PERF

ti-ro-re **do'a ch~~ʉ~~ yoa-ra** **~basa**
ANPH-SG-OBJ cook eat do/make-VIS.IMPERF.NON.1 man
We take (dead anteaters we've hunted) home. We cook and eat (them).

b. **w~~ʉ~~'a soa wipe yoa-ra**
peel grate pass.through.sieve do/make-VIS.IMPERF.NON.1
(Women) peel, grate, and squeeze (the manioc).

The second function of **yoa** as an auxiliary verb is to indicate the consequence or result of a previous verbal action, as we see in 79a. This function is even more evident when constructions with **yoa** are used in dependent clauses. Such clauses perform a linking function between phrases in discourse, and those with **yoa** can be glossed as *so, consequently, that's why,* or *for this reason,* as we see in 79b and c.

(79) a. **~b~~ʉ~~'~~ʉ~~ yahiri~pho'da-re y~~ʉ~~'~~ʉ~~-re wa-ga ~di-'a**
2SS(POSS) heart-OBJ 1SG-OBJ give-IMPER say-ASSERT.PERF
"Give me your heart," he (the Curupira) said.

ti-ro-se'e ~bas~~ʉ~~-ro-se'e **khui yoa-a**
ANPH-SG-CONTR. man-SG-CONTR. be.afraid do/make-ASSERT.PERF
That made the man afraid.

b. **a'ri-thu hi-ra wa'i~-kida ya-ya'u-ri-thu**
DEM:PROX-CLS:stacked COP-VIS.IMPERF.NON.1 animal-PL POSS.REF-tell-NOM-CLS:stacked
This is our animal storybook.

~sa ~pho'da bu'e-ti hi-ra
1PL:EXC children study/learn-PURP COP-VIS.IMPERF.NON.1
It is for our children to study.

~ayoa-~da **~sa kooti-ri-a ~de bo-si**
so-1PL 1PL:EXC Wanano-NOM-PL NEG forget-NEG.IRR

~sa ya-hoa-re du-ruku-a-re
1PL:EXC POSS.REF-write-OBJ talk-CONT.-3PL-OBJ
So (consequently), we Wananos won't forget our own writing and speaking.

c. **wa'i-~kida-~waha-ro wa'a-ro thʉ-re ~da-wa'a-ka'a**
animal-PL-kill-V.NOM go-V.NOM stick-OBJ bring/take-go-do.moving

wa'i-~kida phayʉ ~waha-ati-a
animal-PL many/a.lot kill-IMPERF-ASSERT.PERF
When he went hunting, he took the stick and would always kill lots of animals.

~a-ta yoa **to ko-ya-se'e ti-ro-re**
so-REF do/make 3SG.POSS relative-PL-CONTR. ANPH-SG-OBJ

~sidi-tua-ati-~ba-a ~bʉ'ʉ do'se yoa ~waha-hari
ask-be.strong-IMPERF-FRUS-ASSERT.PERF 2SG how do/make kill-INT.IMPERF
So, his relatives were always questioning him: "How do you kill so many animals?"

6.7.2. Auxiliary verb: wa'a

Though I have posited that **wa'a** as an auxiliary coding perfectivity is undergoing a process of cliticization, **wa'a** still occurs as a phonologically independent auxiliary verb in constructions which indicate purpose or intention, in essence, to *go to/and X*. Note in the examples below that the verb preceding **wa'a** in this construction is nominalized.

(80) a. **~dubi-a ~ya'a-~da wa'a ~hi'da ti-~baka-pʉ**
woman-PL catch-V.NOM go EXHRT ANPH-belong.to-LOC

~di-a ~kha'ba du-ruku yoa-a
say-ASSERT.PERF do.RECIP. speak-CONT. do/make-ASSERT.PERF
"Let's go get women from that village," they said among themselves.
(repeated from 74b)

b. **ti phʉ-kʉ-ro-re** **ya'u-a wa'a-ga**
3PL.POSS parent-MASC-SG-OBJ tell-V.NOM go-ASSERT.PERF
They went to tell their father.

6.7.3. Auxiliary verb: ~di

Actions in progress are coded in Wanano by a construction with the auxiliary verb **~di**. Cross-linguistically, this verb is glossed as *do* by Miller (1999) and by Kaye (1970) for Desano, as *be* by Ramirez (1997a) and Sorensen (1964) for Tukano, and simply as *AUX* by Waltz and Waltz for Wanano (1997:47). I gloss is as 'be.PROG' due to the fact that it is used exclusively in the progressive construction, and because, as we saw in section 6.2.1., a number of ET languages have cognate forms **~(a)di** for *be*.

The function of the **~di** auxiliary verb construction is to show that an action is/was in progress at a contextually established time. Often the reference time is the moment of speech, as in the examples 78a-d, though it need not be, as we see in 79e-f. Note that, as with the **wa'a** construction described above, the constituent preceding the inflected **~di** auxiliary is a noun or nominalized verb. In clauses with analytical constructions indicating INFERENCE or NON.VISUAL evidentiality, however, the entire auxiliary construction is nominalized, as in 78b.

(81) a. **yʉ'ʉ ti-ro-re ~waha-~kha'ba-i** **ta-i ~di-ha**
1SG ANPH-SG-OBJ kill-DEON-V.NOM come-V.NOM be.PROG-VIS.IMPERF.1
I'm coming here to avenge him. (repeated from 24d)

b. **~dubi-a ~ya'a-~ida** **ta-'a ~di-a**
woman-PL catch-NOM:PL come-V.NOM be.PROG-V.NOM

koa-ta-ra
NON.VIS-come-VIS.IMPERF.NON.1
Women-kidnappers are coming (she can hear them). (repeated from 24c)

c. **yʉ'ʉ-re a'ri-ro** **chʉ-dua-ro ~di-ka**
1SG-OBJ DEM:PROX-SG eat-DESID-V.NOM be.PROG-ASSERT:IMPERF
This one (the Curupira) (is) want(ing) to eat me.

d. **~bi-pʉ-re yʉ'ʉ chʉa boka-tu'sʉ-ha**
now-LOC-TMP 1SG food find-just.comp-VIS.IMPERF.1

thua-i ~di-ha
return-V.NOM be.PROG-VIS.IMPERF.1
Now I've found food (and/so) I'm going home. (repeated from 51c)

e. **~s̶u̶-~doka to ~ba-k̶u̶-ro-~ka-re ~so'o-p̶u̶ ti-ro pape-ro**
arrive-COMPL 3SG.POSS child-MASC-SG-DIM.-OBJ DEIC:DIST-LOC ANPH-SG play-V.NOM

~bidicha-~ka-re b̶u̶e-pe-ro ~di-a **b̶u̶aphi-~ba'a**
bird-DIM-OBJ shoot-FAV-V.NOM be.PROG-ASSERT.PERF motion-do.forcefully
She got close to her son, who was (on top of the house) shooting birds, and motioned to him. (repeated from 33c)

f. **ti-ro-re ~waha-tu'su̶** **ch̶u̶-ro-p̶u̶ ~di-a**
ANPH-SG-OBJ kill-just.complete eat-V.NOM-LOC be.PROG-ASSERT.PERF
(The snake) had just killed the dog and was already eating it. (repeated from 51a)

We have also seen that, albeit few in number, constructions with auxiliary verbs are used frequently by speakers and perform important semantic functions[28].

6.8. Summary

This chapter began with a description of the basic structure of lexical verb roots and a discussion of derivation processes. I then discussed different types of stative verbs, and showed that the stative/non-stative semantic distinction is evidenced in the morphological paradigm for finite verbs. Turning to non-stative verbs, I discussed several subclasses of verbs: activity verbs, verbs of motion, and verbs of perception and mental processes, and discussed the ways in which each subclass participates in morphological processes. We saw that activity verbs are distinguished by the fact that they rarely occur as the dependent constituents in compounds. Verbs of motion, on the other hand, are regularly employed as dependent constituents to code specific types of adverbial and aspectual notions, while verbs of perception and mental processes are employed in compounds with modal functions.

Besides the discussion of compounding processes, I described the other markers in the paradigm of finite verbal morphology which code aspectual and modal information as

[28] See also chapter 7, sections 7.2.3.2.2. and 7.2.3.2.3. for a discussion of auxiliary verb constructions with evidential functions.

well as intensification and negation, and discussed the status and specifications of different types of morphemes. Finally, I described the semantic functions of constructions with auxiliary verbs.

CHAPTER 7

MODALITY

This chapter describes the coding of clause modality in Wanano. Clause modality is addressed in a separate chapter because of its complexity and importance in the overall system of verbal semantics. In fact, we should recall that the only *obligatory* constituent of a finite verb besides the lexical root is a morpheme from the verb-final category coding clause modality[1]. Thus, this chapter should be viewed as a finalization of the investigation of verb morphology presented in chapter 6.

Chart 7.1. below expands Chart 6.2., shifting focus to the final category of verb morphemes (listed in the final position in the verbal word). Categories of morphemes discussed in chapter 6 are summarized and concentrated in the column on the left, while the major subcategories of clause modality, which correspond to three major types of sentences—statements (realis and irrealis), interrogatives, and 'oriented' utterances—are shown in the following three columns. Morphemes which occur in the final position of a finite verb are mutually exclusive; a clause is marked either as a *realis statement* by one of the evidential categories, as an *irrealis statement* (predictive or speculative) by one of the IRREALIS markers, as a *question* by one of the interrogative morphemes, or as giving a *command, warning, admonition* or *permission* by one of the morphemes with 'oriented' modal functions. Paragraph reference numbers are given for each subcategory.

[1] We have seen that semantic notions such as 'modality' and 'aspect' in Wanano are extremely complex and are coded in different places and by different means in the verbal paradigm. 'Modality' as a semantic category appears in two other positions in the paradigm: 'deontic-type' modal notions are coded by root compounding constructions (indicated in the +3 position) while 'attitude-type' modal notions are coded by bound morphemes which occur later in the paradigm (indicated in the +6) position.

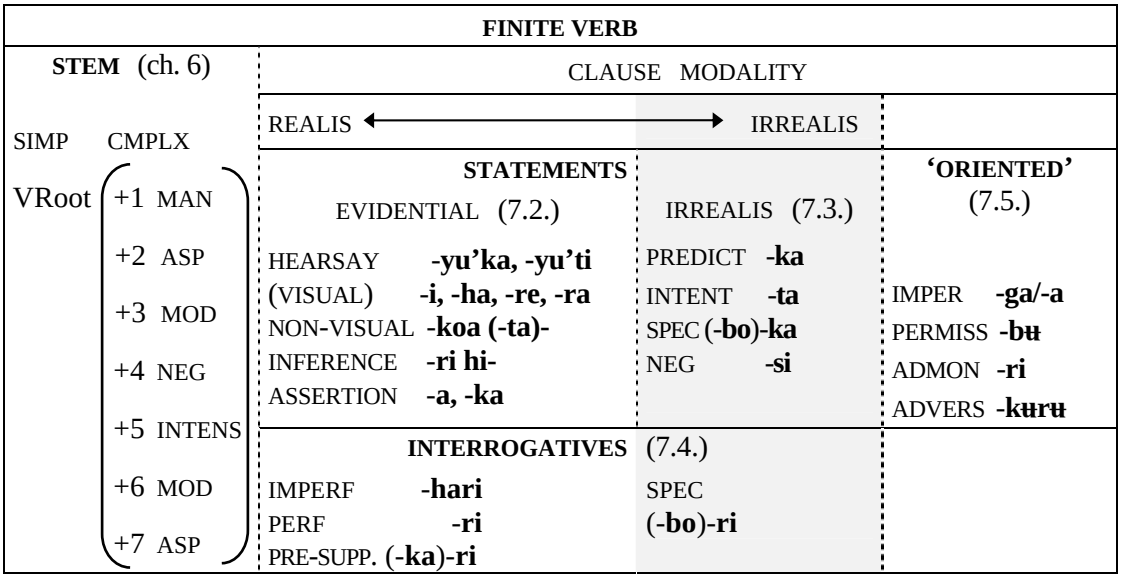

CHART 7.1. VERBAL MORPHOLOGY — CLAUSE MODALITY

A large portion of this chapter is dedicated to the description of the Wanano evidential markers, and section 7.1. provides some theoretical background and points out some of the important issues for the study of evidentials in general and of the Wanano paradigm in particular. It outlines the syntactic and semantic characteristics of grammaticalized evidentials, and discusses evidentials as modal markers with epistemic extensions. Section 7.2. describes coding of REALIS statements by evidentials, the semantics of the Wanano evidential categories, their relation to aspectual distinctions, and the question of whether or not they inherently code epistemic values. Section 7.3. presents the ways in which IRREALIS statements are coded. Section 7.4. discusses interrogatives and the semantic overlap between interrogatives, evidentials, and irrealis. Throughout sections 7.2., 7.3., and 7.4., we will see how verb-internal modal morphemes (discussed in section 5.3.5.) can interact with verb-final categories to code scalar semantic differences. Section 7.5.

describes the set of markers which code 'oriented' modality functions such as imperatives, exhortatives, requests, and warnings.

7.1. Evidentials: theoretical background, definitions, and important issues

Before describing the Wanano evidential system I will give some of the theoretical background information which has contributed to my understanding of how the system works. First, it is important to outline the general syntactic and semantic characteristics of the kind of markers which I will analyze as evidentials.

7.1.1. Basic syntactic and semantic characteristics of evidentials

One of the first investigators of evidential systems to propose a set of semantic and syntactic features by which grammaticalized evidential markers could be recognized as members of distinct systems was Anderson (1986). In Anderson's view, evidentials:

a) indicate the kind of justification a speaker has at his disposal for a factual claim;
b) are not the main predicate of a clause;
c) code, as their primary meaning (rather than as an inferential byproduct) the speaker's source of evidence; and,
d) are grammaticalized as inflectional rather than derivational forms, more often surfacing as clitics or other free syntactic forms rather than as compounds or derivational markers (Anderson, 1986:274-75).

De Haan later proposed two additional criteria, that:

e) truly grammaticalized evidentials, because they are not themselves the main predicate of a clause, will show agreement with the subject of the clause rather than with the speaker; and,
f) grammaticalized evidentials will fall outside the scope of negative elements (de Haan, 1996:sections 2 and 3)[2]

[2] Aikhenvald (2003a and personal communication) disputes de Haan's criteria as absolute based on evidence from languages such as Quiag (Tibeto-Burman) in which evidentials code both the speaker and the subject, and Akha (Tibeto-Burman), in which evidentials can be within the scope of negation. While de Haan's criteria are perhaps better thought of as tendencies, their applicability to the Wanano system justifies their inclusion here.

Taken together, these criteria provide a basis for a theoretical differentiation between *evidentiality*, a broad semantic category available in some form in every language, and *evidentials*, a particular kind of grammatical marker which is typologically much more rare. The examples below demonstrate the difference between lexical expressions of evidentiality—the words in bold in the English sentences in 1—and grammaticalized *evidentials*—the boxed verbal constituents in the Wanano sentences in 2.

(1) a. **I heard** a chicken in the living room.
b. **Someone told me** you got a promotion.

(2) a. **~dubi-a ~ya'a-~ida ta-'a ~di-a** **koa-ta-ra**
woman-PL catch-NOM:PL come-V.NOM be.PROG-V.NOM NON.VIS-come-VIS.IMPERF.NON.1
Women-kidnappers are coming. (I can hear them).

b. **yu ko-iro ~ku-iro** **yari-a-wa'a-yu'ti**
1SG.POSS relative-NOM:SG one-NOM:SG die-AFFEC-go-HSAY.DIFF
One of my relatives died. (I learned from others.)

The fundamental semantics of evidentials are the focus of Anderson's criteria *c*: evidentials code the speaker's *source of evidence*. But what kinds of evidence do evidential systems typically code? One of the earliest attempts to answer this question is found in Willett (1988). Willett used a narrow definition of *evidentials* based on Anderson's semantic and syntactic criteria and explored the essential contrasts found in evidential systems cross-linguistically. He discovered that languages with evidential systems orient, first of all, to contrasts between *direct* and *indirect* evidence, and second, within the category of indirect evidence, to the distinction between *inference* and *reported* or *secondhand* information. He was thus able to establish a framework for the semantics of evidentials with three major categories: 'attested' (direct), 'reported,' and 'inferring' (Willett, 1988:57)[3].

[3] A more recent typology of evidential systems with two, three, four, and four + terms can be found in Aikhenvald (2003a, 2003b, and 2004).

The examples of Wanano evidentials given in 2 and throughout this section conform to the criteria for grammaticalized evidentials outlined by Anderson and de Haan, in that they a) are *inflectional suffixes* on the main predicate of a clause; b) show *agreement with the grammatical Subject* of the clause; and c) code in their basic semantics the *speaker's source for the information* contained in a statement. Wanano evidentials also display another tendency cited in Willett, that grammaticalized evidentials often conflate with distinctions of tense or aspect (Willett, 1988:64).

7.1.2. Evidentials and epistemic modality

Once of the most debated issues in regard to evidentials is whether or not evidentials should be viewed as modal markers, constituting a subcategory of epistemic modality. Returning to Anderson's framework, if we combine criteria *a* and *c*, we find the following basic claim regarding the semantics of evidentials: that they code the *source of evidence* a speaker has for a factual claim (criteria *c*), and thus indicate the kind of *justification* the speaker has for that claim (criteria *a*). In other words, Anderson views the semantics of evidentials as including both a *source of information* and a resulting *epistemic value*, placing them within the domain of *modality*. Willett echoes this view, making the claim that 'there is little doubt that evidentiality as a semantic domain is primarily modal' (Willett, 1988:52).

These views follow the analysis proposed by Palmer, who defines epistemic modality as a reflection of some aspect of the speaker's *knowledge*, and argues that epistemic modality should be viewed as including not only 'judgements' based on the traditional criteria of possibility and necessity, but also

> 'any modal system that indicates the degree of commitment by the speaker to what he says . . . includ[ing] evidentials such as 'hearsay' or 'report' . . . or the evidence of the senses' (Palmer, 1986:51).

Thus, Palmer concludes that evidentials constitute a subsystem of epistemic modality. They are modal in that they fit the requirement of *subjectivity* by indicating not objective fact, but the speaker's knowledge or beliefs concerning the information in an utterance. They are specifically *epistemic* because, according to Palmer,

> '*their whole purpose* is to provide an indication of the degree of commitment of the speaker: he offers a piece of information, but qualifies its validity for him in terms of the type of evidence he has' (Palmer, 1986:54, emphasis mine).

The explicitly stated, though never fully justified, assumption which underlies Palmer's model is that 'speaker's judgements are *naturally* often related to the evidence they have' (Palmer, 1986: 70, emphasis mine). This assumption of a *natural* or *inherent* relation between evidence and commitment is presented as a kind of common sense conclusion that is reflected throughout much of the literature on evidentials in statements such as the very first line of the seminal Chafe and Nichols volume on evidentiality;

> 'This book is about human awareness that truth is relative, and particularly about *the ways in which such awareness is expressed in language.*' (Chafe and Nichols, 1986:vii, emphasis mine)

as well as this statement by Bybee:

> 'Certain evidential senses . . . relate to epistemic modality. In particular, an indirect evidential . . . implies that the speaker is not totally committed to the truth of [the] proposition and thus implies an epistemic value' (1994:180).

The view of epistemology reflected in Palmer's work and echoed in other sources equates sentential mode with the expression of truth value, the basic truth or falsity of a proposition being a product of modes of access to truth or knowledge. In this view, a statement falls into one of three epistemological categories. It may be *necessarily* true based on analytic knowledge (linguistically realized as presuppositions); it may represent an *observed* truth based on synthetic knowledge (linguistically coded as REALIS); or it may be

possibly true based on knowledge gained through previous experience (linguistically realized as IRREALIS).

At the time Palmer's book was published, however, scholars such as Givón had already begun to question the traditional view of epistemology and to propose a 'Revisionist Epistemology' (Givón, 1982), or what he later describes as 'the communicative re-definition of epistemic modality' (Givón, 2001a:326). He argues that the seeming discreteness of traditional categories is a 'misleading by-product of the process of *linguistic coding*' (Givón, 1982:26, emphasis in the original), and proposes a redefinition of propositional categories, one based on empirical evidence and the recognition of the essential communicative nature of language. Using data from diverse languages he demonstrates that in actual use, categories are rarely rigid, that dividing lines between categories and coding are arbitrarily and pragmatically defined rather than being a reflection of any inherent categorical boundaries. Epistemic categories, he argues, form a continuum with internal scalar distinctions, and are based on an underlying *implicit contract* between the speaker and the hearer as to which kinds of utterances do or do not require justification (Givón, 1982:24). Givón's redefined proposition types, based on his 1982 and 1984 works, are summarized as follows:

a) *Irrealis assertions*

- display internal scalar distinctions coding degrees of possibility, likelihood, or certainty of the occurrence of an irrealis situation;
- imply non-existent or at best weak evidence and are open to challenge;
- code, overall, the lowest degree of certainty.

b) *Realis assertions*

- tend to grammatically code internal differentiation of subtypes of evidence ranging from abduction (inference/hypothesis from no facts) to inference/induction (based on the availability of facts);
- are organized into categories based on different universal hierarchies which orient to:
  - *access*—direct sensory experience > inference > hearsay;
  - *sensory source*—vision > hearing > other senses;
  - *person*—speaker > hearer > third party;

    - *space*—near > far; and
    - *time*—present > perfect or immediate past > remote past;
- imply experiential evidence that the speaker can present if a statement is challenged;
- code higher degrees of certainty.

c) *Presuppositions*

- imply truth or certainty which is *taken for granted* by both speaker and hearer through a shared conceptual contract;
- require no evidential justification and can include different kinds of knowledge such as:
    - knowledge related to deictically available events;
    - generic culturally or synthetically established knowledge;
    - knowledge acquired by divine or spiritual revelation;
- express the highest degree of certainty available.

While Givón's view does not depart from the notion that evidentiality and epistemic modality are related, he does invert the model of how the connection takes place by claiming that the strength of an assertion is not an objective, external starting point, but rather, the *outcome* of a causal chain. At the base of this chain is a source of evidence whose degree of evidentiary strength itself implicitly denotes epistemic certainty.

We can summarize the traditional view of evidentials as a subcategory of epistemic modality as having the following reasoning:

If a) epistemic modality expresses the speaker's view of the propositional information in an utterance, his attitude toward the proposition or the type of knowledge upon which it is based,

and b) evidentials give information about the kind of evidence a speaker has for his statement (how the speaker came to know the content of the statement),

then c) evidentials are related to knowledge and are therefore inherently related to epistemic modality, existing as a means by which the speaker expresses the truth value of the proposition.

In contrast to those who view evidentiality as implicitly related to epistemic modality are scholars such as de Haan (1996, 1999) and Aikhenvald (2003a, 2003b, and 2004). De Haan specifically states that '[a]s far as the degree of confidence in the truth of the statement is concerned, by using evidentials, a speaker will not commit him or herself to any degree of

confidence but will *transfer any responsibility to the hearer'* (de Haan, 1996:introduction, emphasis mine). Though he never specifically explains how this transference of responsibility occurs, he indicates that it is somehow linked to the hierarchical nature of evidential systems. He argues that both speakers and hearers orient to the hierarchy by way of an underlying conversational assumption similar to Grices's maxim of Quality—that one does not express that which one believes to be false (Grice, 1989:26)—thus, the choice of one level of evidential marking in effect negates all others higher up in the hierarchy. Since a speaker's choice of evidential marking for his utterance is constrained by the hierarchy, when he makes his choice, he transmits to the hearer crucial information about the nature of available evidence, from which the hearer can then draw his own conclusions (de Haan, 1996:section 4)[4].

Aikhenvald states that evidentiality 'is a category in its own right, and, contrary to some assertions, *not* a subcategory of epistemic (or some other) modality, or of tense-aspect-mood' (Aikhenvald, 2003a:4). She argues that the fact that speakers of languages can lie by deliberately coding correct information with an incorrect evidential or by giving incorrect information coded by the appropriate evidential demonstrates that evidentiality and truth are separate categories. Also, like de Haan (1999), she observes that evidential markers and modal markers indicating doubt occur separately in many languages[5]. She specifically points

[4] A similar statement is found in Mithun's chapter in the Chafe and Nichols volume, where she states in her definition of evidentials that 'the specification of the source of information communicated allows a speaker to abdicate some responsibility for its truth and permits the hearer to evaluate its reliability for him or herself . . . based on inference . . . appearance [or] hearsay' (Mithun, 1986:89).

[5] There are indeed a number of researchers who hold that evidentiality and epistemic modality are often independently coded and should therefore be conceptually viewed as separate, though perhaps semantically related, categories much like tense and aspect. Mithun, in her overview of North American languages, notes that while certain languages, such as Haanis (Coos), use a single set of particles to denote evidential source and epistemic strength, others, such as Pawnee (Caddoan), Wintu (Wintuan), and Makah (Southern Wakashan) have distinct sets of morphemes for coding modal and evidential meanings (Mithun, 1999).

out that ‘in many languages with multi-term evidentials [such as Wanano], epistemic meanings are expressed through an array of verbal categories other than evidentiality’ (Aikhenvald, 2003a:14).

However categorical these claims may sound on the one hand, Aikhenvald states in the same paper that ‘[e]vidential markers may gain semantic extensions such as *conjecture, the probability of an event or the reliability of information* (often called ‘epistemic’ meanings)’ and, later, that ‘[w]ithin multi-term systems, the visual or the direct evidential . . . may be extended to cover direct observation, participation, control, generally known and observable facts, and also *certainty*’ (Aikhenvald 2003s:4 and 13, emphasis mine). In other words, though their core semantics may be source of evidence, evidential systems often do participate in the coding of epistemic values. Furthermore, Aikhenvald also observes that in some languages, ‘evidentiality markers occur in the mood and modality slot in a verbal word, and are thus mutually exclusive with conditional, imperative, interrogative markers and so on’ (Aikhenvald 2003a:15). In other words, evidentials in some languages can be analyzed as one of the categories of modality because of their behavior within the overall paradigm.

Such observations suggest that perhaps we should not attempt to make absolute cross-linguistic claims about the nature of evidential systems and the semantics they code. Though we can observe cross-linguistic tendencies and use them as suggested frameworks, there are so many possible areas of semantic overlap that the only kinds of categorical statements possible are those which refer to the organization of the system in a single language.

7.1.3. Evidentials as a modal category in Wanano

Having presented, however briefly, some of the issues related to evidentials and their relation to modality, I can now make two important statements about Wanano modality and

the place of evidentials within it. Argumentation in support of these claims is, of course, the overall guiding force in the organization of this chapter.

First of all, I view the Wanano evidential categories as constituting a subsystem of clause modality. Referring back to Chart 7.1., we see that evidentials occur as one category in a paradigm of verb-final markers which code types of finite clauses, and that evidentials are mutually exclusive with markers from the other categories. Essentially, evidentials are the obligatory means by which a statement is coded as realis, the Wanano equivalent of the basic declarative sentence.

Indeed, though they are constituents of the verbal phrase, it is important to emphasize that the function of evidentials and other clause modality markers is not to give information about the internal nature of event or situation expressed by the verb. We recall from chapter 6 that all pertinent information related to the event itself—manner and internal aspectual distinctions (including those related to imperfectivity/perfectivity), negation, emphasis, speaker attitude, etc.—is coded by categories of verb morphology which occur before evidentials or other markers of clause modality. Morphology with verbal scope, coding information relative to the event itself, can be conceptualized as forming an 'internal' sphere of the verbal word. Morphology with clausal scope 'encloses' the event within the larger sphere of modality, which codes the speaker's relationship to the event or situation: the speaker either makes a statement about it (qualified as realis or realis), questions it, or orients it in some way to the addressee. The function of evidentials within this larger sphere is to give information about the speaker's cognitive relationship to the event, his/her perspective on the event via the source of information upon which the statement is based. The following figure represents this conceptualization of the complementary spheres of verb morphology.

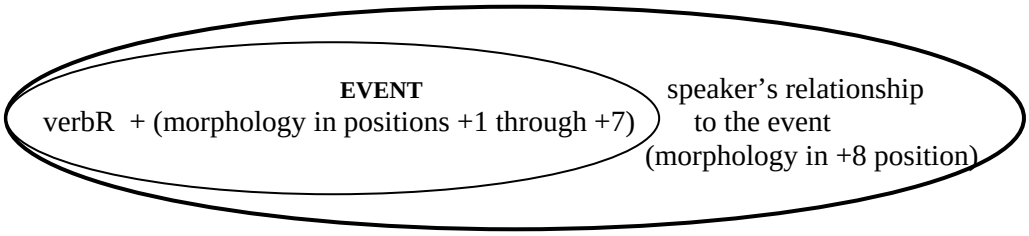

FIGURE 7.1. THE SEMANTIC SPHERES OF VERBAL MORPHOLOGY

Secondly, I argue that relationships between evidentiality and epistemic modality indeed exist in the Wanano system and that they are based on several contributing factors. The epistemic implications of VISUAL, NON-VISUAL and INFERENCE (*firsthand, external*) categories are in part linked to the deictic nature of evidential/information source coding: these categories indicate the speaker's involvement or direct proximity to the event, while the ASSERTION category (*firsthand, internal*) indicates evidence established by conceptual contract among speakers who share like experiences and culture. Furthermore, the obligatory nature of evidential coding coupled with the fact that doubt, if present, must be indicated by separate morphology in effect codes unmarked statements not as *devoid* of truth-value (as Aikhenvald suggests) but with a *default value of truth*. If one can lie using evidentials, it is not because they are unmarked for truth, but because truth is implicit unless otherwise indicated.

7.2. Wanano evidentials

7.2.1. Previous analyses

The Wanano evidential system has been previously analyzed by Waltz and Waltz as being composed of four categories which conflate with tense (present and past) as well as

person (1st/non-1st) distinctions. Chart 7.2. and the definitions that follow are composites based on (Waltz and Waltz, 1997:38; 2000:456)[6].

		VISUAL	NON-VISUAL	INDICATED	INFORMED (SECONDHAND)
Present	1st person	**-ha**			
	2nd/3rd person	**-ra**	**-ka**	**-ri hi-ra**	**-yuʔka**
Past	1st person	**-(ʔ)i**			
	2nd/3rd person	**-(ʔ)re**	**-ʔa**	**-ri hi-re**	**-yuʔti**

CHART 7.2. WANANO EVIDENTIALS (Waltz and Waltz)

The Waltzes identify the basic categorical distinction as that of *visual* verses *non-visual* evidence, and give the following definitions for each category:

a) **Visual** evidentials indicate that the speaker saw the event. In the past tense forms of the visual evidential, the presence of an initial glottal stop indicates that the event occurred in the recent past.
b) **Non-visual** evidentials indicate that the speaker neither saw the event personally nor saw any direct indications that it occurred.
c) **Indicated** evidentials show that the speaker saw some indication of what happened but did not witness the event itself.
d) **Informed**, or **Secondhand** evidentials show that the speaker is relating something told to him by someone else.

From their charts and definitions, it is clear that the Waltzes view the system as having evidentiality (source of information) as the dominant characteristic and tense as a secondary distinction. This analysis of Wanano evidential markers follows the analyses found in most descriptions of ET languages. Beyond these basic definitions, the Waltzes do not address the possible epistemic semantics of any of the categories nor do they speculate on their origin.

[6] Phonetic representations of the glottal stop vary slightly in the two sources. For the sake of uniformity throughout this section, ‘h’ will be used to represent the voiceless glottal fricative [h] and the phonetic symbol [ʔ] will be used for the glottal stop.

The Waltzes do point out that the composition of the INDICATED (INFERENCE)[7] evidential can be morphologically broken down into an adjectival/participial suffix **-ri** followed by the auxiliary verb **hi** suffixed by a VISUAL evidential (Waltz and Waltz, 2000:457).

7.2.2. Unique features of the system

The Waltzes' analysis also establishes one of the features that is unique to the Wanano system. In contrast to all of the other ET languages, with the possible exception of Piratapuyo, there has been leveling of Subject gender and number coding in the evidential suffixes in the Wanano system and a paradigm of 1st/non-1st person distinctions has evolved. The evidential systems of the ET languages Tuyuca (Barnes, 1984:258; Barnes and Malone, 2000:441; Malone, 1988:123), Desano (Miller, 1999:64), Kubeo (Ferguson et al., 2000:363-364; Morse and Maxwell, 1999:39-40), Siriano (Criswell and Brandrup, 2000:400), Yuruti (Kinch and Kinch, 2000:479), Tukano (Welch and West, 2000:424) (Ramirez, 1997a:119-120), Carapana (Gomez-Imbert, 2000b), Barasano (Jones and Jones, 1991:73) (Gomez-Imbert, 1999:section 1), Bará and Macuna (Malone, 1988:133), and Tatuyo (Gomez-Imbert, 1999:section 1; Gomez-Imbert, 2000a:section 1) show that the dominant paradigm in ET languages establishes 3rd/non-3rd person distinctions, with variable classification of inanimates, which are sometimes included in the non-3rd category (TUC) and are sometimes grouped with 3rd-person (TAT, BAS). All of these languages display morphological coding of person, gender and number either as separate morphemes or in the final vowels of the

[7] Given the variety of different labels used for evidential categories in the literature on ET languages, I will attempt to keep category reference clear by using each author's labels when presenting their analyses, followed by the corresponding label from my own analysis of the Wanano system in parenthesis.

evidential morphemes[8]. Thus, the paradigm leveling and shift found in Wanano constitute a departure within the family.

However, the paradigm of Subject agreement morphemes used in nominalizations (discussed in chapter 5, section 5.2.2.,) and in certain types of irrealis constructions such as those expressing predictions, intentions, or hypothetical situations (see section 7.4. below) suggests that the coding system in Wanano once paralleled the paradigms found synchronically in other ET languages. It is the Wanano matrix clause coding system which represents the innovation.

7.2.3. An alternative analysis

Chart 7.3. presents my alternative analysis of Wanano evidentials. It includes five evidential categories, four of which—VISUAL, INFERENCE, HEARSAY and ASSERTION—correspond to the categories proposed by the Waltzes in Chart 7.2., albeit with different labels which will be explained in the discussion that follows. My analysis differs from the Waltzes' analysis in two fundamental ways, the first being that I include a fifth evidential category in the paradigm which codes NON-VISUAL sensory evidence. This category should not be equated with the category labeled NON-VISUAL on Chart 7.2., which in terms of definition corresponds to the category labeled as ASSERTION on Chart 7.3.

Second, my analysis differs from that of the Waltzes in that I do not view the internal differentiation within evidential categories as fundamentally based on tense. It is interesting to point out that while the Waltzes identify tense distinctions for all four evidential categories, we find that in much of the literature on ET languages tense distinctions regularly interact

[8] According to Gomez-Imbert, the coding of +person deictic categories (first and second person) in Barasana and Tatuyo differs from other ET languages in that it is accomplished by prefixes (tonal in Barasana with no gender coding, and morphological in Tatuyo), while -person categories (third person and inanimates) are coded by suffixes (Gomez-Imbert, 1999a: section 1).

only with the evidential categories coding direct sensory evidence. It is certainly not the norm throughout the family for tense to be a feature of *all* categories, particularly those of INFORMED (INFERENCE) or SECONDHAND (HEARSAY) information. I will argue that the internal distinctions for the HEARSAY category are referential (section 7.2.3.1.), while those for the VISUAL and ASSERTION categories are essentially aspectual (section 7.2.3.2.1.1).

<table>
<tr><td colspan="10">REALIS</td></tr>
<tr><td colspan="2" rowspan="5">NON-FIRSTHAND</td><td colspan="8">FIRSTHAND</td></tr>
<tr><td colspan="6">EXTERNAL</td><td colspan="2" rowspan="4">INTERNAL</td></tr>
<tr><td colspan="4">DIRECT</td><td colspan="2" rowspan="3">INDIRECT</td></tr>
<tr><td colspan="3">VISUAL</td><td colspan="1" rowspan="2">NON-VISUAL</td></tr>
<tr><td colspan="2">1ST</td><td colspan="2">NON-1ST</td></tr>
<tr><td>QUOT.</td><td>DIFF.</td><td>PERF</td><td>IMPERF</td><td>PERF</td><td>IMPERF</td><td>koa(-ta)-</td><td>-ri hi-</td><td>PERF</td><td>IMPERF</td></tr>
<tr><td>-yu’ka</td><td>-yu’ti</td><td>-i</td><td>-ha</td><td>-re</td><td>-ra</td><td></td><td></td><td>-a</td><td>-ka</td></tr>
<tr><td colspan="2">HEARSAY
(7.2.3.1.)</td><td colspan="4">(VISUAL)
(7.2.3.2.1.)</td><td>NON-VISUAL
(7.2.3.2.2.)</td><td>INFERENCE
(7.2.3.2.3.)</td><td colspan="2">ASSERTION / PRESUPPOSITIO N
(7.2.3.3.)</td></tr>
</table>

CHART 7.3. WANANO EVIDENTIALS

Chart 7.3. presents both the distinct forms of evidentials for each of the five categories in the paradigm and a matrix of features by which key elements of each category can be established. The initial feature distinction used is that of FIRSTHAND/NON-FIRSTHAND evidence[9].

[9] Though the first/non-firsthand feature as primary follows the analyses of Barnes (1984) and Malone (1988) for other ET languages, the organization and discussion of the remaining features and the final resulting categories differ significantly from those analyses. Indeed, there are several ways in which the features of the system could be organized, each with interesting results. Gomez-Imbert, for example, in her analyses of Tatuyo and Barasana (1999a) places the *direct/indirect* distinction at the highest level, creating the initial separation of the sensory categories on the one hand and the inferential and hearsay categories on the other. This kind of analysis produces results that mirror Willett’s framework. De Haan (2001), however, points out that the category of *inference* is a tricky one, its classification as *direct* or *indirect* being language specific and depending on which component feature—*deictic* or *witnessed*—is taken as basic.

7.2.3.1. Non-firsthand evidence: HEARSAY

I have located the FIRSTHAND feature at the top of the hierarchy to create an initial dichotomy between any type of information to which the speaker has some kind of personal access—external or internal—and information that comes from others. This initial dichotomy establishes the category of HEARSAY, information obtained through third parties. There are two distinct forms of this evidential in Wanano, as we see in 3.

(3) a. **ti-ro** **wʉ'ʉ-pʉ** **wa'a-yu'ka**
ANPH-SG house-LOC go-HSAY.QUOT
(*Someone told me that*) *He went home*.

b. **ti-ro** **wʉ'ʉ-pʉ** **wa'a-yu'ti**
ANPH-SG house-LOC go-HSAY.DIFF
(*They say that*) *He went home*.

The Waltzes analyze the difference between the forms **-yu'ka** [juʔká] and **-yu'ti** [juʔtí] as coding tense, which would represent a unique case among ET languages. In fact, for the thirteen languages for which descriptive information is available, in only one of the two analyses of Kubeo do we find that an evidential marker of secondhand information can co-occur with a present tense marker (Morse and Maxwell, 1999:36). In all of the remaining languages, there is no present tense form coding secondhand information, as evidentials of this type are consistently analyzed as coding past or bounded situations—one can only relate, using these evidentials, things that have already been said.

My hypothesis is that these two forms code distinctions between third-party source referents. The theoretical foundation for this hypotheses has been informed by Floyd's analysis of HEARSAY evidentials. He argues that HEARSAY markers prototypically construe a 'cognitively-salient' or specifically-identifiable and recoverable referent (similar to the English reported speech construction '*So-and-so said that . . .*' where the referent for *so-and-*

so is recoverable). Through extension, though, markers of hearsay may also come to be used for 'diffuse,' non-specific and non-recoverable referents (such as in the English construction '*They say that* . . .') or even for folktales (though this is not the case in Wanano) (Floyd, 1999:130-140).

The two forms of the Wanano HEARSAY evidential appear to be a grammaticalization of exactly this difference of reference. Clauses coded by **-yu'ka** appear to have a quotative function: they evoke, though do not specifically identify, a particular referent as the original source of the information. This is the marker which would be used by a speaker relating something that he had just heard or been told, often by a person directly involved in the event. A clause coded by **-yu'ti**, on the other hand, indicates that the speaker no longer has access to the original source of the information, that the referent is diffuse or unidentifiable. This is the marker which would be used for gossip or for news coming from afar[10].

It is also interesting to observe from a survey of other ET languages that the **yu** morpheme of the Wanano HEARSAY evidential has counterparts throughout the family, though it surfaces as part of several different paradigms. It appears in the past forms of the *secondhand* (HEARSAY) category (TUY, SIR), the *assumed* (ASSERTION) category (TUY, SIR, DES, YUR), and the *apparent* (INFERENCE) category (MAC, BAR, TAT, CAR, SIR, DES, YUR) (Malone, 1988:133-134). These similarities suggest that **yu** may derive historically from a general marker of *indirect* evidence and that further subdivisions within categories and semantic shifts came about later. It also clearly indicates the amount of cross-

[10] The difference may however, be of a different nature. Gomez-Imbert, for example, analyzes different forms of HEARSAY evidentials in TAT as coding the relative temporal distance between when the speaker heard the news and the current relating of the news (personal communication).

Hearsay evidentials are in fact used rarely and are perhaps the most context-dependent category. They do not occur naturally in any of my text data, and the analysis presented here is based on elicited data only and my interpretation of consultants' explanations. It will be interesting, as research progresses, to discover more about this category and to see, for example, whether HEARSAY evidentials are used for reference to information sources such as books or television.

linguistic analysis that has yet to be done the semantic links among these categories throughout the family.

7.2.3.2. External firsthand evidence: VISUAL, NON-VISUAL, and INFERENCE

There are four evidential categories classified as FIRSTHAND, with an initial differentiation between those that indicate information coming from *external* sources (VISUAL, NON-VISUAL and INFERENTIAL), and that which is *internal* to the speaker (the category here analyzed as ASSERTION, discussed in 7.2.3.3).

The *external* categories can be subdivided by a distinction between *direct* and *indirect* sources of information. The *direct* categories are VISUAL and NON-VISUAL. Both of these categories indicate that the speaker has knowledge of the event expressed by the verb through some kind of direct sensory evidence.

7.2.3.2.1. VISUAL

The first category, VISUAL, is used to code situations the speaker is currently witness to or a participant in (4a-b), or one he has witnessed or was a participant in (4b-c). By extension, VISUAL evidentials are also used to code general facts the speaker knows (4d) or habitual actions the speaker has experienced or witnessed (4e). The VISUAL evidential can be suffixed to verbs of all types, both stative (4a and d), and active (4b, c, and e).

(4) a. **yʉ'ʉ** **hi-ha** **ko-iro**
1SG COP-VIS.IMPERF.1 relative-NOM:SG
I am your/a relative.

b. **~bʉ'ʉ** **chʉ-dua-re** **~da-ta-i**
2SG eat-DESID-OBJ bring/take-come-VIS.PERF.1
We've brought what you wanted to eat.

c. **to wa'i-kiro ~waha-ri-ro dita-re ~sa**
DEF animal-SG kill-NOM-SG only-OBJ 1PL:EXC

~da-thua-i **wʉ'ʉ-pʉ-re**
bring/take-return-VIS.PERF.1 house-LOC-OBJ
We took home only the dead animal.

d. **a'ri-ro** **hi-ra** **ba'a**
DEM:PROX-SG COP-VIS.IMPERF.NON.1 bass
This is a bass.

e. **wʉ'a soa wipe** **yoa-ra**
peel grate pass.through.sieve do/make-VIS.IMPERF.NON.1
(Women) peel, grate, and squeeze (the manioc).

7.2.3.2.1.1. Tense or aspect?

The Waltzes' analysis claims that within the VISUAL category, both person—1st/non-1st—and tense are coded. Their tense-based analysis follows most descriptions of ET languages, where, with the exception of Gomez-Imbert's work on Tatuyo and Barasana (Gomez-Imbert, 1999; Gomez-Imbert, 2000a) and the literature on Kubeo (Ferguson et al., 2000; Morse and Maxwell, 1999), the category of tense is used as a defining feature of the evidential systems.

It should be pointed out, however, that the term 'tense' is always highly qualified when used in the literature on ET languages. In the Western linguistic tradition, *tense* refers to the relationship between the time of speech—the basic reference point—and the time of the event in the speaker's utterance. Events are coded as past, present, or future in relation to the time of speech reference point (Givón, 2001a:285-6). In ET languages, however, the category of tense is dominated by and interacts with the various categories of evidentiality and does not necessarily code the same distinctions in each category.

Barnes argues for 'qualified' definitions of tense in her description of Tuyuca evidentials, and similar analyses are echoed throughout most of the literature on ET

languages. Barnes shows that in Tuyuca, for *apparent* (INFERENCE) and *assumed* (ASSERTION) evidential categories, tense distinctions code *when the related event took place* (an approximation to the traditional definition of tense). For *visual, non-visual* and *secondhand* (HEARSAY) evidential categories, however, tense distinctions code *when the speaker obtained the information* (Barnes 1984:265).

The same two types of distinctions for tense have been identified in other ET languages, where the general view is that for the most pervasive evidential categories, those coding firsthand (*visual* or *non-visual*) evidence, tense codes information about the state of the *evidence* at the time of speech rather than coding information about the event itself. I should point out, though, that the Waltzes' analysis of Wanano evidentials does not make such a distinction.

Such highly-qualified distinctions of 'tense' have led researchers of certain ET languages—Gomez-Imbert (1999; 2000a) for Tatuyo and Barasana; Morse and Maxwell (1999) and Ferguson, et al. (2000) for Kubeo, and myself for Wanano—to suggest that the different paradigms attested within evidential categories are more appropriately viewed as coding perfective/imperfective distinctions. As pointed out in section 7.1.3. and Figure 7.1., verb-final morphology codes not the event itself, but differences in speaker perspective of the event. It follows, then, that aspectual distinctions in the category of evidentials refer not to the event itself but to the speaker's relationship to the event via source of information.

States or events coded as perfective indicate boundedness or termination, while those coded as imperfective indicate an ongoing or unbounded nature. By the same token, the examples in 5-10 below will show that clauses coded by imperfective evidentials imply that from the speaker's perspective, there is ongoing or unbounded cognitive access to the source of information, while perfective forms imply that the source of information is no longer

accessible or has ceased. Aspectual contrasts, because they essentially express differences of 'point of view' rather than of 'temporal anchoring,' better reflect the cognitive nature of the distinctions actually coded by the evidentials in these languages.

Givón points out that tense and aspect (particularly past tense and perfective aspect) are strongly associated and in fact frequently overlap in actual events. When looking at the coding of events with VISUAL evidentials in Wanano, we in fact find many examples in which such overlap occurs. On the one hand, both the event and the speaker's access to it can be unbounded, as in 5a, where the speaker is describing the ongoing, habitual preparation of manioc. Conversely, both the event and the speaker's access to it can be bounded, as in 5b, where the speaker recounts his memory of an event that took place when he was a child. If we consider only examples such as these, a tense-based analysis of these constructions such as that proposed by the Waltzes appears perfectly adequate.

(5) a. **wʉ'a soa wipe yoa-ra**
peel grate pass.through.sieve do/make-VIS.IMPERF.NON.1
(Women) peel, grate, and squeeze (the manioc). (repeated from 4e)

b. **to wa'i-kiro ~waha-ri-ro dita-re ~sa**
DEF animal-SG kill-NOM-SG only-OBJ 1PL:EXC

~da-thua-i wʉ'ʉ-pʉ-re
bring/take-return-VIS.PERF.1 house-LOC-OBJ
We took home only the dead animal. (repeated from 4c)

However, a close examination of evidential use in Wanano reveals some interesting cases in which semantic overlap does not occur, making an analysis of evidentials with aspectual distinctions clearly more appropriate than one with tense distinctions. Consider, for instance example 6, from the *People-stealers* text. At this point in the text, an evil being has stuck on to a woman and has taken her away to its dwelling place in a hollow log in the forest. Her sons, who witnessed everything, have run to tell their father and have led him

back to the log. When the man arrives, he asks where the woman is (line 6a). The sons reply that she's in the log (line 6b). Since the boys saw the being take the woman into the log and are indicating that she is still in there, a tense-based analysis would predict the use of a 'present tense'/imperfective form for the evidential, but what we find is the perfective form. The use of the perfective form shows that although the mother's state of 'being-in-the-log' is ongoing, what is being coded in the evidential is the boundedness of the sons' visual access to that information.

(6) a. **~do'o-i hi-ri ~di-a**
INT-LOC COP-INT say-ASSERT.PERF
"Where is she?" he (the father) asked.

b. **~o-i** **hi-re** **~di-a**
DEIC:PROX-LOC COP-VIS.PERF.NON.1 say-ASSERT.PERF
"Here she is," they (the sons) answered.

Another interesting example is found in 7, from the *Curupira Who Went to the Man's House* text. Some evil beings have arrived at a house with a plan to eat a woman and her children. Before they can do so, the woman realizes what they're up to, and, making up an excuse to go down to the river, she escapes with two of her children. The evil beings run down to the river just as she's swimming away and say the lines in 7. Though the woman has technically already escaped, the evil being does not use a 'past tense'/perfective form because the source of visual information is still before him: he can see the woman in the river.

(7) a. **~waku-~basi ko ~bʉ'ʉ ~ya-ka** **du'ti-ra**
think-know-FEM 2SG be.bad-EMPH escape-VIS.IMPERF.NON.1
Good thinking, evil woman, that you escaped.

b. **~bʉ'ʉ-re chʉ-~doka-bo-a**
2SG-OBJ eat-COMPL-DUB-ASSERT.PERF
We would have eaten you.

I offer one more example to illustrate that evidentials code aspect rather than tense in Wanano VISUAL evidentials. The lines in 8 occurred during an elicitation session where the

focus was actually on demonstratives. To exemplify the different forms, my consultant gave the two sentences in 8, having the elicited contrasting demonstratives as well as an interesting example of contrasting evidential forms. In 8a, the speaker was referring to the small living room in which we were working at the time, hence the use of the VISUAL imperfective form. In 8b, on the other hand, he was referring to the living room at his neighbor's house. The room in the neighbor's house was in all likelihood the same size as it had been when my consultant last saw it; thus, one would expect the use of a 'present tense'/imperfective form. We find, however, that the speaker used the perfective form of the VISUAL evidential, indicating that while the state of 'being narrow' was ongoing, the actual evidence was not accessible at the moment of speech.

(8) a. **a'ri** **tatia** **bi'sa** **~di-ra**
DEM:PROX room be.narrow be.PROG-VIS.IMPERF.NON.1
This room is narrow.

cf. b. **si** **wʉ'ʉ** **pʉ-~ka** **tatia** **bi'sa** **~di-re**
DEM:DIST house LOC-DIM. room be.narrow be.PROG-VIS.PERF.NON.1
That room (in the little house) is narrow.

Thus we see that aspect in evidentials refers to the evidence itself, rather than to the internal nature of event expressed by the verb[11]. VISUAL evidentials in their imperfective forms indicate the speaker's ongoing *cognitive proximity to the event or state via the evidence currently available*—the speaker may be involved in the action (9a-b) or witnessing the action or state (9c).

(9) a. **yʉ'ʉ** **~kʉ-ro** **khiti-~ka** **ya'u-pe-rʉka-~sidi-ta-i** **~di-ha**
1SG one-PART story-DIM. tell-FAV-INCEP-do.at.moment-REF-V.NOM be.PROG-VIS.IMPERF.1
I'm happy to be telling this little story right now.

b. **yʉ'ʉ** **ti-ro-re** **~waha-~kha'ba-i** **ta-i** **~di-ha**
1SG ANPH-SG-OBJ kill-DEON-V.NOM come-V.NOM be.PROG-VIS.IMPERF.1
I'm coming here to avenge him.

[11] The aspectual nature of the event itself can be coded by inherent properties of the verb, or by other morphological means, as discussed in chapter 6, sections 6.4.6. and 6.7.1.

c. **~o-pʉ** **hi-ra** **yʉ** **~pho'da**
DEIC:PROX-LOC COP-VIS.IMPERF.NON.1 1SG.POSS children
Here he is, my sons.

VISUAL evidentials in their perfective forms indicate the speaker's *cognitive distance from the event via evidence that is no longer accessible*. Situations so coded frequently refer to bounded ('past-tense') events, as in example 5b and in 10 below, and most likely both derive from and subsume past tense distinctions. What the perfective forms do synchronically in Wanano, however, is code information about the speaker's cognitive relationship to the evidence he has for a statement—specifically, that the evidence is no longer directly accessible—rather than the relationship between the event and the moment of speech.

(10) a. **yʉ'ʉ-se'e** **bu'e-wa'a** **yoa-ati-i**
1SG-CONTR. study/learn-go do.make-IMPERF-VIS.PERF.1
I, on the other hand, was always going away to study.

b. **~bʉ** **~ba-ko** **to** **hi-ro-pʉ-re** **~bachu** **~badia-ri**
2SG.POSS child-FEM 3SG.POSS COP-V.NOM-LOC-OBJ leafcutter.ant not.exist-INT
Weren't there any (edible) ants in your daughter's village?

~de **~badia-re**
NEG not.exist-VIS.PERF.NON.1
No, there weren't.

c. **bʉ-kʉ-~da** **khʉa-ati-re** **sʉ'o-pʉ-ka**
elder-MASC-PL hold/have-IMPERF-VIS.PERF.NON.1 sifter-CLS:basket-CLS:rounded
Our ancestors used to have this kind of basket.

Studies of grammaticalization indicate that certain categories of evidentials may indeed have their origin in markers of tense or aspect (Bybee et al., 1994:105). In de Haan's analysis of the origins of VISUAL evidential categories, he argues that the conflation of evidential and tense distinctions in the VISUAL evidential paradigms of ET languages is an indication of exactly this path of development. Earlier paradigms denoting present/past tense distinctions evolved into markers of VISUAL evidence, retaining tense as a secondary feature (de Haan, 2001a:97).

Thus, tense distinctions may well be an historical feature of ET languages and a still-salient one in many of them. In the case of Wanano, however, the aspectual meanings associated with tense seem to have developed as the salient features which conflated with the developing evidential meanings. Synchronically, aspectual distinctions surface in all four FIRSTHAND evidential categories.

7.2.3.2.1.2. Semantic extensions of VISUAL evidentials

An observed tendency in languages with multiple evidential markers such as Wanano is for the imperfective forms of VISUAL evidentials to have the extended function of coding general facts (Aikhenvald, 2003a:13)[12]. A stative verb stem suffixed by the imperfective form of a VISUAL evidential gives a reading of general fact, as in 11a and b, while the same imperfective form suffixed to an activity verb results in a reading of habituality, as in 11c and d.

(11) a. **~bisi-~be're ti yoa-ri-a** **hi-ra**
fiber-COM/INST ANPH do/make-NOM-V.NOM COP-VIS.IMPERF.NON.1
These are made with fibers.

b. **~phuri-a kʉa-ri-ro** **hi-ra** **ti-ro**
poison-PL hold/have-NOM-SG COP-VIS.IMPERF.NON.1 ANPH-SG
They (pit vipers) are poisonous.

c. **~dubi-a ti-~da chʉa-re** **yoa-ra**
woman-PL ANPH-PL food -OBJ do/make-VIS.IMPERF.NON.1
The women make the food.

~a yoa ti-~da ~bʉ-a-se'e **yo'ga-a wa'a-ra**
so do/make ANPH-PL man-PL-CONTR. fish-V.NOM go-VIS.IMPERF.NON.1
The men go fishing.

d. **~de to-pʉ-re ti-pʉ-re** **~tidi-era-ha**
NEG REM-LOC-OBJ ANPH-LOC-OBJ wander.around-NEG-VIS.IMPERF.1
I never go hunting there in that place.

[12] Because of this extension, some researchers, such as Gomez-Imbert, suggest that there is actually a Ø marking for evidence in the VISUAL category. However, in the gloss, the VISUAL feature is retained as a reflection of the default semantics for the category. See also the final paragraph in section 7.2.3.2.2. below.

VISUAL evidentials constitute one of the two major categories within the *firsthand* classification (the other being ASSERTION), for VISUAL suffixes are the most common final constituents in the analytical constructions coding NON-VISUAL and INFERENCE categories, as we shall see in the following section.

7.2.3.2.2. NON-VISUAL

The second *external* and *direct* category is the NON-VISUAL. It is used in situations in which the speaker became aware of an event or state through sensory means other than sight. The NON-VISUAL most frequently indicates auditory evidence, as in 12a, where a woman hears a group of men approaching, and in 12b, where a man hears, through a wall, the evil being he has tricked into stabbing itself falling over. It can, however, also code other sensory data, as in 12c, where the 'goodness' of beef is perceived through taste.

(12) a. **~dubi-a ~ya'a-~ida ta-'a ~di-a** **koa-ta-ra**
woman-PL catch-NOM:PL come-V.NOM be.PROG-V.NOM NON.VIS-come-VIS.IMPERF.NON.1
Women-kidnappers are coming. (I can hear them). (repeated from 2a)

b. **bora-~su-ka wa'a-ro** **koa-ta-a**
fall.down- COMPL-EMPH go-V.NOM NON.VIS-come-ASSERT.PERF
He fell right down. (lit: his falling down was perceived)

c. **to di'i ~doa-ro** **koa-ka**
3SG.POSS meat be.good-ADV NON.VIS-ASSERT:IMPERF
Its (a cow's) meat tastes good.

We can see from the examples above that NON-VISUAL evidence is coded by an analytical auxiliary verb construction in Wanano. The construction is a compound of the lexical verb root, **koa** [kóá], meaning something akin to 'to perceive by non-visual means'[13] and the motion verb **ta**, *come*, indicating that the perceptual evidence comes from an outside source. Interestingly, perception by taste is coded by **koa** alone (12c). The verbal stem

[13] See also section 6.4.7.1. in chapter 6.

(whether simple or compounded) is then coded by an evidential suffix from one of the two major categories of *firsthand* evidence: VISUAL or ASSERTION. VISUAL is the default category (and the most commonly used everyday speech) indicating direct evidence: **-re** (perfective) or **-ra** (imperfective), as in example 12a. ASSERTION markers are used in narratives (12b) or to refer to the speaker's internal sensations (12c). The verb preceding the NON-VISUAL evidential construction is nominalized.

The combination of a VISUAL evidential with a verb root specifically connoting non-visual evidence may appear contradictory, but we should not let the labels used in the glosses confuse us. As the sole markers on a verb, VISUAL suffixes code, by default, visual evidence, and can be analyzed as the *unmarked* category for sensory evidence in general[14]. As constituents in analytical evidential constructions such as the *marked* NON-VISUAL category, VISUAL evidential suffixes take on this more generic meaning, coding general *direct* sensory evidence, either perfective or imperfective. Though not identified as a specific evidential category by the Waltzes, taken as a whole, the (marked) NON-VISUAL construction clearly contrasts with the (unmarked) VISUAL category in terms of its evidential function, justifying its inclusion as a separate category.

7.2.3.2.3. INFERENCE

The third *firsthand* category is INFERENCE. It shares the feature *external* with the VISUAL and the NON-VISUAL categories, but has the distinguishing feature *indirect*. INFERENCE markers are used in utterances in which the speaker is presenting a conclusion about an event or state based on directly perceived results, inferring what happened based on the current evidence. In contrast to the VISUAL and NON-VISUAL categories, INFERENCE is

[14] This follows the cross-linguistic tendency for VISUAL evidentials to be the least formally marked or even to have a Ø realization (Aikhenvald 2003a:14).

indirect, because though the speaker has sensory access to the evidence, it is obtained after-the-fact, as we see in the examples below. In 13, the speaker is examining a set of baskets that had been stored for a long period of time. One of the baskets is deformed, pushed in on one side, prompting her to comment:

(13) **a'yoo** **tipa- wa'a-ri** **hi-ra**
Oh! be.flat-become-V.NOM.INFER COP-VIS.IMPERF.NON.1
Oh! This one's (been) flattened.

In 14, some men going to a longhouse to capture women for brides arrive to find only empty hammocks. They conclude that the women they were hoping to capture have fled.

(14) **yoa-ta-pʉ** **wiha-tu'sʉ-ri** **hi-ra**
be.far-REF-LOC MOV.outward-just.complete-V.NOM.INFER COP-VIS.IMPERF.NON.1
They've gone (they've escaped).

Finally, in 15, an evil being whose son went off to hunt and never returned concludes from his absence:

(15) **yʉ** **~ba-kʉ-re** **~waha-roka-ri** **hi-re**
1SG.POSS child -MASC-OBJ kill-DIST-V.NOM.INFER COP-VIS.PERF.NON.1
My son's been killed.

Like the NON-VISUAL, INFERENCE is also coded by an analytical auxiliary verb construction. The main verb root (or compound of roots, as in 13 and 14 above) is nominalized by **-ri**. This nominal component is followed by the auxiliary copula **hi**, which is coded by an evidential suffix from one of the two major categories of *firsthand* evidence: VISUAL or ASSERTION. As with the NON-VISUAL construction, the forms from the VISUAL category, **-re** (perfective) or **-ra** (imperfective), are those most commonly used in everyday speech. The perfective form of the ASSERTION category is the default marker for myths and folktales, as we see in the next example, from late in the *Curupira* text. The man has returned

to the place where he had the encounter with the evil being. Four years have passed and he can no longer find traces of the evil being's body. The narrator states the obvious conclusion:

(16) **ba-yʉ'dʉ-ka** | **wa'a-ri** | **hi-a**
be.rotten-INTENS-AFFEC | go-V.NOM.INFER | COP-ASSERT.PERF
It had decomposed completely.

7.2.3.3. Internal firsthand evidence: ASSERTION

The final category on Chart 7.3. is ASSERTION, whose semantics are of particular interest given the cross-linguistic rarity of such a category. ASSERTION suffixes are used to code statements in which the speaker's assessment of a situation is based not on any specific currently accessible *outside* evidence, but on *internal* or *internalized* evidence. This evidence can be founded either on the speaker's own previous experience, upon which s/he can make reasoned suppositions, or on his/her cultural, historical, or physical knowledge of the world, upon which s/he can make assertions of fact. Like the VISUAL category, ASSERTION has both perfective and imperfective forms, though there is no 1st/non-1st distinction in this category.

7.2.3.3.1. Function of the perfective form

As mentioned in the previous section, the perfective form of the ASSERTION evidential, **-(')a**[15], is the default marker of myths and folktales, and this is the only function I have been able to identify for it according to the data analyzed so far. It occupies the evidential suffix position in all narrative sentences, in other words, sentences in which the speaker is in the role of narrator. In examples 17 and 18, we see the introductory lines to the *Hunter and his dogs* and *Curupira* texts. In these examples and throughout both texts, all of the narrator's sentences are coded with the perfective form of the ASSERTION evidential (in solid boxes). In

[15] There appears to be some allophonic/dialectal variation for this morpheme. Though my consultants from Caruru consistently use the **-a** form, my consultant from the downriver community of Arara tends to use **-ga** in the same position and for the same function.

lines *b* and *c* of 18, however, there are also examples of direct speech by one of the protagonists in the text. All direct speech in narratives is coded as everyday speech would be, with VISUAL, NON-VISUAL, etc. evidential categories (in dotted-line boxes).

(17) a. **~kʉ-ta hi-a ~kʉ-iro ~bʉ-ro to ~pho'da-~be're**
one/a-REF COP-V.NOM one/a-NOM:SG man-SG 3SG.POSS children-COM/INST
Once a man and his children

wa'i-~kida **ko'ta-ro-wa'a-a** **~bakaka-pʉ**
animal-PL wait-V.NOM-go-ASSERT.PERF forest -LOC
went hunting animals in the forest.

(18) a. **~kʉ-ta hi-a ~kʉ-iro ~bʉ-ro to ~dabo-ro-re**
one/a-REF COP-V.NOM one/a-NOM:SG man-SG 3SG.POSS wife-SG-OBJ

~o-se' **~di-a**
DEIC:PROX-be.like say-ASSERT.PERF
Once a man said to his wife like this:

b. **yʉ'ʉ ~bicha-re wa'i-~kida-~waha-i** **wa'a-i-ta**
1SG today-TMP animal-PL- kill-V.NOM go-1-INTENT
Today I'm going hunting (Lit:animal-killing).

c. **~bari-re chʉa** **~badia-ra** **~di-a**
1PL.INC-OBJ food not.exist-VIS.IMPERF.NON.1 say-ASSERT.PERF
There isn't any food for us.

7.2.3.3.2. Functions of the imperfective form

While the perfective form of the ASSERTION evidential apparently has a single function, the imperfective form of the ASSERTION evidential has several functions, though we will see that the semantic notion which links them all is that they code different types of *internal* or *internalized* evidence. We will examine each function in turn.

7.2.3.3.2.1. Related to the speaker

The first function of the imperfective form of the ASSERTION evidential category, **-ka**, is evident in the examples in 19. We can see from these examples that **-ka** is used to code the

emotions (19a), bodily sensations (19b-c) and cognitive processes (19d-e) of the speaker. It is also the evidential used in sentences that refer to the speaker's abilities, as indicated by the deontic modal verb ~**basi** (19f). In other words, **-ka** codes all of the speaker's internal experiences and feelings for which there can be no external evidence.

(19) a. **yʉ'ʉ bʉhawiti-a-wa'a-ka**
1SG be.sad-AFFEC-become-ASSERT:IMPERF
It makes me sad.

b. **yʉ'ʉ ~phobe-yʉ'dʉ-a-ka**
1SG be.tired-INTENS- AFFEC-ASSERT:IMPERF
I'm tired.

c. **~phudi-yʉ'dʉ-a-ka**
hurt-INTENS-AFFEC-ASSERT:IMPERF
It hurts a lot.

d. **yʉ'ʉ chʉ-dua-ka**
1SG eat-DESID-ASSERT:IMPERF
I want to eat it.

e. **yʉ'ʉ ~bo-pʉ hi-dua-~ba-ka**
1SG Mõ-LOC COP-DESID-FRUS-ASSERT:IMPERF
I wish I were in Mõ.

f. **yʉ'ʉ yahiri~pho'da-re wa-~basi-era-ka**
1SG(POSS) heart-OBJ give-DEON-NEG-ASSERT:IMPERF
I can't give you my heart.

~da to ~basi-era-ka
bring/take DEF know-NEG-ASSERT:IMPERF
I can't take it out.

Example 20 below is a rare instance of a clause which appears to be doubly-marked for evidentiality, since it has both the INFERENCE construction, **-ri hi-**, and the imperfective ASSERTION suffix, **-ka**. To analyze this example we must first understand the context. The sentence comes from late in the *Curupira* text, after the man has returned to the place where the evil being had fallen. By slicing into the ground there, the man somehow revives the evil being, releasing it from a deathlike sleep. When it arises and finds itself awake again, it says:

(20) **yʉ'ʉ ~khari-yʉ'dʉ-a wa'a-ri hi-ka**
1SG sleep-INTENS-AFFEC go-V.NOM.INFER COP-ASSERT:IMPERF
I've been asleep a long time.

Though there are indeed two different markers of evidentiality in this sentence, I analyze only the final **-ka** as having an evidential function, referring to the speaker's experience or sense of having being 'asleep.' I view the INFERENTIAL construction in this example as having an alternate function: it codes mirativity, or 'unexpected information,' according to the analysis in DeLancey (1997). Mirativity, he argues, is a semantic realm which, though distinct from evidentiality per se, is found to be coded in some languages by evidential markers as one of their extended meanings. Evidential markers having this alternate function often come from the INFERENCE or HEARSAY[16] categories and are used in situations involving firsthand experiences, a seeming contradiction within the traditional semantics associated with these evidential categories. He argues that the common denominator for these seemingly different data sources is a proposition 'which is new to the speaker, not yet integrated into his overall picture of the world' (DeLancy, 1997:36). The Curupira in the text is, in fact, expressing its surprise at finding itself awake after having been asleep (dead) for a long time.

7.2.3.3.2.2. Reasoned suppositions about others

The second function of the imperfective form of the ASSERTION category is to code the speaker's reasoned suppositions about the states or actions of others. Again, there is no *external* source of evidence for these statements, rather, ASSERTION statements of this kind are based on the speaker's previous experience with similar situations, knowledge of the people in question or of the world in general. In 21a, the speaker's knowledge of his mother's

moods and behavior allow for speculation about her internal 'happy' state. In 21b, two men running around in the dark have crashed straight into each other; the speaker's knowledge of what can happen to people in such situations allows for the supposition that they have knocked each other unconscious. Finally, in 21c, from the *Curupira* story, the evil being has nicely asked the man to give him his heart, but the man's knowledge of Curupiras and their pernicious ways permits him to suppose the being's true intentions.

(21) a. **yʉ phʉ-ko wache-ka ~bicha-re**
1SG.POSS parent-FEM be.happy-ASSERT:IMPERF today-TMP
My mother is happy today.

b. **yu'dʉ-ka wa'a-~sidi-a ti-~da**
pass.out-ASSERT:IMPERF go-do.at.the.moment-ASSERT.PERF ANPH-PL
They passed out right then.

c. **yʉ'ʉ-re a'ri-ro chʉ-dua-ro ~di-ka**
1SG-OBJ DEM:PROX-SG eat-DESID-V.NOM be.PROG-ASSERT:IMPERF
This one (the Curupira) (is) want(ing) to eat me.

A short conversation I heard once is a good example of the **-ka** evidential coding a reasoned supposition. I was arriving with a friend at his brother Eugenio's house at around 1 p.m., a time when his brother was usually at home for lunch, and just before we got there we ran into the brother's neighbor. Though the neighbor had not seen Eugenio that day, he knew enough about his habits to suppose that he was home.

(22) my friend: **Eugenio hi-hari** his neighbor: **hi-ka**
Eugenio COP-INT.IMPERF COP-ASSERT:IMPERF
'Is Eugenio home?' *'He is (he should be).'*

7.2.3.3.2.3. Internalized knowledge of the world

The third function of the imperfective ASSERTION suffix is to code one's internalized knowledge about the world, knowledge one acquires as part of one's cultural and historical

[16] We should recall that these two categories, though sometimes coded as separate evidential categories, often form one semantic category of 'indirect' evidentiality as proposed in Willett's

heritage (recall Givón's *presupposition* category, discussed in section 7.1.2.). It is used to affirm truths about the world, and to some extent, seems to overlap with the use of the imperfective VISUAL to code facts, as we see in the following text written for children by a Wanano teacher.

The text is accompanied by a drawing of a red howler monkey, and the first line introduces the animal. The copula marked by a VISUAL evidential, **hi-ra**, is used in this introductory line because of the drawing—one can *see* the monkey—and the VISUAL evidential has a deictic function. In the remaining lines, the imperfective ASSERTION suffix **-ka** is used to code each statement of generic fact concerning the monkey's habits. The writer of the text need not have witnessed each of these facts to be able to affirm them, because knowing the habits of forest animals is part of her general knowledge about her world.

(23) a. **~ebo** **hi-ra**
howler.monkey COP-VIS.IMPERF.NON.1
This is a howler monkey.

b. **ti-ro** **chʉ-ka** **~pho-ri** **~wia-~pho-ri-re**
ANPH-SG eat-ASSERT:IMPERF leaf-PL be.green-leaf-PL-OBJ
It eats green leaves.

c. **chʉ-ka** **tha-~be're** **~wabʉ-tha-re** **do'se** **to** **boka-re**
eat-ASSERT:IMPERF grass-COM/INST become.mature-grass-OBJ REL DEF find-OBJ
It eats grass, any mature grass that it can find.

d. **yʉkʉ-ri** **bu'i-pʉ** **~tidi-ka** **ti-ro**
tree-PL be. on.top.of-LOC wander.around-ASSERT:IMPERF ANPH-SG
It moves around the tree tops.

e. **~ayoa-ro** **ti-ro** **~ebo** **~waba-ti-ka**
then-V.NOM ANPH-SG howler.monkey name-VBZ-ASSERT:IMPERF
That's why it's called a 'howler monkey.'

7.2.3.3.3. Issues related to the ASSERTION evidential category

7.2.3.3.3.1. Category overlap and cross-linguistic comparison

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framework.

The category labeled as ASSERTION on Chart 7.3. corresponds to the category the Waltzes label 'NON-VISUAL,' a term sometimes used in its most literal sense for ET languages which do *not* code distinctions between different kinds of sensory evidence[17]. This is the case for Desano, for which Kaye identifies three evidential categories: OBSERVED, REPORTED or INFERRED, and NON-VISIBLE, which 'covers cases which by their nature or location, the speaker cannot see' (Kaye, 1970:28).

Many ET languages (TUY, SIR, TUC, TAT, CAR, BAR, MAC, YUR) do, in fact, differentiate between VISUAL and NON-VISUAL sensory evidence. However, the NON-VISUAL category in certain languages (SIR, YUR) codes internal states (physical sensations, emotions, and cognitive processes) and is used with first person only.

In most ET languages, the category I label as ASSERTION on Chart 7.3.[18] codes the physical sensations, emotions and cognitive processes of *others* as well as the speaker's general knowledge about things for which there is no external evidence (hence its extension as the general evidential used in myths and folktales). NON-VISUAL, on the other hand, is often the category used to code the physical sensations, emotions and cognitive processes of the speaker. Thus, there are areas of clear semantic overlap between the NON-VISUAL and ASSUMED (ASSERTION) categories throughout the family. Whether this overlap is evidence of semantic fusion or fission will remain a question for future cross-linguistic studies.

Synchronically in Wanano, we see that the semantic territories of the NON-VISUAL and ASSERTION markers are, in fact, well defined. Semantic overlap does occur, on the other

[17] Since the Waltzes do not include the analytical construction with **koa** (NON-VISUAL) in their analysis of evidentials, their choice of label in this case makes perfect sense.

[18] This category is frequently labeled ASSUMED in the ET literature (KUB, YUR, CAR, BAR, and MAC) following Barnes's analysis 1984 of Tuyuca.

hand, in certain situations between ASSERTION and VISUAL when referring to general facts, as we saw in the howler monkey text above.

7.2.3.3.3.2. The 'evidential' nature of ASSERTION

The category of ASSERTION (ASSUMED) is perhaps the most controversial and least understood category in the ET languages; indeed the very existence of such a category raises some interesting theoretical questions. First of all, though labeled as an evidential, this category has sometimes been presented as a kind of 'non-evidential' used to code situations for which the speaker actually has *no* evidence whatsoever. De Haan claims that the existence of such a seemingly contradictory category has a catch-all function that can be attributed to both the hierarchical nature of grammaticalized evidential systems in general and the obligatory quality of the ET evidentials in particular. Analyzing Tuyuca data, he states that the system 'requires the presence of an evidential morpheme in realis clauses and that it must have access to a level that can be used if all other levels are inappropriate (de Haan, 1996:section 5).

However, I view the ASSERTION category not as one whose essential semantics code 'lack of evidence' as de Haan claims, but as one whose semantics represent a qualified type of inference, inference based on internalized knowledge which allows the speaker to make very strong claims as to how the world is. In the ET literature, INFERENCE as an evidential category is defined as coding 'conclusions from observable results' (inductive reasoning). However, we should recall Givón's suggestion that, like all categories, inference is scalar, and it is thus possible a language could develop separate means of coding inference by inductive reasoning and inference by abduction (conclusions based on association). Givón states that it is 'unlikely that abduction/hypothesis is conducted on the basis of *no* facts

whatever' and implies that facts can include such things as *collective experience, recurring patterns of behavior or cultural knowledge* (Givón, 1982:44-45, emphasis mine). The semantics of ASSERTION in Wanano, as we have seen in numerous examples, seem to represent exactly this type of inference.

Willett's framework, too, includes subdivisions within the category of inference. One subcategory includes inferential conclusions based on observed results, while the other includes those resulting from reasoning, based 'logic, intuition, previous experience in a similar situation, or even a dream' (Willett, 1988:61). Willett analyzes the ASSUMED category in Barnes's analysis of Tuyuca in exactly this way, and while admitting that grammatical coding of two kinds of inference may be typologically rare, he finds parallels in languages such as Quechua (Willett, 1988:74).

An alternate view of this category comes from scholars such as Gomez-Imbert. While recognizing the existence of a category which codes such apparently 'non-evidential' situations, she claims that the basic semantics of the category remove it from the domain of realis and place it within the domain of irrealis, alongside other markers of 'unreal' situations such as futures, hypotheticals and speculations (Gomez-Imbert, 1999:section 3). Such an analysis is tempting for Wanano, given the fact that a **-ka** morpheme also codes irrealis constructions such as hypothetical situations and speculations, as we will see in section 7.4. below.

It may well be that ASSERTION is a category in transition, occupying a gray area between *realis* and *irrealis* where some semantic overlap occurs. We cannot say whether such overlap would indicate movement toward future fusion of the categories or whether it is just an example of the fact that semantic categories are not always as discrete as our theoretical frameworks would have them be. Different means of coding may, in fact, *not*

reflect radically different semantic territories; given the scalar nature of the semantics involved, there are bound to be gray areas between them.

7.2.3.4. Hierarchization of evidential categories and the notion of deixis

Throughout the literature on grammaticalized evidentials, it is argued that the semantics of evidentials are scalar, that the systems are organized hierarchically. We should recall Givón's claim that cross-linguistically, evidential systems display internal orientation to one or more of the following hierarchies: *personal*, in which the highest orientation is to the speaker; *sensory*, in which sight takes precedence over hearing and all other senses; *directness*, in which knowledge through the senses is higher than knowledge through inference; and *proximity*, where nearness to a scene is coded higher than distance from it (Givón, 1982:44). Taken together, these hierarchies indicate that evidentials essentially code different types of deixis, a fundamental concept upon which later analyses of the cognitive bases of evidentials such Floyd's work on Wanka Quechua (1999) and de Haan's analysis of visual evidentials (2001a) were built, and which in part explains why Gomez-Imbert adopts the term 'cognitive modalities' instead of 'evidentials' to refer to these systems in the ET languages she has analyzed (Gomez-Imbert, 2000a).

Turning to ET languages, Barnes claims the following hierarchy for the Tuyuca evidential system:

visual > non-visual > apparent (INFERENCE) > secondhand (HEARSAY) > assumed (ASSERTION)

Tuyuca speakers code their utterances with the highest level of evidence available, orienting above all to 'the importance of indicating, by one's choice of an evidential, whether or not any *visual* evidence was observed (Barnes, 1984:262, emphasis mine).

The Wanano data do not indicate an exactly parallel hierarchy. There is certainly an internal hierarchy for the *firsthand external* categories, VISUAL > NON-VISUAL > INFERENCE

and a general hierarchization of any *firsthand* category over HEARSAY. However, the demonstrated use of ASSERTION evidentials in Wanano to code myths and other types of cultural and historical knowledge shows that, in contrast to Barnes's hierarchy for Tuyuca, ASSERTION would certainly not occupy the lowest level of the hierarchy. On the contrary, we have seen that ASSERTION markers are used for what is perhaps the most prestigious kind of knowledge a person has access to, that which one's own body, culture, ancestors, and surrounding physical world have instilled. Such knowledge is absolute and incontestable and thus parallels, if not supersedes, in terms of epistemic value, the VISUAL category.

The claim of a somewhat parallel status for VISUAL and ASSERTION markers in Wanano is supported by the morphological evidence we have seen for the various forms. Both are major evidential categories which can occupy the final position in a basic verbal paradigm, or appear as the final constituent in either of the two analytical *firsthand* categories (NON-VISUAL and INFERENCE). For everyday situations, it is the VISUAL suffixes for non-first person, **-ra/-re**, which are the final morphological constituents in these constructions. There is a shift, though, when one wishes to express general truths or presuppositions. These are coded in conversation by the imperfective form **-ka** and in narratives by the perfective form **-a,** which replaces all three *firsthand external* category forms.

We find, then, that ET languages generally orient to the *personal*, *sensory*, and *directness* hierarchies outlined by Givón, but should note some interesting language-specific developments in relation to these types of orientation. First, in the case of Wanano, it is important to recall the 1st/non-1st paradigm innovation for VISUAL evidentials and the general leveling of the evidential forms in the other *firsthand* categories. This is a radical departure from the person coding found in the evidential systems of other ET languages and suggests that a heightened orientation to the salience of the speaker has become

grammatically coded in Wanano. Second, according to Gomez-Imbert, another interesting innovation has occurred in Tatuyo, which orients to and codes additional distinctions of physical *proximity* within the VISUAL category, an interesting overt manifestation of the inherent deictic nature of this category (Gomez-Imbert, 1999:section 2)[19].

7.2.3.5. Wanano evidentials and epistemic values

In section 7.1. I outlined the basics of the debate surrounding the question of evidentials and epistemic values and hinted at the existence of a kind of theoretical impasse between two opposing 'all-or-nothing' stances: either evidentials are inherently epistemic or evidentials are inherently neutral. During my ongoing investigation of this issue, I have come to the conclusion that 'all-or-nothing' positions are problematic, as data from actual languages with grammaticalized evidentials, including Wanano, indicate that evidential categories can code a *variety* of meanings, including, but not limited to stronger or weaker epistemic values.

I also made the claim that Wanano evidentials have epistemic implications which are, in part, related to the deictic nature of some of the external categories. This claim is partially informed by the work of Floyd (1999). Floyd views evidential categories as complex and polysemous in nature, with meanings related to each other like nodes within a network, linked by relationships of either elaboration or extension. Each evidential category is viewed as having a prototypical core meaning characterized essentially by distinctions of source of information, *as well as* abstract schematic meanings characterized in terms of some aspect of epistemic modality.

[19] A very interesting analysis of the cognitive salience and deictic nature of firsthand evidence can be found in de Haan (2001a and 1999).

Like many analysts of evidentials, Floyd declares the link between information source and validation to be fairly straightforward; unlike most, he provides a theoretical basis to explain this link. Working within the framework of cognitive linguistics, which views semantics as intricately linked to the experiences and cultural background of speakers, Floyd argues that evidentials are a type of 'grounding predication' in which speakers and listeners *construe* situations using, and as a result of, the linguistic means at their disposal. Construal affects are of particular relevance to evidential systems because they affect how deictic expressions are used and understood. Evidentials inherently express distinctions of subjectivity and objectivity because they link the observer in a perceptual situation with the event or entity observed, grammatically placing the speaker in one way or another 'within' the conceptualization. Evidentials are thus both *subjective* and *deictic* in nature: the speaker's experience serves as one reference point for the proposition, reflecting information 'specifically about the experiential justification a speaker has for making a statement' (Floyd, 1999:46). Evidentials can imply epistemic values, Floyd says, because they are notions that express different relationships of *directness* (based on the speaker's source of information) and *proximity* which, taken together lead to epistemic distinctions. Floyd's view is supported by the cross-linguistic tendencies observed for evidential systems, that they almost invariably code the speaker's (rather than a nonspeaker's) participation or commitment and are hierarchical in nature.

Turning, then, to the Wanano system, though it is clearly not the basic question addressed by evidentials, we can wonder how evidentials are linked to the coding of *truth* and *doubt-of-truth* in this language. If Wanano evidential categories code truth-values or speaker commitment as part of their semantics, do they all code *equal* levels of commitment? Are any

evidential categories *neutral* in terms of epistemic values? What is the relationship between hierarchies of information source and degrees of truth-value?

We can begin looking for answers to these questions by first considering the morphological evidence. While there is no overt marker of truth in Wanano[20], we saw in section 6.4.9.2. of chapter 6 that the modal morpheme **-bo**, (listed in the +6 column) codes the speaker's view that the event expressed by the verb is less than completely certain to occur or is not completely true. In other words, **-bo** codes speculation or doubt. This morpheme has cognates in most ET languages and we find that the restrictions governing its co-occurrence with evidential categories are alike cross-linguistically.

In Wanano, the **-bo** morpheme occurs in conjunction only with ASSERTION evidentials (primarily in texts) or with one of the morphemes coding IRREALIS. It can indicate speculation about hypothetical events (24a-c) or speaker doubt of, or non-commitment to, a statement (24d-e).

(24) a. **~bʉ'ʉ-re chʉ ~doka-bo-a**
2SG-OBJ eat COMPL-DUB-ASSERT.PERF
We would have eaten you. (repeated from 7b)

b. **~patedi yʉ'ʉ thua-kʉ yʉ'ʉ-~khʉ bu'e-bo-ka**
if 1SG return-NON.3.MASC 1SG-ADD study/learn-DUB-PREDICT
If I went back, I would also learn.

c. **~o-pʉ-re yoa pa-ri-tu-ri ~yʉ-bo-ka ti-~da**
DEIC:PROX-LOC-CLS:generic do time-PL-return-NOM see-DUB-PREDICT. ANPH -PL
On that (video recorder), they'll probably watch it over and over.

d. **da'ra-~da wa'a-bo-ka**
work-1PL go-DUB-PREDICT
We might go to work.

[20] Interestingly, according to Gomez-Imbert, there *is* overt coding of truth in Tatuyo and Barasana. In Tatuyo, the prefix ka-, which can be used with *visible*, *inferential* and *reported* evidential categories, indicates that a statement is the 'definitive version of the situation in question,' that the speaker has 'sufficient elements to attribute a value of *truth* to the proposition' (Gomez-Imbert, 1999a:section1.2). In Barasana, the same value is coded by a tonal prefix, but cannot co-occur with a *reported* evidential.

e. **ti-~da yo'ga wa'a-bo-a**
ANPH -PL fish go-DUB-ASSERT.PERF
Maybe they went fishing.

It is important to note that the doubt marker cannot co-occur with *direct* evidential categories. In Wanano, and throughout the ET family, the use of a morpheme indicating *doubt* with any of the *direct* evidential categories results in an ungrammatical sentence such as the example utterance *'He left (I witnessed this myself) but I doubt it.'

What do the existence of a dubitative marker and the restrictions on its use tell us about the possible epistemic value of evidentials? My view, as stated in 7.1.3., is that unmarked statements have a default value of truth, an analysis which appeals to the notion of markedness as proposed by Frajzyngier:

> ' . . . if we have two constructions in a language, A and B such that B differs from A in being formally marked and indicating some doubt in the truth expressed by A, then the form A will be considered as a form whose function is to indicate belief in the truth of some proposition X' (Frajzyngier, 1985:245).

Applying Frajzyngier's analysis to the case of Wanano *firsthand* evidential categories, we find that the VISUAL, NON-VISUAL, and INFERENCE categories cannot be marked for doubt due to the deictic nature and cognitive salience of the types of evidence which are at their core. Statements coded by these categories are thus inherently unmarked and imply truth. As for the category of ASSERTION, I analyze statements coded for doubt by the **-bo** morpheme as the marked case. This means that statements with ASSERTION evidentials but without optional coding of doubt represent the unmarked value and thus also code speaker commitment (recall their use in myths and in generic statements).

Finally, we can contrast the *firsthand* categories as a whole to the *secondhand* category of HEARSAY. Having established inherent epistemic extensions for all the *firsthand* categories, the question becomes, do these represent the unmarked class and the secondhand

the marked category indicating diminished speaker commitment? If HEARSAY is the marked case, does it automatically indicate diminished commitment or could the marked value be one of *neutrality* to commitment distinctions? De Haan claims that '[f]rom the evidence brought forward here, it appears that evidentials are neutral with respect to the indication of truth or doubt. All they report is the presence and nature of the evidence on which the statement is made' (de Haan, 1999:94). While his assertion is meant to apply to evidentials in general—an idea I reject—the notion of neutrality may be applicable to the Wanano HEARSAY category—unless the speaker specifically indicates doubt, a statement coded with this category of evidential indicates nothing in this respect; the evidential indicates source of information only.

What, then, are we to make of the attested hierarchy of evidential categories? If all categories code commitment, should that commitment be viewed as equal across the board? Again, both Givón's notion of the scalar nature of categories within systems and Floyd's idea that differences of *directness* and *proximity* can result in variations of a scalar nature can prove insightful. These notions suggest that, within the *firsthand* categories, both the VISUAL and the ASSERTION categories can code complete speaker commitment to the proposition, though the origin of speaker certainty varies as to whether it is based on *external* or *internal* evidence. The two analytical categories, (NON-VISUAL and INFERENCE) also imply commitment, however, it is a commitment attenuated by the sources of evidence they invoke.

In the previous two sections, I have presented the syntactic and semantic criteria which define grammaticalized evidentials and have described the five evidential categories in Wanano: HEARSAY, VISUAL, NON-VISUAL, INFERENCE, and ASSERTION. We saw that within the paradigm, different evidential categories conflate with distinctions of person, reference and aspect. We explored the core and extended meanings of each category and particular

focus was placed on the category of ASSERTION, which codes a variety of seemingly unrelated situations, from absolute facts to reasoned speculations. It was shown that the semantic link between statements coded by ASSERTION evidentials is that the speaker's source of information is *internal*.

I also showed that the semantics of evidential categories are not completely discrete, that their core semantics, based on source of information, can be extended to other functions, such as the coding of mirativity, and that there are areas of overlap. In particular, the semantics of ASSERTION can overlap with those of the VISUAL category in certain contexts.

I also called attention to the theoretical discussion of the relationship between evidentials and epistemic values. My conclusion is that categorical statements of the 'either-or' type are impractical and that only detailed examination of each individual evidential system will reveal if and how degrees of truth values are coded. Indeed, the Wanano system displays some categorial diversity in terms of speaker commitment.

7.3. Irrealis

The second category of clause-final modality codes IRREALIS statements. However, before describing statements coded by IRREALIS markers, we need to take a slight detour and briefly explore some of the theoretical questions related to the notions of realis and irrealis. We will see that realis/irrealis distinctions permeate the semantics of three of the major categories of clause modality in Wanano.

7.3.1. Realis/irrealis distinctions in Wanano modality

The distinction between realis and irrealis has traditionally been seen as one of opposing values: actual vs. non-actual events, real vs. unreal time or occurrences. Within this kind of binary model, we associate the irrealis category with the non-actual/unreal side of the

dichotomy and assume that it expresses modal meanings such as speculation, prediction, and hypothesizing. However, Bybee, Perkins, and Pagliuca (1994) show that while the binary realis/irrealis opposition alludes to clear-cut distinctions of grammatical coding, cross-linguistically, such distinctions are rarely marked by the absence or presence of a single grammatical marker; more often, a gradient of meanings are coded by a combination of means. In a later work, Bybee (1998) continues to question irrealis as a *grammatical* category but admits the possibility of irrealis as a valid *conceptual* category. She argues that conceptual notions related to the domain of irrealis are usually conveyed by constructions rather than by individual grammatical elements which are analyzable in and of themselves as markers of irrealis. Furthermore, she claims that these constructions correspond to domains of modality which indicate speaker point of view rather than any concrete information about the reality or lack of reality of the situation. Constructions denoting lesser commitment on the part of the speaker are labeled irrealis while those more strongly asserted by the speaker are labeled as realis.

Givón (1982, 2001a) also offers a non-binary view of realis/irrealis distinctions. He views realis and irrealis not as completely opposing semantic notions, as the labels might imply, but as representing ends on a continuum which allow the speaker and hearer to communicate gradients of certainty based on available evidence. Thus he is able to refer to both realis and irrealis *assertions* (as summarized in section 7.1.2.), the fundamental difference between these types of assertions being the nature of the supporting evidence evoked by the speaker and the possibility of challenge on the part of the adressee. Assertions coded by evidential markers fall toward the realis end of the continuum and correspond prototypically to events or states that have existed or still exist, as in the traditional definition of realis. It is these categories for which the speaker is able to evoke different kinds of

supporting evidence for the assertion. According to Givón, because certain types of evidence are more salient than others, it is not surprising that we find the greatest number of grammaticalized distinctions in the category of evidentials and that they reflect scalar differences. Assertions the speaker is unwilling or unable to indicate evidence for and which are open to challenge by the hearer fall toward the other end of the continuum and are coded as irrealis. Such assertions are typically speculations, predictions, or hypotheses about events or states for which evidence is unavailable. Nevertheless, Givón reminds us that even within the irrealis domain, scalar differentiation as to the likelihood or probability of the event or state coming to pass can also be grammatically coded (Givón, 1982:41-45). The difficulty in assessing the 'dividing lines' between the categories of realis and irrealis, in assigning labels to the forms of a given language, can be seen as evidence in support of a continuum model over one of binary oppositions.

We saw in section 7.2. above that in Wanano, utterances coded by the evidential categories of HEARSAY, VISUAL, NON-VISUAL, and INFERENCE rather obviously fall within the REALIS domain in that evidence of one kind or another can be evoked to support them. The ASSERTION category, on the other hand, based on internal or internalized evidence may constitute a kind of 'gray area' or transitional category within the continuum as it moves toward the domain of IRREALIS. Statements coded as IRREALIS are not supported by evidence because they refer to events which have not yet occurred, such as predictions (analyzed by the Waltzes as future tense) as well as the speaker's own intentions, or they are speculations about non-existent or hypothetical situations.

7.3.2. Prediction

Wanano codes predictions, a speaker's statements about actions or events yet to be realized, by the suffix **-ka**[21], as we see in the examples in 25. We should note that, as mentioned in section 5.2.2., Subject agreement morphemes, the **-kʉ** and **-i** morphemes occur in such statements. This is the same agreement morphology which functions to nominalize dependent clauses and verbal elements in other (i.e. auxiliary verb) types of constructions. Here, however, these agreement morphemes occur on the finite verb itself, and may represent an older paradigm of generalized person coding in Wanano, much like that found synchronically in other ET languages.

(25) a. **~ayo ~o-pʉ-re yʉ'ʉ kho'a-wi'i-kʉ-ka**
so/then DEIC:PROX-LOC-OBJ 1SG return-COMPL-NON.3.MASC-PREDICT
That's how I'll get back here.

b. **~pate karaka duu-ri-pa yʉ'ʉ thua-kʉ-ka**
maybe rooster speak-NOM-time 1SG return-NON.3.MASC-PREDICT
I'll probably come back (home) at the first crow of the cock.

c. **tʉ-~be're ~bʉ'ʉ wa'i-~kida-~waha-i sito-ta-ka**
stick-COM 2SG animal-PL-kill-NON.3 MOV.circular-come-PREDICT
With this stick, you'll go around hunting.

7.3.3. Intention

We recall Givón's claim that even within the domain of irrealis, scalar differentiation as to the likelihood or probability of the event or state coming to pass can be grammatically coded (Givón, 1982:41-45). This is exactly the case in Wanano, which codes a distinction within the category of IRREALIS between predictions the speaker makes about events and

[21] According to the Waltzes, a glottal stop marks the difference between the evidential NON-VISUAL (ASSERTION) suffix **-ka** and the future suffix **-ʔka**. I have not found this to be consistently true in my data and analyze the glottal not as an intrinsic part of the morpheme, but as a result of low tone spreading throughout the verbal word. In the present analysis, these homophonous morphemes are viewed as members of different paradigms with distinct functions.

statements referring to the speaker's own intentions. The difference can be viewed as one of commitment to the possibility of the event's occurrence: while predictions imply that events involving one's self or others will probably come to pass, only actions the speaker will actually perform can be affirmed with certainty. Thus, the statements which indicate the highest degree of certainty within IRREALIS are those coded by the suffix **-ta** as intention; such statements are grammatically restricted to 1st-person Subjects, as the examples in 30 show. As with predictions, person-coding morphology precedes (**-i** in the examples below) the modal marker.

(26) a. **yʉ'ʉ wa'i-re do'a-bosa-i-ta ~bʉ'ʉ-re**
1SG fish-OBJ cook-BEN-1-INTENT 2SG-OBJ
I'm going to cook the fish for you.

b. **bʉsa-ri-da yoa-i-ta-i ~di-ha**
adorn-NOM-CLS:threadlike do/make-1-INTENT-V.NOM be.PROG -VIS.IMPERF.1
I'll be making (I'm going to make) a necklace

c. **yʉ'ʉ ~bicha-re wa'i-~kida-~waha-i wa'a-i-ta**
1SG today-TMP animal-PL- kill-V.NOM go-1-INTENT
Today I'm going hunting (Lit: animal-killing).

7.3.4. Speculation

At the other end of the internal IRREALIS scale, we find that low speaker commitment to the likelihood of an event's coming to pass is morphologically coded by the combination of the DUBITATIVE **-bo** and the otherwise 'predictive' **-ka**. Such statements imply speculation on the part of the speaker, as in 27a-c. By extension, this combination of morphemes is also used in hypothetical situations and conditional clauses such as 27d.

(27) a. **~o-pʉ-re yoa pa-ri-tu-ri ~yʉ-bo-ka ti-~da**
DEIC:PROX-LOC-CLS:generic do time-PL-return-NOM see-DUB-PREDICT ANPH -PL
On that (video recorder), they'll probably watch it over and over. (repeated from 24c)

b. **da'ra-~da wa'a-bo-ka**
work-1PL go-DUB-PREDICT
We might go to work. (repeated from 24d)

c. **cho ~o-i-ta** | **hi-~doka-bo-ka-~pʉ**
Oh! DEIC:PROX-LOC | COP-COMPL-DUB-PREDICT-LOC
Oh, maybe he (the dog) is here ...

d. **~patedi yʉ'ʉ thua-kʉ yʉ'ʉ-~khʉ** | **bu'e-bo-ka**
if 1SG return-NON.3.MASC 1SG-ADD | study/learn-DUB-PREDICT
If I went back, I would also learn. (repeated from 24b)

7.3.5. Negatives

In section 6.5.1. we saw that verbs in statements about REALIS situations are negated by the morpheme **-era**. Statements in the category of IRREALIS, on the other hand, are negated by a single final morpheme **-si**. Example 28 is from a conversation in which two women were encouraging another older woman to say something in her first language (Kubeo) for the video camera. The older woman, embarrassed, made the statement in 27a, and two other women replied with the statements in 28.

(28) W1: **~yʉ-si** | **ti-~da ~hi'da**
see/look-NEG.IRR | ANPH-PL EMPH
No, they won't!

W2: **~yʉ-si** | **ti-~da ~kʉ-ta hi-ra**
see/look-NEG.IRR | ANPH-PL one/a-REF COP-VIS.IMPERF.NON.1
They won't. They'll (watch just) once.

Another interesting example of **-si** is found in line *c* of example 29, from the introduction to the storybook written by the Wanano during our first two workshops

(29) a. **a'ri-thu hi-ra wa'i~-kida ya-ya'u-ri-thu**
DEM:PROX-CLS:stacked COP-VIS.IMPERF.NON.1 animal-PL POSS.REF-tell-NOM-CLS:stacked
This is our animal storybook.

b. **~sa ~pho'da bu'e-ti hi-ra**
1PL:EXC children study/learn-PURP COP-VIS.IMPERF.NON.1
It is for our children to study.

c. **~ayoa-~da ~sa kooti-ri-a ~de** | **bo-si**
so-1PL 1PL:EXC Wanano-NOM-PL NEG | forget-NEG.IRR
So (consequently), we Wananos won't forget

d. **~sa ya-hoa-re du-ruku-a-re**
1PL:EXC.POSS POSS.REF-write-OBJ talk-CONT.-3PL-OBJ
our own writing and speaking.

The data presented in the last four sections show that several of the theoretical notions concerning the coding of irrealis presented in section 7.3.1. are entirely appropriate for Wanano. First, we have seen that different kinds of irrealis situations are coded by constructions or combinations of morphemes rather than by a single morpheme. Second, for both realis and irrealis we have seen that internal categorical distinctions code differences in the speaker's point of view and degrees of commitment. Finally, we have seen that there is grammatical coding of scalar differences in both subcategories of statements. We will see in section 7.4. below that parallel differences are also coded in questions.

7.4. Interrogatives

The third category of verb-final modal morphemes are those coding questions. The INTERROGATIVE category displays some interesting areas of semantic overlap and shares some features with both the EVIDENTIAL (REALIS) and IRREALIS categories. This overlap is visually represented by the shading in Charts 7.1. and 7.4. below.

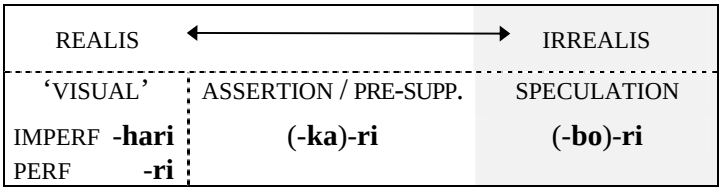

CHART 7.4. INTERROGATIVES

Chart 7.4. expands the INTERROGATIVE column on Chart 7.1. and indicates the features by which we can identify areas of semantic overlap. We see, first of all, that there are four different interrogative forms. The forms in the lefthand column code questions referring to realis situations. In their coding of aspectual imperfective/perfective distinctions, these forms display semantic overlap with the VISUAL evidential category, the default category coding *firsthand external* evidence. In the middle column we find the combination of morphemes

used to code questions which involve supposition. Such questions display semantic overlap with the ASSERTION evidential category. The combination of morphemes in the righthand column is used to code questions involving speculation or other types of IRREALIS.

The notion that interrogative forms can express semantic differences corresponding to realis(evidential)/irrealis distinctions may, at first, seem rather contradictory. We recall that in the traditional viewpoint, realis/irrealis essentially code the reality vs. non-reality of events, and that when a speaker asks a question, it is in order to obtain some kind of *unknown* information. Thus, questions, by their very nature, would appear to belong to the irrealis domain, the domain of non-reality. If, however, realis/irrealis distinctions are viewed as essentially coding nuances of the speaker's viewpoint and degrees of certainty, it is possible to see how the coding of interrogatives could reflect, at least in part, the kinds of scalar distinctions by which statements (assertions) are coded.

Floyd's conception of the semantics of modal markers as comprised of both prototypical core information-source meanings and extended, related epistemic meanings supports such an analysis. He argues, for example, that the core semantics of direct evidentials give rise to extended semantics of certainty because such evidentials establish a direct relationship between the speaker and the content of the statement. The occurrence of such evidentials in questions, 'the very place one would *not* expect direct evidential marking to occur' (because by asking a question the speaker is displaying a non-relationship with the information requested), can, by extension, be analyzed as coding the speaker's assumption that the *addressee* stands in such a direct relationship to the proposition (Floyd, 1999:86, emphasis mine). In other words,

> 'in a question-asking circumstance, the speaker construes the addressee as being in a *direct relation* to some propositional content, which of course, precisely parallels the kind of relationship the speaker himself typically holds to a proposition in an assertion' (Floyd, 1999:87).

7.4.1. Imperfective/perfective questions

The Wanano 'VISUAL' interrogatives are the default coding means for most questions. They occur on both polar (yes/no) questions (30a-b, 31a) and information questions (30c-d, 31b-e). Questions marked by these suffixes code not only a request for information, but the speaker's expectation that the addressee can, in fact, provide that information.

Like VISUAL evidentials, the interrogative forms code aspectual information: the imperfective form is **-hari**, and the perfective, **-ri**. As it is the only morpheme common to all Wanano interrogatives forms, I consider the principal semantic function of **-ri** to be the coding of a sentence as an interrogative, with 'perfective' aspect as its default value. Examples of **-ri** coding question related to perfective events are given in 30.

(30) a. **ti-~da** **yoa-ri** **a'ri-re**
ANPH-PL do/make-INT DEM:PROX-OBJ
Did they make these (baskets)?

b. **~bʉ'ʉ** **~ju-era-ri** **yʉ** **~ba-kʉ-re**
2SG see-NEG-INT 1SG.POSS child-MASC-OBJ
Didn't you see my son?

c. **~bʉ'ʉ** **do'se** **yoa** **~da-ri** **~bʉ'ʉ** **yahiri~pho'da-re**
2SG how do/make bring/take-INT 2SG(POSS) heart-OBJ
How did you take out your heart?

d. **do'se** **yoa-kʉ** **~a** **yoa-ri** **~bʉ'ʉ**
why do/make-NON.3.MASC so do/make-INT 2SG
Why did you (masc) do that?

The imperfective **-hari**, used in questions related to states (31a-b) or other imperfective situations (31c-e), is analyzed as the marked form. While native speakers do not identify any internal morphological breakdown, we should recall that the morpheme **-ha** codes first-person VISUAL imperfective statements, which suggests a semantic source for what is now a grammaticalized fused suffix. Note that negative questions are formed by the negative morpheme **-era**, followed by one of the interrogative suffixes (30b above and 31d below).

(31) a. **phʉ'ʉ-se da're-~ida** **hi-hari** **ti-~da**
basket-PL make-NOM.PL COP-INT.IMPERF ANPH-PL
Are they basket-makers?

b. **do'se yoa phʉ'ʉ-se-~ka** **~do-hari**
what do/make basket-PL-DIM. be.worth-INT.IMPERF
What are these little baskets (good) for? (lit: How are these baskets useful?)

c. **do'se yoa** **yo'ga-hari** **a'ri-ro-re**
how do/make fish-INT.IMPERF DEM:PROX-SG-OBJ
How do you fish for this one (a type of fish)?

d. **do'se yoa-ro a'ri-ro yʉ'ʉ-re** **yʉ'ti-era-hari**
why do/make-V.NOM DEM:PROX-SG 1SG-OBJ answer-NEG-INT.IMPERF
Why isn't he answering me?

e. **~a-ta yoa to ko-ya-se'e ti-ro-re**
so-REF do/make 3SG.POSS relative-PL-CONTR. ANPH-SG-OBJ

~sidi-tua-ati-~ba-a **~bʉ'ʉ do'se yoa** **~waha-hari**
ask-be.strong-IMPERF-FRUS-ASSERT.PERF 2SG how do/make kill-INT.IMPERF
So, his relatives were always questioning him: "How do you kill so many animals?"

7.4.2. Questions involving supposition or speculation

Native speakers confirm that questions marked by **-ri** or **-hari** indicate an expectation on the speaker's part that the addressee has access to the desired information. Further evidence for such an interpretation comes from the remaining interrogative categories. If a speaker supposes, but is not completely sure, that the addressee had or could have direct knowledge of the required information, the interrogative suffix is preceded by the morpheme **-ka**, as we see in 32 below. Like the imperfective form analyzed above, an evidential category is probably the semantic source for this optional morpheme. The **-ka** morpheme in the interrogative is most likely linked to the imperfective form of the ASSERTION category, specifically, to its function as a marker of reasoned suppositions.

(32) **~bi-pʉ-re yaba-~be'-re phichaka-re** **yoa-ka-ri**
now-LOC-TMP INT-COM/INST fire-OBJ do/make-ASSERT-INT
How (do you think/suppose) fire is made now?

If, on the other hand, the speaker really doesn't know the extent of the addressee's knowledge or in any way doubts the addressee's ability to answer the question, the interrogative suffix is preceded by the dubitative morpheme **-bo**, as in 33.

(33) **ti-ro** **wʉ'ʉ-pʉ** **wa'a-bo-ri**
ANPH-SG house-LOC go-DUB-INT
Did he go home? (Speaker is not sure of addressee's knowledge.)

These different interrogative constructions and the areas of semantic overlap they code indicate that a continuum analysis of realis/irrealis distinctions in modal categories is clearly appropriate for Wanano. The realis evidential categories for statements are paralleled by the **-ri/-hari** interrogatives forms coding realis questions, **-ka-ri** occupies a middle ground in the continuum coding supposition, while **-bo-ri** codes irrealis[22]. Thus, by adopting a view of the realis/irrealis distinction which includes the possibility of extended semantics of certainty, in one's own assertion or one's addressee's knowledge, we can see areas of semantic overlap between statements and questions.

The relations between evidential categories and interrogative coding have been explored in a few other ET languages as well. Malone analyzes the difference between the interrogative forms **-ri** and **-gari/yiri** in Tuyuca as coding not aspect (as is the case for Wanano), but a basic firsthand/non-firsthand (evidential) distinction:

> '. . . "firsthand" indicates that the interrogator assumes that the interrogee saw or sees the action taking place. The interrogator uses the "nonfirsthand" form if he has reason to assume that the interrogee does not see or did not see the action take place.' (Malone, 1988:122)

[22] According to Aikhenvald, it is not uncommon for a language with evidentials to code fewer distinctions in questions and commands than in statements. Tariana, an Arawakan language spoken in the same geographic area and with whom the Wanano frequently intermarry, for example, also has five evidential categories in statements and three in questions (Aikhenvald, 2003a: 15).

Gomez-Imbert offers a similar analysis for the paradigm of interrogative markers in Barasano, which have three basic final forms: **-ri/-ti** corresponding to the *direct* perfective and imperfective VISUAL category, and **-hari**, coding questions about NON-VISUAL (*direct*), INFERENCE, and REPORTED (*indirect*) information. (Gomez-Imbert, 1997:298). Finally, according to Ramirez, the interrogative forms for Tukano are **-ti**, used for questions about VISUAL present/recent-past information, and **-ri**, used for VISUAL past and all other categories. (Ramirez, 1997a: 143).

7.5. 'Oriented' modality

The final group of markers in the paradigm are those which code utterances with 'oriented'[23] modal functions such as imperatives, exhortatives, requests, and warnings. Such modalities form a separate semantic subgroup in that they 'do not report the existence of conditions on the agent, but rather allow the speaker to impose such conditions on the addressee' (Bybee, 1994:179). A number of these functions are coded as verb-final morphemes in Wanano and are included in the rightmost column on Chart 7.1. However, as with other types of modality, this general semantic category can be coded by a variety of means. Thus, though the main focus of this chapter is the paradigm of verb-final modal markers given in Chart 7.1., in order to present a more well-rounded view of the semantic category as a whole, we will detour slightly from the paradigm to briefly explore some complementary coding means.

[23] I have adapted the label from Bybee, et al., who view 'directives [which] include commands, demands, requests, entreaties [as well as] warnings, exhortations, [and] permissives' as members of a category they call 'speaker-oriented' modality (Bybee, 1994:178).

7.5.1. Requests, demands, and warnings

Wanano has several independent verbs of speech which, in addition to their core semantics, can be used to make requests and demands, or to give warnings. The verbs **du'ti**, [duʔtí] *tell*, and **~sidi**, [sĩnḿ] *ask*, can also be used with the modal meanings *request*, *ask for*, or *demand* (34a-e). The verb **ya'u**, [yaʔú] *tell* can also be used with the extended modal meaning of *warn* (34f).

Such semantic extensions are sometimes established by combinations of morphemes and sometimes by contextual information. In the line preceding 34a, for instance, a woman expressed a desire to eat a particular kind of fruit. The frustrative morpheme **-~ba** in the nominalization **du'ti-~ba-ri** indicates that the 'telling' was in fact a *request*, and that it was unfulfilled. In 34b-d contextual information provides the basis for the appropriate semantic readings. In 34b, the culturally established relationship of authority between a father and a son (the speaker) yields a *request* or *demand*-type reading rather than a more neutral reading of mere *telling.* In 34c, on the other hand, a father is telling his sons about a dangerous situation; contextually, this type of *telling* is interpreted as *warning*. As for 34d, since it is well-known fact that Curupiras are powerful and dangerous beings, when one such being *asks for* the man's heart, the request is naturally interpreted more weightily as a *demand* of the most threatening type! In 34e, on the other hand, lexical compounding of ~**sidi**, *ask* and the dependent verb **tua**, *be strong* connote a *demand*, while the same compound coded by the frustrative **-~ba** in 34f yields *beg*, a demand not attended to.

(34) a. **to a'ri-re** **du'ti-~ba-ri** **~di-ha-chɯ**
DEF DEM:PROX-CLS:generic tell-FRUS-NOM say-TERM-SW.REF
Just after she said that (made her request/wish) . . .

b. **~bari-re ~so'o-i ~si'a phiti-boka du'ti-re**
1PL.INC-OBJ DEIC:DIST-LOC set.fire.to COLLEC-meet tell-VIS.PERF.NON.1
He (our father) told/asked us to meet him there with torches.

c. **~ayo bo're-ro to ~pho'da-re ya'u-a ~hi'da**
then be.light-V.NOM 3SG.POSS children-OBJ tell-V.NOM EMPH
So, in the morning he (the father) warned his sons:

ahi-ri-ro hi-ri hi-re ~waku-~basi-a to-re
worry-NOM-SG COP-V.NOM.INFER COP-VIS.PERF.NON.1 remember-DEON-3SG/PL REM-OBJ
"(You should) remember that there's a dangerous (worrisome) being there."

d. **to yahiri~pho'da-re ~sidi-a ti-ro-re**
3SG.POSS heart-OBJ ask.for-ASSERT.PERF ANPH-SG-OBJ
He (the Curupira) asked him (the man) for his heart.

e. **~bʉbʉ-~baha-~sʉ ti-ro-re ~sidi-tua**
go.quickly-MOV.upward- COMPL ANPH-SG-OBJ ask-be.strong
He (the snake father) quickly came up to him (the man) and asked (demanded),

~bʉ'ʉ ~yʉ-era-ri yʉ ~ba-kʉ-re
2SG see/look-NEG-INT 1SG.POSS child-MASC-OBJ
"Didn't you see my son?"

f. **ti-~da-re ~sidi-tua-~ba-ka ~sa-re wa'a-ga**
ANPH-PL-OBJ ask.for-be.strong-FRUS-EMPH 1PL:EXC-OBJ give-IMP
(The woman-stealers) begged them for (to give them) the women . . .

7.5.2. Exhortatives

The exhortative function was previously examined in chapter 5, section 5.7.2.3. As with demands, requests and warnings, exhortatives are coded lexically, specifically by the independent marker **~hi'da**, as we see in the examples in 35.

(35) a. **~sa ~di-~ba'a wa'a-wa'a ~hi'da**
1PL:EXC say-FRUST-ASSERT.PERF go-go EXRT

~ya-~ida hi-ra
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
She urged, "Let's escape. These (beings) are evil."

b. **kooti-ri-a ya-~be're bu'e ~hi'da**
Wanano-NOM-PL belong.to-COM/INST study/learn EXRT
Let's study in Wanano. (title of the Wanano children's storybook)

7.5.3. Imperatives

Turning now to the morphological markers of 'oriented' modality listed in the rightmost column of Chart 7.1., we see that imperatives (semantic cousins to *requests* and *demands*) are coded by the verb-final suffix **-ga**[24]. Note also that the negative imperative in the second line of example 36c, like the negative interrogatives in 30b and 31d, is formed with the morpheme **-era**.

(36) a. **~bʉ'ʉ yahiri~pho'da-re yʉ'ʉ-re wa-ga**
2SG(POSS) heart-OBJ 1SG-OBJ give-IMPER
Give me your heart.

b. **~bʉ'ʉ a'-dʉ-~be're wa'i-~kida-~waha-ga**
2SG DEM:PROX-CLS:cylindrical -COM/INST animal-PL-kill-IMPER
Go hunt with this stick.

yaba-~ida ~bʉ'ʉ ~waha-dua-~ida-re ~waha-ga
who/which-NOM:PL 2SG kill-DESID-NOM:PL-OBJ kill-IMPER
Go kill whatever you want (lit: ones you're wanting to kill)

c. **khui-ga ~aga-re ti -ro baka-ro ~basa-~waha-ri-ro hi-ra**
fear-IMPER pit.viper-OBJ ANPH-SG bite-V.NOM person-kill-NOM-SG COP-VIS.IMPERF.NON.1
Be afraid of (pit vipers), their bite is deadly.

su'a-ro-pʉ-re wa'a-era-ati-ga
go.into.the.brush-V.NOM-LOC-OBJ go-NEG-IMPERF-IMPER
(So,) don't be going into the brush.

7.5.4. Permissives

The second marker listed in the final column in Chart 7.1. is the permissive -~**ba**. Semantically related to *requests*, permissives code utterances which request or elicit approval for one's own actions. The conversational examples in 37 demonstrate the use of this marker.

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[24] I indicate only the suffix **-ga** as coding imperatives as this is the only form which has occurred in my data so far. The Waltzes, however, list four additional imperatives: a polite, a 3rd-person, an emphatic, and a demonstrative (Waltz and Waltz, 1997:40).

For certain speakers, this morpheme has the allophone **-a**. These same speakers tend to use **-ga** as an allophone of the perfective form of the ASSERTION evidential **-a**. These parallel **-a**/**ga** alternations suggest that there may be straighter semantic links between these categories than have so far been analyzed.

The speaker in 37a wanted to take a look at a basket that another woman was examining at the time. The utterance in 37b occurred as the speaker got up to take a large bottle of pop inside to keep it cool.

(37) a. **~yʉ** **si-~ba** **yʉ'ʉ**
see/look DEM:DIST-PERMIS 1SG
May I (Let me) look at (it).

b. **a'ri-re** **~da-~sa'a-~ba**
DEM:PROX-CLS:generic bring/take-MOV.inside-PERMIS
I'm taking this inside (OK?).

7.5.5. Admonitives

The third marker in the set of 'oriented' modal markers is the admonitive **-ri**. This marker codes utterances which convey the negative consequences that will result from an unheeded *warning*. Such statements display a certain degree of semantic overlap with IRREALIS in that they make predictions regarding as-yet unrealized situations, as we see in 38.

(38) a. **~sa** **~di-~ba'a** **wa'a-wa'a** **~hi'da**
1PL:EXC say-FRUST-ASSERT.PERF go-go do.immediately

~ya-~ida **hi-ra**
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
She urged, "We have to escape because these (beings) are evil."

~bʉ'ʉ-re **chʉ-ri** **~di-a**
2SG-OBJ eat-ADMON say-ASSERT.PERF
"Otherwise/or else they'll eat you," she said.

b. **~bʉ'ʉ-re** **ba'ka-ri**
2SG-OBJ bite-ADMON
(Stay away from that dog) . . . or else it will bite you.

7.5.5. Adversatives

The final marker in this set is the adversative **-kʉrʉ**, a semantic cousin to the admonitive above, but which codes events in the realm of REALIS. Utterances coded by this marker indicate the negative results or effects that the action of the verb had on the participant(s). 39a comes from the conclusion of the *Hunting Dog* story where the speaker

states that after the family dog was killed by a jaguar, the family remained ‘dogless’ for a long time. The use of the adversative shows both the speaker’s sadness over the loss of the dog and his assessment that being dog-less is bad for a family, since dogs are always an aid to hunting. In 39b, the speaker was talking about having gone to a festival at which there was dancing (which the Wanano love) but didn’t get to dance.

(39) a. **~sa** **die-ro-~be’re-ri-~da**
1PL:EXC dog-SG-COM/INST-NOM-1PL

~thua-ha-k~~u~~r~~u~~ **yoa-ri-pa**
stay-TERM-ADVERS be.long-NOM-time
Then we stayed (unfortunately) without a dog for a long time.

b. **~de** **basa-era-photi-a-k~~u~~r~~u~~** **y~~u~~’~~u~~**
NEG sing/dance-NEG-AFFEC-INTENS-ADVERS 1SG
I didn’t dance even a little.

7.6. Summary

In this chapter I have presented the grammatical and obligatorily coding of clause modality in Wanano. We saw that there are four major categories of modality coded as the final constituents of finite verbs and that the markers in these categories form a single paradigm and are mutually exclusive. The four categories correspond to three primary sentence types: statements, interrogatives, and ‘oriented’ utterances such as imperatives.

Evidentials are by far the most complex category of clause modality. They code not only source of evidence for realis statements, but also distinctions of person and aspect as well as implied scalar epistemic values. Markers coding irrealis statements and interrogatives have fewer distinguishing features, but also display sensitivity to scalar values of speaker commitment. Finally, we saw that the subset of markers coding ‘oriented’ utterances—requests, demands, warnings, admonitions, permissions, etc.—complement lexical roots which have related functions.

Overall, I have shown, first of all, that modality is an essential component of any finite clause and that modal categories interact with and complement other categories of verb morphology. Secondly, in both this chapter and in chapter 5, I have demonstrated that different types of modality are coded by different means: deontic, or 'agent-oriented' modality is coded by verb compounding strategies; modal distinctions indicating speaker attitudes or assessments are coded by morphemes which occur later in the verbal paradigm; while epistemic distinctions are incorporated within verb-final clause modality categories coding statements and questions.

CONCLUSION

Given that the principal findings presented in each chapter have been included in chapter summaries, in this general conclusion I will summarize some of the most interesting typological features of Wanano, review some of the elements which differentiate Wanano from other ET languages, and point out the primary issues to be addressed in future research.

Among the interesting and challenging questions for investigators of ET languages are those relating to phonology. Not only are there specific internal characteristics of each individual language to be analyzed, but considering the intensity of language contact which results from the system of linguistic exogamy, we must also deal with the intriguing question of the role phonology plays in marking and maintaining each language's unique identity. Additionally, as in-depth analyses of individual languages progress, we will have more data with which we can do more comparative and reconstructive work on the family.

We have seen that synchronically Wanano has a larger phonemic inventory than any of the other ET languages, including a fully contrastive set of word-initial voiceless aspirated plosives, a /tʃ/ affricate, and a phonemic glottal segment. Waltz's work has provided initial analyses of the development of these segments, but there is still much reconstructive and comparative work to be done. In particular, the possibility of a suprasegmental laryngeal feature needs to be explored for Wanano and the other ET languages which have this segment in their inventories. Moreover, while it appears that all ET languages have suprasegmental nasalization and tone, the specific mechanics of these phenomena still require further analysis. Overall, I believe that we understand more about nasalization in ET languages than we do about tone; indeed, there is not even a consensus that ET languages *are* tonal languages. My own analysis of tone in Wanano is admittedly very general and I feel that it

while outlines the basic mechanics of the system, there are many details of the interaction between tone and morphology which deserve much more concentrated attention.

Moving into one of the areas of overlap between phonology and morphology we find the issue of 'wordhood,' which is both fascinating and difficult given the polysynthetic nature of Wanano. Although I have profiled the basic characteristics of roots, clitics, and suffix morphemes, I believe that further investigation as to the phonological properties of these morphemes and the ways in which they interact will provide important insights into grammaticalization processes in polysynthetic languages.

Turning to the discussion of nouns, there are several aspects of Wanano noun morphology which indicate that the system of noun classification in Wanano differs somewhat from the systems found in other ET languages. If we consider, for example, the multiple functions of the **-ro** morpheme, we see that in most ET languages singular animates are coded by portmanteau masculine/feminine (**-kʉ/ko**) suffixes, whereas in Wanano, **-ro** has developed into the general marker of singular animates and gender is coded as a secondary feature. This innovation surfaces not only in the paradigm of full noun coding, but also in the paradigm of 3rd person personal pronouns. In Wanano, 3rd person pronouns derive from the anaphoric particle **ti**, whereas in most ET languages, noun class morphemes alone function as pronouns. On inanimates, **-ro** is employed as the general partitive morpheme in what appears to be an extension of its 'singulative' semantics with animates. Another interesting feature of the Wanano system is the loss of the overt morphological coding of mass or abstract inanimates found in a number of ET languages, though agreement to nouns in this class is still surfaces in Wanano in the generic morpheme **-re** which occurs on modifiers. Interestingly, Wanano also appears to have extended ∅-coding to generic animates.

The investigation of the noun classification system in Wanano is certainly far from complete. Like all ET languages, Wanano has different types of classifiers ranging from grammaticalized suffixes to dependent roots, and whereas the most frequently occurring classifiers have been identified, there is still much to be learned about the range of classifiers and their semantics. Further analyses of the concordial function of classifiers are also in order, as is indicated by the innovations I have described in the Wanano numbering system, where both number modifiers and head nouns show different kinds of agreement and pluralization patterns depending on noun class type

Considering verbal syntax and morphology, we have seen that Wanano differs from other ET languages in at least two important ways. First, Wanano has lost the overt Subject agreement morphology found in the verbal paradigms of other ET languages. Synchronically, such coding is found only in *irrealis* verbal constructions in Wanano, though agreement morphology is still employed as a means of nominalizing other dependent constituents of the verb phrase. Second, Wanano has developed a 1st/non-1st paradigm in the coding of the most frequently used evidential category (VISUAL) in contrast to the 3rd/non-3rd paradigm found in other ET languages. The 3rd/non-3rd paradigm survives in Wanano only in the relic paradigm of Subject agreement coding in *irrealis* constructions and dependent constituents mentioned above.

As in all ET languages, non-Subject arguments in Wanano are coded by the suffix **–re**, though word order also appears to play a secondary role. The multiple functions of the the **–re** morpheme in verbal syntax are certainly an important issue for further analysis, as is the question of the extended semantics of **-re** as a marker of definiteness or referentiality. Such investigations will also contribute to our understanding of such issues as noun incorporation processes and transitivity.

Another issue related to verbs which warrants further investigation involves auxiliary verb constructions. While I have outlined the basic syntax and semantics of the most frequently occurring constructions, those with **wa'a** and **yoa** certainly require further investigation before I will be able to confirm the hypothesis that they indeed both code perfectivity and occur in complementary semantic distribution. The function of the **-a** morpheme in these constructions is also as yet unresolved, and the hypothesis that the **wa'a** construction is undergoing cliticization needs further phonological analysis.

The complexities of verbal morphology in Wanano are undoubtedly a fertile field for further studies. First, there is still much to be learned about the functions of compounded verb roots and the relations which obtain between types of roots in independent and dependent position. Second, whereas different types of morphemes tend to occur in a specific order in the verbal paradigm, we have seen cases in which morphemes occur in other than non-canonical position. The reasons for and restrictions on such movement are as yet unclear.

There is also a great deal of investigation to be done on the morpho-phonological processes related to specific morphemes in the verbal paradigm. We have seen evidence that the negative morpheme **–era** can effect both the overall tonal pattern of the verbal word as well as some surrounding segments, but a full analysis of these effects is still to be undertaken. It is possible that other morphemes in the verbal paradigm will prove to have similar, atypical effects.

Finally, the topic of modality is certain to yield much further analysis. The fact that ET languages have obligatory coding of evidentiality for realis statements and that notions of evidentiality permeate other types of clause modality such as interrogatives makes them a rarity and places these languages 'in the spotlight' for typological discussions. As more comparative data on ET languages becomes available, we will be better able to understand

how the systems have developed and the areas in which they differ. Wanano, for example, employs the ASSERTION evidential category for the internal states of the speaker whereas many ET languages use NON-VISUAL evidentials in such situations. Though I have outlined the basic semantics of the evidential categories in Wanano, I am certain that evidentials also have extended uses which will only become clear with further analysis, principally of conversational data.

Beyond the many interesting issues involving the phonology, morphology and syntax of specific languages, researchers of ET languages also have an opportunity to investigate a unique situation involving long term language contact. I am quite certain that systematic and culturally rooted multilingualism such as that found in the Upper Rio Negro region is extraordinary and will continue to yield many interesting studies. Finally, due to the relative isolation of the Tukanoan groups, most of the ET languages are still actively used and prospects for their continued survival are good. Investigators of these languages thus have the opportunity, and, in my opinion, the responsibility for continued research that will contribute to both the science of linguistics as well as to the efforts of indigenous people to preserve their language and identity.

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THE WANANO STUDYBOOK

Mateus Cabral

koti-ri-a bu'e-ri-thu
be.wet-NOM-PL study/learn-NOM-CLS:stacked
The Wanano Study Book

1. **yʉ'ʉ ~bo ~baka-ri-ro-pʉ hi-ha.**
1SG Mõ belong.to-NOM-SG-LOC COP-VIS.IMPERF.1
I am from Mõ. (Carurú Cachoeira)

2. **~a yoa-i yʉ'ʉ ~o-pʉ-re ta,**
so do/make-NOM 1SG DEIC:PROX-LOC-OBJ come

~bi-pʉ-re ~o-pʉ yʉ'ʉ hi-ha.
now-LOC-TMP DEIC:PROX-LOC 1SG COP-VIS.IMPERF.1
Then I came over here (the United States), and now I'm here.

3. **yʉ'ʉ to-pʉ-re a'ri-ko-ro-re**
1SG REM-LOC-OBJ DEM:PROX-FEM-SG-OBJ

kristina-re ya'u-i-ka yʉ'ʉ.
Kristine-OBJ tell-1-PREDICT. 1SG
I'm going to tell (this woman) Kristine (how it is) there.

4. **do'se yoa ti-~da hi-hari**
how do/make ANPH-PL COP-INT.IMPERF

~di ~sidi-tu-ra to
say ask-think-VIS.IMPERF.NON.1 DEF
"How do they live there?" she's wondering.

5. **~bari hi-ro- pʉ-re**
1PL.INC.POSS COP-V.NOM-LOC-OBJ
Our way of living.

6. **~a yoa-i ti-ko-ro-re ya'u-i-ka yʉ'ʉ-se'e.**
so do/make-1 ANPH-FEM-SG-OBJ tell-1-PREDICT. 1SG-CONTR.
So, I'm going to tell her.

7. **~dubi-a ti-~da chʉa-re yoa-ra.**
woman-PL ANPH-PL food-OBJ do/make-VIS.IMPERF.NON.1
Women, they make the food.

8. **~a yoa ti-~da ~bʉ-a-se'e yo'ga-a wa'a-ra.**
so do/make ANPH-PL man-PL-CONTR. fish-V.NOM go-VIS.IMPERF.NON.1
So, the men go fishing.

9. **ti-~da bo're-ka'a-ro-re biato chʉ tu'sʉ,**
ANPH-PL be.light-do.moving-ADV-TMP fish.stew eat finish
In the morning, after they finish eating breakfast,

~dubi-a da'ra wa'a-ra wese-pʉ.
woman-PL work go-VIS.IMPERF.NON.1 garden-LOC
women go to work in the garden.

10. **~a ti-~da dʉkʉ-re toa ~khadʉ-re toa-ra.**
so ANPH-PL manioc-OBJ plant sugarcane-OBJ plant-VIS.IMPERF.NON.1
They plant manioc shoots and sugar cane.

11. **~sare, phayʉ ti-~da da'ra-ra wese-pʉ-re.**
pineapple many/a.lot ANPH-PL work-VIS.IMPERF.NON.1 garden-LOC-OBJ
Pineapple . . . they do a lot of work in the garden.

12. **~a yoa ti-~da thua-ta-pʉ, kʉ-re ~da-thua-ta'a**
so do/make ANPH-PL return-come-LOC CLS:tree-OBJ bring/take-return-come

wʉ'a soa wipe yoa-ra.
peel grate pass.through.sieve do/make-VIS.IMPERF.NON.1
When they go back home, they take manioc with them, peel, grate, and squeeze the manioc.

13. **ti-~be're ti wipe-ri-ba'ro, ti-~da tʉpu soa**
ANPH-COM/INST ANPH pass.through.sieve-NOM-afterwards ANPH-PL dry grate
(With) that stuff left over after processing, they dry and grate,

soa tu'sʉ, ti-~da ~daho-kʉ-ri-re yoa-ra.
grate just.complete ANPH-PL flatbread-CLS:tree-PL-OBJ do/make-VIS.IMPERF.NON.1
and after grating (it), they make flatbread.

14. **~a yoa ti tu'sʉ-chʉ-ta, ~bʉ-a-se'e wi'i**
so/then do/make ANPH finish-SW.REF-REF man-PL-CONTR. return

ti-~da yo'ga sʉ-~ida ti-~da ~da-ta-ra wa'i-re.
ANPH-PL fish arrive-NOM:PL ANPH-PL bring/take-come-VIS.IMPERF.NON.1 fish-OBJ
Just when they're finishing, the men return home, bringing fish from their fishing.

15. **~bʉ-a-se'e ti-~da bo're-ka'a-ro-re biato chu tu'sʉ,**
man-PL-CONTR. ANPH-PL light-MOV.-ADV-TMP. fish.stew eat just.complete

ti-~da-~khu wese-pʉ-re wa'a-ra.
ANPH-PL-ADD garden-LOC-OBJ go-VIS.IMPERF.NON.1
The men, after eating breakfast, they also go (there) to the garden.

16. **ti-~da wese-pʉ-re ~sʉ, yʉkʉ-ri-re ~kha-ra.**
ANPH-PL garden-LOC-OBJ arrive tree-PL-OBJ chop/cut-VIS.IMPERF.NON.1
Then when they arrive at the garden, they chop down the trees.

17. **ti-~da tha ~kha yoa-ra wese-ri-re.**
ANPH-PL grass chop/cut do/make-VIS.IMPERF.NON.1 garden-PL-OBJ
They cut down the grass to prepare the gardens.

18. **ti ~kha-ri-ba'ro, ti-~da yoado-ra**
ANPH chop/cut-NOM-afterwards ANPH-PL help-VIS.IMPERF.NON.1

~hʉ ~hʉ-a-re ~kha ta-boro ti-~da wese-pʉ.
burn burn-V.NOM-OBJ chop/cut come-sep.into.pieces ANPH-PL garden-LOC
After that cutting down (of the trees), they help burn and chop up the rest of the (charred branches) in the garden.

19. **da'ra tu'sʉ, ti-~da thua-ta-a.**
work finish ANPH-PL return-come-ASSERT.PERF
After working, they return home.

20. **wi'i ti-~da yo'ga wa'a-ra.**
arrive ANPH-PL fish go-VIS.IMPERF.NON.1
After they get home, they go fishing.

21. **yo'ga wa'a, ~do'ope-~da ti wa'i-~waha-~ida-re ~da-ta'a**
fish go anything-PL 3PL.POSS fish-kill-NOM:PL-OBJ bring/take-come

ti-~da wia-ra ~dubi-a-re.
ANPH-PL give-VIS.IMPERF.NON.1 woman-PL-OBJ
They go fishing, and anything they catch they bring back home to give to the women.

22. **~dubi-a-se'e ~ya'a wa'i-re do'a**
woman-PL-CONTR. get.with.hand fish-OBJ cook

ti tu'sʉ-ri-ba'ro ti-~da chʉ yoa-ra.
ANPH finish-NOM-afterwards ANPH-PL eat do/make-VIS.IMPERF.NON.1
The women take the fish and cook (it), and afterwards, they eat.

23. **chʉ tu'sʉ, ti-~da ~khari-a wa'a-ra**
eat just.complete ANPH-PL sleep-AFFEC go-VIS.IMPERF.NON.1

te pa ~dʉba-pʉ ti-~da hi-ra
until ALT day-LOC ANPH-PL COP-VIS.IMPERF.NON.1
After they're done eating, they go to sleep until the next day.

THE HUNTING DOG STORY

Mateus Cabral

die-ro wa'i-kida ~dʉdʉ-iro khiti
dog-NOM:SG animal-PL follow/chase-NOM:SG story
The Hunting Dog Story

1. **yʉ'ʉ yai-ro ya-re ya'u-i-ka.**
1SG jaguar-SG belong.to-CLS:generic tell-1-PREDICT.
I'm going to tell about a jaguar.

2. **yai-ro to die-ro-re chʉ-ri khiti-re ya'u-i-ka yʉ'ʉ.**
jaguar-SG DEF dog-SG-OBJ eat-NOM story-OBJ tell-1-PREDICT. 1SG
I'm going to tell about a jaguar-eating-the-dog story.

3. **~a yoa-~da ~sa-se'e bo're-ka'a-ro-re**
so do/make-V.NOM 1PL:EXC-CONTR. be.light-do.moving-ADV-TMP

~sa da'ra-~da wa'a-chʉ,
1PL:EXC.POSS work-V.NOM go-SW.REF
So, while we were going to our work in the morning,

yʉ'ʉ phʉ-kʉ-~be're wa'a-i da'ra-~da wa'a-~da,
1SG parent-MASC-COM/INST go-VIS.PERF.1 work-V.NOM go-V.NOM
I with my father going to work,

~a yoa die-ro-se'e wa'i-kiro-re ~dʉdʉ-ro ~di-re.
then do/make dog-SG-CONTR. animal-SG-OBJ chase-V.NOM be.PROG-VIS.PERF.NON.1
the dog was chasing an animal.

4. **to yai-ro chʉ-to ~phado, ~kʉ-iro bo'so ~waha yoa-re.**
DEF jaguar-SG eat-ANT before one/a-NOM:SG cutia kill do/make-VIS.PERF.NON.1
Before the jaguar killed him, he (had) eaten a cutia.

5. **~a yoa tu'sʉ, pa-iro-re ~dʉdʉ ~waha-ro,**
so do/make just.complete ALT-NOM:SG-OBJ follow/chase kill-V.NOM
Afterwards, he was chasing another animal,

watoi yai-ro-se'e ti-ro-re ~dʉdʉ-ti
when jaguar-SG-CONTR. ANPH-SG-OBJ follow/chase-PURP

~ya'a-ro koa-ta-re.
catch-V.NOM NON.VIS-come-VIS.PERF.NON.1
when a jaguar caught him (we heard it).

6. **~sa, yoaro-pʉ, yʉ'ʉ phʉ-kʉ-~be're thʉ'o-i.**
1PL:EXC far-LOC 1SG parent-MASC-ASSOC hear-VIS.PERF.1
We, from far away, I with my father, heard (that sound).

7. **~a yoa ~yʉ-~da, yʉ phʉ-kʉ toa-ro-~be're wa'a**
so do/make realize-V.NOM 1SG.POSS parent-MASC be.fast-ADV-COM/INST go

~yʉ-ro wa'a-re die-ro-re.
see/look-V.NOM go-VIS.PERF.NON.1 dog-SG-OBJ
When we realized (what had happened), my father quickly went looking for the dog.

8. **~a yoa yai-ro-se'e ~waha ~da-wa'a-ka'a**
so do/make jaguar-SG-CONTR. kill bring/take-go-do.moving

wa'a-re chʉ-ro wa'a-ro
go-VIS.PERF.NON.1 eat-V.NOM go-V.NOM
But the jaguar killed and took (the dog) away to eat it.

9. **~a yoa-~da ~sa die-ro-~be're-era-~ida**
so do/make-V.NOM 1PL:EXC dog-SG-COM/INST-NEG-NOM:PL

~thua-ha-kʉrʉ yoaripa
stay-TERM-ADVERS for.long.time
Then we stayed without a dog for a long time. (lit: dogless)

10. **to wa'i-kiro ~waha-ri-ro-dita-re ~sa**
DEF animal-SG kill-NOM-SG-SOL-OBJ 1PL:EXC

~da-thua-i wʉ'ʉ-pʉ-re
bring/take- return-VIS.PERF.1 house-LOC-OBJ
We took home only the dead animal.

A HUNTER AND HIS DOGS

Ricardo Cabral

wa'i-~kida ko'ta-ri-ro to die-ya-~be're.
animal-PL wait-NOM-SG 3SG.POSS dog-PL-COM/INST
A hunter and his dogs.

1. **yʉ'ʉ ~bicha-~ka-~ka-re a'ri ~dubi-a-~kida-re ~kʉ-ro khiti-~ka**
1SG today-DIM.-EMPH.-TMP DEM:PROX woman-PL-PL-OBJ one/a-PART story-DIM.

ya'u-pe-rʉka-~sidi-ta-i ~di-ha.
tell-FAV-INCEP-do.at.the.moment-INTENT-NOM be.PROG-VIS.IMPERF.1
I'm happy to be telling these women a little story right now.

2. **~kʉ-ta hi-a ~kʉ-iro ~bʉ-ro to ~pho'da-~be're**
one/a-REF COP-V.NOM one/a-NOM:SG man-SG 3SG.POSS children-COM/INST

wa'i-~kida ko'ta-ro wa'a-a ~bakaka-pʉ.
animal-PL wait-V.NOM go-ASSERT.PERF forest-LOC
Once a man went hunting with his children in the forest.

3. **yoa-ro ko'ta-wa'a-~ka-a yoa-chʉ,**
be.long-ADV wait-go-INTENS-V.NOM do/make-SW.REF
As they went far away,

to die-ya wa'i-kiro boka-a ~dʉdʉ-wa'a-ka'a ti-~da.
3SG.POSS dog-PL animal-SG find-ASSERT.PERF follow/chase-go-do.moving ANPH-PL
his dogs found an animal and went chasing after it.

4. **yoa-ro ~yʉ-se-~baha-re, sito-ta'a ti.**
be.far-ADV see/look-be.like-up.and.down-VIS.PERF.NON.1 MOV.circular-come ANPH
Far away, they (the dogs) looked around like this, running around all over.

5. **yoa-ri pa ~dʉdʉ-sito-ta-a.**
be.long-NOM time follow/chase-MOV.circular-come-ASSERT.PERF
They chased around and round for a long time.

6. **~kʉ-iro die-ro, phi-ri-ro-wʉ'rʉ**
one/a-NOM:SG dog-SG be.big-NOM-SG-AUG.

hi-ri-ro-wʉ'rʉ, buti-a-wa'a-a.
COP-NOM-SG-AUG. disappear-AFFEC-go-ASSERT.PERF
One dog, the biggest of all, disappeared.

7. **~kʉ-iro-~ka ~ba'a-ri-ro-~ka-dita hi-a**
one/a-NOM:SG-DIM. be.small-NOM-SG-DIM.-SOL COP-ASSERT.PERF

~dʉdʉ-sito-ta'a
follow/chase-MOV.circular-come
There was a little one chasing around alone.

8. **ti-ro wa'i-kiro-re bo-~ha'-a ti-ro-~khʉ ~hi'da.**
ANPH-SG animal-SG-OBJ lose-unexpected-ASSERT.PERF ANPH-SG-ADD EMPH
He lost the animal he was hunting and he got lost too.

9. **ayo ~o-i-ta wa'a-re ~di**
so DEIC:PROX-LOC-REF go-VIS.PERF.NON.1 say
"He went over here," the father said,

ti-ro to ~pho'da-~be're ~baka-sito-ta-a
ANPH-SG 3SG.POSS children-COM/INST look/search.for-MOV.circular-come-ASSERT.PERF
and he and his children went and looked around.

10. **ti-ro bʉ-kʉ-ro ~de ~badia ~de boka-era-a.**
ANPH-SG elder-MASC-SG NEG not.exist NEG find-NEG-ASSERT.PERF
The old man (was too late and) didn't find anything.

11. **~de ~badia ti-~da pa-~ida die-ya-~ka.**
NEG not.exist ANPH-PL ALT-NOM:PL dog-PL-DIM.
There were no little dogs there.

12. **~ata yoa-a, ~kʉ-iro die-ro-~ka pari-taro-re,**
meanwhile do/make-V.NOM one/a-NOM:SG dog-SG-DIM. lake-CLS:lake-CLS:generic

pari-taro hi-ri-taro-re,
lake-CLS:lake COP-NOM-CLS:lake-CLS:generic

~bʉbʉ-bʉ-sʉ thuti-a
go.quickly-shore-arrive bark-ASSERT.PERF
Meanwhile, one little dog ran down to the shore of a lake (a lake like this) and barked.

13. **cho ~o-i-ta hi-~doka-bo-kapa ~di,**
Oh! DEIC:PROX-LOC-REF COP-COMPL-DUB-PREDICT say

ti-ro bʉkʉ-ro ~di.
ANPH-SG elder-SG say
"Oh! Maybe he's in here," he said, the old man said.

14. **~yʉ-bʉ'a-a. ~yʉ-boka-a.**
see/look-MOV.downward-ASSERT.PERF see/look- find-ASSERT.PERF
He looked down. He spotted it.

15. **to-pʉ ~phido-ro-wʉ'rʉ**
REM-LOC snake-SG-AUG.
There, a big snake

ti-ro die-ro-~ka-re ~ya'a-~khoa-a.
ANPH-SG dog-SG-DIM.-OBJ catch-wrap.around-ASSERT.PERF
was wrapped around the little dog.

16. **die-ro-re chʉ-bʉro-ro-pʉ ~di-a.**
dog-SG-OBJ eat-go.down-V.NOM-LOC be.PROG-ASSERT.PERF
It was already swallowing the dog.

17. **~o to dapu-dita bahu-a.**
DEIC:PROX 3SG.POSS head-SOL be.visible-ASSERT.PERF
Only the (dog's) head was still showing.

18. **chʉ-bʉro-chʉ.**
eat-swallow-eat
It swallowed.

19. **~o pari-taro-i ~o-se hi-ri-~kobu-~ka,**
DEIC:PROX lake-CLS:lake-LOC DEIC:PROX-be.like COP-NOM-tree.trunk-DIM.
There at the lake, there was a log like this,

~o pari-~kobu-~ka hi-~bʉpa-a.
DEIC:PROX lake-tree.trunk-DIM. COP-be.across-ASSERT.PERF
a little lake tree fallen across like this.

20. **to-pʉ ~phido-ro ~ya-~ka ko'ta-pisa-a.**
REM-LOC snake-SG be.bad-EMPH. wait-be.on.top-ASSERT.PERF
There the evil snake was waiting (lying) on top.

21. **die-ro-se'e ~bʉbʉ-~pha'a-ri-ro-re,**
dog-SG-CONTR. go.quickly-MOV.across-NOM-V.NOM-CLS:generic
As the little dog was running across,

~ya-ro ti-ro-re baka- ~ya-a.
be.bad-SG ANPH-SG-OBJ bite-be.bad-ASSERT.PERF
(the evil snake) bit him.

22. **~wa'ba-~baha-re, bora-a ti kopa-pʉ.**
wrap.around-up.and.down-CLS:generic fall.down-ASSERT.PERF ANPH hole-LOC
Wrapping around him, they fell into a hole.

23. **ayo ti-ro-re ~waha tu'sʉ chʉ-ro-pʉ ~di-a.**
so ANPH-SG-OBJ kill just.complete eat-V.NOM-LOC be.PROG-ASSERT.PERF
He (the snake) had just killed the dog and was already eating it.

24. **~ayo ti-ro ~hi'da bʉkʉ-ro ~bʉbʉ-bʉ-~sʉ ~yʉ,**
then ANPH-SG EMPH elder-SG run-shore-arrive see/look
The same old man ran to the shore, looked, (and said),

~o-pʉ hi-ra yʉ ~pho'da.
DEIC:PROX-LOC COP-VIS.IMPERF.NON.1 1SG.POSS children
"Here he is, my sons."

25. **yoa-ta-pʉ ~waha-~doka-ri hi-ra**
do/make-REF-LOC kill-COMPL-V.NOM.INFER COP-VIS.IMPERF.NON.1

~bari die-ro-re.
1PL.INC.POSS dog-SG-OBJ
"*Our dog hasjust been killed."*

26. **~phido-ro-wʉ'rʉ hi-ra.**
snake-SG-AUG. COP-VIS.IMPERF.NON.1
"There's a big snake."

27. **~a ~di-chʉ, ti-~da ~bʉ-rʉka-wa'a-ka'a ~sʉ ~yʉ-a.**
so say-SW.REF ANPH-PL go.quickly-INCEP-go-do.moving arrive see/look-ASSERT.PERF
When he said that, they (the sons) went running, got there, and looked.

28. **yoa-ta-pʉ chʉ-bʉro-ro-pʉ ~di-a.**
do/make-REF-LOC eat-swallow-V.NOM-LOC be.PROG-ASSERT.PERF
(The snake) was already swallowing (the dog).

29. **to dapu-di'ta bahu-a.**
3SG.POSS head-SOL be.visible-ASSERT.PERF
Only the (dog's) head was still out.

30. **ayo ti-ro phicha-kʉ khʉa,**
so ANPH-SG shoot-CLS:tree hold/have
Then, he (the father) had a shotgun,

~phado-pʉ ~baka-dʉ ti ~yosa-di'o-dʉ
long.ago-LOC belong.to-CLS:cylindric ANPH force.into-small.particles-CLS:cylindrical

hi-ati hi-re, wi'o.
COP-IMPERF COP-CLS:generic CONTR
an old-fashioned one, one you shoved the ammo into, right?

31. **phicha-yapa-ri ~yosa-di'o phicha-yʉkʉ-re**
shoot-seed-PL force.into-small.particles shoot-tree-CLS:generic
A shotgun with pellets packed in. (phichayapari=bullets) (phichayʉkʉri (shooting tree)=shotgun)

32. **tʉ ba'a-ro ti-tere ba'a-ro-~be're.**
stick kind-PART ANPH-be.old kind-PART-COM/INST
With that kind, that old kind.

33. **~sʉ ti-ro-re phicha-ba'a-~yo-a.**
arrive ANPH-SG-OBJ shoot-do/be.after-immediately-ASSERT.PERF
He went right over to it (the snake) and shot it.

34. **to dapu waro-i phicha-wa'a-roka-a.**
3SG.POSS head EMPH-LOC shoot-go-DIST-ASSERT.PERF
It's head exploded.

35. **to phicha-chʉ-ta, ~phiro-ro-wʉ'rʉ ti-ro-re chowe-rʉka-a.**
DEF shoot-SW.REF-REF snake-SG-AUG. ANPH-SG-OBJ vomit-INCIP-ASSERT.PERF
When he shot, the big snake began to vomit up the dog.

36. **a'ri-a-se ~sio-~bʉ wiha-ta-~doka-a,**
DEM:PROX-V.NOM-be.like slide-do.quickly MOV.outward-come-COMPL-ASSERT.PERF
It came sliding out like this,

phi-ri-da-wʉ'rʉ-ta.
be.big-NOM-CLS:threadlike-AUG.-REF
a long ropelike thing.

37. **~o pa-ri-tu kasʉ,**
DEIC:PROX size-NOM-CLS:stack lie
Laying in a big pile like this,

phi-ro-ta ~sayo-a ~basa-ro yoa-ro-se ~phido-ro-wʉ'rʉ.
be.big-SG-REF yell/scream-ASSERT.PERF man-SG do/make-ADV-be.like snake-SG-AUG.
the big snake screamed loudly like a person.

38. **to ~sayo dʉ'ta-~badia-bora-a-chʉ,**
3SG.POSS yell/scream-make.noise-not.exist-fall.down-V.NOM-SW.REF
Just when his scream was dying away,

pʉ dia-bui-pʉ pa-iro ~sayo-ro koa-ta-a.
LOC river-upriver-LOC ALT-NOM:SG yell/scream-PART NON.VIS-come-ASSERT.PERF
from far away upriver, there was another scream (they heard it).

39. **yʉ'ti-ro koa-ta-a**
answer-PART NON.VIS-come-ASSERT.PERF
(They heard) an answer.

40. **~basa-ro pisu-ro yoa-ro-se pa-hi-era-ra ti-ro.**
man-SG call-PART do/make-V.NOM-be.like ALT-COP-NEG-VIS.IMPERF.NON.1 ANPH-SG
A humanlike scream, but he wasn't (human).

41. **ti-ro bʉkʉ-ro yai-ro-bukure hi-a**
ANPH-SG elder-SG medicine.man-SG-almost COP-ASSERT.PERF
The father was kind of a medicine man,

~wi'o-~wihi yoa-ri-ro-ba'ro
halluc.powder-sniff do/make-NOM-SG-kind
the kind who uses powder. (So he was able to recognize that the being wasn't human).

42. **pa hi-era-ra**
ALT COP-NEG-VIS.IMPERF.NON.1
"It's not (a regular snake)!

43. **a'ri-ro pa-iro ba'a-ro hi-ra ~di-a**
DEM:PROX-SG ALT-NOM:SG kind-SG COP-VIS.IMPERF.NON.1 say-ASSERT.PERF
This is some different kind of being," he said.

44. **~ya-iro pa-iro-ba'ro hi-ra a'ri-ro**
be.bad-NOM:SG ALT-NOM:SG-kind COP-VIS.IMPERF.NON.1 DEM:PROX-SG
"This is some other bad kind."

45. **to hi-ri-ro a'ri-ro soro hi-ra ~di,**
REM COP-NOM-SG DEM:PROX-SG different.one/place COP-VIS.IMPERF.NON.1 say
"And over there is another different one," he said,

ti-ro-re to-pʉ-ro-ta phicha-~dabo-a-toa.
ANPH-SG-OBJ DEF-LOC-PART-REF shoot-do.again-AFFEC-again
and he immediately shot it (the snake) again.

46. **~waha-~doka-a.**
kill-COMPL-ASSERT.PERF
He killed it.

47. **du'te ta-~khoa-roka-a.**
chop.up separate-throw-DIST-ASSERT.PERF
He cut it into pieces and threw them apart.

48. **ti-ro die-ro-re waha-wa'a-ka'a ~so'o-ba'ro-pʉ,**
ANPH-SG dog-SG-OBJ pull-go-do.moving DEIC:DIST-be.close.by-LOC
He dragged the dog a little way away,

~ya-ri-kopa sa'a, ya-~khʉ'a-~doka,
be.bad-NOM-hole dig bury-lie.down-COMPL
dug a rough hole, buried the dog,

thua-a poto-ta te wʉ'ʉ-pʉ.
return-ASSERT.PERF direction-REF all.the.way house-LOC
and went straight back home.

49. **tu'sʉ-ro-ka'a ti-ro ~di-a**
just.complete-ADV-do.moving ANPH-SG say-ASSERT.PERF
As soon as he arrived home he said:

pa-iro-ba'a-ro ~bari ~waha-i ~di.
ALT-NOM:SG-kind-SG 1PL.INC kill-VIS.PERF.1 say
"We've killed another kind of snake," he said.

50. **ko-ri-da're-a, ~bʉ'do-ro phi-dʉ**
bless-NOM-make-ASSERT.PERF tobacco-PART big-CLS:long
For protection, he rolled a big cigar

~o pa-dʉ-wʉ'rʉ yoa,
DEIC:PROX size-CLS:long-AUG. do/make
made one this big,

basa-ko-ri-ti hu yoa-a phuti-phayo,
sing/dance-bless-NOM-VBZ smoke do/make-ASSERT.PERF blow-spread.out

to ~pho'da ~khu-re phuti-phayo.
3SG.POSS children also-OBJ blow/play-spread.out
blessed himself, blowing smoke on himself and on his sons too.

51. **tu'sʉ, ti ~yabi-re ~hi'da ~kha'a-ro-pʉ-re**
finish ANPH night-TMP EMPH dream-V.NOM-LOC-TMP

ti-ro-re ya'u-a.
ANPH-SG-OBJ warn-ASSERT.PERF
When he was done, that very night he was warned in a dream.

52. **~sʉ-a to ka'a-i bʉe~dete khʉa-~daka,**
arrive-ASSERT.PERF 3SG.POSS be.near-LOC bow hold/have-do/be.together

bʉe-a-yʉkʉ-ri khʉa-ri-ro
arrow-PL-tree-PL hold/have-NOM-SG
(The father snake) came up to his side holding a bow and arrows.

53. **~bʉbʉ ~baha-~sʉ ti-ro-re ~sidi-tua,**
go.quickly MOV.up-COMPL ANPH-SG-OBJ ask-be.strong
He quickly came up to him (the man) and demanded,

~bʉ'ʉ ~yʉ-era-ri yʉ ~ba-kʉ-re?
2SG see/look-NEG-INT 1SG.POSS child-MASC-OBJ
"Didn't you see my son?"

54. **~waha-roka-ri hi-re**
kill-DIST-V.NOM.INFER COP-VIS.PERF.NON.1

wa'i-~kida ~waha-ro-wa'a-ri-ro-re,
animal-PL kill-V.NOM-go-NOM-NOM-CLS:generic
He was killed when he was off hunting,

pʉ wa'i-~kida ~waha-ro-wa'a-ri-ro-re.
LOC animal-PL kill-V.NOM-go-NOM-NOM-CLS:generic
when far away hunting animals.

55. **yʉ ~ba-kʉ-re ~waha-roka-ri hi-re ~di-a.**
1SG.POSS child-MASC-OBJ kill-DIST-V.NOM.INFER COP-VIS.PERF.NON.1 say-ASSERT.PERF
My son's been killed," he said.

56. **~yʉ-era ti ~basi-era-ka yʉ'ʉ ~di-a ti-ro-se'e.**
see/look-NEG ANPH know-NEG-EMPH 1SG say-ASSERT.PERF ANPH-SG-CONTR.
"I didn't see that, I know nothing," the man said.

57. **~de to-pʉ-re ti-pʉ-re ~tidi-era-ha**
NEG REM-LOC-OBJ ANPH-LOC-OBJ wander.around-NEG-VIS.IMPERF.1

~di-~doka-a.
say-COMPL-ASSERT.PERF
"I never go hunting there in that place," he said.

58. **ayo-kʉ yʉ'ʉ ti-ro-re ~waha-~kha'ba-i**
that's.why-V.NOM 1SG ANPH-SG-OBJ kill-need-1

ta-i ~di-ha ~di-a ti-ro
come-1 be.PROG-VIS.IMPERF.1 say-ASSERT.PERF ANPH-SG
"That's why I'm coming here to avenge him," he (the father snake) said. (kill+need = avenge)

59. **~di ba'a-ro ~hi'da ~o-pʉ wa'a-ri hi-re.**
say do.after-ADV EMPH DEIC:PROX-LOC go-V.NOM.INFER COP-VIS.PERF.NON.1
Saying then, "He went this same way.

60. **ti-ro ~yʉ-i wa'a-ha ~di,**
ANPH-SG see/look-NOM go-VIS.IMPERF.1 say
I'm going to look for him,"

~bʉ-yʉ'dʉ wa'a-a.
go.quickly-INTENS go-ASSERT.PERF
said (the father snake), and he quickly left.

61. **ti-ro bʉkʉ-ro to-pʉ-ro-ta ~hi'da ~khadi- ~wa'ka**
ANPH-SG elder-SG REM-LOC-PART-REF EMPH sleep-wake.up
The father then immediately woke up.

62. **basa dʉka-ta-~dabo thʉ'o-thu-yosa wa'a-~doka-a.**
bless start-REF-more understand-think-lie.down go-COMPL-ASSERT.PERF
He blessed himself once again and lay there, contemplating.

63. **~ayo bo're-ro to ~pho'da-re ya'u-a ~hi'da**
then be.light-ADV 3SG.POSS children-OBJ warn-ASSERT.PERF EMPH
So, in the morning he warned his sons:

64. **ahi-ri-ro hi-ri hi-re .**
worry-NOM-SG COP-V.NOM.INFER COP-VIS.PERF.NON.1
"There's a dangerous (worrisome) being in that place.

65. **~waku-~basi-ga to-re. ~waku-~basi-ga to-re.**
be.aware-know-IMPER REM-OBJ be.aware-know-IMPER REM-OBJ
Be careful, be careful there."

66. **~de ~bicha-~ka-~ka-re wa-era-ati-a**
NEG today-DIM.-EMPH.-TMP go-NEG-IMPERF-IMPER

~khua-ri-re ti-ro ~di-a
be.dangerous-NOM-OBJ ANPH-SG say-ASSERT.PERF
Don't be going near that dangerous place for a while," he said.

67. **a'ri khiti ~o-i-ta phiti-ra.**
DEM:PROX story DEIC:PROX-LOC-REF end-VIS.IMPERF.NON.1
This story ends right here.

THE CURUPIRA WHO WENT TO THE MAN'S HOUSE WANTING TO EAT HIM

Agostinho Ferraz

bore-ro ~sa'a-wi'i-a
Curupira-SG MOV.inside-arrive-ASSERT.PERF

to ya-wɯ'ɯ-pɯ ti-ro-re chɯ-dua-ro
3SG.POSS belong.to-house-LOC ANPH-SG-OBJ eat-want-V.NOM
The Curupira who went to the man's house wanting to eat him.

1. **~kɯ-iro hi-ati-ga to ~pho'da**
one/a-NOM:SG COP-IMPERF-ASSERT.PERF 3SG.POSS children

~dabo-ro hiphiti-ro.
wife-SG everyone/thing-PART
Once there was a man, his children, wife, everything.

2. **ti-ko-ro, to ~dabo-ro, chɯ-dua-ati-a wa'so-re.**
ANPH-FEM-SG 3SG.POSS wife-SG eat-DESID-IMPERF-ASSERT.PERF siringa.fruit-OBJ
The woman, his wife, was wanting to eat (had a craving for) siringa fruit.

3. **yɯ'ɯ wa'so-re chɯ-dua-~ba-ko ~di-a**
1SG siringa(fruit)-OBJ eat-DESID-FRUS-FEM say-ASSERT.PERF
"I wish I had some siringa fruit to eat," she said (to herself).

4. **to a'ri-re du'ti-~ba-ri ~di-ha-chɯ,**
DEF DEM:PROX-CLS:generic request-FRUS-INT say-TERM-SW.REF

to ~badu-ro pase-pɯ wa'a-a
3SG.POSS husband-SG far.away-LOC go-ASSERT.PERF
Just after she said that, her husband left.

5. as quatro horas da tarde **~yabicha,**
(Port:'at four in the') afternoon

~kɯ familia se-hi-~ida wi'i-ga phɯ'ɯ-re-~be're,
one/a family be.like-COP-NOM:PL arrive-ASSERT.PERF basket-CLS:generic-COM/INST
At four that afternoon, (a group like) a family arrived with a basket,

wa'so phɯ'ɯ-ro ~kɯ-phɯ.
siringa.fruit basket-PART one-CLS:basket
a basket of siringa fruit.

6. **bu'i dapu so'to-i wa'so ~ba'a-~ka du'u-phayo.**
be.over head top-LOC siringa be.small-DIM. put-spread.out
They had put just a little siringa fruit covering the top of his head.

7. **ti-phʉ phʉ'icha-pʉ-re ~kʉ-iro ~basʉ-ro-se hi-ri-ro**
ANPH-CLS:basket be.inside-LOC-OBJ one/a-NOM:SG man-SG-be.like COP-NOM-SG

bola-ro ti ~di-ri-ro-re ~kʉ-iro ~khʉ'a-ga.
Curupira-SG ANPH say-NOM-SG-OBJ one/a-NOM:SG lie.down-ASSERT.PERF
A human-like being they call a Curupira, was lying inside that basket.

8. **~sa'a-wi'i ti-ko-ro-re ~hi'da to ~ba-kʉ-ro**
MOV.inside-arrive ANPH-FEM-SG-OBJ immediately 3SG.POSS child-MASC-SG

~kʉ-iro ~bʉ-ro ~kʉ-ko-ro ~dubi-ro-~ka,
one-NOM:SG man-SG one/a-FEM-SG female-SG-DIM.
They arrived and went right up to the woman, her little baby boy and little girl,

pa-iro ~bʉa-ro-pʉ wʉ'ʉ-pʉ pisa-ga.
ALT-NOM:SG roof-PART-LOC house-LOC be.on.top.of-ASSERT.PERF
and another boy was up on top of the roof.

9. **~bʉ'ʉ chʉ-dua-re ~da-ta-i.**
2SG eat-DESID-OBJ bring/take-come-VIS.PERF.1
"*We brought (what) you wanted to eat.*

10. **a'ri hi-ra ~di-a.**
DEM:PROX COP-VIS.IMPERF.NON.1 say-ASSERT.PERF
Here they are, " they said.

11. **hai ~doada ~di-a ti-ko-ro.**
That's good. say-ASSERT.PERF ANPH-FEM-SG
"That's good," said the woman.

12. **wache yoa, ti-re ~ya'a du'u-da'po**
be.happy do/make ANPH-CLS:generic get.with.hand put-foot
Happy, she took it (the basket) and put it down (at her feet),

~doa-ka hi-re ~di-a.
be.beautiful-ASSERT:IMPERF COP-VIS.PERF.NON.1 say-ASSERT.PERF
and said. "These are beautiful."

13. **~ose ~bore, ~baka-~bʉ ~sa'a-~ba'do**
DEIC:REF mix look/search-go.quickly MOV.inside-MOV.into

to dapu-so'to-a.
3SG.POSS head-top-ASSERT.PERF
As if she were mixing, she reached (into the basket and touched) the top of his (the Curupira's) head.

14. **~o-baro-i ti-ro-re fantasma dura-phayo-ga**
DEIC:PROX-deep-LOC ANPH-SG-OBJ (Port:ghost) put.down-spread.out-ASSERT.PERF
They had spread (the fruit) on top of the Curupira inside.

15. **to-pʉ ~waku-ro to dura-phayo-chʉ,**
REM-LOC be.aware-ADV 3SG.POSS put.down-spread.out-SW.REF
When he felt her reaching into the basket,

ti-ro kʉa-~bʉ-a.
ANPH-SG be.surprised-do.quickly-ASSERT.PERF
he started.

16. **ti-ko-ro-~khʉ thʉ'o-~basi-~bʉ-a.**
ANPH-FEM-SG-ADD feel-know-do.quickly-ASSERT.PERF
She too could feel it right away.

17. **hi-era-ra a'ri-~da.**
COP-NEG-VIS.IMPERF.NON.1 DEM:PROX-PL
"These aren't (people).

18. **~ya-~ida hi-ra ~di-a.**
be.bad-NOM:PL COP-VIS.IMPERF.NON.1 say-ASSERT.PERF
They're evil beings," she said (to herself).

19. **to ~ba-kʉ-ro-~ka-re ~da-wʉa-rʉka-ga.**
3SG.POSS child-MASC-SG-DIM.-OBJ bring/take-pick.up-INCEP-ASSERT.PERF
She picked up her little boy.

20. **pa-ko-ro-~ka-re tui-~daka-a.**
ALT-FEM-SG-DIM.-OBJ put.in.front.of-do.together-ASSERT.PERF
She put her little girl in front of her.

21. **pita-~ba-pʉ bu'a-wa'a-ga.**
port-CLS:river-LOC go.downhill-go-ASSERT.PERF
(They) went down to the river port.

22. **panela phi-ri panela ~da-~daka wa'a-wa'a-ga.**
pot be.big-NOM (Port:pot) bring/take-do.together go-go-ASSERT.PERF
Escaping, she grabbed a big pot.

23. **ko'ta-ga. a'ri-re**
wait-IMPER DEM:PROX-CLS:generic
"Wait right here.

yʉ'ʉ po'a ~sa-ati ko ~da-~sidi-ko wa'a-ha
1SG clean be.inside-DISTR water bring/take-do.at.the.moment-FEM go-VIS.IMPERF.1
I'm going to get some water to wash these (the fruit)."

24. **to ba'ro wiha-wa'a-a.**
REM afterwards MOV.outward-go-ASSERT.PERF
Then she left.

25. **~ba'o-ro wa'a ~so'o-ba'ro ~sʉ-~doka, to ~ba-kʉ-ro-~ka-re**
later-ADV go DEIC:DIST-be.close.by arrive-COMPL 3SG.POSS child-MASC-SG-DIM.-OBJ
When she had gone a little way,

~so'o-pʉ ti-ro pape-ro ~bidicha-~ka-re
DEIC:DIST-LOC ANPH-SG play-V.NOM bird-DIM.-OBJ

bʉe-pe-ro ~di-a bʉaphi-~ba'a
hunt.with.arrows-FAV-V.NOM be.PROG-ASSERT.PERF signal.with.hand-do.forcefully
she motioned forcefully to her son who was on top of the house playing at hunting birds.

26. **~sa ~di-~ba'a wa'a-wa'a ~hi'da.**
1PL:EXC say-do.forcefully go-go EXHRT
She urged, "Let's escape right now.

27. **~ya-~ida hi-ra.**
be.bad-NOM:PL COP-VIS.IMPERF.NON.1
These are evil beings.

28. **~bʉ'ʉ-re chʉ-ri ~di-a.**
2SG-OBJ eat-ADMON say-ASSERT.PERF
Or else they'll eat you," she said.

29. **ti-ro to-pʉ pisa-ga**
ANPH-SG REM-LOC be.on.top-ASSERT.PERF
He just sat up there.

30. **soro pape-kʉ ~di-ha ~di-a**
not.now play-V.NOM be.PROG-VIS.IMPERF.1 say-ASSERT.PERF
"Not now. I'm playing," he said.

31. **bu'a-a.**
go.downhill-ASSERT.PERF
She went down (to the river port).

32. **bu'a-~sʉ ti-~da-~ka-re to-pʉ phosa-a.**
go.downhill-arrive ANPH-PL-DIM.-OBJ REM-LOC fill.up-ASSERT.PERF
When she got down (to the port), she put the little ones in (the pot).

33. **thʉ-ba'a-~bʉ wiha-wa'a-a dia-pʉ kotia-ro-pʉ.**
push-swim-MOV.quickly MOV.outward-go-ASSERT.PERF river-LOC current-PART-LOC
She pushed and quickly swam out into the river current.

34. **yoa-era-chʉ, ta ti-~da ~bʉbʉ-~bʉ ~sʉ-tu'sʉ-a.**
be.long-NEG-SW.REF come ANPH-PL run-do.quickly arrive-just.complete-ASSERT.PERF
Not long after she escaped, they (the Curupiras) came running down (to the port).

35. **~waku-~basi-ko ~bʉ'ʉ ~ya-ka du'ti-ra.**
think-know-FEM 2SG be.bad-EMPH escape-VIS.IMPERF.NON.1
"Lucky you, evil woman, to escape.

36. **~bʉ'ʉ-re chʉ ~doka-bo-a ~di-a.**
2SG-OBJ eat COMPL-DUB-ASSERT.PERF say-ASSERT.PERF
We would have eaten you," they said.

37. **~baha-re.**
go.uphill-VIS.PERF.NON.1
They went back up (to the house).

38. **~baha-ta'a ti-ro-~ka-re wi'i chʉ-a.**
go.uphill-come ANPH-SG-DIM.-OBJ arrive eat-ASSERT.PERF
When they got up to the boy, they ate him.

39. **~kʉ ~dʉba ba'a-ro wi'i ~yʉ-ga.**
one/a day do/be.after-V.NOM arrive see/look-ASSERT.PERF
The next day, (the mother) came home and saw (him).

40. **to ka'sa-ro-re ~o-baro-i pisa-ruku-ga**
3SG.POSS skin-PART-OBJ DEIC:PROX-far-LOC be.on.top-CONT.-ASSERT.PERF
His skin was over there draped (on the windowsill).

41. **~ose wa'a-ati-ga ~phado-pʉ-re**
DEIC:REF go-IMPERF-ASSERT.PERF before-LOC-TMP
Things used to be like this long ago.

TEXTS WRITTEN BY THE WANANO

LET'S STUDY IN WANANO
WANANO ANIMAL STORIES
Introduction

1. **a'ri-thu hi-ra wa'i-~kida khiti ya'u-ri-thu.**
DEM:PROX-CLS:stacked COP-VIS.IMPERF.NON.1 animal-PL story tell-NOM-CLS:stacked
This is a Wanano animal storybook. (khiti ya'urithu= story-telling book)

2. **~sa ~pho'da bu'e-ti hi-ra.**
1PL:EXC children study/learn-PURP COP-VIS.IMPERF.NON.1
It is for our children to study.

3. **~ayoa-~da, ~sa kooti-ri-a ~de bo-si**
that's.why-1PL 1PL:EXC Wanano-NOM-PL NEG forget-NEG.FUT

~sa ya-hoa-re du-ruku-a-re
1PL:EXC.POSS belong.to-write-OBJ talk-CONT-V.NOM-OBJ
This way, we Wananos won't forget how to write and speak (lit: our writing and our language). du-ruku-a = language.

4. **a'ri pa ~baka-~ida ba'a-ro ~baka-~ida hipiti-~da.**
DEM:PROX time belong.to-NOM:PL do.after-V.NOM belong.to-NOM:PL everybody/thing-PL
For those here now, and for those who come later, for everybody.

5. **~wa'ba-ro-pʉ-re, ~yara-~da ya-re bu'e-~da**
~young/new-PART-LOC-TMP white.people-PL belong.to-CLS:generic study/learn-V.NOM

~ya-ro yʉ'dʉ-~da thʉ'o-thu-i ~sa.
be.bad-ADV INTENS-V.NOM hear-think-VIS.PERF.1 1PL:EXC
When we were young, it was really hard for us to understand learning (school) in the white-people's language.

6. **~bi-pʉ-re ~sa ya-kooti-ri-a ya-re bu'e-~da**
now-LOC-TMP 1PL.POSS belong.to-Wanano-NOM-PL belong.to-CLS:generic study/learn-V.NOM

phi-ro wache-ha.
be.big-ADV be.happy-VIS.IMPERF.1
Now we're very happy to have our own Wanano learning.

7. **yoaripa ~sa thʉ'o-tu-ri ba'ro a'ri-re ~sʉ-ha.**
for.long.time 1PL:EXC hear-think-NOM afterwards DEM:PROX-TMP arrive-VIS.IMPERF.1
What we've been thinking about for a long time has arrived.

8. **~ayoa-~da a'ri thu-re hoa-ha ~sa kooti-ri-a.**
that's.why-V.NOM DEM:PROX CLS:stacked-OBJ write-VIS.IMPERF.1 1PL:EXC Wanano-NOM-PL
That's why we Wananos are writing this book.

9. **setembro 2002 ~khʉ'ba hi-chʉ yoa-ri**
(Port:September) 2002 year COP-SW.REF do/make-NOM

thu hi-ra.
CLS:stacked COP-VIS.IMPERF.NON.1
It's September of the year 2002, and we're making this book.

10. **wa'iki-~da khiti kooti-ri-a ya-~be're.**
animal-PL story Wanano-NOM-PL belong.to-COM/INST
Animal stories in our own Wanano (language).

KERO — FIREFLIES
written by Elizeu Alvares

1. **ke-ro hi-ra wʉ-iro.**
firefly-SG COP-VIS.IMPERF.NON.1 fly-NOM:SG
Fireflies are flying insects.

2. **ti-ro ~yabi-re ~tidi-ra.**
ANPH-SG night-TMP walk-VIS.IMPERF.NON.1
They come out at night.

3. **si-ri-ro hi-ra ti-ro.**
be.hot-NOM-SG COP-VIS.IMPERF.NON.1 ANPH-SG
They're hot (because of their light).

NUNANA—BITING FLY
written by João Paulo Almeida

1. **a'ri-ro ~waba-ti-ra ~duda-~da.**
DEM:PROX-SG name-ATTRIB-VIS.IMPERF.NON.1 biting.fly-PL
This is called a biting fly.

2. **ti-ro-baro ~basa-re wa'iki-~da-re wa'a ~sʉ ~wibi-ka**
ANPH-SG-kind man-OBJ animal-PL-OBJ go arrive suck-ASSERT:IMPERF
This kind (of insect) lands on people and animals and sucks (their blood).

3. **ti-~da-baro bʉhʉ-~ida da-~ida-~ka hi-ka**
ANPH-PL-kind be.large-NOM:PL be.small-NOM:PL-DIM. COP-ASSERT:IMPERF
There are large and small ones.

4. **~ya-ro ~wiki-ri-ka ti-~da ~wibi-a**
be.bad-ADV itch-ADMON-ASSERT:IMPERF ANPH-PL suck-V.NOM
It itches badly when they bite.

WACHʉPHAMO—ARMADILLO

written by Elizabete Teixeira

1. **a'ri-ro hi-ra wachʉ-~phabo.**
DEM:PROX-SG COP-VIS.IMPERF.NON.1 bull-armadillo
This is a giant armadillo.

2. **~ope-~ida hi-ra ti-~da-ba'ro.**
DEIC:PL-NOM:PL COP-VIS.IMPERF.NON.1 ANPH-PL-kind
There are many types of these (armadillos).

3. **wachʉ-~phabo ~phabo ~dasa-ka.**
bull-armadillo armadillo be.smaller-ASSERT:IMPERF
Giant armadillos and smaller ones.

4. **ti-~da-ba'ro chʉ-ra butua ~bachʉ khasipo-ka ~phu-ri.**
ANPH-PL-kind eat-VIS.IMPERF.NON.1 termite leafcutter.ant forest.roach-CLS:rounded leaf-PL
This kind (of animal) eats termites, leafcutter ants, roaches, and leaves.

5. **~phabo ~basa ti chʉ-ri-ro hi-ra.**
armadillo man 3PL.POSS eat-NOM-SG COP-VIS.IMPERF.NON.1
Armadillos are food for people.

6. **ti-ro-re die-ro boka ~basi-ra yʉkʉ-kopa-pʉ kopa-pʉ.**
ANPH-SG-OBJ dog-SG find know-VIS.IMPERF.NON.1 tree-hole-LOC hole-LOC
Dogs can find them in holes in trees or holes (in the ground).

7. **~a yoa-~da ~sa ~dʉdʉ-~waka ~waha-~basi-ha.**
so do/make-1.PL 1PL:EXC follow/chase-MOV.away kill-know-VIS.IMPERF.1
That's how we go after them and are able to kill them.

8. **ti-~da-ba'ro phayʉ ~pho'da-ti-ra.**
ANPH-PL-kind many/a.lot offspring-VBZ-VIS.IMPERF.NON.1
These have a lot of offspring.

9. **phʉa-ri-a ~ya'a-~ida waro hi-ra to ~pho'da.**
two-NOM-PL get.with.hand-NOM:PL EMPH COP-VIS.IMPERF.NON.1 3SG.POSS offspring
There are even a dozen. (two more than the hands = 12)

10. **~wia-~ida-~ka hi-a ~pu ~basa-ka.**
be.young-NOM:PL-DIM. COP-V.NOM suckle grow-ASSERT:IMPERF
When they're very young, they suckle to grow.

YAIRO—JAGUAR

written by Armando Filho Paiva

1. **yai-ro khiti hi-ra.**
   jaguar-SG story COP-VIS.IMPERF.NON.1
   This is a jaguar story.

2. **a'ri-ro yai-ro hi-ra ~duku-pu.**
   DEM:PROX-SG jaguar-SG COP-VIS.IMPERF.NON.1 virgin.forest-LOC
   This is a wild jaguar (lit: from the virgin forest).

3. **to-pu-re ~duku-pu hi-ro**
   REM-LOC-OBJ virgin.forest-LOC COP-V.NOM

   wa'i-~kida-re chu-ra ti-ro yai-ro.
   animal-PL-OBJ eat-VIS.IMPERF.NON.1 ANPH-SG jaguar-SG
   The jaguar eats animals living there in the forest.

4. **tu'su, die-ya-re chu-ra ti-ro ~basa ya-~ida-re.**
   finish dog-PL-OBJ eat-VIS.IMPERF.NON.1 ANPH-SG man belong.to-NOM:PL-OBJ
   Then (additionally), they eat dogs that belong to people.

5. **to-pu-ro-ta hi-ra yai-ro khiti.**
   DEF-LOC-PART-REF COP-VIS.IMPERF.NON.1 jaguar-SG story
   That's all there is to the jaguar story.

WʉRIA—AIRPLANES

written by Franssinete Ferraz
(from the *Land of Languages* collection)

1. **~do'o pha-ri ~bʉsa wʉ-ri-a-pʉ wa'a-~dʉha-ri?**
INT time-PL 2PL fly-NOM-V.NOM-LOC go-try-INT
How many times have you flown in an airplane?

2. **a'ri-a wʉ-ri-a wʉ-ka ~bidicha-~ka yoa-ro-se.**
DEM:PROX-PL fly-NOM-PL fly-ASSERT:IMPERF bird-DIM. do/make-ADV-be.like
These planes fly like birds.

3. **~bari khe-ro-~ka wa'a-dua-~da wa'a-ka wʉ-ri-a-~be're.**
1PL.INC be.fast-ADV-EMPH. go-DESID-1PL go-ASSERT:IMPERF fly-NOM-PL-COM/INST
When we want to go (somewhere) quickly, we go by plane.

4. **~bari ~khoa-wa'a-chʉ, ~khua-yʉ'dʉ-ra.**
1PL.INC throw-go-SW.REF be.dangerous-INTENS-VIS.IMPERF.NON.1
When we take off the first time, it's very dangerous.

5. **to ~waku-~doka ~wa'ka-chʉ,**
DEF be.aware-COMPL get.up-SW.REF
When we realize it's going up,

~bari khapa-ri bʉkʉ-a-wa'a-ra, ~bari khui-chʉ.
1PL.INC.POSS eye-PL grow-AFFEC-become-VIS.IMPERF.NON.1 1PL.INC fear-SW.REF
our eyes grow big, because we're afraid.

6. **~ayoa-~da ~doa-ro ~waku-~basi duhi-~basi-ha.**
that's.why-V.NOM be.good-ADV be.aware-know sit-know-VIS.IMPERF.1
That's why we should pay attention well and sit still.

AGÃ—PIT VIPER

written by Domingos Savio Cabral
(from the *Land of Languages* collection)

1. **~aga hi-ra a'ri-ro.**
pit.viper COP-VIS.IMPERF.NON.1 DEM:PROX-SG
This is a pit viper.

2. **~phiro-ro ti-ro hi-ra.**
snake-SG ANPH-SG COP-VIS.IMPERF.NON.1
It's a snake.

3. **ti khui-ri-ro hi-ra.**
ANPH be.afraid-NOM-SG COP-VIS.IMPERF.NON.1
It's one to be afraid of (it's dangerous).

4. **~phuri-a khʉa-ri-ro hi-ra ti-ro.**
poison-PL hold/have-NOM-SG COP-VIS.IMPERF.NON.1 ANPH-SG
Its poisonous.

5. **baka-ri-ro hi-ra ~aga.**
bite-NOM-SG COP-VIS.IMPERF.NON.1 pit.viper
A pit viper bites (lit: is a biter).

6. **bi'i-a ta'a-ro bʉ-kʉ-~da-re chʉ-ka ti-ro.**
rat-PL MOV.toward-V.NOM elder-MASC-PL-OBJ eat-ASSERT:IMPERF ANPH-SG
A pit viper eats rats and frogs. (one-who-moves-like-an-old-man = frog)

7. **khui-ga ~aga-re.**
be.afraid-IMPER pit.viper-OBJ
Be afraid of the pit viper.

8. **ti-ro baka-ro ~basa-~waha-ri-ro hi-ra ti-ro.**
ANPH-SG bite-V.NOM person-kill-NOM-SG COP-VIS.IMPERF.NON.1 ANPH-SG
It's bite is deadly.

9. **su'a-ro-pʉ-re wa'a-era-ati-ga.**
go.into.the.brush-V.NOM-LOC-OBJ go-NEG-IMPERF-IMPER
Don't be going into the brush.